BAYVILLE VILLAGE CLEANERS
SITE NUMBER: V00220
290 BAYVILLE AVENUE
BAYVILLE, NASSAU COUNTY, NEW YORK 11709

Periodic Review Report

Prepared for:

Thomas Ryan, Volunteer

Voluntary Cleanup Agreement: W1-0848-9903

Prepared by:

CASHIN TECHNICAL SERVICES, INC.
1200 VETERANS MEMORIAL HIGHWAY
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June 25, 2021

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CERTIFICATION STATEMENT

I, Francis Cashin III, P.E., certify that I am currently a registered professional engineer in the State of New York and that this Periodic Review Report (PRR) was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).

For each institutional or engineering control identified for the Site, I certify that all of the following statements are true:

• *The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*

• *The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;*

• *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*

• *Nothing has occurred that would constitute a violation or failure to comply with any Site management plan for this control;*

• *Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*

• *If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;*

• *Use of the Site is compliant with the Declaration of Covenants and Restrictions;*

• *The engineering control systems are performing as designed and are effective;*

• *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program [and generally accepted engineering practices]; and*

• *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Francis Cashin III P.E., of Cashin Technical Services, Inc. located at 1200 Veterans Memorial Highway, Hauppauge, New York 11788, am certifying as Remedial Party's Designated Site Representative that I been authorized and designated by the Site Remedial Party to sign this certification for the Site."

_____P.E.

June 25, 2021 DATE

1.0 PURPOSE

Cashin Technical Services, Inc. (CTS) on behalf of our client Mr. Thomas Ryan has prepared this Periodic Review Report (PRR) in accordance with the approved Site Management Plan (SMP) dated June 22, 2018. Sampling and monitoring activities were performed on May 27, 2021 at the former Bayville Village Cleaners located at 290 Bayville Avenue, New York (Voluntary Cleanup Agreement # W1-0848-9903, Site # V00220).

It should be noted that on or about December 1, 2020, the dry cleaner business/tenant (Bayville Village Cleaners) is no longer in operation at the subject Site. All associated dry cleaning equipment and chemicals has been removed from the subject building and properly disposed of.

Currently, the subject building is now being occupied by a new tenant: Tri-County Installations Plumbing & Heating, Inc. (commercial use). The subject building is currently being renovated and is being used as a plumbing parts/supply warehouse and when complete will contain a plumbing workshop and office space. Although interior renovations are currently on-going, all of the existing engineering controls are still in operation at the Site and no modifications or disruption of the SSD system occurred during tenant transfers. The existing institutional controls still comply with 6 NYCRR 375-1.8(g)(2)(iii) for commercial uses.

It should also be noted that no off-site sampling was performed during this second annual PRR sampling event as analytical data results from the previous off-site sampling performed at the southern adjacent residential property revealed no adverse impacts from the former dry cleaner business. The Department approved first annual PRR indicated that “No Further Action” or additional sampling/monitoring activities would be required for the southern adjacent residential property located at 3 Seventeenth Street, Bayville, New York.

The scope of work performed at the subject Site included the following as required by the approved SMP: 1) Interior vacuum test points and VOC gas measurements; 2) Sub-Slab Depressurization (SSD) System air sampling; 3) Indoor and outdoor ambient air sampling; 4) Exterior subsurface soil vapor gas sampling; and 5) Groundwater monitoring and sampling of four, 4-inch diameter wells.

Specifically, extracted soil vapors were monitored to evaluate the effectiveness of the SSD System and to check for carbon vessel breakthrough. Monitoring included screening the influent and effluent air sampling ports with a photoionization detector (PID) and collecting influent and effluent samples using 6-liter Summa® canisters with eight hour regulators.

CTS performed previous PRR sampling on October 22, 2019 and additional sampling/monitoring on December 27, 2017 and May 18, 2018 as part of the Final SMP. Those results are included in this PPR for the inception of trends in contaminant levels.

This PRR specifically includes discussions, charts, maps, and associated appendices detailing the following:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site;
- Results of the required annual Site inspections;
- Completed Site management forms;
- Data summary result tables along with the applicable standards;
- Copies of all laboratory data sheets; and
- Overall Site evaluation.

2.0 IDENTIFICATION, ASSESSMENT AND CERTIFICATION OF ALL ECS/ICS

2.1 Engineering Controls (ECs):

1. Vapor Mitigation System: The SSD System was installed with the following components:
   a. A RadonAway fan (Model RP265c) was installed to induce negative pressure to the sub-slab region beneath the one-story building.
   b. The extraction point for PCE vapors was installed in the center of the building, beneath the building slab, to capture all vapors.
   c. Interconnecting piping consisting of three and four-inch diameter schedule 40 PVC was utilized to install the SSD System. Four-inch PVC piping was installed from the sub-slab extraction point, extending to above the suspended ceiling, and then connected to the fan utilizing flexible couplings. The four-inch piping was then extended from the fan to the southern exterior wall. The piping then penetrates the wall whereby a reducer fitting extends three-inch PVC piping into a 55-gallon drum containing granular activated carbon (GAC). The GAC Vessel is located outside the building along the south side. The purpose of the GAC Vessel is to treat the effluent gas prior to discharge to the atmosphere through a three-inch exterior mounted stack pipe. Sampling/monitoring ports were installed on the extraction piping (influent side) and after the GAC vessel (effluent side) for monitoring vacuum, flow and contaminant concentrations.
2. Other Engineering Controls: Sealing of the concrete floor - The concrete floor was evaluated to eliminate any other sub-slab transport pathway (i.e. cracks in the building floor). All possible routes were sealed off to prevent the entrance of soil gas and to enhance the sub-slab negative pressure field of the SSD System.
3. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the declaration of covenants and restrictions (DCR), which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;
4. Periodic certification of the institutional and engineering controls listed above.

2.2 Institutional Controls (ICs)

1. Declaration of Covenants and Restrictions - Current and Future Use of the Site: Permitted future uses (commercial and industrial) must comply with 6 NYCRR 375-1.8(g)(2)(iii) for commercial uses; and 6 NYCRR 375-1.8(g)(2)(iv) for industrial uses A copy of the Declaration of Covenants and Restrictions (DCR) and its recording page was recorded with the Nassau County Clerk's office on March 17, 2017;The property may be used for: commercial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
2. All ECs must be operated and maintained as specified in this SMP;
3. All ECs must be inspected at a frequency and in a manner defined in the SMP;
4. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Nassau County Department of Health to render it safe for use as drinking water or for commercial purposes, and the user must first notify and obtain written approval to do so from the Department;
5. Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
6. Data and information pertinent to Site management must be reported at the frequency and in a manner as defined in this SMP;
7. All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
8. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
9. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
10. Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Declaration of Covenants and Restrictions;

11. The potential for vapor intrusion must be evaluated for any buildings developed on the Site, specifically within the IC boundaries; and any potential impacts that are identified must be monitored or mitigated. The IC boundaries for this Site encompasses the entire subject lot as depicted on the survey map provided in Figure 7; and
12. Vegetable gardens and farming on the Site are prohibited.

2.3 Site Evaluation

During the annual sampling PRR event, CTS inspected the discharge pipe of the SSD System and it was clear of obstruction. The general system piping was also observed to be in good working condition and the RadonAway fan was properly running. CTS disconnected the negative pressure tube and the alarm sounded as appropriate. Negative pressure was recorded indicating that the active fan is operating properly. Replacement of the filter media is not required at this time but will be evaluated again during the next PPR sampling event in 2022.

As part of this groundwater monitoring/sampling event, purge water was contained in two, 55-gallon drums and staged on-site. The drums were properly labeled and are only opened/accessed at the time of annual SMP sampling event. These drums are not connected to the SSD System and were only used to store purged water during groundwater sampling activities. These full drums are scheduled to be properly disposed of by a licensed environmental contractor sometime in July of 2021. After each annual sampling PRR event, purge water drums will be properly disposed of to prevent the drums from rusting or potential leaks. The subject Site building inventory questionnaire was completed and all chemical products inventoried with associated Safety Data Sheets (SDS) sheets provided.

3.0 SAMPLING SCOPE OF WORK AND RESULTS

3.1 Interior Vacuum Test Point and VOC Gas Measurements

CTS measured four interior vacuum test points for negative pressure below the building slab utilizing a Magnehelic Differential Pressure gauge. The SSD System extraction port was also measured for negative pressure to monitor the effectiveness of the active radon fan (RadonAway RPc Series Fan Model RP265c) which draws 334 cubic feet per minute (CFM) of air through the SSD System. The active radon fan continues to operate 24 hours a day, 7 days a week, 365 days a year. CTS also measured Volatile Organic Compound (VOC) gases along the following SSD System ports: extraction port, influent port and effluent port utilizing a photoionization detector (PID). Field measurements are listed below in Table 1.

Table 1 - Interior Vacuum Test Points and VOC Gas Measurements

Interior Vacuum Test Points	May 18, 2018 Magnehelic Differential Pressure (PSI)	October 22, 2019 Magnehelic Differential Pressure (PSI)	May 27, 2021 Magnehelic Differential Pressure (PSI)
TP-1	-0.50	-0.17	-0.27
TP-2	-0.40	-0.46	-0.39
TP-3	-0.40	-0.22	-0.23
TP-4	-0.20	-0.20	-0.24
Extraction Port	-30.0	-27.7	-29.7

SSD System Ports	May 18, 2018 PID Readings	October 22, 2019 PID Readings	May 27, 2021 PID Readings
Extraction Port	3.2 PPM	7.5 PPM	1.7 PPM
Influent Port	0.0 PPM	7.3 PPM	1.4 PPM
Effluent Port	0.0 PPM	0.0 PPM	0.0 PPM
Indoor Ambient Air	1.8 PPM	12.4 PPM	0.0 P.M

Notes: PSI = pounds per square inch

PPM = parts per million

3.2 Sub-Slab Depressurization (SSD) System Air Sampling

CTS collected an air sample from the influent port and effluent port associated with the SSD System. Samples were collected in 6-liter Suma canisters with eight-hour regulators and analyzed for VOCs (EPA Method TO-15). The results of this testing is presented in Table 2 below.

Table 2 – Influent Port and Effluent Port Vapor Gas Sample Results

Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 12/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
Influent Port	Acetone	225	8.3	188	N/A
	Benzene	1.3	U	40.7	
	2-Butanone (MEK)	4.8	10.4	25.8	
	Chloroform	U	0.78	5.42	
	Cyclohexane	14.5	U	U	
	Dichlorodifluoromethane	U	2.8	U	
	Ethanol	18.3	4	330	
	Ethyl acetate	20.6	U	U	
	Ethylbenzene	82.8	U	34.1	
	n-Heptane	22.8	U	27.9	
	n-Hexane	10.9	U	28.7	
	Styrene	4.1	U	U	
	Tetrachloroethene (PCE)	181	331	96.0	
	Toluene	7.2	1.2	246	
	Trichloroethene (TCE)	24.4	24.8	U	
	cis-1,2-Dichloroethene (c12-DCE)	U	U	U	
	1,1-Dichloroethene (11-DCE)	U	U	U	
	1,2-Dichloroethane (12-DCA)	U	U	U	

	1,1-Dichloroethane (11-DCA)	U	U	U	
	Carbon Tetrachloride	U	U	U	
	1,1,1-Trichloroethane (111-TCA)	U	U	6.93	
	1,1,2-Trichloroethane (112-TCA)	U	U	U	
	Methylene Chloride	7.6	U	U	
	Vinyl Chloride	U	U	U	
	m&p-Xylene	389	U	259	
	o-Xylene	124	U	33.4	
Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 12/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
Effluent Port	Acetone	9.7	51.7	116	N/A
	Benzene	1.3	0.58	58.0	
	Chloroform	U	1.3	6.54	
	Cyclohexane	3.3	U	U	
	Dichlorodifluoromethane	U	3.1	U	
	Ethanol	23.5	6.3	448	
	n-Hexane	2.5	U	43.3	
	Tetrachloroethene (PCE)	41.5	4.1	9.16	
	Toluene	U	6.5	373	
	Trichloroethene (TCE)	8.4	U	U	
	cis-1,2-Dichloroethene (c12-DCE)	U	U	U	
	1,1-Dichloroethene (11-DCE)	U	U	U	
	1,2-Dichloroethane (12-DCA)	U	U	U	
	1,1-Dichloroethane (11-DCA)	U	U	U	
	Trans-1,2-Dichloroethene	U	9.9	U	
	Carbon Tetrachloride	U	U	U	
	1,1,1-Trichloroethane (111-TCA)	U	U	5.35	

	1,1,2-Trichloroethane (112-TCA)	U	U	U	
	Trichlorofluoromethane	U	1.8	U	
	Methylene Chloride	U	U	U	
	Vinyl Chloride	U	U	U	
	m&p-Xylene	389	3.3	343	
	o-Xylene	124	U	45.1	

3.3 Indoor and Outdoor Ambient Air Sampling

CTS collected one (1) indoor ambient air sample from inside the subject building and one (1) outdoor ambient air sample on the subject Site. The indoor canister was placed on a stool in the rear warehouse space and the outdoor canister was placed in the western asphalt paved parking lot area. Samples were collected in 6-liter Suma canisters with eight-hour regulators and analyzed for VOCs (EPA Method TO-15). The results of ambient air testing are presented in Table 3 below.

Table 3 – Indoor and Outdoor Ambient Air Sampling Results

Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 10/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
Indoor Ambient Air	Acetone	22.3	13.2	39.5	N/A
	Benzene	0.56	U	U	N/A
	Carbon Disulfide	U	2.2	U	N/A
	Chloromethane	0.7	0.83	U	N/A
	Dichlorodifluoromethane	U	2.4	U	N/A
	Ethanol	16.9	19	49.1	N/A
	Styrene	3.6	U	U	N/A
	Toluene	1.6	2	U	N/A
	Tetrachloroethene (PCE) [4]	U	**263**	U	30
	Trichloroethene (TCE) [4]	**61.9**	**46.6**	U	2
	1,2,4-Trimethylbenzene	U	1.9	U	N/A
	cis-1,2-Dichloroethene (c12-DCE)	U	U	U	100

	1,1-Dichloroethene (11-DCE)	U	U	U	N/A
	1,2-Dichloroethane (12-DCA)	U	U	U	N/A
	1,1-Dichloroethane (11-DCA)	U	U	U	N/A
	Carbon Tetrachloride	U	U	U	N/A
	1,1,1-Trichloroethane (111-TCA)	U	U	U	100
	1,1,2-Trichloroethane (112-TCA)	U	U	U	N/A
	Methylene Chloride	U	10.7	9.10	60
	Vinyl Chloride	U	U	U	5
Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 10/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
Outdoor Ambient Air	Acetone	4.7	8.6	28.1	N/A
	Benzene	0.59	0.48	U	N/A
	Chloromethane	0.64	0.61	U	N/A
	Dichlorodifluoromethane	1.7	2.4	U	N/A
	Ethanol	3	3.4	45.8	N/A
	Toluene	U	1.5	U	N/A
	Tetrachloroethene (PCE) [4]	U	**69.7**	U	30
	Trichloroethene (TCE) [4]	U	U	U	2
	cis-1,2-Dichloroethene (c12-DCE)	U	U	U	100
	1,1-Dichloroethene (11-DCE)	U	U	U	N/A
	1,2-Dichloroethane (12-DCA)	U	U	U	N/A
	1,1-Dichloroethane (11-DCA)	U	U	U	N/A
	Carbon Tetrachloride	U	U	U	N/A
	1,1,1-Trichloroethane (111-	U	U	U	100

	TCA)				
	1,1,2-Trichloroethane (112-TCA)	U	U	U	N/A
	Methylene Chloride	U	U	22.0	60
	Vinyl Chloride	U	U	U	5

NOTES:

1. All results are expressed in micrograms per cubic meter of air (ug/m³).
2. U= Less than analytical detection limit.
3. **Bold** result values indicate those compounds which exceed the NYSDOH Guideline values published in the "NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006)".
4. In September 2013 NYSDOH lowered their air guideline value for tetrachloroethene (PCE) in ambient air from 100 micrograms per cubic meter (mcg/m3) to 30 mcg/m3 and in August 2015 NYSDOH lowered their air guideline value for trichloroethene (TCE) in ambient air from 5 micrograms per cubic meter (mcg/m3) to 2 mcg/m3.
5. N/A – Not Applicable / No NYSDOH Guideline Value

According to the laboratory analytical results for the May 27, 2021 sampling event, no VOC compounds exceeded the NYSDOH air guideline values in the Indoor and Outdoor Ambient Air samples as shown in Table 3 above.

3.4 Subsurface Soil Vapor Gas Sampling

CTS collected six (6) soil vapor gas samples from exterior sub-surface permanent soil vapor gas sampling points. Samples were collected in 6-liter Suma canisters with eight-hour regulators and analyzed for VOCs (EPA Method TO-15). The results of subsurface soil vapor gas sampling is presented in Table 4 below.

Table 4 Subsurface Soil Vapor Gas Sampling Results

Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 10/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
PPB-1	Acetone	8.2	12.8	429	
	Benzene	0.78	U	6.77	
	Chloroform	10.8	3.7	3.95	
	Dichlorodifluoromethane	1.3	3.6	U	
	Tetrachloroethene (PCE)	290	434	32.0	
	Toluene	U	1.2	23.2	
	Trichloroethene (TCE)	2	5.5	10.8	
	cis-1,2-Dichloroethene (c12-DCE)	U	U	U	
	1,1-Dichloroethene (11-DCE)	U	U	U	N/A
	1,2-Dichloroethane (12-DCA)	U	U	U	
	1,1-Dichloroethane (11-DCA)	U	U	U	
	Carbon Tetrachloride	U	U	U	
	1,1,1-Trichloroethane (111-TCA)	U	U	U	
	1,1,2-Trichloroethane (112-TCA)	U	U	U	
	Methylene Chloride	U	U	15.4	
	Vinyl Chloride	U	U	U	

Table 4 Subsurface Soil Vapor Gas Sampling Results (Continued)

Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 10/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
PP-2	Acetone	4.8	26.4	U	
	Benzene	U	1.5	U	
	2-Butanone (MEK)	U	114	U	
	Dichlorodifluoromethane	1.4	2.2	U	
	Ethanol	4	8.9	133	
	2-Hexanone	U	7.8	U	
	Propylene	U	10.7	U	
	Tetrachloroethene (PCE)	U	172	U	
	Trichloroethene (TCE)	U	U	U	N/A
	cis-1,2-Dichloroethene (c12-DCE)	U	U	U	
	1,1-Dichloroethene (11-DCE)	U	U	U	
	1,2-Dichloroethane (12-DCA)	U	U	U	
	1,1-Dichloroethane (11-DCA)	U	U	U	
	Carbon Tetrachloride	U	U	U	
	1,1,1-Trichloroethane (111-TCA)	U	U	U	
	1,1,2-Trichloroethane (112-TCA)	U	U	U	
	Methylene Chloride	U	5.3	U	
	Vinyl Chloride	U	U	U	

Table 4 Subsurface Soil Vapor Gas Sampling Results (Continued)

Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 10/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
PP-3	Acetone	41.5	90.0	133	N/A
	Benzene	U	1.9	35.7	
	2-Butanone (MEK)	4.2	14.4	19.5	
	Chloroform	U	1.5	12.3	
	Ethanol	3	5.1	406	
	n-Hexane	U	4.3	23.0	
	Propylene	U	1.4	23.2	
	Tetrachloroethene (PCE)	87.9	463	168	
	Trichloroethene (TCE)	U	9	U	
	cis-1,2-Dichloroethene (c12-DCE)	U	8.1	7.61	
	1,1-Dichloroethene (11-DCE)	U	U	U	
	1,2-Dichloroethane (12-DCA)	U	U	U	
	1,1-Dichloroethane (11-DCA)	U	U	U	
	Carbon Tetrachloride	U	U	U	
	1,1,1-Trichloroethane (111-TCA)	U	U	U	
	1,1,2-Trichloroethane (112-TCA)	U	U	U	
	Methylene Chloride	U	35.9	U	
	Vinyl Chloride	U	U	U	

Table 4 Subsurface Soil Vapor Gas Sampling Results (Continued)

Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 10/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
PP-4	Acetone	9.5	8.8	203	N/A
	Benzene	0.52	U	50.0	
	Chloroform	U	2.8	9.67	
	Dichlorodifluoromethane	U	2.1	U	
	Ethanol	4.3	4.7	700	
	Tetrachloroethene (PCE)	87.4	399	28.8	
	Toluene	1.3	U	248	
	Trichloroethene (TCE)	U	2	U	
	cis-1,2-Dichloroethene (c12-DCE)	U	U	U	
	1,1-Dichloroethene (11-DCE)	U	U	U	
	1,2-Dichloroethane (12-DCA)	U	U	U	
	1,1-Dichloroethane (11-DCA)	U	U	U	
	Carbon Tetrachloride	U	U	U	
	1,1,1-Trichloroethane (111-TCA)	U	U	U	
	1,1,2-Trichloroethane (112-TCA)	U	U	U	
	Methylene Chloride	U	U	50.7	
	Vinyl Chloride	U	U	U	

Table 4 Subsurface Soil Vapor Gas Sampling Results (Continued)

Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 10/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
PPB-5	Acetone	U	9.9	291	N/A
	Benzene	U	0.74	47.3	
	2-Butanone (MEK)	U	42.3	87.5	
	Chloroform	U	2.3	14.5	
	Chloromethane	0.92	U	U	
	Dichlorodifluoromethane	1.4	2	U	
	Ethanol	U	4.8	682	
	Tetrachloroethene (PCE)	U	132	U	
	Trichloroethene (TCE)	U	U	U	
	cis-1,2-Dichloroethene (c12-DCE)	U	U	U	
	1,1-Dichloroethene (11-DCE)	U	U	U	
	1,2-Dichloroethane (12-DCA)	U	U	U	
	1,1-Dichloroethane (11-DCA)	U	U	U	
	Carbon Tetrachloride	U	U	U	
	1,1,1-Trichloroethane (111-TCA)	U	U	U	
	1,1,2-Trichloroethane (112-TCA)	U	U	U	
	Methylene Chloride	10.3	5.4	64.9	
	Vinyl Chloride	U	U	U	

Table 4 Subsurface Soil Vapor Gas Sampling Results (Continued)

Sample ID	VOC Compounds	12/27/2017 Results ug/m3	1st PRR 10/22/2019 Results ug/m3	2nd PRR 5/27/2021 Results ug/m3	NYSDOH Air Guideline Values ug/m3
PPB-6	Acetone	10.2	15.4	308	
	Benzene	0.72	1.8	24.7	
	2-Butanone (MEK)	30.8	24.1	935	
	Carbon Disulfide	U	13.6	U	
	Chloromethane	U	0.7	U	
	Dichlorodifluoromethane	U	2.4	U	
	Ethanol	4.4	U	349	
	n-Heptane	5.5	U	19.7	
	n-Hexane	1.2	1.3	17.0	
	Propylene	U	6.2	179	
	Tetrachloroethene (PCE)	U	22.7	U	
	Toluene	2.4	1.7	152	N/A
	Trichloroethene (TCE)	U	U	U	
	cis-1,2-Dichloroethene (c12-DCE)	U	U	U	
	1,1-Dichloroethene (11-DCE)	U	U	U	
	1,2-Dichloroethane (12-DCA)	U	U	U	
	1,1-Dichloroethane (11-DCA)	U	U	U	
	Carbon Tetrachloride	U	U	U	
	1,1,1-Trichloroethane (111-TCA)	U	U	U	
	1,1,2-Trichloroethane (112-TCA)	U	U	U	
	Methylene Chloride	U	U	U	
	Vinyl Chloride	U	U	U	
	Vinyl Acetate	1	U	U	

3.5 Groundwater Monitoring and Sampling

Groundwater samples were obtained utilizing acceptable USEPA low-flow sampling protocols. CTS purged each of the 4-inch wells and containerized the purged water in two 55-gallon drums for eventual disposal. Prior to sampling, water quality monitoring was performed and recorded in Table 5 below. Groundwater samples were analyzed for the presence of VOCs (EPA Method 8260). Laboratory analytical results of the groundwater samples are presented in Table 6.

Table 5 – Groundwater Monitoring Data

PURGING & WATER QUALITY DATA
FOUR INCH WELLS

Data collected on December 27, 2017

Well #	Sample Time	DTW	DTB	DO (mg/L)	pH	TEMP (C)	ORP	COND (us/cm)	Turbidity
MW-1	1215	9.92	18.20	1.79	6.03	15.61	89.4	371	0.0
MW-2	1155	8.90	17.45	1.67	5.90	15.90	38.7	467	26.4
MW-3	1140	7.42	17.55	1.63	5.99	14.47	-6.8	459	24.1
MW-4	1120	8.95	18.35	1.26	6.06	15.33	-38.1	481	14.8

Data collected on October 22, 2019

Well #	Sample Time	DTW	DTB	DO (mg/L)	pH	TEMP (C)	ORP	COND (us/cm)	Turbidity
MW-1	1436	8.31	18.20	2.18	6.34	20.02	-96	0.258	0.0
MW-2	1340	7.20	17.45	2.34	6.68	20.24	-57	0.392	7.5
MW-3	1215	6.06	17.55	3.15	6.62	19.36	-111	0.292	8.2
MW-4	1301	7.29	18.35	2.90	6.82	19.36	-60	0.383	0.0

Data collected on May 27, 2021

Well	Sample Time	PID	DTW (ft.)	DTB (ft.)	Gallons Purged	DO (mg/L)	pH	TEMP (C)	ORP	COND (us/cm)	Turbidity
MW-1	1528	0.0	9.32	18.20	6	1.99	6.78	17.01	-27	.500	6.1
					12	1.40	6.64	15.91	-25	.508	0.0
					18	1.32	6.59	14.84	-23	.531	0.0
					Sample	2.83	6.68	15.48	-37	.537	0.0
MW-2	1457	0.0	7.95	17.45	6	3.72	7.04	15.75	132	.752	19.0
					12	6.85	6.75	14.31	135	.789	5.9
					18	2.47	6.62	14.24	132	.797	0.0
					Sample	2.65	6.43	14.15	132	.801	0.0
MW-3	1410	0.0	7.07	17.55	7	3.64	7.32	16.48	153	1.01	13.7
					14	10.50	7.24	15.18	88	1.01	3.5
					21	3.20	7.17	15.07	57	.954	0.0
					Sample	3.03	7.07	15.25	46	.747	0.0
MW-4	1305	0.0	8.33	18.35	7	1.57	6.83	17.06	210	.959	0.0
					14	2.08	6.84	15.02	213	.971	0.0
					21	1.84	6.80	14.88	216	.969	0.0
					Sample	1.14	6.58	14.84	214	.951	0.0

Table 6 Groundwater Sampling Results

Sample ID	VOC Compounds	12/27/2017 Results ug/L	10/22/2019 Results ug/L	5/27/21 Results ug/L	NYSDEC Part 703 Standard Values ug/L
MW-1	1,4-Diethylbenzene	U	1.4	U	5
	Tetrachloroethene (PCE)	4.1	U	U	5
	1,2,4,5-Tetramethylbenze	U	1.2	U	5
	Trichloroethene	U	1.3	U	5
MW-2	None	--	--	--	--
MW-3	Tetrachloroethene (PCE)	2.0	U	U	5
MW-4	None	--	--	--	--

Notes:
1. U= Less than analytical detection limit.
2. -- = No levels detected

Locations of all sampling points associated with the SSD System are shown on Figure 1 – SSDS Site Sampling Sketch and all of the interior monitoring and exterior sampling points are shown on Figure 2 – Site Sampling Sketch. Laboratory analytical results for vapor gas sampling are included in Appendix A and groundwater sampling results are included in Appendix B. A water table elevation contour map is shown on Figure 3.

All samples were analyzed by Long Island Analytical Laboratories, Inc. (New York State ELAP Certification # 11693) located in Holbrook, New York 11741. Certifications and quality control data are included in the raw analytical data report enclosed in Appendix A and B. Laboratory analytical results reported by Long Island Analytical Laboratories, Inc. conform to the most current, applicable National Environmental Laboratory Accreditation Program (NELAC) standards and the laboratory's Quality Assurance Manual.

4.0 INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY, AND SUB-SLAB DEPRESSURIZATION SITE MANAGEMENT FORM

CTS on behalf of Mr. Thomas Ryan (owner) completed the NYSDOH "Indoor Air Quality Questionnaire and Building Inventory Form" for the subject Site during sampling activities. This form includes a product inventory form which lists each of the products/chemicals used and stored at the new plumbing, heating and air conditioning warehouse/office space. The completed form is included in Appendix C. As part of the annual sampling, CTS inspected the SSD System and all of its components to ensure they are operating properly. The completed Sub-slab Depressurization Site Management Form is included in Appendix D.

Safety Data Sheets (SDS) for on-site chemicals are shown in Appendix E.

The NYSDEC Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form is provided in Appendix F.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the monitoring and sampling data presented above, PCE and TCE are not present in the ambient air inside or outside of the subject building. The non-detect presence of these compounds may be attributed with the removal of the dry cleaner business and its associated dry cleaning chemicals that took effect in December of 2020.

Based on the laboratory analytical data results, PCE is still present in the subsurface soils on the south side of the subject building at PPB-1 (recorded at 32.0 ug/m3), along the west side of the subject building at PP-3 (recorded at 168 ug/m3 - area of former spill remediation), along the north side of the subject building at PP-4 (recorded at 28.8 ug/m3), and below the subject building slab (recorded at 96.0 ug/m3 as detected at the SSD System Influent Port). TCE is still present in the subsurface soils on the south side of the subject building at PPB-1 (recorded at 10.8 ug/m3). C12-DCE is still present on the west side of the subject building at PP-3 (recorded at 7.61 ug/m3 - area of former spill remediation). Methylene Chloride is present on the south side of the subject building at PPB-1 and on the north side of the building at PP-4 and PPB-5 (recorded at 15.4 ug/m3, 50.7 ug/m3, and 64.9 ug/m3, respectively).

Although the levels of PCE and TCE detected in the subsurface soil gas sampling points appear to be trending down, CTS recommends that the SSD system and all of its engineering controls continue to be sampled/monitored on an annual basis, for comparison purposes, as specified in the Department approved Final Site Management Plan.

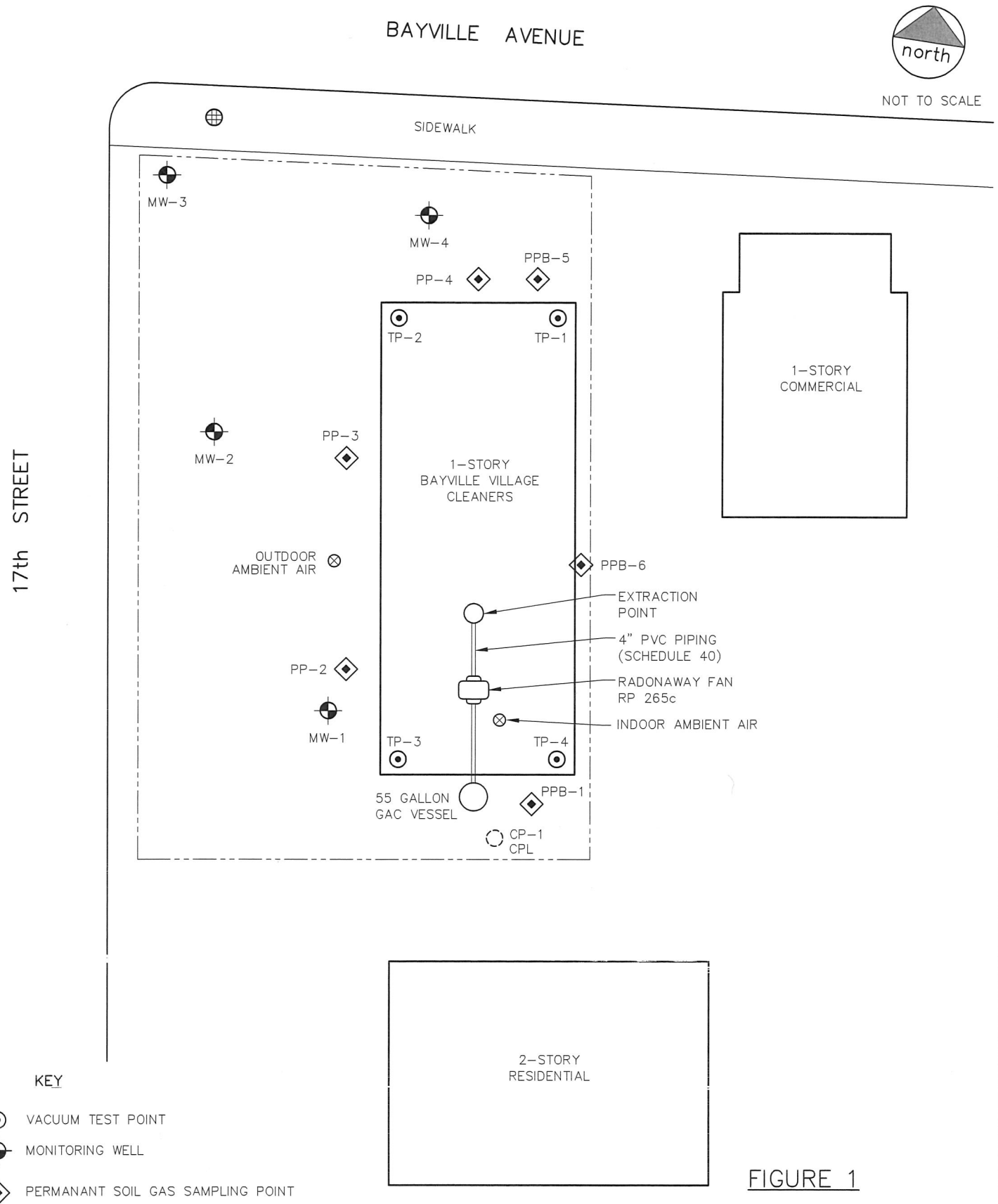
Due to the elevated levels of PCE found at several permanent soil gas sampling points surrounding the Subject building, TCE found at PPB-1, C12-DCE found at PP-3, and Methylene Chloride found at PPB-1, PP-4 and PPB-5, annual SMP sampling data of these compound will be compared annually to determine if source material remains underneath the parking lot from former spill remediation activities. This data will be shown in a chart as trending.

It should be noted that the PCE level detected at the Influent Port of the SSD System appears to be trending down during this second PPR sampling event and that TCE was recorded as being non-detect. Although PCE showed reduced levels at the Influent Port, 1,1,1-Trichloroethane (111-TCA) was detected for the first time in both the Influent and Effluent Ports indicating that the PCE contamination may be naturally breaking down and evaporating into the air. Additionally, the Effluent Port levels of VOCs gases were detected at lower concentrations then the Influent Port VOC gas levels, indicating that the 55-gallon drum vessel of granular activated carbon (GAC) is still absorbing VOC contaminants before evaporating them into the air. Based on this information, the GAC vessel does not have to be replaced at this time.

Groundwater samples collected from the on-site monitoring wells did not exceed NYSDEC Glass GA groundwater standards.

As in accordance with Environmental Conservation Law (ECL 27-2405) and in association with the recent property purchase by Tri-County Installations Plumbing & Heating, Inc., Mr. Thomas Ryan (owner of the VCA # W1-0848-9903, Site # V00220) has provided copies of all historical reports and documents associated with the VCA for the subject property including a copy of this 2021 PRR for “Tenant Notification of Indoor Air Contamination Associated with Soil Vapor Intrusion. When approved by the Department, a copy of this PRR will be maintained at the subject building for reference purposes by building tenants and occupants.

FIGURES



KEY

- VACUUM TEST POINT
- MONITORING WELL
- PERMANANT SOIL GAS SAMPLING POINT
- STORM DRAIN
- CESSPOOL
- AMBIENT AIR SAMPLING POINT

Cashin Associates, P.C.
ENGINEERING PLANNING CONSTRUCTION MANAGEMENT

13CTS.022 TASK 5

FIGURE 1

SITE SAMPLING SKETCH

Bayville Village Cleaners
290 Bayville Avenue
Bayville, New York

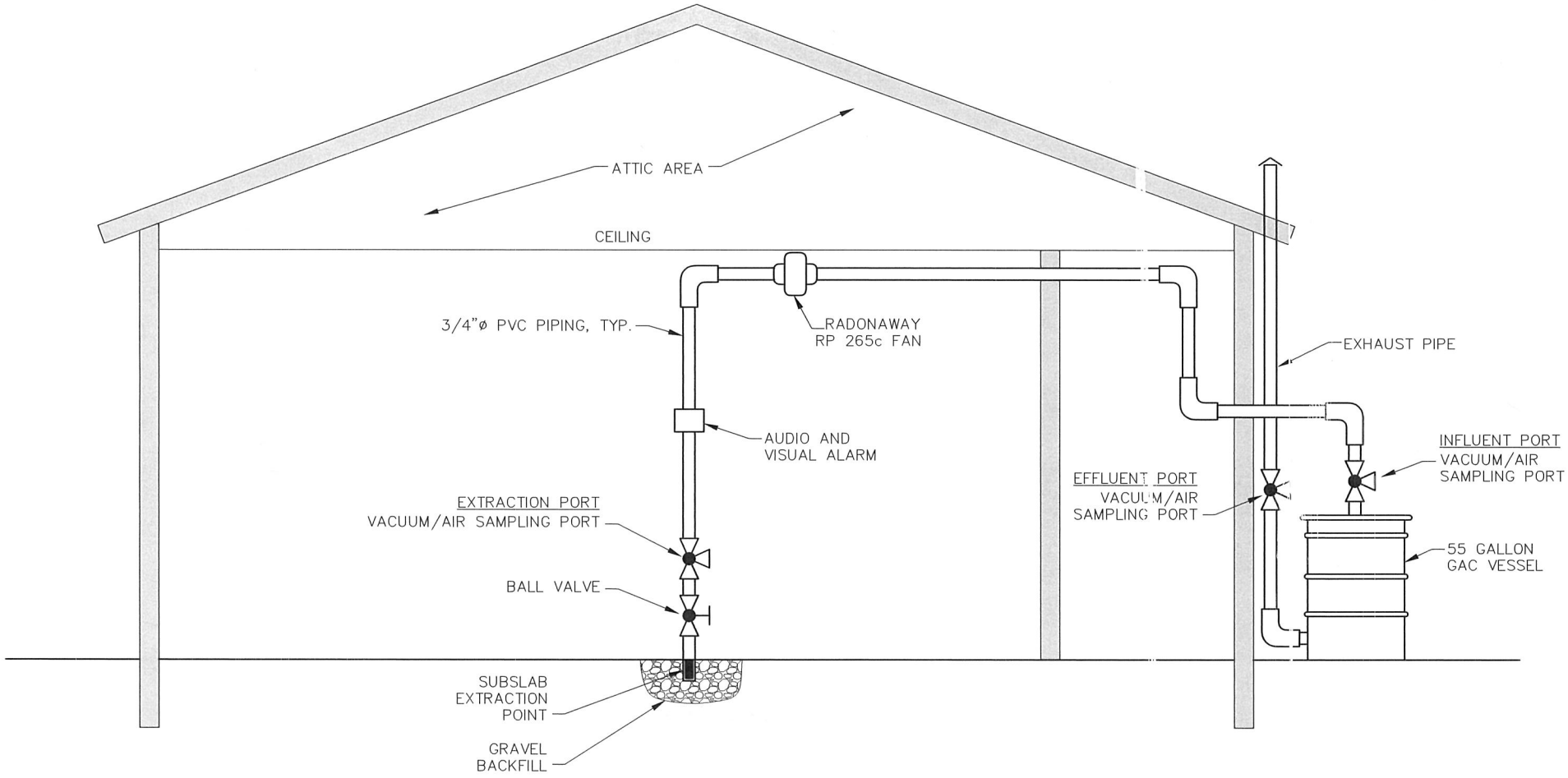


FIGURE 2

SSDS SITE SAMPLING SKETCH

Bayville Village Cleaners
290 Bayville Avenue
Bayville, New York

Cashin Associates, P.C.
ENGINEERING PLANNING CONSTRUCTION MANAGEMENT

13CTS.022 TASK 5

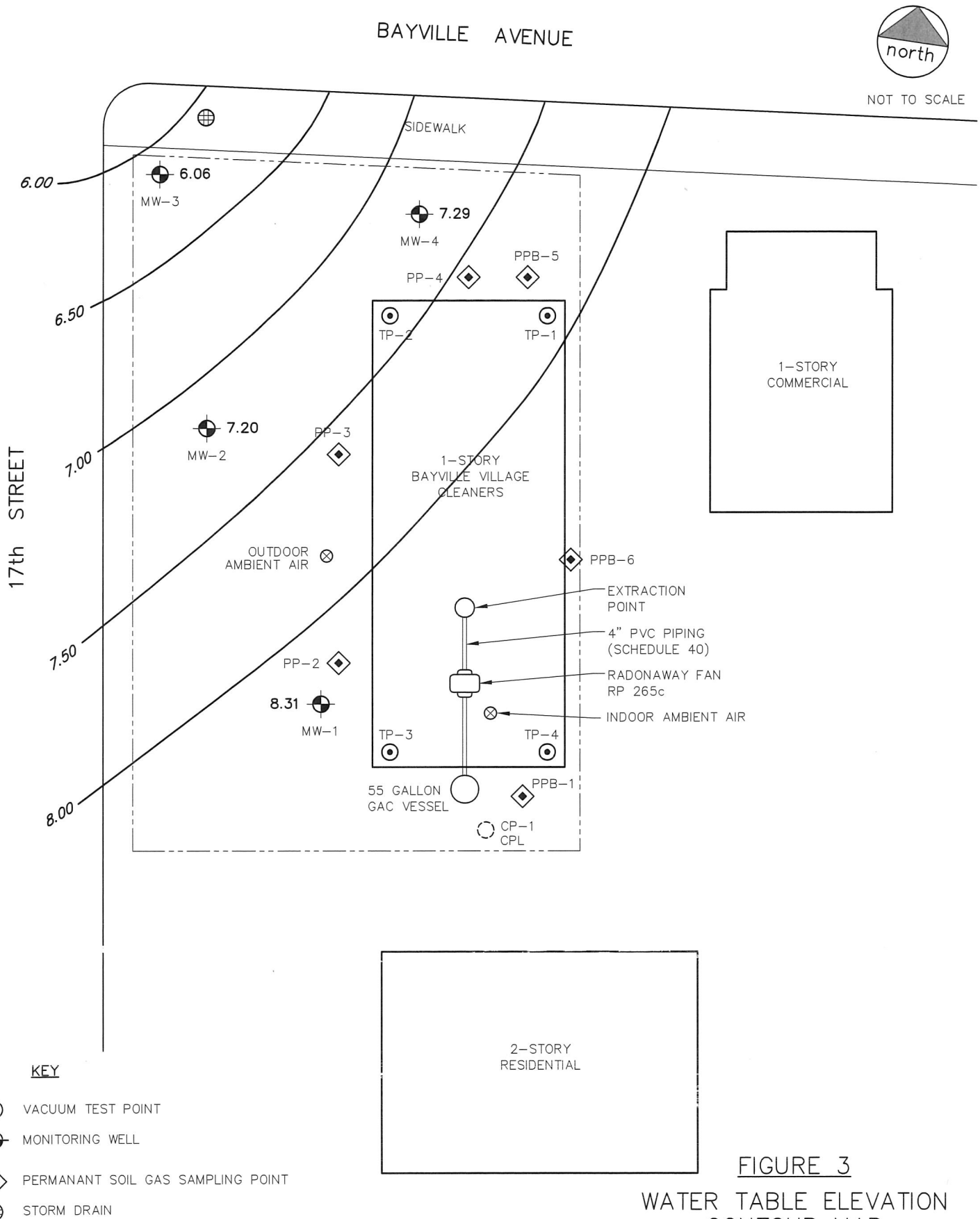


FIGURE 3

WATER TABLE ELEVATION
CONTOUR MAP

Bayville Village Cleaners
290 Bayville Avenue
Bayville, New York

Cashin Associates, P.C.
ENGINEERING PLANNING CONSTRUCTION MANAGEMENT

13CTS.022 TASK 5

APPENDIX A

Vapor Gas Sampling Results

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 1060705

June 08, 2021

Cashin Associates
Marc Califano
1200 Veterans Highway
Hauppauge, NY 11787

Re: Bayville Village Cleaners Bayville NY

Dear Marc Califano,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on June 07, 2021. Long Island Analytical laboratories analyzed the samples on June 07, 2021 for the following:

SAMPLE ID	ANALYSIS
040/2-20 PPB-1	TO-15

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Cashin Associates	Client ID: Bayville Village Cleaners Bayville NY
Date (Time) Collected: 06/04/2021 17:27	Sample ID: 040/2-20 PPB-1
Date (Time) Received: 06/07/2021 10:40	Laboratory ID: 1060705-01
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	0.860	<0.160	ug/m³	
1,1,2,2-Tetrachloroethane	79-34-5	6.86	<1.00	ug/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	7.66	<0.432	ug/m³	
1,1,2-Trichloroethane	79-00-5	5.46	<0.820	ug/m³	
1,1-Dichloroethane	75-34-3	4.05	<0.610	ug/m³	
1,1-Dichloroethene	75-35-4	0.160	<0.160	ug/m³	
1,2,4-Trichlorobenzene	120-82-1	7.42	<1.00	ug/m³	
1,2,4-Trimethylbenzene	95-63-6	4.92	<0.740	ug/m³	
1,2-Dibromoethane	106-93-4	7.68	<1.00	ug/m³	
1,2-Dichlorobenzene	95-50-1	6.01	<0.900	ug/m³	
1,2-Dichloroethane	107-06-2	4.05	<0.610	ug/m³	
1,2-Dichloropropane	78-87-5	4.62	<0.690	ug/m³	
1,2-Dichlorotetrafluoroethane	76-14-2	6.99	<1.00	ug/m³	
1,3,5-Trimethylbenzene	108-67-8	4.92	<0.740	ug/m³	
1,3-Butadiene	106-99-0	2.21	<0.330	ug/m³	
1,3-Dichlorobenzene	541-73-1	6.01	<0.900	ug/m³	
1,4-Dichlorobenzene	106-46-7	6.01	<0.900	ug/m³	
1,4-Dioxane	123-91-1	3.60	<1.00	ug/m³	
4-Ethyltoluene	622-96-8	4.92	<0.740	ug/m³	2.B
4-Methyl-2-Pentanone	108-10-1	4.10	<1.00	ug/m³	
Acetone	67-64-1	20.0	429	ug/m³	4.A
Acrolein	107-02-8	2.29	34.0	ug/m³	
Benzene	71-43-2	3.19	6.77	ug/m³	
Benzyl Chloride	100-44-7	5.18	<0.860	ug/m³	
Bromodichloromethane	75-27-4	6.70	<1.00	ug/m³	
Bromoform	75-25-2	10.3	<1.00	ug/m³	
Bromomethane	74-83-9	3.88	<0.580	ug/m³	
Carbon disulfide	75-15-0	50.0	<48.6	ug/m³	
Carbon Tetrachloride	56-23-5	1.01	<0.160	ug/m³	
Chlorobenzene	108-90-7	4.60	<0.690	ug/m³	

Client: Cashin Associates	Client ID: Bayville Village Cleaners Bayville NY
Date (Time) Collected: 06/04/2021 17:27	Sample ID: 040/2-20 PPB-1
Date (Time) Received: 06/07/2021 10:40	Laboratory ID: 1060705-01
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	6.60	<0.400	ug/m³	
Chloroform	67-66-3	4.88	3.95	ug/m³	
Chloromethane	74-87-3	5.16	<0.310	ug/m³	
cis-1,2-Dichloroethene	156-59-2	0.630	<0.160	ug/m³	
cis-1,3-Dichloropropene	10061-01-5	4.54	<0.680	ug/m³	
Cyclohexane	110-82-7	3.44	<0.520	ug/m³	
Dibromochloromethane	124-48-1	8.52	<1.00	ug/m³	
Dichlorodifluoromethane	75-71-8	4.95	<0.740	ug/m³	
Ethanol	64-17-5	1.88	470	ug/m³	2.B, 4.A
Ethyl Acetate	141-78-6	3.60	10.5	ug/m³	2.B
Ethylbenzene	100-41-4	4.34	3.47	ug/m³	
Formaldehyde	50-00-0	2.00	<1.00	ug/m³	
Hexachlorobutadiene	87-68-3	10.7	<1.00	ug/m³	
Isopropanol	67-63-0	2.46	54.2	ug/m³	
m,p-Xylenes	108-38-3/106-42-3	8.68	97.6	ug/m³	
Methyl Butyl Ketone (2-Hexanone)	591-78-6	4.10	<1.00	ug/m³	2.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.95	62.4	ug/m³	
Methyl Methacrylate	80-62-6	4.09	<0.410	ug/m³	
Methylene Chloride	75-09-2	1.00	15.4	ug/m³	
Methyl-tert-Butyl Ether	1634-04-4	3.61	<0.540	ug/m³	
Naphthalene	91-20-3	5.24	<1.00	ug/m³	
n-Heptane	142-82-5	4.10	7.87	ug/m³	
n-Hexane	110-54-3	3.52	12.2	ug/m³	
o-Xylene	95-47-6	4.34	4.21	ug/m³	
Propylene	115-07-1	3.11	50.3	ug/m³	2.B
Styrene	100-42-5	4.26	<0.640	ug/m³	
Tetrachloroethene	127-18-4	1.09	32.0	ug/m³	
Tetrahydrofuran	109-99-9	7.37	8.11	ug/m³	2.B
Toluene	108-88-3	3.77	23.2	ug/m³	

Client: Cashin Associates	Client ID: Bayville Village Cleaners Bayville NY
Date (Time) Collected: 06/04/2021 17:27	Sample ID: 040/2-20 PPB-1
Date (Time) Received: 06/07/2021 10:40	Laboratory ID: 1060705-01
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,2-Dichloroethene	156-60-5	3.96	<0.590	ug/m³	
trans-1,3-Dichloropropene	10061-02-6	4.54	<0.680	ug/m³	
Trichloroethene	79-01-6	0.860	10.8	ug/m³	
Trichlorofluoromethane	75-69-4	5.62	<0.840	ug/m³	
Vinyl Acetate	108-05-4	3.52	<0.530	ug/m³	
Vinyl chloride	75-01-4	0.160	<0.160	ug/m³	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	105	70-130	
4-Bromofluorobenzene	460-00-4	95	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	97	60-140	
1,4-Difluorobenzene	540-36-3	97	60-140	
Bromochloromethane	74-97-5	82	60-140	
Bromochloromethane	74-97-5	82	60-140	
Chlorobenzene-d5	3114-55-4	104	60-140	
Chlorobenzene-d5	3114-55-4	104	60-140	

Date Prepared: 06/07/2021

Preparation Method: TO-15

Date Analyzed: 06/07/2021

Analytical Method: TO-15

Data Qualifiers Key Reference:

2.B Parameter not certifiable by NELAP.

4.A Estimated concentration, exceeds calibration range.

MDL Minimum Detection Limit

LOQ Limit of Quantitation

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
Long Island Analytical Laboratories Inc.
110 Colin Drive
Holbrook, New York 11741
(631) 472-3400 • Fax 472-8505
E-mail:LIAL@lialinc.com

www.lialinc.com

Chain of Custody – TO-15

CLIENT: Cashin C/O Thomas Ryan	PROJECT: Bayville Village Cleaners	DATE COLLECTED: 6/4/21	1060705
CLIENT ADDRESS: 19 Todd Drive, Glenhead, NY	LOCATION: 290 Bayville Ave, Bayville NY	TECHNICIAN: Marc Califano	
CLIENT PHONE: 516-317-3183	E-MAIL ADDRESS: MCalifano@Ca-Pc.com	TURNAROUND TIME: BY / / ☒ NORMAL ☐ STAT	

LABORATORY NO. For Laboratory Use Only	CANISTER NO. / REGULATOR NO.	SAMPLE LOCATION	TIME ON	TIME OFF	VACUUM GUAGE START ("Hg)	VACUUM GUAGE END ("Hg)	LEAK DETECTOR ANALYTE	ANALYSIS METHOD
1. 1060705-01	040 / 2-20	PPB-1 6-4-21	927	1727	-27	-5	Bentonite Seal	TO-15
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								

COMMENTS

LEAK DETECTOR ANALYTES
(1) ISOPROPYL ALCOHOL (2) HELIUM (BY TECHNICIAN IN THE FIELD) (3) OTHER:

RELINQUISHED BY (SIGNATURE): Marc Califano	DATE 6/7/21 TIME 1040	PRINTED NAME: Marc Califano	RECEIVED BY (SIGNATURE): [signature]	DATE 6-7-21 TIME 1040 am	PRINTED NAME: C Hoffman
RELINQUISHED BY (SIGNATURE)	DATE TIME	PRINTED NAME	SAMPLE CUSTODIAN: [signature]	DATE 6-7-21 TIME 1431	PRINTED NAME: Ben Lamberson

WHITE-LAB CANARY-CLIENT

NYSDOH ELAP# 11693

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 1052824

June 02, 2021

Mr. Thomas Ryan C/O Bayville Village Cleaners
Thomas Ryan
19 Todd Dr
Glen Head, NY 11545

Re: Bayville Village Cleaners 290 Bayville Ave

Dear Thomas Ryan,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on May 28, 2021. Long Island Analytical laboratories analyzed the samples on June 01, 2021 for the following:

SAMPLE ID	ANALYSIS
034/10-20 PP-2 5-27-21	TO-15 Sub slab
055/16-20 PP-3 5-27-21	TO-15 Sub slab
033/11-20 PP-4 5-27-21	TO-15 Sub slab
037/17-20 PPB-5 5-27-21	TO-15 Sub slab
048/15-20 PPB-6 5-27-21	TO-15 Sub slab
041/9-20 Indoor Air Ambient 5-27-21	TO-15
046/20-20 Outdoor Air Ambient 5-27-21	TO-15
056/19-20 Influent Port 5-27-21	TO-15
053/12-20 Effluent Port 5-27-21	TO-15

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:42	Sample ID: 034/10-20 PP-2 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-01
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	10.9	<1.64	ug/m³	3.B
1,1,2,2-Tetrachloroethane	79-34-5	80.0	<2.00	ug/m³	3.B
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	15.3	<0.864	ug/m³	3.B
1,1,2-Trichloroethane	79-00-5	10.9	<1.64	ug/m³	3.B
1,1-Dichloroethane	75-34-3	8.10	<1.22	ug/m³	3.B
1,1-Dichloroethene	75-35-4	7.92	<1.18	ug/m³	3.B
1,2,4-Trichlorobenzene	120-82-1	14.8	<2.00	ug/m³	3.B
1,2,4-Trimethylbenzene	95-63-6	9.84	<1.48	ug/m³	3.B
1,2-Dibromoethane	106-93-4	15.4	<2.00	ug/m³	3.B
1,2-Dichlorobenzene	95-50-1	12.0	<1.80	ug/m³	3.B
1,2-Dichloroethane	107-06-2	8.10	<1.22	ug/m³	3.B
1,2-Dichloropropane	78-87-5	9.24	<1.38	ug/m³	3.B
1,2-Dichlorotetrafluoroethane	76-14-2	14.0	<2.00	ug/m³	3.B
1,3,5-Trimethylbenzene	108-67-8	9.84	<1.48	ug/m³	3.B
1,3-Butadiene	106-99-0	4.42	<0.660	ug/m³	3.B
1,3-Dichlorobenzene	541-73-1	12.0	<1.80	ug/m³	3.B
1,4-Dichlorobenzene	106-46-7	12.0	<1.80	ug/m³	3.B
1,4-Dioxane	123-91-1	7.20	<2.00	ug/m³	3.B
4-Ethyltoluene	622-96-8	9.84	<1.48	ug/m³	2.B, 3.B
4-Methyl-2-Pentanone	108-10-1	8.20	<2.00	ug/m³	3.B
Acetone	67-64-1	50.0	<37.8	ug/m³	3.B
Acrolein	107-02-8	4.58	<2.00	ug/m³	3.B
Benzene	71-43-2	6.38	<0.960	ug/m³	3.B
Benzyl Chloride	100-44-7	10.4	<1.72	ug/m³	3.B
Bromodichloromethane	75-27-4	13.4	<2.00	ug/m³	3.B
Bromoform	75-25-2	20.7	<2.00	ug/m³	3.B
Bromomethane	74-83-9	7.76	<1.16	ug/m³	3.B
Carbon disulfide	75-15-0	120	<97.1	ug/m³	3.B
Carbon Tetrachloride	56-23-5	12.6	<0.500	ug/m³	3.B
Chlorobenzene	108-90-7	9.20	<1.38	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:42	Sample ID: 034/10-20 PP-2 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-01
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	13.2	<0.800	ug/m³	3.B
Chloroform	67-66-3	9.76	<1.46	ug/m³	3.B
Chloromethane	74-87-3	10.3	<0.620	ug/m³	3.B
cis-1,2-Dichloroethene	156-59-2	7.92	<1.18	ug/m³	3.B
cis-1,3-Dichloropropene	10061-01-5	9.08	<1.36	ug/m³	3.B
Cyclohexane	110-82-7	6.88	<1.04	ug/m³	3.B
Dibromochloromethane	124-48-1	17.0	<2.00	ug/m³	3.B
Dichlorodifluoromethane	75-71-8	9.90	<1.48	ug/m³	3.B
Ethanol	64-17-5	3.76	133	ug/m³	2.B, 3.E, 4.K, 4.M
Ethyl Acetate	141-78-6	7.20	<1.80	ug/m³	2.B, 3.B
Ethylbenzene	100-41-4	8.68	<1.30	ug/m³	3.B
Hexachlorobutadiene	87-68-3	21.3	<2.00	ug/m³	3.B
Isopropanol	67-63-0	6.00	<0.740	ug/m³	3.B
m,p-Xylenes	108-38-3/106-42-3	20.0	<2.00	ug/m³	3.B
Methyl Butyl Ketone (2-Hexanone)	591-78-6	8.20	<2.00	ug/m³	2.B, 3.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	5.90	<1.76	ug/m³	3.B
Methyl Methacrylate	80-62-6	8.18	<0.820	ug/m³	3.B
Methylene Chloride	75-09-2	6.94	<1.04	ug/m³	3.B
Methyl-tert-Butyl Ether	1634-04-4	7.22	<1.08	ug/m³	3.B
Naphthalene	91-20-3	10.5	<2.00	ug/m³	3.B
n-Heptane	142-82-5	8.20	<1.22	ug/m³	3.B
n-Hexane	110-54-3	7.04	<1.06	ug/m³	3.B
o-Xylene	95-47-6	8.68	<1.30	ug/m³	3.B
Propylene	115-07-1	6.22	<0.520	ug/m³	2.B, 3.B
Styrene	100-42-5	8.52	<1.28	ug/m³	3.B
Tetrachloroethene	127-18-4	13.6	<2.00	ug/m³	3.B
Tetrahydrofuran	109-99-9	14.7	<0.880	ug/m³	2.B, 3.B
Toluene	108-88-3	7.54	<1.14	ug/m³	3.B
trans-1,2-Dichloroethene	156-60-5	7.92	<1.18	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:42	Sample ID: 034/10-20 PP-2 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-01
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,3-Dichloropropene	10061-02-6	9.08	<1.36	ug/m³	3.B
Trichloroethene	79-01-6	10.7	<0.420	ug/m³	3.B
Trichlorofluoromethane	75-69-4	11.2	<1.68	ug/m³	3.B
Vinyl Acetate	108-05-4	7.04	<1.06	ug/m³	3.B
Vinyl chloride	75-01-4	5.12	<0.200	ug/m³	3.B

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	108	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	87	60-140	
Bromochloromethane	74-97-5	90	60-140	
Chlorobenzene-d5	3114-55-4	76	60-140	

Date Prepared: 06/01/2021

Preparation Method: TO-15

Date Analyzed: 06/01/2021

Analytical Method: TO-15

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 18:55	Sample ID: 055/16-20 PP-3 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-02
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	10.9	<1.64	ug/m³	3.B
1,1,2,2-Tetrachloroethane	79-34-5	80.0	<2.00	ug/m³	3.B
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	15.3	<0.864	ug/m³	3.B
1,1,2-Trichloroethane	79-00-5	10.9	<1.64	ug/m³	3.B
1,1-Dichloroethane	75-34-3	8.10	<1.22	ug/m³	3.B
1,1-Dichloroethene	75-35-4	7.92	<1.18	ug/m³	3.B
1,2,4-Trichlorobenzene	120-82-1	14.8	<2.00	ug/m³	3.B
1,2,4-Trimethylbenzene	95-63-6	9.84	16.6	ug/m³	3.E
1,2-Dibromoethane	106-93-4	15.4	<2.00	ug/m³	3.B
1,2-Dichlorobenzene	95-50-1	12.0	<1.80	ug/m³	3.B
1,2-Dichloroethane	107-06-2	8.10	<1.22	ug/m³	3.B
1,2-Dichloropropane	78-87-5	9.24	<1.38	ug/m³	3.B
1,2-Dichlorotetrafluoroethane	76-14-2	14.0	<2.00	ug/m³	3.B
1,3,5-Trimethylbenzene	108-67-8	9.84	<1.48	ug/m³	3.B
1,3-Butadiene	106-99-0	4.42	<0.660	ug/m³	3.B
1,3-Dichlorobenzene	541-73-1	12.0	<1.80	ug/m³	3.B
1,4-Dichlorobenzene	106-46-7	12.0	<1.80	ug/m³	3.B
1,4-Dioxane	123-91-1	7.20	<2.00	ug/m³	3.B
4-Ethyltoluene	622-96-8	9.84	20.7	ug/m³	2.B, 3.E
4-Methyl-2-Pentanone	108-10-1	8.20	<2.00	ug/m³	3.B
Acetone	67-64-1	50.0	133	ug/m³	3.E
Acrolein	107-02-8	4.58	48.9	ug/m³	3.E
Benzene	71-43-2	6.38	35.7	ug/m³	3.E
Benzyl Chloride	100-44-7	10.4	<1.72	ug/m³	3.B
Bromodichloromethane	75-27-4	13.4	<2.00	ug/m³	3.B
Bromoform	75-25-2	20.7	<2.00	ug/m³	3.B
Bromomethane	74-83-9	7.76	<1.16	ug/m³	3.B
Carbon disulfide	75-15-0	120	<97.1	ug/m³	3.B
Carbon Tetrachloride	56-23-5	12.6	<0.500	ug/m³	3.B
Chlorobenzene	108-90-7	9.20	<1.38	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 18:55	Sample ID: 055/16-20 PP-3 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-02
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	13.2	<0.800	ug/m³	3.B
Chloroform	67-66-3	9.76	12.3	ug/m³	3.E
Chloromethane	74-87-3	10.3	<0.620	ug/m³	3.B
cis-1,2-Dichloroethene	156-59-2	7.92	7.61	ug/m³	3.B
cis-1,3-Dichloropropene	10061-01-5	9.08	<1.36	ug/m³	3.B
Cyclohexane	110-82-7	6.88	<1.04	ug/m³	3.B
Dibromochloromethane	124-48-1	17.0	<2.00	ug/m³	3.B
Dichlorodifluoromethane	75-71-8	9.90	<1.48	ug/m³	3.B
Ethanol	64-17-5	3.76	406	ug/m³	2.B, 3.E, 4.A, 4.K, 4.M
Ethyl Acetate	141-78-6	7.20	<1.80	ug/m³	2.B, 3.B
Ethylbenzene	100-41-4	8.68	28.3	ug/m³	3.E
Hexachlorobutadiene	87-68-3	21.3	<2.00	ug/m³	3.B
Isopropanol	67-63-0	6.00	39.3	ug/m³	3.E
m,p-Xylenes	108-38-3/106-42-3	20.0	212	ug/m³	3.E
Methyl Butyl Ketone (2-Hexanone)	591-78-6	8.20	<2.00	ug/m³	2.B, 3.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	5.90	19.5	ug/m³	3.E
Methyl Methacrylate	80-62-6	8.18	<0.820	ug/m³	3.B
Methylene Chloride	75-09-2	6.94	<1.04	ug/m³	3.B
Methyl-tert-Butyl Ether	1634-04-4	7.22	<1.08	ug/m³	3.B
Naphthalene	91-20-3	10.5	<2.00	ug/m³	3.B
n-Heptane	142-82-5	8.20	28.9	ug/m³	3.E
n-Hexane	110-54-3	7.04	23.0	ug/m³	3.E
o-Xylene	95-47-6	8.68	29.4	ug/m³	3.E
Propylene	115-07-1	6.22	23.2	ug/m³	2.B, 3.E
Styrene	100-42-5	8.52	<1.28	ug/m³	3.B
Tetrachloroethene	127-18-4	13.6	168	ug/m³	3.E
Tetrahydrofuran	109-99-9	14.7	<0.880	ug/m³	2.B, 3.B
Toluene	108-88-3	7.54	218	ug/m³	3.E
trans-1,2-Dichloroethene	156-60-5	7.92	<1.18	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 18:55	Sample ID: 055/16-20 PP-3 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-02
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,3-Dichloropropene	10061-02-6	9.08	<1.36	ug/m³	3.B
Trichloroethene	79-01-6	10.7	<0.420	ug/m³	3.B
Trichlorofluoromethane	75-69-4	11.2	<1.68	ug/m³	3.B
Vinyl Acetate	108-05-4	7.04	<1.06	ug/m³	3.B
Vinyl chloride	75-01-4	5.12	<0.200	ug/m³	3.B

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	101	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	97	60-140	
Bromochloromethane	74-97-5	89	60-140	
Chlorobenzene-d5	3114-55-4	94	60-140	

Date Prepared: 06/01/2021

Preparation Method: TO-15

Date Analyzed: 06/01/2021

Analytical Method: TO-15

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:47	Sample ID: 033/11-20 PP-4 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-03
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	10.9	<1.64	ug/m³	3.B
1,1,2,2-Tetrachloroethane	79-34-5	80.0	<2.00	ug/m³	3.B
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	15.3	<0.864	ug/m³	3.B
1,1,2-Trichloroethane	79-00-5	10.9	<1.64	ug/m³	3.B
1,1-Dichloroethane	75-34-3	8.10	<1.22	ug/m³	3.B
1,1-Dichloroethene	75-35-4	7.92	<1.18	ug/m³	3.B
1,2,4-Trichlorobenzene	120-82-1	14.8	<2.00	ug/m³	3.B
1,2,4-Trimethylbenzene	95-63-6	9.84	18.0	ug/m³	3.E
1,2-Dibromoethane	106-93-4	15.4	<2.00	ug/m³	3.B
1,2-Dichlorobenzene	95-50-1	12.0	<1.80	ug/m³	3.B
1,2-Dichloroethane	107-06-2	8.10	<1.22	ug/m³	3.B
1,2-Dichloropropane	78-87-5	9.24	<1.38	ug/m³	3.B
1,2-Dichlorotetrafluoroethane	76-14-2	14.0	<2.00	ug/m³	3.B
1,3,5-Trimethylbenzene	108-67-8	9.84	<1.48	ug/m³	3.B
1,3-Butadiene	106-99-0	4.42	<0.660	ug/m³	3.B
1,3-Dichlorobenzene	541-73-1	12.0	<1.80	ug/m³	3.B
1,4-Dichlorobenzene	106-46-7	12.0	<1.80	ug/m³	3.B
1,4-Dioxane	123-91-1	7.20	<2.00	ug/m³	3.B
4-Ethyltoluene	622-96-8	9.84	21.8	ug/m³	2.B, 3.E
4-Methyl-2-Pentanone	108-10-1	8.20	<2.00	ug/m³	3.B
Acetone	67-64-1	50.0	203	ug/m³	3.E
Acrolein	107-02-8	4.58	77.5	ug/m³	3.E
Benzene	71-43-2	6.38	50.0	ug/m³	3.E
Benzyl Chloride	100-44-7	10.4	<1.72	ug/m³	3.B
Bromodichloromethane	75-27-4	13.4	<2.00	ug/m³	3.B
Bromoform	75-25-2	20.7	<2.00	ug/m³	3.B
Bromomethane	74-83-9	7.76	<1.16	ug/m³	3.B
Carbon disulfide	75-15-0	120	<97.1	ug/m³	3.B
Carbon Tetrachloride	56-23-5	12.6	<0.500	ug/m³	3.B
Chlorobenzene	108-90-7	9.20	<1.38	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:47	Sample ID: 033/11-20 PP-4 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-03
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	13.2	<0.800	ug/m³	3.B
Chloroform	67-66-3	9.76	9.67	ug/m³	3.B
Chloromethane	74-87-3	10.3	<0.620	ug/m³	3.B
cis-1,2-Dichloroethene	156-59-2	7.92	<1.18	ug/m³	3.B
cis-1,3-Dichloropropene	10061-01-5	9.08	<1.36	ug/m³	3.B
Cyclohexane	110-82-7	6.88	<1.04	ug/m³	3.B
Dibromochloromethane	124-48-1	17.0	<2.00	ug/m³	3.B
Dichlorodifluoromethane	75-71-8	9.90	<1.48	ug/m³	3.B
Ethanol	64-17-5	3.76	700	ug/m³	2.B, 4.K, 4.M, 4.A, 3.E
Ethyl Acetate	141-78-6	7.20	<1.80	ug/m³	2.B, 3.B
Ethylbenzene	100-41-4	8.68	27.7	ug/m³	3.E
Hexachlorobutadiene	87-68-3	21.3	<2.00	ug/m³	3.B
Isopropanol	67-63-0	6.00	66.7	ug/m³	3.E
m,p-Xylenes	108-38-3/106-42-3	20.0	214	ug/m³	3.E
Methyl Butyl Ketone (2-Hexanone)	591-78-6	8.20	<2.00	ug/m³	2.B, 3.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	5.90	46.8	ug/m³	3.E
Methyl Methacrylate	80-62-6	8.18	<0.820	ug/m³	3.B
Methylene Chloride	75-09-2	6.94	50.7	ug/m³	3.E
Methyl-tert-Butyl Ether	1634-04-4	7.22	<1.08	ug/m³	3.B
Naphthalene	91-20-3	10.5	<2.00	ug/m³	3.B
n-Heptane	142-82-5	8.20	39.3	ug/m³	3.E
n-Hexane	110-54-3	7.04	54.9	ug/m³	3.E
o-Xylene	95-47-6	8.68	29.5	ug/m³	3.E
Propylene	115-07-1	6.22	46.4	ug/m³	2.B, 3.E
Styrene	100-42-5	8.52	<1.28	ug/m³	3.B
Tetrachloroethene	127-18-4	13.6	28.8	ug/m³	3.E
Tetrahydrofuran	109-99-9	14.7	<0.880	ug/m³	2.B, 3.B
Toluene	108-88-3	7.54	248	ug/m³	3.E
trans-1,2-Dichloroethene	156-60-5	7.92	<1.18	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:47	Sample ID: 033/11-20 PP-4 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-03
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,3-Dichloropropene	10061-02-6	9.08	<1.36	ug/m³	3.B
Trichloroethene	79-01-6	10.7	<0.420	ug/m³	3.B
Trichlorofluoromethane	75-69-4	11.2	<1.68	ug/m³	3.B
Vinyl Acetate	108-05-4	7.04	<1.06	ug/m³	3.B
Vinyl chloride	75-01-4	5.12	<0.200	ug/m³	3.B

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	106	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	96	60-140	
Bromochloromethane	74-97-5	86	60-140	
Chlorobenzene-d5	3114-55-4	89	60-140	

Date Prepared: 06/01/2021

Preparation Method: TO-15

Date Analyzed: 06/01/2021

Analytical Method: TO-15

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:53	Sample ID: 037/17-20 PPB-5 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-04
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	10.9	<1.64	ug/m³	3.B
1,1,2,2-Tetrachloroethane	79-34-5	80.0	<2.00	ug/m³	3.B
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	15.3	<0.864	ug/m³	3.B
1,1,2-Trichloroethane	79-00-5	10.9	<1.64	ug/m³	3.B
1,1-Dichloroethane	75-34-3	8.10	<1.22	ug/m³	3.B
1,1-Dichloroethene	75-35-4	7.92	<1.18	ug/m³	3.B
1,2,4-Trichlorobenzene	120-82-1	14.8	<2.00	ug/m³	3.B
1,2,4-Trimethylbenzene	95-63-6	9.84	8.46	ug/m³	3.B
1,2-Dibromoethane	106-93-4	15.4	<2.00	ug/m³	3.B
1,2-Dichlorobenzene	95-50-1	12.0	<1.80	ug/m³	3.B
1,2-Dichloroethane	107-06-2	8.10	<1.22	ug/m³	3.B
1,2-Dichloropropane	78-87-5	9.24	<1.38	ug/m³	3.B
1,2-Dichlorotetrafluoroethane	76-14-2	14.0	<2.00	ug/m³	3.B
1,3,5-Trimethylbenzene	108-67-8	9.84	<1.48	ug/m³	3.B
1,3-Butadiene	106-99-0	4.42	<0.660	ug/m³	3.B
1,3-Dichlorobenzene	541-73-1	12.0	<1.80	ug/m³	3.B
1,4-Dichlorobenzene	106-46-7	12.0	<1.80	ug/m³	3.B
1,4-Dioxane	123-91-1	7.20	<2.00	ug/m³	3.B
4-Ethyltoluene	622-96-8	9.84	12.1	ug/m³	3.E, 2.B
4-Methyl-2-Pentanone	108-10-1	8.20	<2.00	ug/m³	3.B
Acetone	67-64-1	50.0	291	ug/m³	3.E, 4.A
Acrolein	107-02-8	4.58	<2.00	ug/m³	3.B
Benzene	71-43-2	6.38	47.3	ug/m³	3.E
Benzyl Chloride	100-44-7	10.4	<1.72	ug/m³	3.B
Bromodichloromethane	75-27-4	13.4	<2.00	ug/m³	3.B
Bromoform	75-25-2	20.7	<2.00	ug/m³	3.B
Bromomethane	74-83-9	7.76	<1.16	ug/m³	3.B
Carbon disulfide	75-15-0	120	<97.1	ug/m³	3.B
Carbon Tetrachloride	56-23-5	12.6	<0.500	ug/m³	3.B
Chlorobenzene	108-90-7	9.20	<1.38	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:53	Sample ID: 037/17-20 PPB-5 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-04
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	13.2	<0.800	ug/m³	3.B
Chloroform	67-66-3	9.76	14.5	ug/m³	3.E
Chloromethane	74-87-3	10.3	<0.620	ug/m³	3.B
cis-1,2-Dichloroethene	156-59-2	7.92	<1.18	ug/m³	3.B
cis-1,3-Dichloropropene	10061-01-5	9.08	<1.36	ug/m³	3.B
Cyclohexane	110-82-7	6.88	<1.04	ug/m³	3.B
Dibromochloromethane	124-48-1	17.0	<2.00	ug/m³	3.B
Dichlorodifluoromethane	75-71-8	9.90	<1.48	ug/m³	3.B
Ethanol	64-17-5	3.76	682	ug/m³	3.E, 2.B, 4.A, 4.K, 4.M
Ethyl Acetate	141-78-6	7.20	<1.80	ug/m³	2.B, 3.B
Ethylbenzene	100-41-4	8.68	19.8	ug/m³	3.E
Hexachlorobutadiene	87-68-3	21.3	<2.00	ug/m³	3.B
Isopropanol	67-63-0	6.00	70.7	ug/m³	3.E
m,p-Xylenes	108-38-3/106-42-3	20.0	140	ug/m³	3.E
Methyl Butyl Ketone (2-Hexanone)	591-78-6	8.20	<2.00	ug/m³	2.B, 3.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	5.90	87.5	ug/m³	3.E
Methyl Methacrylate	80-62-6	8.18	<0.820	ug/m³	3.B
Methylene Chloride	75-09-2	6.94	64.9	ug/m³	3.E
Methyl-tert-Butyl Ether	1634-04-4	7.22	<1.08	ug/m³	3.B
Naphthalene	91-20-3	10.5	<2.00	ug/m³	3.B
n-Heptane	142-82-5	8.20	32.9	ug/m³	3.E
n-Hexane	110-54-3	7.04	55.2	ug/m³	3.E
o-Xylene	95-47-6	8.68	19.2	ug/m³	3.E
Propylene	115-07-1	6.22	41.2	ug/m³	2.B, 3.E
Styrene	100-42-5	8.52	<1.28	ug/m³	3.B
Tetrachloroethene	127-18-4	13.6	<2.00	ug/m³	3.B
Tetrahydrofuran	109-99-9	14.7	<0.880	ug/m³	2.B, 3.B
Toluene	108-88-3	7.54	226	ug/m³	3.E
trans-1,2-Dichloroethene	156-60-5	7.92	<1.18	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:53	Sample ID: 037/17-20 PPB-5 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-04
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,3-Dichloropropene	10061-02-6	9.08	<1.36	ug/m³	3.B
Trichloroethene	79-01-6	10.7	<0.420	ug/m³	3.B
Trichlorofluoromethane	75-69-4	11.2	<1.68	ug/m³	3.B
Vinyl Acetate	108-05-4	7.04	<1.06	ug/m³	3.B
Vinyl chloride	75-01-4	5.12	<0.200	ug/m³	3.B

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	100	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	97	60-140	
Bromochloromethane	74-97-5	83	60-140	
Chlorobenzene-d5	3114-55-4	99	60-140	

Date Prepared: 06/01/2021

Preparation Method: TO-15

Date Analyzed: 06/01/2021

Analytical Method: TO-15

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:56	Sample ID: 048/15-20 PPB-6 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-05
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	10.9	<1.64	ug/m³	3.B
1,1,2,2-Tetrachloroethane	79-34-5	80.0	<2.00	ug/m³	3.B
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	15.3	<0.864	ug/m³	3.B
1,1,2-Trichloroethane	79-00-5	10.9	<1.64	ug/m³	3.B
1,1-Dichloroethane	75-34-3	8.10	<1.22	ug/m³	3.B
1,1-Dichloroethene	75-35-4	7.92	<1.18	ug/m³	3.B
1,2,4-Trichlorobenzene	120-82-1	14.8	<2.00	ug/m³	3.B
1,2,4-Trimethylbenzene	95-63-6	9.84	17.3	ug/m³	3.E
1,2-Dibromoethane	106-93-4	15.4	<2.00	ug/m³	3.B
1,2-Dichlorobenzene	95-50-1	12.0	<1.80	ug/m³	3.B
1,2-Dichloroethane	107-06-2	8.10	<1.22	ug/m³	3.B
1,2-Dichloropropane	78-87-5	9.24	<1.38	ug/m³	3.B
1,2-Dichlorotetrafluoroethane	76-14-2	14.0	<2.00	ug/m³	3.B
1,3,5-Trimethylbenzene	108-67-8	9.84	<1.48	ug/m³	3.B
1,3-Butadiene	106-99-0	4.42	<0.660	ug/m³	3.B
1,3-Dichlorobenzene	541-73-1	12.0	<1.80	ug/m³	3.B
1,4-Dichlorobenzene	106-46-7	12.0	<1.80	ug/m³	3.B
1,4-Dioxane	123-91-1	7.20	<2.00	ug/m³	3.B
4-Ethyltoluene	622-96-8	9.84	22.4	ug/m³	2.B, 3.E
4-Methyl-2-Pentanone	108-10-1	8.20	<2.00	ug/m³	3.B
Acetone	67-64-1	50.0	308	ug/m³	3.E, 4.A
Acrolein	107-02-8	4.58	<2.00	ug/m³	3.B
Benzene	71-43-2	6.38	24.7	ug/m³	3.E
Benzyl Chloride	100-44-7	10.4	<1.72	ug/m³	3.B
Bromodichloromethane	75-27-4	13.4	<2.00	ug/m³	3.B
Bromoform	75-25-2	20.7	<2.00	ug/m³	3.B
Bromomethane	74-83-9	7.76	<1.16	ug/m³	3.B
Carbon disulfide	75-15-0	120	<97.1	ug/m³	3.B
Carbon Tetrachloride	56-23-5	12.6	<0.500	ug/m³	3.B
Chlorobenzene	108-90-7	9.20	<1.38	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:56	Sample ID: 048/15-20 PPB-6 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-05
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	13.2	<0.800	ug/m³	3.B
Chloroform	67-66-3	9.76	<1.46	ug/m³	3.B
Chloromethane	74-87-3	10.3	<0.620	ug/m³	3.B
cis-1,2-Dichloroethene	156-59-2	7.92	<1.18	ug/m³	3.B
cis-1,3-Dichloropropene	10061-01-5	9.08	<1.36	ug/m³	3.B
Cyclohexane	110-82-7	6.88	<1.04	ug/m³	3.B
Dibromochloromethane	124-48-1	17.0	<2.00	ug/m³	3.B
Dichlorodifluoromethane	75-71-8	9.90	<1.48	ug/m³	3.B
Ethanol	64-17-5	3.76	349	ug/m³	2.B, 3.E, 4.A, 4.K, 4.M
Ethyl Acetate	141-78-6	7.20	<1.80	ug/m³	2.B, 3.B
Ethylbenzene	100-41-4	8.68	25.8	ug/m³	3.E
Hexachlorobutadiene	87-68-3	21.3	<2.00	ug/m³	3.B
Isopropanol	67-63-0	6.00	22.2	ug/m³	3.E
m,p-Xylenes	108-38-3/106-42-3	20.0	207	ug/m³	3.E
Methyl Butyl Ketone (2-Hexanone)	591-78-6	8.20	<2.00	ug/m³	2.B, 3.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	5.90	935	ug/m³	3.E, 4.A
Methyl Methacrylate	80-62-6	8.18	<0.820	ug/m³	3.B
Methylene Chloride	75-09-2	6.94	<1.04	ug/m³	3.B
Methyl-tert-Butyl Ether	1634-04-4	7.22	<1.08	ug/m³	3.B
Naphthalene	91-20-3	10.5	<2.00	ug/m³	3.B
n-Heptane	142-82-5	8.20	19.7	ug/m³	3.E
n-Hexane	110-54-3	7.04	17.0	ug/m³	3.E
o-Xylene	95-47-6	8.68	30.5	ug/m³	3.E
Propylene	115-07-1	6.22	179	ug/m³	2.B, 3.E, 4.A
Styrene	100-42-5	8.52	<1.28	ug/m³	3.B
Tetrachloroethene	127-18-4	13.6	<2.00	ug/m³	3.B
Tetrahydrofuran	109-99-9	14.7	<0.880	ug/m³	2.B, 3.B
Toluene	108-88-3	7.54	152	ug/m³	3.E
trans-1,2-Dichloroethene	156-60-5	7.92	<1.18	ug/m³	3.B

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:56	Sample ID: 048/15-20 PPB-6 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-05
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,3-Dichloropropene	10061-02-6	9.08	<1.36	ug/m³	3.B
Trichloroethene	79-01-6	10.7	<0.420	ug/m³	3.B
Trichlorofluoromethane	75-69-4	11.2	<1.68	ug/m³	3.B
Vinyl Acetate	108-05-4	7.04	<1.06	ug/m³	3.B
Vinyl chloride	75-01-4	5.12	<0.200	ug/m³	3.B

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	109	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	96	60-140	
Bromochloromethane	74-97-5	87	60-140	
Chlorobenzene-d5	3114-55-4	90	60-140	

Date Prepared: 06/01/2021

Preparation Method: TO-15

Date Analyzed: 06/01/2021

Analytical Method: TO-15

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:58	Sample ID: 041/9-20 Indoor Air Ambient 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-06
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	0.860	<0.160	ug/m³	
1,1,2,2-Tetrachloroethane	79-34-5	6.86	<1.00	ug/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	7.66	<0.432	ug/m³	
1,1,2-Trichloroethane	79-00-5	5.46	<0.820	ug/m³	
1,1-Dichloroethane	75-34-3	4.05	<0.610	ug/m³	
1,1-Dichloroethene	75-35-4	0.160	<0.160	ug/m³	
1,2,4-Trichlorobenzene	120-82-1	7.42	<1.00	ug/m³	
1,2,4-Trimethylbenzene	95-63-6	4.92	<0.740	ug/m³	
1,2-Dibromoethane	106-93-4	7.68	<1.00	ug/m³	
1,2-Dichlorobenzene	95-50-1	6.01	<0.900	ug/m³	
1,2-Dichloroethane	107-06-2	4.05	<0.610	ug/m³	
1,2-Dichloropropane	78-87-5	4.62	<0.690	ug/m³	
1,2-Dichlorotetrafluoroethane	76-14-2	6.99	<1.00	ug/m³	
1,3,5-Trimethylbenzene	108-67-8	4.92	<0.740	ug/m³	
1,3-Butadiene	106-99-0	2.21	<0.330	ug/m³	
1,3-Dichlorobenzene	541-73-1	6.01	<0.900	ug/m³	
1,4-Dichlorobenzene	106-46-7	6.01	<0.900	ug/m³	
1,4-Dioxane	123-91-1	3.60	<1.00	ug/m³	
4-Ethyltoluene	622-96-8	4.92	<0.740	ug/m³	2.B
4-Methyl-2-Pentanone	108-10-1	4.10	<1.00	ug/m³	
Acetone	67-64-1	20.0	39.5	ug/m³	
Acrolein	107-02-8	2.29	<1.00	ug/m³	
Benzene	71-43-2	3.19	<0.480	ug/m³	
Benzyl Chloride	100-44-7	5.18	<0.860	ug/m³	
Bromodichloromethane	75-27-4	6.70	<1.00	ug/m³	
Bromoform	75-25-2	10.3	<1.00	ug/m³	
Bromomethane	74-83-9	3.88	<0.580	ug/m³	
Carbon disulfide	75-15-0	50.0	<48.6	ug/m³	
Carbon Tetrachloride	56-23-5	1.01	<0.160	ug/m³	
Chlorobenzene	108-90-7	4.60	<0.690	ug/m³	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:58	Sample ID: 041/9-20 Indoor Air Ambient 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-06
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	6.60	<0.400	ug/m³	
Chloroform	67-66-3	4.88	<0.730	ug/m³	
Chloromethane	74-87-3	5.16	<0.310	ug/m³	
cis-1,2-Dichloroethene	156-59-2	0.630	<0.160	ug/m³	
cis-1,3-Dichloropropene	10061-01-5	4.54	<0.680	ug/m³	
Cyclohexane	110-82-7	3.44	<0.520	ug/m³	
Dibromochloromethane	124-48-1	8.52	<1.00	ug/m³	
Dichlorodifluoromethane	75-71-8	4.95	<0.740	ug/m³	
Ethanol	64-17-5	1.88	49.1	ug/m³	4.K, 4.M, 2.B
Ethyl Acetate	141-78-6	3.60	<0.900	ug/m³	2.B
Ethylbenzene	100-41-4	4.34	<0.650	ug/m³	
Formaldehyde	50-00-0	2.00	<1.00	ug/m³	
Hexachlorobutadiene	87-68-3	10.7	<1.00	ug/m³	
Isopropanol	67-63-0	2.46	7.03	ug/m³	
m,p-Xylenes	108-38-3/106-42-3	8.68	<1.00	ug/m³	
Methyl Butyl Ketone (2-Hexanone)	591-78-6	4.10	<1.00	ug/m³	2.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.95	15.3	ug/m³	
Methyl Methacrylate	80-62-6	4.09	<0.410	ug/m³	
Methylene Chloride	75-09-2	1.00	9.10	ug/m³	
Methyl-tert-Butyl Ether	1634-04-4	3.61	<0.540	ug/m³	
Naphthalene	91-20-3	5.24	<1.00	ug/m³	
n-Heptane	142-82-5	4.10	<0.610	ug/m³	
n-Hexane	110-54-3	3.52	<0.530	ug/m³	
o-Xylene	95-47-6	4.34	<0.650	ug/m³	
Propylene	115-07-1	3.11	1.84	ug/m³	2.B
Styrene	100-42-5	4.26	<0.640	ug/m³	
Tetrachloroethene	127-18-4	1.09	<0.160	ug/m³	
Tetrahydrofuran	109-99-9	7.37	28.8	ug/m³	2.B
Toluene	108-88-3	3.77	<0.570	ug/m³	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:58	Sample ID: 041/9-20 Indoor Air Ambient 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-06
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,2-Dichloroethene	156-60-5	3.96	<0.590	ug/m³	
trans-1,3-Dichloropropene	10061-02-6	4.54	<0.680	ug/m³	
Trichloroethene	79-01-6	0.860	<0.160	ug/m³	
Trichlorofluoromethane	75-69-4	5.62	<0.840	ug/m³	
Vinyl Acetate	108-05-4	3.52	<0.530	ug/m³	
Vinyl chloride	75-01-4	0.160	<0.160	ug/m³	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	107	70-130	
4-Bromofluorobenzene	460-00-4	97	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	78	60-140	
1,4-Difluorobenzene	540-36-3	78	60-140	
Bromochloromethane	74-97-5	87	60-140	
Bromochloromethane	74-97-5	87	60-140	
Chlorobenzene-d5	3114-55-4	77	60-140	
Chlorobenzene-d5	3114-55-4	77	60-140	

Date Prepared: 06/01/2021

Preparation Method: TO-15

Date Analyzed: 06/01/2021

Analytical Method: TO-15

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:40	Sample ID: 046/20-20 Outdoor Air Ambient 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-07
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	0.860	<0.160	ug/m³	
1,1,2,2-Tetrachloroethane	79-34-5	6.86	<1.00	ug/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	7.66	<0.432	ug/m³	
1,1,2-Trichloroethane	79-00-5	5.46	<0.820	ug/m³	
1,1-Dichloroethane	75-34-3	4.05	<0.610	ug/m³	
1,1-Dichloroethene	75-35-4	0.160	<0.160	ug/m³	
1,2,4-Trichlorobenzene	120-82-1	7.42	<1.00	ug/m³	
1,2,4-Trimethylbenzene	95-63-6	4.92	<0.740	ug/m³	
1,2-Dibromoethane	106-93-4	7.68	<1.00	ug/m³	
1,2-Dichlorobenzene	95-50-1	6.01	<0.900	ug/m³	
1,2-Dichloroethane	107-06-2	4.05	<0.610	ug/m³	
1,2-Dichloropropane	78-87-5	4.62	<0.690	ug/m³	
1,2-Dichlorotetrafluoroethane	76-14-2	6.99	<1.00	ug/m³	
1,3,5-Trimethylbenzene	108-67-8	4.92	<0.740	ug/m³	
1,3-Butadiene	106-99-0	2.21	<0.330	ug/m³	
1,3-Dichlorobenzene	541-73-1	6.01	<0.900	ug/m³	
1,4-Dichlorobenzene	106-46-7	6.01	<0.900	ug/m³	
1,4-Dioxane	123-91-1	3.60	<1.00	ug/m³	
4-Ethyltoluene	622-96-8	4.92	<0.740	ug/m³	2.B
4-Methyl-2-Pentanone	108-10-1	4.10	<1.00	ug/m³	
Acetone	67-64-1	20.0	28.1	ug/m³	
Acrolein	107-02-8	2.29	<1.00	ug/m³	
Benzene	71-43-2	3.19	<0.480	ug/m³	
Benzyl Chloride	100-44-7	5.18	<0.860	ug/m³	
Bromodichloromethane	75-27-4	6.70	<1.00	ug/m³	
Bromoform	75-25-2	10.3	<1.00	ug/m³	
Bromomethane	74-83-9	3.88	<0.580	ug/m³	
Carbon disulfide	75-15-0	50.0	<48.6	ug/m³	
Carbon Tetrachloride	56-23-5	1.01	<0.160	ug/m³	
Chlorobenzene	108-90-7	4.60	<0.690	ug/m³	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:40	Sample ID: 046/20-20 Outdoor Air Ambient 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-07
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	6.60	<0.400	ug/m³	
Chloroform	67-66-3	4.88	<0.730	ug/m³	
Chloromethane	74-87-3	5.16	<0.310	ug/m³	
cis-1,2-Dichloroethene	156-59-2	0.630	<0.160	ug/m³	
cis-1,3-Dichloropropene	10061-01-5	4.54	<0.680	ug/m³	
Cyclohexane	110-82-7	3.44	<0.520	ug/m³	
Dibromochloromethane	124-48-1	8.52	<1.00	ug/m³	
Dichlorodifluoromethane	75-71-8	4.95	<0.740	ug/m³	
Ethanol	64-17-5	1.88	45.8	ug/m³	2.B, 4.K, 4.M
Ethyl Acetate	141-78-6	3.60	<0.900	ug/m³	2.B
Ethylbenzene	100-41-4	4.34	<0.650	ug/m³	
Formaldehyde	50-00-0	2.00	<1.00	ug/m³	
Hexachlorobutadiene	87-68-3	10.7	<1.00	ug/m³	
Isopropanol	67-63-0	2.46	116	ug/m³	
m,p-Xylenes	108-38-3/106-42-3	8.68	<1.00	ug/m³	
Methyl Butyl Ketone (2-Hexanone)	591-78-6	4.10	<1.00	ug/m³	2.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.95	<0.880	ug/m³	
Methyl Methacrylate	80-62-6	4.09	<0.410	ug/m³	
Methylene Chloride	75-09-2	1.00	22.0	ug/m³	
Methyl-tert-Butyl Ether	1634-04-4	3.61	<0.540	ug/m³	
Naphthalene	91-20-3	5.24	<1.00	ug/m³	
n-Heptane	142-82-5	4.10	<0.610	ug/m³	
n-Hexane	110-54-3	3.52	68.2	ug/m³	
o-Xylene	95-47-6	4.34	<0.650	ug/m³	
Propylene	115-07-1	3.11	<0.260	ug/m³	2.B
Styrene	100-42-5	4.26	<0.640	ug/m³	
Tetrachloroethene	127-18-4	1.09	<0.160	ug/m³	
Tetrahydrofuran	109-99-9	7.37	<0.440	ug/m³	2.B
Toluene	108-88-3	3.77	<0.570	ug/m³	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 16:40	Sample ID: 046/20-20 Outdoor Air Ambient 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-07
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,2-Dichloroethene	156-60-5	3.96	<0.590	ug/m³	
trans-1,3-Dichloropropene	10061-02-6	4.54	<0.680	ug/m³	
Trichloroethene	79-01-6	0.860	<0.160	ug/m³	
Trichlorofluoromethane	75-69-4	5.62	<0.840	ug/m³	
Vinyl Acetate	108-05-4	3.52	<0.530	ug/m³	
Vinyl chloride	75-01-4	0.160	<0.160	ug/m³	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	109	70-130	
4-Bromofluorobenzene	460-00-4	99	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	74	60-140	
1,4-Difluorobenzene	540-36-3	74	60-140	
Bromochloromethane	74-97-5	90	60-140	
Bromochloromethane	74-97-5	90	60-140	
Chlorobenzene-d5	3114-55-4	73	60-140	
Chlorobenzene-d5	3114-55-4	73	60-140	

Date Prepared: 06/01/2021

Preparation Method: TO-15

Date Analyzed: 06/01/2021

Analytical Method: TO-15

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 17:15	Sample ID: 056/19-20 Influent Port 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-08
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	0.860	6.93	ug/m³	
1,1,2,2-Tetrachloroethane	79-34-5	6.86	<1.00	ug/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	7.66	<0.432	ug/m³	
1,1,2-Trichloroethane	79-00-5	5.46	<0.820	ug/m³	
1,1-Dichloroethane	75-34-3	4.05	<0.610	ug/m³	
1,1-Dichloroethene	75-35-4	0.160	<0.160	ug/m³	
1,2,4-Trichlorobenzene	120-82-1	7.42	<1.00	ug/m³	
1,2,4-Trimethylbenzene	95-63-6	4.92	16.4	ug/m³	
1,2-Dibromoethane	106-93-4	7.68	<1.00	ug/m³	
1,2-Dichlorobenzene	95-50-1	6.01	<0.900	ug/m³	
1,2-Dichloroethane	107-06-2	4.05	<0.610	ug/m³	
1,2-Dichloropropane	78-87-5	4.62	<0.690	ug/m³	
1,2-Dichlorotetrafluoroethane	76-14-2	6.99	<1.00	ug/m³	
1,3,5-Trimethylbenzene	108-67-8	4.92	<0.740	ug/m³	
1,3-Butadiene	106-99-0	2.21	<0.330	ug/m³	
1,3-Dichlorobenzene	541-73-1	6.01	<0.900	ug/m³	
1,4-Dichlorobenzene	106-46-7	6.01	<0.900	ug/m³	
1,4-Dioxane	123-91-1	3.60	<1.00	ug/m³	
4-Ethyltoluene	622-96-8	4.92	21.3	ug/m³	2.B
4-Methyl-2-Pentanone	108-10-1	4.10	<1.00	ug/m³	
Acetone	67-64-1	20.0	188	ug/m³	4.A
Acrolein	107-02-8	2.29	52.5	ug/m³	
Benzene	71-43-2	3.19	40.7	ug/m³	
Benzyl Chloride	100-44-7	5.18	<0.860	ug/m³	
Bromodichloromethane	75-27-4	6.70	<1.00	ug/m³	
Bromoform	75-25-2	10.3	<1.00	ug/m³	
Bromomethane	74-83-9	3.88	<0.580	ug/m³	
Carbon disulfide	75-15-0	50.0	<48.6	ug/m³	
Carbon Tetrachloride	56-23-5	1.01	<0.160	ug/m³	
Chlorobenzene	108-90-7	4.60	<0.690	ug/m³	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 17:15	Sample ID: 056/19-20 Influent Port 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-08
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	6.60	<0.400	ug/m³	
Chloroform	67-66-3	4.88	5.42	ug/m³	
Chloromethane	74-87-3	5.16	<0.310	ug/m³	
cis-1,2-Dichloroethene	156-59-2	0.630	<0.160	ug/m³	
cis-1,3-Dichloropropene	10061-01-5	4.54	<0.680	ug/m³	
Cyclohexane	110-82-7	3.44	<0.520	ug/m³	
Dibromochloromethane	124-48-1	8.52	<1.00	ug/m³	
Dichlorodifluoromethane	75-71-8	4.95	<0.740	ug/m³	
Ethanol	64-17-5	1.88	330	ug/m³	2.B, 4.A, 4.K, 4.M
Ethyl Acetate	141-78-6	3.60	<0.900	ug/m³	2.B
Ethylbenzene	100-41-4	4.34	34.1	ug/m³	
Formaldehyde	50-00-0	2.00	<1.00	ug/m³	
Hexachlorobutadiene	87-68-3	10.7	<1.00	ug/m³	
Isopropanol	67-63-0	2.46	33.2	ug/m³	
m,p-Xylenes	108-38-3/106-42-3	8.68	259	ug/m³	
Methyl Butyl Ketone (2-Hexanone)	591-78-6	4.10	<1.00	ug/m³	2.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.95	25.8	ug/m³	
Methyl Methacrylate	80-62-6	4.09	<0.410	ug/m³	
Methylene Chloride	75-09-2	1.00	<0.160	ug/m³	
Methyl-tert-Butyl Ether	1634-04-4	3.61	<0.540	ug/m³	
Naphthalene	91-20-3	5.24	<1.00	ug/m³	
n-Heptane	142-82-5	4.10	27.9	ug/m³	
n-Hexane	110-54-3	3.52	28.7	ug/m³	
o-Xylene	95-47-6	4.34	33.4	ug/m³	
Propylene	115-07-1	3.11	19.6	ug/m³	2.B
Styrene	100-42-5	4.26	<0.640	ug/m³	
Tetrachloroethene	127-18-4	1.09	96.0	ug/m³	4.A
Tetrahydrofuran	109-99-9	7.37	39.8	ug/m³	2.B
Toluene	108-88-3	3.77	246	ug/m³	4.A

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 17:15	Sample ID: 056/19-20 Influent Port 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-08
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,2-Dichloroethene	156-60-5	3.96	<0.590	ug/m³	
trans-1,3-Dichloropropene	10061-02-6	4.54	<0.680	ug/m³	
Trichloroethene	79-01-6	0.860	<0.160	ug/m³	
Trichlorofluoromethane	75-69-4	5.62	<0.840	ug/m³	
Vinyl Acetate	108-05-4	3.52	<0.530	ug/m³	
Vinyl chloride	75-01-4	0.160	<0.160	ug/m³	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	109	70-130	
4-Bromofluorobenzene	460-00-4	99	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	94	60-140	
1,4-Difluorobenzene	540-36-3	94	60-140	
Bromochloromethane	74-97-5	82	60-140	
Bromochloromethane	74-97-5	82	60-140	
Chlorobenzene-d5	3114-55-4	92	60-140	
Chlorobenzene-d5	3114-55-4	92	60-140	

Date Prepared: 06/01/2021

Preparation Method: TO-15

Date Analyzed: 06/01/2021

Analytical Method: TO-15

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 17:20	Sample ID: 053/12-20 Effluent Port 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-09
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	0.860	5.35	ug/m³	
1,1,2,2-Tetrachloroethane	79-34-5	6.86	<1.00	ug/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	7.66	<0.432	ug/m³	
1,1,2-Trichloroethane	79-00-5	5.46	<0.820	ug/m³	
1,1-Dichloroethane	75-34-3	4.05	<0.610	ug/m³	
1,1-Dichloroethene	75-35-4	0.160	<0.160	ug/m³	
1,2,4-Trichlorobenzene	120-82-1	7.42	<1.00	ug/m³	
1,2,4-Trimethylbenzene	95-63-6	4.92	25.9	ug/m³	
1,2-Dibromoethane	106-93-4	7.68	<1.00	ug/m³	
1,2-Dichlorobenzene	95-50-1	6.01	<0.900	ug/m³	
1,2-Dichloroethane	107-06-2	4.05	<0.610	ug/m³	
1,2-Dichloropropane	78-87-5	4.62	<0.690	ug/m³	
1,2-Dichlorotetrafluoroethane	76-14-2	6.99	<1.00	ug/m³	
1,3,5-Trimethylbenzene	108-67-8	4.92	6.69	ug/m³	
1,3-Butadiene	106-99-0	2.21	<0.330	ug/m³	
1,3-Dichlorobenzene	541-73-1	6.01	<0.900	ug/m³	
1,4-Dichlorobenzene	106-46-7	6.01	<0.900	ug/m³	
1,4-Dioxane	123-91-1	3.60	<1.00	ug/m³	
4-Ethyltoluene	622-96-8	4.92	32.6	ug/m³	2.B
4-Methyl-2-Pentanone	108-10-1	4.10	<1.00	ug/m³	
Acetone	67-64-1	20.0	116	ug/m³	
Acrolein	107-02-8	2.29	61.3	ug/m³	
Benzene	71-43-2	3.19	58.0	ug/m³	
Benzyl Chloride	100-44-7	5.18	<0.860	ug/m³	
Bromodichloromethane	75-27-4	6.70	<1.00	ug/m³	
Bromoform	75-25-2	10.3	<1.00	ug/m³	
Bromomethane	74-83-9	3.88	<0.580	ug/m³	
Carbon disulfide	75-15-0	50.0	<48.6	ug/m³	
Carbon Tetrachloride	56-23-5	1.01	<0.160	ug/m³	
Chlorobenzene	108-90-7	4.60	<0.690	ug/m³	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 17:20	Sample ID: 053/12-20 Effluent Port 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-09
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	6.60	<0.400	ug/m³	
Chloroform	67-66-3	4.88	6.54	ug/m³	
Chloromethane	74-87-3	5.16	<0.310	ug/m³	
cis-1,2-Dichloroethene	156-59-2	0.630	<0.160	ug/m³	
cis-1,3-Dichloropropene	10061-01-5	4.54	<0.680	ug/m³	
Cyclohexane	110-82-7	3.44	<0.520	ug/m³	
Dibromochloromethane	124-48-1	8.52	<1.00	ug/m³	
Dichlorodifluoromethane	75-71-8	4.95	<0.740	ug/m³	
Ethanol	64-17-5	1.88	448	ug/m³	2.B, 4.A, 4.K, 4.M
Ethyl Acetate	141-78-6	3.60	<0.900	ug/m³	2.B
Ethylbenzene	100-41-4	4.34	43.3	ug/m³	
Formaldehyde	50-00-0	2.00	<1.00	ug/m³	
Hexachlorobutadiene	87-68-3	10.7	<1.00	ug/m³	
Isopropanol	67-63-0	2.46	47.5	ug/m³	
m,p-Xylenes	108-38-3/106-42-3	8.68	343	ug/m³	
Methyl Butyl Ketone (2-Hexanone)	591-78-6	4.10	<1.00	ug/m³	2.B
Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.95	13.8	ug/m³	
Methyl Methacrylate	80-62-6	4.09	<0.410	ug/m³	
Methylene Chloride	75-09-2	1.00	<0.160	ug/m³	
Methyl-tert-Butyl Ether	1634-04-4	3.61	<0.540	ug/m³	
Naphthalene	91-20-3	5.24	<1.00	ug/m³	
n-Heptane	142-82-5	4.10	36.7	ug/m³	
n-Hexane	110-54-3	3.52	43.3	ug/m³	
o-Xylene	95-47-6	4.34	45.1	ug/m³	
Propylene	115-07-1	3.11	26.0	ug/m³	2.B
Styrene	100-42-5	4.26	<0.640	ug/m³	
Tetrachloroethene	127-18-4	1.09	9.16	ug/m³	
Tetrahydrofuran	109-99-9	7.37	9.17	ug/m³	2.B
Toluene	108-88-3	3.77	373	ug/m³	4.A

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: Bayville Village Cleaners 290 Bayville Ave
Date (Time) Collected: 05/27/2021 17:20	Sample ID: 053/12-20 Effluent Port 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052824-09
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,2-Dichloroethene	156-60-5	3.96	<0.590	ug/m³	
trans-1,3-Dichloropropene	10061-02-6	4.54	<0.680	ug/m³	
Trichloroethene	79-01-6	0.860	<0.160	ug/m³	
Trichlorofluoromethane	75-69-4	5.62	<0.840	ug/m³	
Vinyl Acetate	108-05-4	3.52	<0.530	ug/m³	
Vinyl chloride	75-01-4	0.160	<0.160	ug/m³	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	111	70-130	
4-Bromofluorobenzene	460-00-4	100	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	93	60-140	
1,4-Difluorobenzene	540-36-3	93	60-140	
Bromochloromethane	74-97-5	84	60-140	
Bromochloromethane	74-97-5	84	60-140	
Chlorobenzene-d5	3114-55-4	94	60-140	
Chlorobenzene-d5	3114-55-4	94	60-140	

Date Prepared: 06/01/2021

Preparation Method: TO-15

Date Analyzed: 06/01/2021

Analytical Method: TO-15

Data Qualifiers Key Reference:

2.B Parameter not certifiable by NELAP.

3.B Reporting limit raised due to target compound interference.

3.E Compound reported at a dilution factor.

4.A Estimated concentration, exceeds calibration range.

4.K Continuing Calibration Verification (CCV) quality control levels failed high, values are considered to be estimated.

4.M LCS recovery was above QC acceptance limit.

MDL Minimum Detection Limit

LOQ Limit of Quantitation

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Chain of Custody – TO-15

PAGE 1 OF 1

CLIENT: Cashin C/O Thomas Ryan	PROJECT: Bayville village cleaners	DATE COLLECTED: 5/27/21	1052824
CLIENT ADDRESS: 19 Todd Drive, Glen Head, NY	LOCATION: 290 Bayville Ave, Bayville NY	TECHNICIAN: Marc Califano	
CLIENT PHONE: (516) 317-3183	E-MAIL ADDRESS: tomykins40@hotmail.com	TURNAROUND TIME: BY ☒ NORMAL ☐ STAT	

LABORATORY NO. For Laboratory Use Only	CANISTER NO. / REGULATOR NO.	SAMPLE LOCATION	TIME ON	TIME OFF	VACUUM GUAGE START ("Hg)	VACUUM GUAGE END ("Hg)	LEAK DETECTOR ANALYTE	ANALYSIS METHOD
1. 052401	034 / 10-20	PP-2 5-27-21	842	1642	-30	-3	Bentonite Seal	TO-15
2. 02	055 / 16-20	PP-3 5-27-21	1055	1855	-30	-8	Bentonite Seal	TO-15
3. 03	033 / 11-20	PP-4 5-27-21	847	1647	-27	-8	Bentonite Seal	TO-15
4. 04	037 / 17-20	PPB-5 5-27-21	853	1653	-28	-14	Bentonite Seal	TO-15
5. 05	048 / 15-20	PPB-6 5-27-21	856	1656	-30	-7	Bentonite Seal	TO-15
6. 06	041 / 9-20	Indoor Ambient Air 5-27-21	858	1658	-29	-5		TO-15
7. 07	046 / 20-20	Outdoor Ambient Air 5-27-21	840	1640	-30	-7		TO-15
8. 08	056 / 19-20	Influent Port 5-27-21	915	1715	-30	-6		TO-15
9. 09	053 / 12-20	Effluent Port 5-27-21	920	1720	-30	-8		TO-15
10.								
11.								
12.								
13.								
14.								

COMMENTS

LEAK DETECTOR ANALYTES
(1) ISOPROPYL ALCOHOL (2) HELIUM (BY TECHNICIAN IN THE FIELD) (3) OTHER:

RELINQUISHED BY (SIGNATURE): Marc Califano	DATE: 5/28/21 TIME: 1127	PRINTED NAME: Marc Califano	RECEIVED BY (SIGNATURE):	DATE TIME	PRINTED NAME
RELINQUISHED BY (SIGNATURE)	DATE TIME	PRINTED NAME	SAMPLE CUSTODIAN	DATE: 5-28-21 TIME: 1127	PRINTED NAME: BEN AMBERSON

WHITE-LAB CANARY-CLIENT

NYSDOH ELAP# 11693

APPENDIX B

Groundwater Sampling Results
and
Water Quality Data Log

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 1052817

June 01, 2021

Mr. Thomas Ryan C/O Bayville Village Cleaners
Thomas Ryan
19 Todd Dr
Glen Head, NY 11545

Re: 290 Bayville Ave Bayville NY

Dear Thomas Ryan,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on May 28, 2021. Long Island Analytical laboratories analyzed the samples on May 28, 2021 for the following:

SAMPLE ID	ANALYSIS
MW-1 5-27-21	EPA 8260 D
MW-2 5-27-21	EPA 8260 D
MW-3 5-27-21	EPA 8260 D
MW-4 5-27-21	EPA 8260 D

Samples received at 1.7 ° C

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 15:28	Sample ID: MW-1 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-01
Matrix: Non-Potable Water	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1,2-Tetrachloroethane	630-20-6	5.00	<5.00	ug/L	
1,1,1-Trichloroethane	71-55-6	5.00	<5.00	ug/L	4.K
1,1,2,2-Tetrachloroethane	79-34-5	5.00	<5.00	ug/L	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5.00	<5.00	ug/L	4.K
1,1,2-Trichloroethane	79-00-5	5.00	<5.00	ug/L	
1,1-Dichloroethane	75-34-3	5.00	<5.00	ug/L	
1,1-Dichloroethene	75-35-4	5.00	<5.00	ug/L	
1,1-Dichloropropene	563-58-6	5.00	<5.00	ug/L	
1,2,3-Trichlorobenzene	87-61-6	5.00	<5.00	ug/L	
1,2,3-Trichloropropane	96-18-4	5.00	<5.00	ug/L	
1,2,4,5-Tetramethylbenzene	95-93-2	5.00	<5.00	ug/L	2.B
1,2,4-Trichlorobenzene	120-82-1	5.00	<5.00	ug/L	
1,2,4-Trimethylbenzene	95-63-6	5.00	<5.00	ug/L	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	<5.00	ug/L	
1,2-Dibromoethane	106-93-4	5.00	<5.00	ug/L	
1,2-Dichlorobenzene	95-50-1	5.00	<5.00	ug/L	
1,2-Dichloroethane	107-06-2	5.00	<5.00	ug/L	
1,2-Dichloropropane	78-87-5	5.00	<5.00	ug/L	
1,3,5-Trimethylbenzene	108-67-8	5.00	<5.00	ug/L	
1,3-Dichlorobenzene	541-73-1	5.00	<5.00	ug/L	
1,3-Dichloropropane	142-28-9	5.00	<5.00	ug/L	
1,4-Dichlorobenzene	106-46-7	5.00	<5.00	ug/L	
1,4-Diethylbenzene	105-05-5	5.00	<5.00	ug/L	2.B
1,4-Dioxane	123-91-1	100	<100	ug/L	
2,2-Dichloropropane	594-20-7	5.00	<5.00	ug/L	4.K
2-Chloroethyl Vinyl Ether	110-75-8	5.00	<5.00	ug/L	4.J
2-Chlorotoluene	95-49-8	5.00	<5.00	ug/L	
4-Chlorotoluene	106-43-4	5.00	<5.00	ug/L	
4-Ethyltoluene	622-96-8	5.00	<5.00	ug/L	2.B
4-Isopropyltoluene	99-87-6	5.00	<5.00	ug/L	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 15:28	Sample ID: MW-1 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-01
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
4-Methyl-2-Pentanone	108-10-1	5.00	<5.00	ug/L	
Acetone	67-64-1	10.0	<10.0	ug/L	
Acrolein	107-02-8	5.00	<5.00	ug/L	4.R
Acrylonitrile	107-13-1	5.00	<5.00	ug/L	
Benzene	71-43-2	5.00	<5.00	ug/L	
Bromobenzene	108-86-1	5.00	<5.00	ug/L	
Bromochloromethane	74-97-5	5.00	<5.00	ug/L	4.K, 4.M
Bromodichloromethane	75-27-4	5.00	<5.00	ug/L	
Bromoform	75-25-2	5.00	<5.00	ug/L	
Bromomethane	74-83-9	5.00	<5.00	ug/L	4.K
Carbon disulfide	75-15-0	5.00	<5.00	ug/L	
Carbon Tetrachloride	56-23-5	5.00	<5.00	ug/L	4.K, 4.M
Chlorobenzene	108-90-7	5.00	<5.00	ug/L	
Chlorodifluoromethane	75-45-6	5.00	<5.00	ug/L	2.B
Chloroethane	75-00-3	5.00	<5.00	ug/L	
Chloroform	67-66-3	5.00	<5.00	ug/L	
Chloromethane	74-87-3	5.00	<5.00	ug/L	
cis-1,2-Dichloroethene	156-59-2	5.00	<5.00	ug/L	
cis-1,3-Dichloropropene	10061-01-5	5.00	<5.00	ug/L	
Dibromochloromethane	124-48-1	5.00	<5.00	ug/L	
Dibromomethane	74-95-3	5.00	<5.00	ug/L	
Dichlorodifluoromethane	75-71-8	5.00	<5.00	ug/L	
Ethylbenzene	100-41-4	5.00	<5.00	ug/L	
Hexachlorobutadiene	87-68-3	5.00	<5.00	ug/L	
Isopropylbenzene (Cumene)	98-82-8	5.00	<5.00	ug/L	
m,p-Xylenes	108-38-3/106-42-3	10.0	<10.0	ug/L	
Methyl Acetate	79-20-9	5.00	<5.00	ug/L	
Methyl Butyl Ketone (2-Hexanone)	591-78-6	10.0	<10.0	ug/L	4.J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	10.0	<10.0	ug/L	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 15:28	Sample ID: MW-1 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-01
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Methylene Chloride	75-09-2	5.00	<5.00	ug/L	
Methyl-tert-Butyl Ether	1634-04-4	5.00	<5.00	ug/L	
Naphthalene	91-20-3	5.00	<5.00	ug/L	
n-Butylbenzene	104-51-8	5.00	<5.00	ug/L	
n-Propylbenzene	103-65-1	5.00	<5.00	ug/L	
o-Xylene	95-47-6	5.00	<5.00	ug/L	
sec-Butylbenzene	135-98-8	5.00	<5.00	ug/L	
Styrene	100-42-5	5.00	<5.00	ug/L	
tert-Butyl alcohol	75-65-0	5.00	<5.00	ug/L	
tert-Butylbenzene	98-06-6	5.00	<5.00	ug/L	
Tetrachloroethene	127-18-4	5.00	<5.00	ug/L	4.K, 4.M
Toluene	108-88-3	5.00	<5.00	ug/L	
trans-1,2-Dichloroethene	156-60-5	5.00	<5.00	ug/L	
trans-1,3-Dichloropropene	10061-02-6	5.00	<5.00	ug/L	
Trichloroethene	79-01-6	5.00	<5.00	ug/L	
Trichlorofluoromethane	75-69-4	5.00	<5.00	ug/L	4.K
Vinyl Acetate	108-05-4	5.00	<5.00	ug/L	
Vinyl chloride	75-01-4	5.00	<5.00	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
1,2-Dichloroethane-d4	10706-07-0	98	90.7-121	
4-Bromofluorobenzene	460-00-4	105	89.4-122	
Dibromofluoromethane	1868-53-7	125	74.4-131	
Toluene-d8	2037-26-5	93	92.7-114	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	89	50-200	
1,4-Difluorobenzene	540-36-3	94	50-200	
Chlorobenzene-d5	3114-55-4	101	50-200	
Pentafluorobenzene	363-72-4	96	50-200	

Date Prepared: 05/28/2021

Preparation Method: EPA 5030 C

Date Analyzed: 05/28/2021

Analytical Method: EPA 8260 D

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 14:57	Sample ID: MW-2 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-02
Matrix: Non-Potable Water	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1,2-Tetrachloroethane	630-20-6	5.00	<5.00	ug/L	
1,1,1-Trichloroethane	71-55-6	5.00	<5.00	ug/L	4.K
1,1,2,2-Tetrachloroethane	79-34-5	5.00	<5.00	ug/L	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5.00	<5.00	ug/L	4.K
1,1,2-Trichloroethane	79-00-5	5.00	<5.00	ug/L	
1,1-Dichloroethane	75-34-3	5.00	<5.00	ug/L	
1,1-Dichloroethene	75-35-4	5.00	<5.00	ug/L	
1,1-Dichloropropene	563-58-6	5.00	<5.00	ug/L	
1,2,3-Trichlorobenzene	87-61-6	5.00	<5.00	ug/L	
1,2,3-Trichloropropane	96-18-4	5.00	<5.00	ug/L	
1,2,4,5-Tetramethylbenzene	95-93-2	5.00	<5.00	ug/L	2.B
1,2,4-Trichlorobenzene	120-82-1	5.00	<5.00	ug/L	
1,2,4-Trimethylbenzene	95-63-6	5.00	<5.00	ug/L	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	<5.00	ug/L	
1,2-Dibromoethane	106-93-4	5.00	<5.00	ug/L	
1,2-Dichlorobenzene	95-50-1	5.00	<5.00	ug/L	
1,2-Dichloroethane	107-06-2	5.00	<5.00	ug/L	
1,2-Dichloropropane	78-87-5	5.00	<5.00	ug/L	
1,3,5-Trimethylbenzene	108-67-8	5.00	<5.00	ug/L	
1,3-Dichlorobenzene	541-73-1	5.00	<5.00	ug/L	
1,3-Dichloropropane	142-28-9	5.00	<5.00	ug/L	
1,4-Dichlorobenzene	106-46-7	5.00	<5.00	ug/L	
1,4-Diethylbenzene	105-05-5	5.00	<5.00	ug/L	2.B
1,4-Dioxane	123-91-1	100	<100	ug/L	
2,2-Dichloropropane	594-20-7	5.00	<5.00	ug/L	4.K
2-Chloroethyl Vinyl Ether	110-75-8	5.00	<5.00	ug/L	4.J
2-Chlorotoluene	95-49-8	5.00	<5.00	ug/L	
4-Chlorotoluene	106-43-4	5.00	<5.00	ug/L	
4-Ethyltoluene	622-96-8	5.00	<5.00	ug/L	2.B
4-Isopropyltoluene	99-87-6	5.00	<5.00	ug/L	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 14:57	Sample ID: MW-2 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-02
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
4-Methyl-2-Pentanone	108-10-1	5.00	<5.00	ug/L	
Acetone	67-64-1	10.0	<10.0	ug/L	
Acrolein	107-02-8	5.00	<5.00	ug/L	4.R
Acrylonitrile	107-13-1	5.00	<5.00	ug/L	
Benzene	71-43-2	5.00	<5.00	ug/L	
Bromobenzene	108-86-1	5.00	<5.00	ug/L	
Bromochloromethane	74-97-5	5.00	<5.00	ug/L	4.K, 4.M
Bromodichloromethane	75-27-4	5.00	<5.00	ug/L	
Bromoform	75-25-2	5.00	<5.00	ug/L	
Bromomethane	74-83-9	5.00	<5.00	ug/L	4.K
Carbon disulfide	75-15-0	5.00	<5.00	ug/L	
Carbon Tetrachloride	56-23-5	5.00	<5.00	ug/L	4.K, 4.M
Chlorobenzene	108-90-7	5.00	<5.00	ug/L	
Chlorodifluoromethane	75-45-6	5.00	<5.00	ug/L	2.B
Chloroethane	75-00-3	5.00	<5.00	ug/L	
Chloroform	67-66-3	5.00	<5.00	ug/L	
Chloromethane	74-87-3	5.00	<5.00	ug/L	
cis-1,2-Dichloroethene	156-59-2	5.00	<5.00	ug/L	
cis-1,3-Dichloropropene	10061-01-5	5.00	<5.00	ug/L	
Dibromochloromethane	124-48-1	5.00	<5.00	ug/L	
Dibromomethane	74-95-3	5.00	<5.00	ug/L	
Dichlorodifluoromethane	75-71-8	5.00	<5.00	ug/L	
Ethylbenzene	100-41-4	5.00	<5.00	ug/L	
Hexachlorobutadiene	87-68-3	5.00	<5.00	ug/L	
Isopropylbenzene (Cumene)	98-82-8	5.00	<5.00	ug/L	
m,p-Xylenes	108-38-3/106-42-3	10.0	<10.0	ug/L	
Methyl Acetate	79-20-9	5.00	<5.00	ug/L	
Methyl Butyl Ketone (2-Hexanone)	591-78-6	10.0	<10.0	ug/L	4.J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	10.0	<10.0	ug/L	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 14:57	Sample ID: MW-2 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-02
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Methylene Chloride	75-09-2	5.00	<5.00	ug/L	
Methyl-tert-Butyl Ether	1634-04-4	5.00	<5.00	ug/L	
Naphthalene	91-20-3	5.00	<5.00	ug/L	
n-Butylbenzene	104-51-8	5.00	<5.00	ug/L	
n-Propylbenzene	103-65-1	5.00	<5.00	ug/L	
o-Xylene	95-47-6	5.00	<5.00	ug/L	
sec-Butylbenzene	135-98-8	5.00	<5.00	ug/L	
Styrene	100-42-5	5.00	<5.00	ug/L	
tert-Butyl alcohol	75-65-0	5.00	<5.00	ug/L	
tert-Butylbenzene	98-06-6	5.00	<5.00	ug/L	
Tetrachloroethene	127-18-4	5.00	<5.00	ug/L	4.K, 4.M
Toluene	108-88-3	5.00	<5.00	ug/L	
trans-1,2-Dichloroethene	156-60-5	5.00	<5.00	ug/L	
trans-1,3-Dichloropropene	10061-02-6	5.00	<5.00	ug/L	
Trichloroethene	79-01-6	5.00	<5.00	ug/L	
Trichlorofluoromethane	75-69-4	5.00	<5.00	ug/L	4.K
Vinyl Acetate	108-05-4	5.00	<5.00	ug/L	
Vinyl chloride	75-01-4	5.00	<5.00	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
1,2-Dichloroethane-d4	10706-07-0	99	90.7-121	
4-Bromofluorobenzene	460-00-4	106	89.4-122	
Dibromofluoromethane	1868-53-7	125	74.4-131	
Toluene-d8	2037-26-5	93	92.7-114	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	90	50-200	
1,4-Difluorobenzene	540-36-3	95	50-200	
Chlorobenzene-d5	3114-55-4	102	50-200	
Pentafluorobenzene	363-72-4	96	50-200	

Date Prepared: 05/28/2021

Preparation Method: EPA 5030 C

Date Analyzed: 05/28/2021

Analytical Method: EPA 8260 D

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 14:10	Sample ID: MW-3 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-03
Matrix: Non-Potable Water	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1,2-Tetrachloroethane	630-20-6	5.00	<5.00	ug/L	
1,1,1-Trichloroethane	71-55-6	5.00	<5.00	ug/L	4.K
1,1,2,2-Tetrachloroethane	79-34-5	5.00	<5.00	ug/L	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5.00	<5.00	ug/L	4.K
1,1,2-Trichloroethane	79-00-5	5.00	<5.00	ug/L	
1,1-Dichloroethane	75-34-3	5.00	<5.00	ug/L	
1,1-Dichloroethene	75-35-4	5.00	<5.00	ug/L	
1,1-Dichloropropene	563-58-6	5.00	<5.00	ug/L	
1,2,3-Trichlorobenzene	87-61-6	5.00	<5.00	ug/L	
1,2,3-Trichloropropane	96-18-4	5.00	<5.00	ug/L	
1,2,4,5-Tetramethylbenzene	95-93-2	5.00	<5.00	ug/L	2.B
1,2,4-Trichlorobenzene	120-82-1	5.00	<5.00	ug/L	
1,2,4-Trimethylbenzene	95-63-6	5.00	<5.00	ug/L	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	<5.00	ug/L	
1,2-Dibromoethane	106-93-4	5.00	<5.00	ug/L	
1,2-Dichlorobenzene	95-50-1	5.00	<5.00	ug/L	
1,2-Dichloroethane	107-06-2	5.00	<5.00	ug/L	
1,2-Dichloropropane	78-87-5	5.00	<5.00	ug/L	
1,3,5-Trimethylbenzene	108-67-8	5.00	<5.00	ug/L	
1,3-Dichlorobenzene	541-73-1	5.00	<5.00	ug/L	
1,3-Dichloropropane	142-28-9	5.00	<5.00	ug/L	
1,4-Dichlorobenzene	106-46-7	5.00	<5.00	ug/L	
1,4-Diethylbenzene	105-05-5	5.00	<5.00	ug/L	2.B
1,4-Dioxane	123-91-1	100	<100	ug/L	
2,2-Dichloropropane	594-20-7	5.00	<5.00	ug/L	4.K
2-Chloroethyl Vinyl Ether	110-75-8	5.00	<5.00	ug/L	4.J
2-Chlorotoluene	95-49-8	5.00	<5.00	ug/L	
4-Chlorotoluene	106-43-4	5.00	<5.00	ug/L	
4-Ethyltoluene	622-96-8	5.00	<5.00	ug/L	2.B
4-Isopropyltoluene	99-87-6	5.00	<5.00	ug/L	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 14:10	Sample ID: MW-3 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-03
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
4-Methyl-2-Pentanone	108-10-1	5.00	<5.00	ug/L	
Acetone	67-64-1	10.0	<10.0	ug/L	
Acrolein	107-02-8	5.00	<5.00	ug/L	4.R
Acrylonitrile	107-13-1	5.00	<5.00	ug/L	
Benzene	71-43-2	5.00	<5.00	ug/L	
Bromobenzene	108-86-1	5.00	<5.00	ug/L	
Bromochloromethane	74-97-5	5.00	<5.00	ug/L	4.K, 4.M
Bromodichloromethane	75-27-4	5.00	<5.00	ug/L	
Bromoform	75-25-2	5.00	<5.00	ug/L	
Bromomethane	74-83-9	5.00	<5.00	ug/L	4.K
Carbon disulfide	75-15-0	5.00	<5.00	ug/L	
Carbon Tetrachloride	56-23-5	5.00	<5.00	ug/L	4.K, 4.M
Chlorobenzene	108-90-7	5.00	<5.00	ug/L	
Chlorodifluoromethane	75-45-6	5.00	<5.00	ug/L	2.B
Chloroethane	75-00-3	5.00	<5.00	ug/L	
Chloroform	67-66-3	5.00	<5.00	ug/L	
Chloromethane	74-87-3	5.00	<5.00	ug/L	
cis-1,2-Dichloroethene	156-59-2	5.00	<5.00	ug/L	
cis-1,3-Dichloropropene	10061-01-5	5.00	<5.00	ug/L	
Dibromochloromethane	124-48-1	5.00	<5.00	ug/L	
Dibromomethane	74-95-3	5.00	<5.00	ug/L	
Dichlorodifluoromethane	75-71-8	5.00	<5.00	ug/L	
Ethylbenzene	100-41-4	5.00	<5.00	ug/L	
Hexachlorobutadiene	87-68-3	5.00	<5.00	ug/L	
Isopropylbenzene (Cumene)	98-82-8	5.00	<5.00	ug/L	
m,p-Xylenes	108-38-3/106-42-3	10.0	<10.0	ug/L	
Methyl Acetate	79-20-9	5.00	<5.00	ug/L	
Methyl Butyl Ketone (2-Hexanone)	591-78-6	10.0	<10.0	ug/L	4.J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	10.0	<10.0	ug/L	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 14:10	Sample ID: MW-3 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-03
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Methylene Chloride	75-09-2	5.00	<5.00	ug/L	
Methyl-tert-Butyl Ether	1634-04-4	5.00	<5.00	ug/L	
Naphthalene	91-20-3	5.00	<5.00	ug/L	
n-Butylbenzene	104-51-8	5.00	<5.00	ug/L	
n-Propylbenzene	103-65-1	5.00	<5.00	ug/L	
o-Xylene	95-47-6	5.00	<5.00	ug/L	
sec-Butylbenzene	135-98-8	5.00	<5.00	ug/L	
Styrene	100-42-5	5.00	<5.00	ug/L	
tert-Butyl alcohol	75-65-0	5.00	<5.00	ug/L	
tert-Butylbenzene	98-06-6	5.00	<5.00	ug/L	
Tetrachloroethene	127-18-4	5.00	<5.00	ug/L	4.K, 4.M
Toluene	108-88-3	5.00	<5.00	ug/L	
trans-1,2-Dichloroethene	156-60-5	5.00	<5.00	ug/L	
trans-1,3-Dichloropropene	10061-02-6	5.00	<5.00	ug/L	
Trichloroethene	79-01-6	5.00	<5.00	ug/L	
Trichlorofluoromethane	75-69-4	5.00	<5.00	ug/L	4.K
Vinyl Acetate	108-05-4	5.00	<5.00	ug/L	
Vinyl chloride	75-01-4	5.00	<5.00	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
1,2-Dichloroethane-d4	10706-07-0	98	90.7-121	
4-Bromofluorobenzene	460-00-4	105	89.4-122	
Dibromofluoromethane	1868-53-7	124	74.4-131	
Toluene-d8	2037-26-5	93	92.7-114	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	89	50-200	
1,4-Difluorobenzene	540-36-3	93	50-200	
Chlorobenzene-d5	3114-55-4	99	50-200	
Pentafluorobenzene	363-72-4	95	50-200	

Date Prepared: 05/28/2021

Preparation Method: EPA 5030 C

Date Analyzed: 05/28/2021

Analytical Method: EPA 8260 D

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 13:05	Sample ID: MW-4 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-04
Matrix: Non-Potable Water	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1,2-Tetrachloroethane	630-20-6	5.00	<5.00	ug/L	
1,1,1-Trichloroethane	71-55-6	5.00	<5.00	ug/L	4.K
1,1,2,2-Tetrachloroethane	79-34-5	5.00	<5.00	ug/L	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5.00	<5.00	ug/L	4.K
1,1,2-Trichloroethane	79-00-5	5.00	<5.00	ug/L	
1,1-Dichloroethane	75-34-3	5.00	<5.00	ug/L	
1,1-Dichloroethene	75-35-4	5.00	<5.00	ug/L	
1,1-Dichloropropene	563-58-6	5.00	<5.00	ug/L	
1,2,3-Trichlorobenzene	87-61-6	5.00	<5.00	ug/L	
1,2,3-Trichloropropane	96-18-4	5.00	<5.00	ug/L	
1,2,4,5-Tetramethylbenzene	95-93-2	5.00	<5.00	ug/L	2.B
1,2,4-Trichlorobenzene	120-82-1	5.00	<5.00	ug/L	
1,2,4-Trimethylbenzene	95-63-6	5.00	<5.00	ug/L	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	<5.00	ug/L	
1,2-Dibromoethane	106-93-4	5.00	<5.00	ug/L	
1,2-Dichlorobenzene	95-50-1	5.00	<5.00	ug/L	
1,2-Dichloroethane	107-06-2	5.00	<5.00	ug/L	
1,2-Dichloropropane	78-87-5	5.00	<5.00	ug/L	
1,3,5-Trimethylbenzene	108-67-8	5.00	<5.00	ug/L	
1,3-Dichlorobenzene	541-73-1	5.00	<5.00	ug/L	
1,3-Dichloropropane	142-28-9	5.00	<5.00	ug/L	
1,4-Dichlorobenzene	106-46-7	5.00	<5.00	ug/L	
1,4-Diethylbenzene	105-05-5	5.00	<5.00	ug/L	2.B
1,4-Dioxane	123-91-1	100	<100	ug/L	
2,2-Dichloropropane	594-20-7	5.00	<5.00	ug/L	4.K
2-Chloroethyl Vinyl Ether	110-75-8	5.00	<5.00	ug/L	4.J
2-Chlorotoluene	95-49-8	5.00	<5.00	ug/L	
4-Chlorotoluene	106-43-4	5.00	<5.00	ug/L	
4-Ethyltoluene	622-96-8	5.00	<5.00	ug/L	2.B
4-Isopropyltoluene	99-87-6	5.00	<5.00	ug/L	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 13:05	Sample ID: MW-4 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-04
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
4-Methyl-2-Pentanone	108-10-1	5.00	<5.00	ug/L	
Acetone	67-64-1	10.0	<10.0	ug/L	
Acrolein	107-02-8	5.00	<5.00	ug/L	4.R
Acrylonitrile	107-13-1	5.00	<5.00	ug/L	
Benzene	71-43-2	5.00	<5.00	ug/L	
Bromobenzene	108-86-1	5.00	<5.00	ug/L	
Bromochloromethane	74-97-5	5.00	<5.00	ug/L	4.K, 4.M
Bromodichloromethane	75-27-4	5.00	<5.00	ug/L	
Bromoform	75-25-2	5.00	<5.00	ug/L	
Bromomethane	74-83-9	5.00	<5.00	ug/L	4.K
Carbon disulfide	75-15-0	5.00	<5.00	ug/L	
Carbon Tetrachloride	56-23-5	5.00	<5.00	ug/L	4.K, 4.M
Chlorobenzene	108-90-7	5.00	<5.00	ug/L	
Chlorodifluoromethane	75-45-6	5.00	<5.00	ug/L	2.B
Chloroethane	75-00-3	5.00	<5.00	ug/L	
Chloroform	67-66-3	5.00	<5.00	ug/L	
Chloromethane	74-87-3	5.00	<5.00	ug/L	
cis-1,2-Dichloroethene	156-59-2	5.00	<5.00	ug/L	
cis-1,3-Dichloropropene	10061-01-5	5.00	<5.00	ug/L	
Dibromochloromethane	124-48-1	5.00	<5.00	ug/L	
Dibromomethane	74-95-3	5.00	<5.00	ug/L	
Dichlorodifluoromethane	75-71-8	5.00	<5.00	ug/L	
Ethylbenzene	100-41-4	5.00	<5.00	ug/L	
Hexachlorobutadiene	87-68-3	5.00	<5.00	ug/L	
Isopropylbenzene (Cumene)	98-82-8	5.00	<5.00	ug/L	
m,p-Xylenes	108-38-3/106-42-3	10.0	<10.0	ug/L	
Methyl Acetate	79-20-9	5.00	<5.00	ug/L	
Methyl Butyl Ketone (2-Hexanone)	591-78-6	10.0	<10.0	ug/L	4.J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	10.0	<10.0	ug/L	

Client: Mr. Thomas Ryan C/O Bayville Village	Client ID: 290 Bayville Ave Bayville NY
Date (Time) Collected: 05/27/2021 13:05	Sample ID: MW-4 5-27-21
Date (Time) Received: 05/28/2021 11:27	Laboratory ID: 1052817-04
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Methylene Chloride	75-09-2	5.00	<5.00	ug/L	
Methyl-tert-Butyl Ether	1634-04-4	5.00	<5.00	ug/L	
Naphthalene	91-20-3	5.00	<5.00	ug/L	
n-Butylbenzene	104-51-8	5.00	<5.00	ug/L	
n-Propylbenzene	103-65-1	5.00	<5.00	ug/L	
o-Xylene	95-47-6	5.00	<5.00	ug/L	
sec-Butylbenzene	135-98-8	5.00	<5.00	ug/L	
Styrene	100-42-5	5.00	<5.00	ug/L	
tert-Butyl alcohol	75-65-0	5.00	<5.00	ug/L	
tert-Butylbenzene	98-06-6	5.00	<5.00	ug/L	
Tetrachloroethene	127-18-4	5.00	<5.00	ug/L	4.K, 4.M
Toluene	108-88-3	5.00	<5.00	ug/L	
trans-1,2-Dichloroethene	156-60-5	5.00	<5.00	ug/L	
trans-1,3-Dichloropropene	10061-02-6	5.00	<5.00	ug/L	
Trichloroethene	79-01-6	5.00	<5.00	ug/L	
Trichlorofluoromethane	75-69-4	5.00	<5.00	ug/L	4.K
Vinyl Acetate	108-05-4	5.00	<5.00	ug/L	
Vinyl chloride	75-01-4	5.00	<5.00	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
1,2-Dichloroethane-d4	10706-07-0	98	90.7-121	
4-Bromofluorobenzene	460-00-4	107	89.4-122	
Dibromofluoromethane	1868-53-7	125	74.4-131	
Toluene-d8	2037-26-5	93	92.7-114	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	89	50-200	
1,4-Difluorobenzene	540-36-3	94	50-200	
Chlorobenzene-d5	3114-55-4	101	50-200	
Pentafluorobenzene	363-72-4	95	50-200	

Date Prepared: 05/28/2021

Preparation Method: EPA 5030 C

Date Analyzed: 05/28/2021

Analytical Method: EPA 8260 D

Data Qualifiers Key Reference:

2.B	Parameter not certifiable by NELAP.
4.J	Continuing Calibration Verification (CCV) quality control levels failed low, values are considered to be estimated.
4.K	Continuing Calibration Verification (CCV) quality control levels failed high, values are considered to be estimated.
4.M	LCS recovery was above QC acceptance limit.
4.R	Initial Calibration Verification (ICV) quality control levels low, values are considered to be estimated.
MDL	Minimum Detection Limit
LOQ	Limit of Quantitation

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

1052817

CLIENT NAME/ADDRESS: Cashin Associates, P.C.
c/o Thomas Ryan
19 Todd Drive, Glen Head, NY 11545

CONTACT: Marc Califano
PHONE: 631-348-7600
EMAIL: MCalifano@Ca-PC.com

SAMPLER (SIGNATURE): Marc Califano
SAMPLER NAME (PRINT): MARC CALIFANO

SAMPLE(S) SEALED: YES / NO
CORRECT CONTAINER(S): YES / NO

PROJECT LOCATION: 290 Bayville Ave, Bayville, NY

SAMPLES RECEIVED AT: 1.7 °C

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

V00220 - WI-0848-9903

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # LOCATION	ANALYSIS REQUIRED: VOCs 8260	# OF CONTAINERS
1. 1052817-01	WW	G			1	5/27/21	1528	MW-1 5-27-21	X	3
2. -02	WW	G			1	5/27/21	1457	MW-2 5-27-21	X	3
3. -03	WW	G			1	5/27/21	1410	MW-3 5-27-21	X	3
4. -04	WW	G			1	5/27/21	1305	MW-4 5-27-21	X	3
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_3O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: ☒ NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY (SIGNATURE)	DATE / TIME	PRINTED NAME
Marc Califano	5/28/21 1127	MARC CALIFANO			
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY SAMPLE CUSTODIAN	DATE 5-28-21 TIME 1129	PRINTED NAME BEN LAMBERSON

WHITE - OFFICE / CANARY - CLIENT

GROUNDWATER SAMPLING LOG

SITE NAME: Bayville Village Dry Cleaners	SITE LOCATION: 290 Bayville Avenue, Village of Bayville, NY
DATE: 5/27/2021	SAMPLERS: Marc Califano & Rachel Lambert

PURGING & WATER UALITY DATA
FOUR INCH WELLS

Well	Sample Time	PID	DTW (ft.)	DTB (ft.)	Gallons Purged	DO (mg/L)	pH	TEMP (C)	ORP	COND (us/cm)	Turbidity
MW-1	1528	0.0	9.32	18.20	6	1.99	6.78	17.01	-27	.500	6.1
					12	1.40	6.64	15.91	-25	.508	0.0
					18	1.32	6.59	14.84	-23	.531	0.0
					Sample	2.83	6.68	15.48	-37	.537	0.0
MW-2	1457	0.0	7.95	17.45	6	3.72	7.04	15.75	132	.752	19.0
					12	6.85	6.75	14.31	135	.789	5.9
					18	2.47	6.62	14.24	132	.797	0.0
					Sample	2.65	6.43	14.15	132	.801	0.0
MW-3	1410	0.0	7.07	17.55	7	3.64	7.32	16.48	153	1.01	13.7
					14	10.50	7.24	15.18	88	1.01	3.5
					21	3.20	7.17	15.07	57	.954	0.0
					Sample	3.03	7.07	15.25	46	.747	0.0
MW-4	1305	0.0	8.33	18.35	7	1.57	6.83	17.06	210	.959	0.0
					14	2.08	6.84	15.02	213	.971	0.0
					21	1.84	6.80	14.88	216	.969	0.0
					Sample	1.14	6.58	14.84	214	.951	0.0

WELL CAP.(gal/ft): 0.75”=0.02; 1”=0.04; 1.25”=0.06; 2”=0.16; 3”=0.37; 4”=0.65; 5”=1.02; 6”=1.47; 12”=5.88
1 WELL VOLUME (gal) = (DTB – DTW) X WELL CAPACITY

ANALYSIS & METHOD:
VOC’s Only

COMMENTS:
MW-1 Water initially black organic smell, no sheen or oil. Water cleared after 12 gallons but still had an organic smell. When we pulled pump up, root-like matter came up with pump. MW-1 may contain root intrustion?

APPENDIX C

Indoor Air Quality Questionnaire
And
Building Inventory for the Subject Site

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Marc Califano Date/Time Prepared 5/27/2021

Preparer's Affiliation Cashin Technical Services, Inc. Phone No. 631-348-7600 x 41

Purpose of Investigation Periodic Review Report 2021 VCA: WI-0848-9903 Site # V00220

1. OCCUPANT:

Interviewed: Y / N

Last Name: Riso First Name: Richard

Address: 290 Bayville Avenue, Bayville, NY 11709

County: Nassau

Home Phone: _____ Office Phone: 516-628-8421

Number of Occupants/persons at this location 8 Age of Occupants 21-65

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / N

Last Name: Ryan First Name: Thomas

Address: 19 Todd Drive, Glen Head, NY 11545

County: Nassau

Home Phone: _____ Office Phone: Cell: 516-317-3183

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? N/A

If the property is commercial, type?

Business Type(s) Plumbing, Heating, & Air Conditioning

Does it include residences (i.e., multi-use)? Y / (N) If yes, how many? _____

Other characteristics:

Number of floors 1 Building age 62 years

Is the building insulated? (Y) / N How air tight? (Tight) / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors
N/A

Airflow near source
N/A

Outdoor air infiltration
N/A

Infiltration into air ducts
N/A

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type: N/A	full	crawlspace	slab	other _____
c. Basement floor: N/A	concrete	dirt	stone	other _____
d. Basement floor: N/A	uncovered	covered	covered with _____	
e. Concrete floor:	unsealed	sealed	sealed with _____	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with _____	
h. The basement is: N/A	wet	damp	dry	moldy
i. The basement is: N/A	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: _____(feet) N/A

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

During investigation of SSDS, all possible entry points (i.e., cracks) were sealed off to prevent the entrance of soil gas vapors and to enhance sub-slab negative pressure field of the active SSDS.

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural Gas

Boiler/furnace located in: Basement Outdoors Main Floor Other_____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / [N]

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

N/A

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	Plumbing Warehouse, Office, and workshop
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / [N]

b. Does the garage have a separate heating unit? Y / N / [NA]

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / [NA] Please specify_____

d. Has the building ever had a fire? Y / [N] When?_____

e. Is a kerosene or unvented gas space heater present? Y / [N] Where? _____

f. Is there a workshop or hobby/craft area? Y / [N] Where & Type? _____

g. Is there smoking in the building? Y / [N] How frequently? _____

h. Have cleaning products been used recently? Y / [N] When & Type? _____

i. Have cosmetic products been used recently? Y / [N] When & Type? _____

j. Has painting/staining been done in the last 6 months? (Y) / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

l. Have air fresheners been used recently? Y / (N) When & Type? _____

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented?_____

n. Is there a bathroom exhaust fan? Y / (N) If yes, where vented?_____

o. Is there a clothes dryer? Y / (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / (N) When & Type?_____

Are there odors in the building? Y / (N)
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / (N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) (No)
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: Cesspool

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: N/A

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel N/A

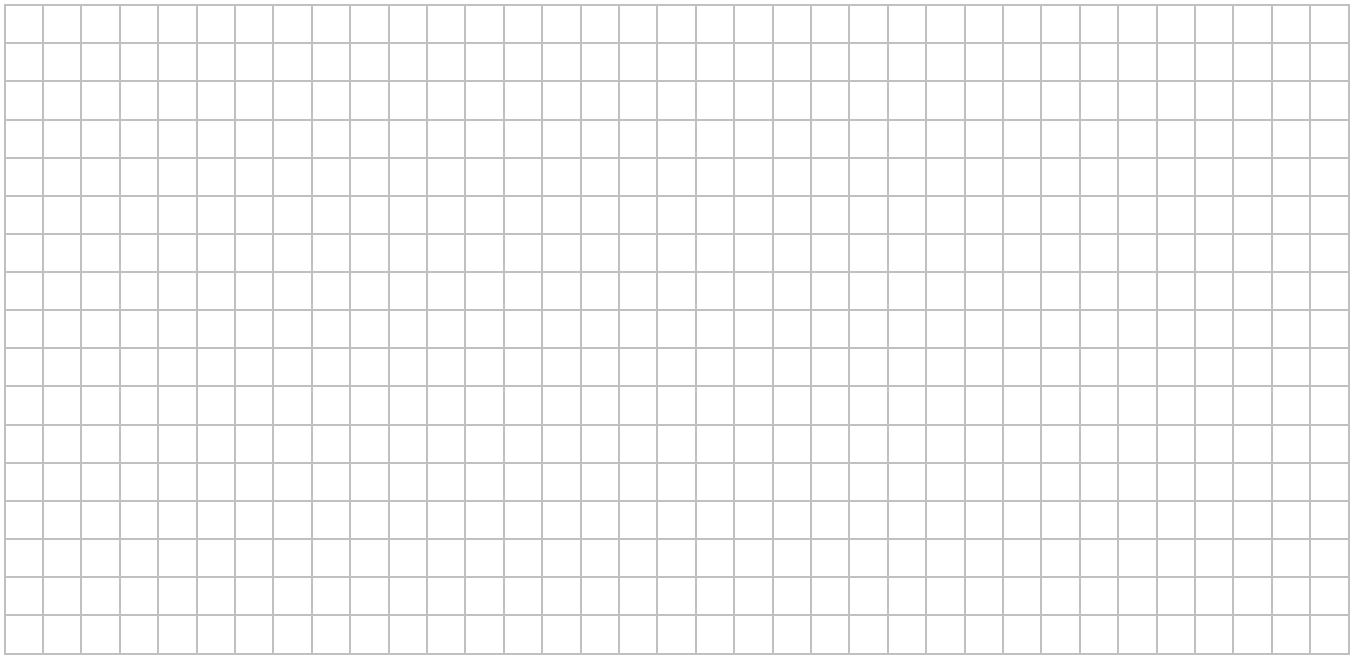
c. Responsibility for costs associated with reimbursement explained? Y / N N/A

d. Relocation package provided and explained to residents? Y / N N/A

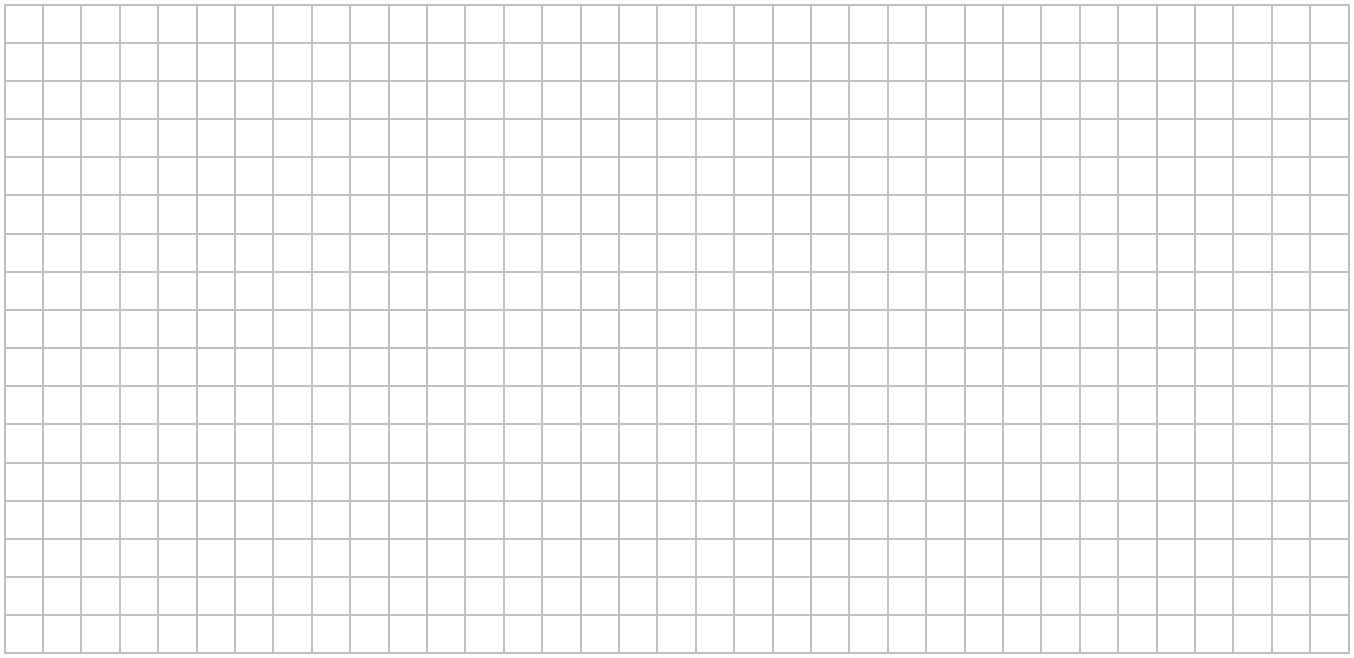
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:

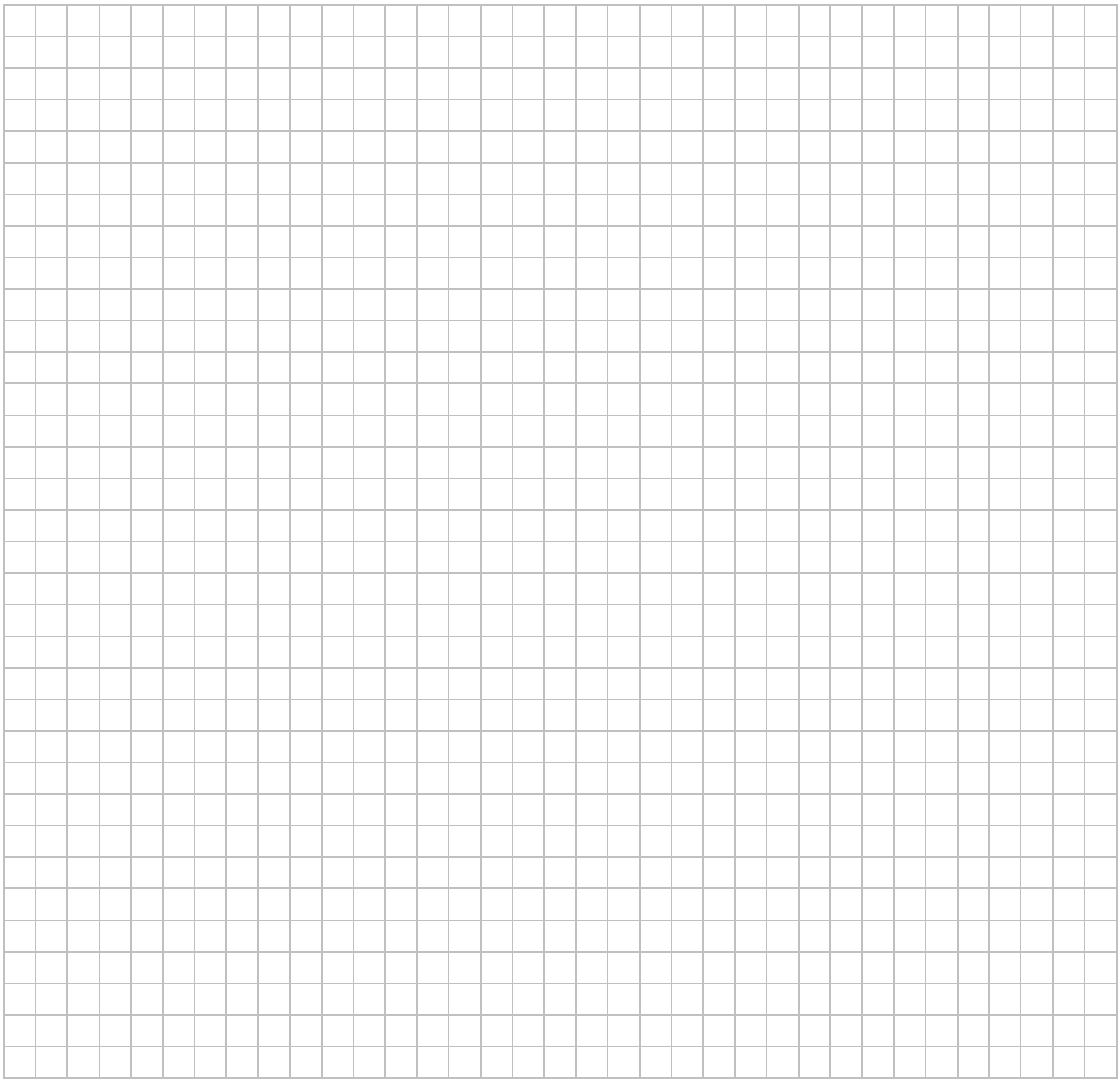


12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

See Attached Figure 1



13. PRODUCT INVENTORY FORM (Attached as additional page)

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

13. PRODUCT INVENTORY FORM

Location	Product Description	Size (units)	Condition	Chemical Ingredient SDS Links (Also attached in separate PDF)
workshop	Ace belt dressing BDA	11 oz	Used: 1	https://acechempro.com/wp-content/uploads/2020/12/acesurgripbeltdressingbda.msds_.pdf
bathroom	Afta matress fresh air freshener	6 oz	Used: 1	
workshop	AMS Oil diesel oil SAE 5W-30	1 gal.	Unopened: 1	https://amsoilcontent.com/ams/msds/adn.pdf
workshop	Arcticban RV/Marine Antifreeze	1 gal.	Unopened: 7	http://docplayer.net/59806399-Material-safety-data-sheet-antifreeze-for-rv-marine-potable-water-systems-arctic-ban-50-antifreeze-1-of-5.html
workshop	Armor all autoglass cleaner	22 fl oz	Used: 1	https://www.armorall.com/sites/default/files/Armor%20All%C2%AE%20Auto%20Glass%20Cleaner%20%282015-01%29.pdf
workshop	Armor all tire foam	20 oz	Used: 1	https://www.dultmeier.com/pdfs/SDS/IM40040-Armorall-Tire-Foam-Can.pdf
workshop	Autozone conventional green antifreeze	1 gal.	Unopened: 2	https://contentinfo.autozone.com/znetcs/msds/en/US/540721
workshop	Bar's Leaks radiator stop leak	5.5 fl oz	Used: 1	https://barsleaks.com/wp-content/uploads/2019/07/1194-1196-SDS-1-1.pdf
side room	Benjamin Moore advance waterborne interior alkyd	1 gal.	Used: 1	https://media.benjaminmoore.com/WebServices/prod/assets/production/datasheets/MSDS_0792/79201_SDS_EN_12-16-2019.pdf
front room	Benjamin Moore advance waterborne interior alkyd	1 gal.	Used: 6	https://media.benjaminmoore.com/WebServices/prod/assets/production/datasheets/MSDS_0792/79201_SDS_EN_12-16-2019.pdf
workshop	Benjamin Moore Regal Select Eggshell Finish 549 1X	1 gal.	Used: 1	https://media.benjaminmoore.com/WebServices/prod/assets/production/datasheets/MSDS_0549/5491X_SDS_EN.pdf
front room	Benjamin Moore Regal Select Matte Finish 548 1X	1 gal.	Used: 1	https://media.benjaminmoore.com/WebServices/prod/assets/production/datasheets/MSDS_0548/5481X_SDS_EN.pdf
workshop	Benjamin Moore Regal Select Semi-gloss finish 551 1X	1 gal.	Used: 1	https://media.benjaminmoore.com/WebServices/prod/assets/production/datasheets/MSDS_0551/5511X_SDS_EN.pdf
side room	Benjamin Moore ultra spec 500 interior eggshell	1 gal.	Used: 1	https://media.benjaminmoore.com/WebServices/prod/assets/production/datasheets/MSDS_0536/N53601_SDS_EN.PDF
front room	Benjamin Moore ultra spec 500 interior eggshell	1 gal.	Used: 2	https://media.benjaminmoore.com/WebServices/prod/assets/production/datasheets/MSDS_0536/N53601_SDS_EN.PDF
workshop	Blue Rhino propane tank	35 lbs	Used: 1	https://www.ferrellgas.com/media/66083/sds_propane_12_18.pdf
workshop	Buckeye fire extinguisher ABC	2.5 lbs	Unopened: 2	http://buckeyefire.com/wp-content/uploads/2019/10/Buckeye-ABC-2019.pdf
workshop	Cam 2 full strength antifreeze and coolant	1 gal.	Used: 1	http://www.cam2.com/userfiles/productLiterature/CAM2_AFCONC_SDS_112117.pdf
workshop	Campbell hausfeld air compressor oil	16 fl oz	Used: 1	https://images.homedepot-static.com/catalog/pdfImages/e9/e9535505-a1ab-4cae-91e6-688f6c662ccb.pdf
workshop	Carquest motor oil SAE 5W-30	1 qt	Unopened: 7	http://weblink.carquest.com/msds/MCO/MCO%20XO5W20QSP.pdf
front room	Castrol GTX SAE 10W-30 motor oil	1 qt	Used: 1	https://msdspds.castrol.com/ussds/amersdsf.nsf/Files/604429CD735F83B9802585EB0052A763/$File/2653666.pdf
workshop	Comstar Furnace Cement	1 gal.	Used: 1	https://www.comstarproducts.com/pub/media/wysiwyg/pdfs/40-370-furnace-cement-SDS.pdf
workshop	Comstar super heat fuel oil & diesel treatment	8 oz	Unopened: 7 Used: 1	https://www.comstarproducts.com/pub/media/wysiwyg/pdfs/60-129-super-heat-SDS.pdf
side room	Coolmaster refrigerant 410 A	25 lbs	Unopened: 3	https://refrigerants.com/wp-content/uploads/2019/12/SDS-R410A.pdf
workshop	Dap ready-mixed concrete patch	1 gal.	Used: 1	https://www.buildsite.com/pdf/dap/DAP-Ready-Mixed-Concrete-Patch-SDS-1875578.pdf
workshop	Diamond Crystal solar naturals ice melt	40 lbs	Used: 1	http://dws-salt.com/wp-content/uploads/2017/02/Solar-Naturals-Solar-Crystals-SDS-1.pdf
front room	Elmer's carpenter's wood filler	32 oz	Used: 1	https://www1.mscdirect.com/MSDS/MSDS00074/37754975-20190908.PDF
workshop	Heads Up super duty interior adhesive	16.5 oz	Used: 1	https://www.eastwood.com/images/library/52274Z.pdf
workshop	Hercules base hit II hydronic system sealant	12 fl oz	Used: 1	https://www.oatey.com/products/hercules-base-hit-ii--334249126
workshop	Hercules clear PVC Primer	32 fl oz	Used: 1	https://www.oatey.com/products/hercules-clear-pvc-primer-1621591729
workshop	Hercules Duck Butter pipe joint lubricant	2 lbs	Used: 1	http://s3.supplyhouse.com/manuals/1249544619389/Hercules-40-501-Material-Safety.pdf

Location	Product Description	Size (units)	Condition	Chemical Ingredient SDS Links (Also attached in separate PDF)
workshop	Hercules Haymaker Tankless water heater descaler	32 fl oz	Used: 1	https://oateyassetcdn.azureedge.net/assets/Document/raw_07_Haymaker%20V3_SDS_001.pdf
workshop	Hercules Jel-Flux 10-815	8 fl oz	Used: 1	https://www.3eonline.com/ImageServer/ImageViewer.aspx?id=C%2fX4OhcwilVvY1AdmSChZyNTcJrz%2fdzz0u2zKxaxC%2f9kIoI%2f4sI9kj4g07ujviYTnIX324HCfzWbfNbhoWyqCiyxY8lDRBs5wTrFwQgadKV9PeUYYet5m6Jk8A4bLtBXVHVtlyNdGkw%2bXL7Ml1F6TEyVhVccJFpHkHlswMANeGzdoIxMt0CcGL2SQOib0hL1pHehquK8HDNompCrF%2by1Ag%3d%3d
workshop	Hercules Mega Bubble leak detector	1 gal.	Used: 1	https://www.3eonline.com/ImageServer/ImageViewer.aspx?id=a%2bRBlT1uQIui%2fOXQH3rU7%2bWaDpQl3JvNPLMD8Gd9ExjB5KWf2xCTn6bktdXDojPygh3B3camxZ8IF%2bh3tk%2f%2b6TNXp%2b3JGJewTWYxyckjw0%2fWT5jHbYuYjOS7bnkvRxT60CK%2bZ39BpTZ00kgpQqGMJ3WVF1XNGcCL0elPJeyklUuejwcpSQ0Msqla7%2bJEq6t3o5H8nT5PWvVk22tMj%2bE%2bRA%3d%3d
workshop	Hercules Pro Dope pipe joint compound	8 fl oz	Used: 1	https://www.oatey.com/products/hercules-pro-dope-1185446064
workshop	Hercules purple PVC Primer	32 fl oz	Used: 1	https://www.oatey.com/products/hercules-purple-primer-for-pvc-and-cpvc-762785864
workshop	Hercules PVC medium body medium set plastic pipe cement	32 fl oz	Unused: 1	https://www.oatey.com/products/hercules-medium-body-set-clear-pvc-cement-157765147
workshop	HM spray adhesive 101	16 oz	Used: 4	
workshop	Hotshot heating oil treatment E-Zoil	16 oz	Used: 1	https://www.ezoil.com/documents//Hot%20Shot%20SDS%202018_2.pdf
workshop	Ingersoll-rand contractor series synthetic lubricant	.5 L	Used: 1	http://www1.mscdirect.com/MSDS/MSDS00018/74700683-20110708.PDF
workshop	Isuzu genuine parts transmission fluid	1 qt	Used: 1	https://www.isuzu.com.au/media/1252987/isuzu-atf-iii.pdf
workshop	Johnsen's synthetic Dot-3 brake fluid	12 fl oz	Used: 2	https://www.johnsens.com/content/products/sds/2232.pdf
workshop	Karnak 19 flashing cement	3 gal	Unopened: 1 Used: 1	https://global-uploads.webflow.com/5fdb6a6c2e47643f50c6794c/5fdb6a6c2e47642126c67962_19_01Dec19.pdf
front room	Krylon Colormaxx paint & primer	12 oz	Used: 1	https://www.krylon.com/document/SDS/en/US/724504016014
workshop	Krylon marking paint	15 oz	Used: 1	https://www.krylon.com/document/SDS/en/US/075685910012
workshop	Krylon semigloss	12 oz	Used: 1	https://www.krylon.com/document/SDS/en/US/724504015086
workshop	Loctite PL premium construction adhesive	10 oz	Used: 1	https://ypsswhdoal-a0d0758e9.dispatcher.hana.ondemand.com/SAP_GATEWAY/odata/SAP/YPSSWH_DOO_SRV/SafetyDataSheetSet(Appid='YPSSW_SDSUA_EXT',Matnr='1390595',Laiso='EN',Rvlid='US',Dmskey='')/$value
front room	Minwax wood finish	1 qt	Unopened: 1	https://www.minwax.com/document/SDS/en/US/027426222403
workshop	Mitco lubricating oil	1 qt	Unopened: 1	https://www.sidharvey.com/documents/Z0191.pdf
workshop	Mobil motor oil SAE 10W-30	1 qt	Used: 1	https://images.homedepot-static.com/catalog/pdfImages/c1/c1527ca5-f9f3-4aa1-b2ca-a255804938ff.pdf
workshop	Napa Antifreeze coolant Alugard	1 gal.	Unopened: 1	https://media.napaonline.com/is/content/GenuinePartsCompany/889651pdf
workshop	Olympic Interior Latex Satin Base 5	1 gal.	Used: 1	https://buyat.ppg.com/EHSDocumentManagerPublic/documentSearchInnerFrame.aspx?SearchAllPublicFolders=True&CodeCondition=IsEqualTo&CodeValue=00391342&Form=53bd5d15b2c796a10000&Language=en-US
workshop	Peak antifreeze and coolant	1 gal.	Unopened: 1 Used: 1	https://www.peakhd.com/wp-content/uploads/2020/05/PEAK-Antifreeze-Coolant-5050-Prediluted.pdf?x38462
workshop	Permatex aluminum anti-seize lubricant	8 fl oz	Used: 1	https://www.permatex.com/wp-content/uploads/tech_docs/sds/07_EU-English/80208_07.pdf
workshop	Plastikote durable acrylic lacquer car color	11 oz	Used: 2	https://www.plastikote.com/wservices/msds/asset/VALPK/EN/US/MDcxOTE1MjQ2MzY0/1624457200013.pdf
workshop	Plastikote rust not rust converter	8 fl oz	Used: 1	https://www.plastikote.com/wservices/msds/asset/VALPK/EN/US/MDcxOTE1MDA2MjM0/1624459737253.pdf
workshop	Power Service diesel kleen	1 qt	Used: 1	https://powerservice.com/wp-content/uploads/2020/11/Diesel-Kleen-Cetane-Boost-SDS-112520-Final.pdf

Location	Product Description	Size (units)	Condition	Chemical Ingredient SDS Links (Also attached in separate PDF)
workshop	PPG Speedhide Interior Latex Flat 6-70	1 gal.	Used: 1	https://buyat.ppg.com/EHSDocumentManagerPublic/documentSearchInnerFrame.aspx?SearchAllPublicFolders=True&CodeCondition=IsEqualTo&CodeValue=00408272&Form=53bd5d15b2c796a10000&Language=en-US
workshop	Premium décor water based acrylic enamel	1 qt	Used: 1	http://privatelabelpaint.net/wp-content/uploads/PDF/sds/specialty/pdl/PDL-70.pdf
workshop	Pride 500 50/50 premix antifreeze and coolant	1 gal.	Unopened: 2	http://prideantifreeze.com/assets/sdsp500.pdf
front room	Proform multi-use midweight joint compound	4.5 gal	Used: 1	https://nationalgypsum.widen.net/view/pdf/bjgqqb9lhk/SDS05002---Ready-Mix-Joint-Compounds.pdf?t.download=true&u=vtetuw
workshop	Pronto Supreme engine oil SAE 15W-40	1 qt	Unopened: 6	http://sds.prontooil.com/Access/Search.aspx?MXXDNO0=6&MXXDSL_S0=658PR&MXXDNOCount=1
workshop	Quicksilver power trim and steering fluid	8 fl oz	Unopened: 1	http://www.marineroutboards.com.au/media/328885/quicksilver%20premium%20power%20trim%20and%20steering%20fluid%20(au)en.pdf
workshop	Rustoleum protective enamel	8 fl oz	Used: 1	https://www.rustoleum.com/MSDS/ENGLISH/7792830.pdf
workshop	Rustomeum cold galvanizing compound	16 oz	Used: 2	https://www.rustoleum.com/MSDS/ENGLISH/206194T.pdf
workshop	Sew-rite machine oil	4 fl oz	Used: 1	https://www.msdsdigital.com/system/files/Sewing_Machine_Oil_Light.pdf
workshop	Seymour marker paint	13 oz	Used: 1	http://www.seymourpaint.com/wp-content/uploads/2014/11/20-957-SDS.pdf
workshop	Shell zone antifreeze	1 gal.	Used: 1	https://ebpaving.com/wp-content/uploads/2013/09/Shell-Zone-Anti-Freeze.pdf
workshop	Silco Sil-bond RTV 4500	10.3 fl oz	Unopened: 3	http://www.silco-inc.com/index_htm_files/SILCO_SDS%20RTV%204500%20-%20CLEAR.pdf
workshop	Silco Sil-bond RTV 6500	10.3 fl oz	Used: 1	http://www.silco-inc.com/index_htm_files/SILCO_SDS%20RTV%206500%20-%20RED.pdf
workshop	Simple green all-purpose cleaner	32 fl oz	Used: 1	https://cdn.simplegreen.com/downloads/SDS_EN-US_SimpleGreenAllPurposeCleaner.pdf
workshop	Splash windshield washer fluid	1 gal.	Unopened: 1	https://www.splashwash.com/application/files/3415/9431/3502/Original_Blue_Windshield_Wash_-20F_SDS.pdf
workshop	Still Pro sulfamic acid distiller cleaner	1 lb	Used: 1	https://www.discountfilterstore.com/media/docs/msds/dfs/PRO-PRODUCTS-ST16N.pdf
workshop	Sto Gold Coat waterproof air barrier membrane	18 L	Used: 1	https://www.stocorp.com/wp-content/content/Products_TechService/SDS/SDS%20English/SDS_81636_Sto%20Gold%20Coat_EN.pdf
workshop	Subzero pour point depressant	16 fl oz	Used: 1	https://www.globalp.com/wp-content/uploads/2019/10/SDS_SubZero_ih1AFS_IFS0209_USA_Eng.pdf
workshop	Tempo marine clear anti fouling paint	12 oz	Used: 1	
workshop	Tempo marine yellow zinc chromate primer	12 oz	Used: 1	
workshop	Thrift odorless drain cleaner	1 lb	Used: 1 Unopened: 2	http://thriftmarketing.com/pdf/Thrift%20MSDS.pdf
workshop	Tuff Stuff multi-purpose foam cleaner	22 oz	Used: 1	https://www.tuff-stuff.com/PDFEnglish/Tuff%20Stuff%20Multi-Purpose%20Foam%20Cleaner%20(aerosol)%20(2015-07).pdf
workshop	UGL latex base drylok extreme masonry waterproofer	5 gal	Used: 1	http://www.drylok.com/products/drylok-extreme-masonry-waterproofer/drylok-extreme-masonry-waterproofer-sds.pdf
workshop	Unifrax LDS Moldable Fiberfrax	11 fl oz	Used: 1	https://app.box.com/s/bfh5w2t65ihtsnmn9a7knnwu094lz1l9/file/334817548365
workshop	Unlabeled motor oil containers?	1 qt	Used: 5	
workshop	Unlabeled red antifreeze	1 gal.	Used: 3	
front room	USG All Purpose Sheetrock	4.5 gal	Used: 1	https://www.usg.com/content/dam/USG_Marketing_Communications/united_states/sds/usg-sheetrock-all-purpose-joint-compound-ready-mixed-sds-en-61000010001.pdf
front room	USG Easy Sand 90 Sheetrock	18 lbs	Used: 1	https://www.usg.com/content/dam/USG_Marketing_Communications/united_states/sds/usg-sheetrock-easy-sand-lightweight-setting-type-joint-compounds-sds-en-61000030002.pdf
workshop	USG Structo-lite basecoat	50 lbs	Unopened: 1 Used: 1	https://www.usg.com/content/dam/USG_Marketing_Communications/united_states/sds/usg-structo-lite-basecoat-plaster-sds-en-53000010015.pdf

Location	Product Description	Size (units)	Condition	Chemical Ingredient SDS Links (Also attached in separate PDF)
workshop	Utility Wonder Products paste soldering flux	1 lb	Used: 1	https://www.3eonline.com/ImageServer/ImageViewer.aspx?id=tKSsUtOBtG5IsnTOUJAjaCNTcJrz%2fdzz0u2zKxaxC%2f9kIoI%2f4sI9kj4g07ujviYTQ73Hy6o04LZkW4Z84k2kt6pkHrzmUmYTCM2VIs1MsmzqR2GkUgUKrK7L%2b8x8r8BrHIjPpfbIeH2NR63f3EnJEtO20yuzttLP1Jax1n%2fHtTi40bodLWPui7s9uyenR0TNconDFszoW6O4M1xJtZ3oBA%3d%3d
workshop	Valker CF-1 Chem flush	16 oz	Used: 3	
workshop	VHT Plate finish	11 oz	Used: 1	http://storage.googleapis.com/aam-files/2/vht/SP5251-VHT-English-SDS-2-US-01MAY2015-286.pdf
workshop	WD-40	1 gal.	Used: 1	https://files.wd40.com/pdf/sds/mup/wd-40-multi-use-product-aerosol-low-voc-sds-us-ghs.pdf
workshop	Western red enamel #49135	1 qt	Used: 1	http://library.westernplows.com/westernplows/pdffiles/part_49135_western_red_enamel_0002.pdf
front room	Zinsser B-I-N Primer	1 gal.	Used: 1	https://www.zinsseruk.com/core/wp-content/uploads/2016/12/ZN7020001-851-Zinsser-BIN-Primer-Sealer-Stain-Killer-gb.pdf

APPENDIX D

Sub-Slab Depressurization Site Management Form

BAYVILLE VILLAGE CLEANERS
290 BAYVILLE AVENUE
BAYVILLE, NEW YORK 11560
SUB-SLAB DEPRESSURIZATION SITE MANAGEMENT FORM

2021	Date	Yes	No	If No - Action Taken	Print Name of Inspector	Signature of Inspector
Discharge Pipe Clear of Obstruction	5/27/21	✓			CHRISTIAN	
General System Piping Inspection		✓				
RadonAway Fan Running Properly		✓				
RadonAway Alarm Operating Properly		✓				
Negative Pressure Monitoring		✓				
VOC PID Monitoring		✓				
Ambient Air Sampling		✓				
Influent Air Sampling		✓				
Effluent Air Sampling		✓				
Exterior Soil Vapor Gas Sampling		✓				
Groundwater Sampling		✓				
Replacement of Filter Media			✓	Not yet required		
Building Inventory Questionnaire		✓				
2022						
Discharge Pipe Clear of Obstruction						
General System Piping Inspection						
RadonAway Fan Running Properly						
RadonAway Alarm Operating Properly						
Negative Pressure Monitoring						
VOC PID Monitoring						
Ambient Air Sampling						
Influent Air Sampling						
Effluent Air Sampling						
Exterior Soil Vapor Gas Sampling						
Groundwater Sampling						
Replacement of Filter Media						
Building Inventory Questionnaire						
2023						
Discharge Pipe Clear of Obstruction						
General System Piping Inspection						
RadonAway Fan Running Properly						
RadonAway Alarm Operating Properly						
Negative Pressure Monitoring						
VOC PID Monitoring						
Ambient Air Sampling						
Influent Air Sampling						
Effluent Air Sampling						
Exterior Soil Vapor Gas Sampling						
Groundwater Sampling						
Replacement of Filter Media						
Building Inventory Questionnaire						

APPENDIX E

Safety Data Sheets (SDS) for On-Site Chemicals

SAFETY DATA SHEET

Revision Date: *05-Apr-2021* **Revision Number:** *7*

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **REGAL SELECT PREMIUM INTERIOR PAINT & PRIMER, MATTE FINISH BASE 1**

Product Code **5481X**

Alternate Product Code 5481X

Product Class Water thinned paint

Color All

Recommended use Paint

Restrictions on use No information available

Manufacturer
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 1-866-708-9180
www.benjaminmoore.com

Emergency Telephone
CHEMTREC: +1 703-741-5970 / 1-800-424-9300
+1 703-527-3887 (outside US & Canada)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity	Category 2

Label elements

Warning

Hazard statements
Suspected of damaging fertility or the unborn child

Appearance liquid **Odor** little or no odor

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other information
No information available

WARNING: This product contains isothiazolinone compounds at levels of <0.1%. These substances are biocides commonly found in most paints and a variety of personal care products as a preservative. Certain individuals may be sensitive or allergic to these substances, even at low levels.

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Titanium dioxide	13463-67-7	15 - 20
Nepheline syenite	37244-96-5	5 - 10
Limestone	1317-65-3	1 - 5
Diatomaceous earth	61790-53-2	1 - 5
Kaolin, calcined	92704-41-1	1 - 5
Glass, oxide	65997-17-3	1 - 5
Trimethylolpropane	77-99-6	0.1 - 0.5

4. FIRST AID MEASURES

General Advice No hazards which require special first aid measures.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water. Consult a physician if necessary.

Most Important Symptoms/Effects None known.

Notes To Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific Hazards Arising From The Chemical Closed containers may rupture if exposed to fire or extreme heat.

Sensitivity to mechanical impact No

Sensitivity to static discharge No

Flash Point Data

Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable

Flammability Limits In Air

Lower flammability limit:	Not applicable
Upper flammability limit:	Not applicable

NFPA **Health:** 2 **Flammability:** 0 **Instability:** 0 **Special:** Not Applicable

NFPA Legend
0 - Not Hazardous
1 - Slightly
2 - Moderate
3 - High
4 - Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

Other Information Prevent further leakage or spillage if safe to do so.

Environmental precautions See Section 12 for additional Ecological Information.

Methods for Cleaning Up Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Avoid breathing vapors, spray mists or sanding dust. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage Keep container tightly closed. Keep out of the reach of children.

Incompatible Materials No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL
Titanium dioxide	TWA: 10 mg/m³	15 mg/m³ - TWA
Limestone	N/E	15 mg/m³ - TWA 5 mg/m³ - TWA
Diatomaceous earth	N/E	- 20 mppcf - TWA
Glass, oxide	TWA: 1 fiber/cm3 respirable fibers: length >5 µm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination TWA: 5 mg/m³ inhalable particulate matter	N/E

Legend
ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits
OSHA - Occupational Safety & Health Administration Exposure Limits
N/E - Not Established

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.
Skin Protection Protective gloves and impervious clothing.
Respiratory Protection In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene Measures Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance liquid
Odor little or no odor
Odor Threshold No information available
Density (lbs/gal) 11.2 - 11.7
Specific Gravity 1.34 - 1.40
pH No information available

Viscosity (cps)	No information available
Solubility(ies)	No information available
Water solubility	No information available
Evaporation Rate	No information available
Vapor pressure	No information available
Vapor density	No information available
Wt. % Solids	55 - 65
Vol. % Solids	40 - 50
Wt. % Volatiles	35 - 45
Vol. % Volatiles	50 - 60
VOC Regulatory Limit (g/L)	0
Boiling Point (°F)	212
Boiling Point (°C)	100
Freezing point (°F)	32
Freezing Point (°C)	0
Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Autoignition Temperature (°F)	No information available
Autoignition Temperature (°C)	No information available
Decomposition Temperature (°F)	No information available
Decomposition Temperature (°C)	No information available
Partition coefficient	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not Applicable
Chemical Stability	Stable under normal conditions.
Conditions to avoid	Prevent from freezing.
Incompatible Materials	No materials to be especially mentioned.
Hazardous Decomposition Products	None under normal use.
Possibility of hazardous reactions	None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Principal Routes of Exposure Eye contact, skin contact and inhalation.

Acute Toxicity

Product Information No information available

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact May cause slight irritation.
Skin contact Substance may cause slight skin irritation. Prolonged or repeated contact may dry skin and cause irritation.
Inhalation May cause irritation of respiratory tract.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Sensitization No information available
Neurological Effects No information available.
Mutagenic Effects No information available.
Reproductive Effects Possible risk of impaired fertility. Possible risk of harm to the unborn child.
Developmental Effects No information available.
Target organ effects No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Other adverse effects No information available.
Aspiration Hazard No information available

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 58968 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Kaolin, calcined 92704-41-1	> 2000 mg/kg (Rat)	-	-
Trimethylolpropane 77-99-6	= 14100 mg/kg (Rat) = 14000 mg/kg (Rat)	-	> 0.29 mg/L (Rat) 4 h

Chronic Toxicity

Carcinogenicity
The information below indicates whether each agency has listed any ingredient as a carcinogen:.

Chemical name	IARC	NTP	OSHA
Titanium dioxide	2B - Possible Human Carcinogen		Listed

• Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

Legend
IARC - International Agency for Research on Cancer
NTP - National Toxicity Program

OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects
The environmental impact of this product has not been fully investigated.

Product Information

Acute Toxicity to Fish
No information available

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

Persistence / Degradability
No information available.

Bioaccumulation
There is no data for this product.

Mobility in Environmental Media
No information available.

Ozone
No information available

Component Information

Acute Toxicity to Fish

Titanium dioxide
LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

14. TRANSPORT INFORMATION

DOT Not regulated

ICAO / IATA Not regulated

IMDG / IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: United States Yes - All components are listed or exempt.
DSL: Canada Yes - All components are listed or exempt.

Federal Regulations

SARA 311/312 hazardous categorization

Acute health hazard	No
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

None

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following HAPs:

None

US State Regulations

California Proposition 65

WARNING: Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania
Titanium dioxide	X	X	X
Limestone	X	X	X
Diatomaceous earth		X	

Legend

X - Listed

16. OTHER INFORMATION

HMIS - **Health:** 2* **Flammability:** 0 **Reactivity:** 0 **PPE:** -

HMIS Legend
0 - Minimal Hazard
1 - Slight Hazard
2 - Moderate Hazard
3 - Serious Hazard
4 - Severe Hazard
* - Chronic Hazard
X - Consult your supervisor or S.O.P. for "Special" handling instructions.
Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Prepared By
Product Stewardship Department
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
800-225-5554

Revision Date: 05-Apr-2021
Revision Summary Not available

Disclaimer
The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

End of Safety Data Sheet

SAFETY DATA SHEET

Revision Date: *07-Apr-2021* **Revision Number:** *6*

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **REGAL SELECT PREMIUM INTERIOR PAINT & PRIMER, EGGSHELL FINISH BASE 1**

Product Code **5491X**

Alternate Product Code 5491X

Product Class Water thinned paint

Color All

Recommended use Paint

Restrictions on use No information available

Manufacturer
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 1-866-708-9180
www.benjaminmoore.com

Emergency Telephone
CHEMTREC: +1 703-741-5970 / 1-800-424-9300
+1 703-527-3887 (outside US & Canada)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity	Category 2

Label elements

Warning

Hazard statements
Suspected of damaging fertility or the unborn child

Appearance liquid **Odor** little or no odor

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other information
No information available

WARNING: This product contains isothiazolinone compounds at levels of <0.1%. These substances are biocides commonly found in most paints and a variety of personal care products as a preservative. Certain individuals may be sensitive or allergic to these substances, even at low levels.

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Titanium dioxide	13463-67-7	20 - 25
Nepheline syenite	37244-96-5	5 - 10
Kaolin, calcined	92704-41-1	1 - 5
Kaolin	1332-58-7	1 - 5
Silica amorphous	7631-86-9	1 - 5
Trimethylolpropane	77-99-6	0.1 - 0.5
Sodium C14-C16 olefin sulfonate	68439-57-6	0.1 - 0.5

4. FIRST AID MEASURES

General Advice No hazards which require special first aid measures.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water. Consult a physician if necessary.

Most Important Symptoms/Effects	None known.
Notes To Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific Hazards Arising From The Chemical	Closed containers may rupture if exposed to fire or extreme heat.
Sensitivity to mechanical impact	No
Sensitivity to static discharge	No

Flash Point Data

Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable

Flammability Limits In Air

Lower flammability limit:	Not applicable
Upper flammability limit:	Not applicable

NFPA **Health:** 2 **Flammability:** 0 **Instability:** 0 **Special:** Not Applicable

NFPA Legend
0 - Not Hazardous
1 - Slightly
2 - Moderate
3 - High
4 - Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
Other Information	Prevent further leakage or spillage if safe to do so.
Environmental precautions	See Section 12 for additional Ecological Information.
Methods for Cleaning Up	Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Avoid breathing vapors, spray mists or sanding dust. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage Keep container tightly closed. Keep out of the reach of children.

Incompatible Materials No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL
Titanium dioxide	TWA: 10 mg/m^3	15 mg/m^3 - TWA
Kaolin	TWA: 2 mg/m^3 particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	15 mg/m^3 - TWA 5 mg/m^3 - TWA
Silica amorphous	N/E	20 mppcf - TWA

Legend
ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits
OSHA - Occupational Safety & Health Administration Exposure Limits
N/E - Not Established

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.
Skin Protection Protective gloves and impervious clothing.
Respiratory Protection In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene Measures Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Odor	little or no odor
Odor Threshold	No information available
Density (lbs/gal)	11.1 - 11.5
Specific Gravity	1.33 - 1.38
pH	No information available
Viscosity (cps)	No information available
Solubility(ies)	No information available
Water solubility	No information available
Evaporation Rate	No information available
Vapor pressure	No information available
Vapor density	No information available

Wt. % Solids	55 - 65
Vol. % Solids	35 - 45
Wt. % Volatiles	35 - 45
Vol. % Volatiles	55 - 65
VOC Regulatory Limit (g/L)	0
Boiling Point (°F)	212
Boiling Point (°C)	100
Freezing point (°F)	32
Freezing Point (°C)	0
Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Autoignition Temperature (°F)	No information available
Autoignition Temperature (°C)	No information available
Decomposition Temperature (°F)	No information available
Decomposition Temperature (°C)	No information available
Partition coefficient	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not Applicable
Chemical Stability	Stable under normal conditions.
Conditions to avoid	Prevent from freezing.
Incompatible Materials	No materials to be especially mentioned.
Hazardous Decomposition Products	None under normal use.
Possibility of hazardous reactions	None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Principal Routes of Exposure Eye contact, skin contact and inhalation.

Acute Toxicity

Product Information No information available

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact	May cause slight irritation.
Skin contact	Substance may cause slight skin irritation. Prolonged or repeated contact may dry skin and cause irritation.
Inhalation	May cause irritation of respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Sensitization	No information available
Neurological Effects	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	Possible risk of impaired fertility. Possible risk of harm to the unborn child.
Developmental Effects	No information available.
Target organ effects	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Other adverse effects	No information available.
Aspiration Hazard	No information available

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	45116 mg/kg
ATEmix (dermal)	183055 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Kaolin, calcined 92704-41-1	> 2000 mg/kg (Rat)	-	-
Kaolin 1332-58-7	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Silica amorphous 7631-86-9	= 7900 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h
Trimethylolpropane 77-99-6	= 14100 mg/kg (Rat) = 14000 mg/kg (Rat)	-	> 0.29 mg/L (Rat) 4 h
Sodium C14-C16 olefin sulfonate 68439-57-6	= 2220 mg/kg (Rat)	> 740 mg/kg (Rabbit)	-

Chronic Toxicity

Carcinogenicity
The information below indicates whether each agency has listed any ingredient as a carcinogen:.

Chemical name	IARC	NTP	OSHA
Titanium dioxide	2B - Possible Human Carcinogen		Listed

• Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

Legend
IARC - International Agency for Research on Cancer
NTP - National Toxicity Program
OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects
The environmental impact of this product has not been fully investigated.

Product Information

Acute Toxicity to Fish
No information available

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

Persistence / Degradability
No information available.

Bioaccumulation
There is no data for this product.

Mobility in Environmental Media
No information available.

Ozone
No information available

Component Information

Acute Toxicity to Fish

Titanium dioxide
LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

14. TRANSPORT INFORMATION

DOT Not regulated

ICAO / IATA Not regulated

IMDG / IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: United States Yes - All components are listed or exempt.
DSL: Canada Yes - All components are listed or exempt.

Federal Regulations

SARA 311/312 hazardous categorization

Acute health hazard	No
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

None

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following HAPs:

None

US State Regulations

California Proposition 65

WARNING: Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania
Titanium dioxide	X	X	X
Kaolin	X	X	X
Silica amorphous	X		X

Legend
X - Listed

16. OTHER INFORMATION

HMIS - **Health:** 2* **Flammability:** 0 **Reactivity:** 0 **PPE:** -

HMIS Legend
0 - Minimal Hazard
1 - Slight Hazard
2 - Moderate Hazard
3 - Serious Hazard
4 - Severe Hazard
* - Chronic Hazard
X - Consult your supervisor or S.O.P. for "Special" handling instructions.
Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Prepared By
Product Stewardship Department
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
800-225-5554

Revision Date: 07-Apr-2021
Revision Summary Not available

Disclaimer
The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

End of Safety Data Sheet

SAFETY DATA SHEET

Revision Date: *08-Apr-2021* **Revision Number:** *5*

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	**REGAL SELECT PREMIUM INTERIOR PAINT & PRIMER, SEMI-GLOSS FINISH BASE 1**
Product Code	**5511X**
Alternate Product Code	5511X
Product Class	Water thinned paint
Color	All
Recommended use	Paint
Restrictions on use	No information available

Manufacturer
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 1-866-708-9180
www.benjaminmoore.com

Emergency Telephone
CHEMTREC: +1 703-741-5970 / 1-800-424-9300
+1 703-527-3887 (outside US & Canada)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity	Category 2

Label elements

Warning

Hazard statements
Suspected of damaging fertility or the unborn child

Appearance liquid **Odor** little or no odor

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other information
No information available

WARNING: This product contains isothiazolinone compounds at levels of <0.1%. These substances are biocides commonly found in most paints and a variety of personal care products as a preservative. Certain individuals may be sensitive or allergic to these substances, even at low levels.

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Titanium dioxide	13463-67-7	20 - 25
Kaolin	1332-58-7	1 - 5
Silica amorphous	7631-86-9	1 - 5
Sodium C14-C16 olefin sulfonate	68439-57-6	0.1 - 0.5
Trimethylolpropane	77-99-6	0.1 - 0.5

4. FIRST AID MEASURES

General Advice No hazards which require special first aid measures.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water. Consult a physician if necessary.

Most Important Symptoms/Effects None known.

Notes To Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific Hazards Arising From The Chemical Closed containers may rupture if exposed to fire or extreme heat.

Sensitivity to mechanical impact No

Sensitivity to static discharge No

Flash Point Data

Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable

Flammability Limits In Air

Lower flammability limit:	Not applicable
Upper flammability limit:	Not applicable

NFPA **Health:** 2 **Flammability:** 0 **Instability:** 0 **Special:** Not Applicable

NFPA Legend
0 - Not Hazardous
1 - Slightly
2 - Moderate
3 - High
4 - Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

Other Information Prevent further leakage or spillage if safe to do so.

Environmental precautions See Section 12 for additional Ecological Information.

Methods for Cleaning Up Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Avoid breathing vapors, spray mists or sanding dust. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage Keep container tightly closed. Keep out of the reach of children.

Incompatible Materials No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL
Titanium dioxide	TWA: 10 mg/m³	15 mg/m³ - TWA
Kaolin	TWA: 2 mg/m³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	15 mg/m³ - TWA 5 mg/m³ - TWA
Silica amorphous	N/E	20 mppcf - TWA

Legend
ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits
OSHA - Occupational Safety & Health Administration Exposure Limits
N/E - Not Established

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.
Skin Protection Protective gloves and impervious clothing.
Respiratory Protection In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene Measures Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Odor	little or no odor
Odor Threshold	No information available
Density (lbs/gal)	10.7 - 11.1
Specific Gravity	1.28 - 1.33
pH	No information available
Viscosity (cps)	No information available
Solubility(ies)	No information available
Water solubility	No information available
Evaporation Rate	No information available
Vapor pressure	No information available
Vapor density	No information available
Wt. % Solids	50 - 60
Vol. % Solids	35 - 45

Wt. % Volatiles	40 - 50
Vol. % Volatiles	55 - 65
VOC Regulatory Limit (g/L)	0
Boiling Point (°F)	212
Boiling Point (°C)	100
Freezing point (°F)	32
Freezing Point (°C)	0
Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Autoignition Temperature (°F)	No information available
Autoignition Temperature (°C)	No information available
Decomposition Temperature (°F)	No information available
Decomposition Temperature (°C)	No information available
Partition coefficient	No information available

10. STABILITY AND REACTIVITY

Reactivity Not Applicable

Chemical Stability Stable under normal conditions.

Conditions to avoid Prevent from freezing.

Incompatible Materials No materials to be especially mentioned.

Hazardous Decomposition Products None under normal use.

Possibility of hazardous reactions None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Principal Routes of Exposure Eye contact, skin contact and inhalation.

Acute Toxicity

Product Information No information available

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact May cause slight irritation.
Skin contact Substance may cause slight skin irritation. Prolonged or repeated contact may dry

	skin and cause irritation.
Inhalation	May cause irritation of respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Sensitization	No information available
Neurological Effects	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	Possible risk of impaired fertility. Possible risk of harm to the unborn child.
Developmental Effects	No information available.
Target organ effects	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Other adverse effects	No information available.
Aspiration Hazard	No information available

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	39132 mg/kg
ATEmix (dermal)	165371 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Kaolin 1332-58-7	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Silica amorphous 7631-86-9	= 7900 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h
Sodium C14-C16 olefin sulfonate 68439-57-6	= 2220 mg/kg (Rat)	> 740 mg/kg (Rabbit)	-
Trimethylolpropane 77-99-6	= 14100 mg/kg (Rat) = 14000 mg/kg (Rat)	-	> 0.29 mg/L (Rat) 4 h

Chronic Toxicity

Carcinogenicity

The information below indicates whether each agency has listed any ingredient as a carcinogen:.

Chemical name	IARC	NTP	OSHA
Titanium dioxide	2B - Possible Human Carcinogen		Listed

• Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

Legend

IARC - International Agency for Research on Cancer
NTP - National Toxicity Program
OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

The environmental impact of this product has not been fully investigated.

Product Information

Acute Toxicity to Fish
No information available

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

Persistence / Degradability
No information available.

Bioaccumulation
There is no data for this product.

Mobility in Environmental Media
No information available.

Ozone
No information available

Component Information

Acute Toxicity to Fish

Titanium dioxide
LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

14. TRANSPORT INFORMATION

DOT Not regulated

ICAO / IATA Not regulated

IMDG / IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: United States Yes - All components are listed or exempt.
DSL: Canada No - Not all of the components are listed.
One or more component is listed on NDSL.

Federal Regulations

SARA 311/312 hazardous categorization

Acute health hazard	No
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

None

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following HAPs:

None

US State Regulations

California Proposition 65

WARNING: Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania
Titanium dioxide	X	X	X
Kaolin	X	X	X
Silica amorphous	X		X

Legend
X - Listed

16. OTHER INFORMATION

HMIS - **Health:** 2* **Flammability:** 0 **Reactivity:** 0 **PPE:** -

HMIS Legend
0 - Minimal Hazard
1 - Slight Hazard
2 - Moderate Hazard
3 - Serious Hazard
4 - Severe Hazard
* - Chronic Hazard
X - Consult your supervisor or S.O.P. for "Special" handling instructions.
Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Prepared By
Product Stewardship Department
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
800-225-5554

Revision Date: 08-Apr-2021
Revision Summary Not available

Disclaimer
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End of Safety Data Sheet

SAFETY DATA SHEET

Date of issue/Date of revision 29 May 2021
Version 6.01

Section 1. Identification

Product name : 74825 OLYMPIC PAINT ASSURE INTERIOR LATEX SATIN BASE 5
Product code : 00391342
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Consumer applications, Professional applications, Used by spraying.
Use of the substance/ mixture : Coating.
Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)
Technical Phone Number : 1-800-441-9695 (8:00 am to 5:00 pm EST)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : CARCINOGENICITY - Category 1A

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 16.1% (oral), 42.2% (dermal), 16.1% (inhalation)

GHS label elements

Hazard pictograms :

Signal word : Danger
Hazard statements : May cause cancer.
Precautionary statements

Section 2. Hazards identification

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection.

Response : IF exposed or concerned: Get medical advice or attention.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Contains isothiazolinones. May cause allergic reaction. Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Emits toxic fumes when heated.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product name : 74825 OLYMPIC PAINT ASSURE INTERIOR LATEX SATIN BASE 5

Ingredient name	%	CAS number
Limestone	≥20 - ≤50	1317-65-3
crystalline silica, respirable powder (<10 microns)	<1.0	14808-60-7

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Section 4. First aid measures

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions : If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
limestone	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
crystalline silica, respirable powder (<10 microns)	**ACGIH TLV (United States, 3/2020).** TWA: 0.025 mg/m³ 8 hours. Form: Respirable **OSHA PEL Z3 (United States, 6/2016).** TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable **OSHA PEL (United States, 5/2018).** TWA: 50 µg/m³ 8 hours. Form: Respirable dust

Key to abbreviations

A	=	Acceptable Maximum Peak	S	=	Potential skin absorption
ACGIH	=	American Conference of Governmental Industrial Hygienists.	SR	=	Respiratory sensitization
C	=	Ceiling Limit	SS	=	Skin sensitization
F	=	Fume	STEL	=	Short term Exposure limit values
IPEL	=	Internal Permissible Exposure Limit	TD	=	Total dust
OSHA	=	Occupational Safety and Health Administration.	TLV	=	Threshold Limit Value
R	=	Respirable	TWA	=	Time Weighted Average
Z	=	OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances			

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Section 8. Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses with side shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
The respiratory protection shall be in accordance to 29 CFR 1910.134.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Various

Odor : Characteristic.

Odor threshold : Not available.

pH : 8.5

Melting point : Not available.

Boiling point : 100°C (212°F)

Flash point : Closed cup: Not applicable. [Product does not sustain combustion.]

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Flammability (solid, gas) : Not available.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits : Not available.

Evaporation rate : 0.05 (butyl acetate = 1)

Vapor pressure : 3.3 kPa (25 mm Hg)

Vapor density : Not available.

Relative density : 1.24

Density (lbs / gal) : 10.35

Solubility : Soluble in the following materials: cold water.

Partition coefficient: n-octanol/water : Not applicable.

Viscosity : Kinematic (40°C (104°F)): >21 mm^2/s (>21 cSt)

Volatility : 66% (v/v), 52.836% (w/w)

% Solid. (w/w) : 47.164

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: carbon oxides metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Limestone	LD50 Oral	Rat	6450 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Section 11. Toxicological information

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
crystalline silica, respirable powder (<10 microns)	-	1	Known to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
OSHA: +
Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
crystalline silica, respirable powder (<10 microns)	Category 1	inhalation	-

Target organs : Contains material which may cause damage to the following organs: lungs, upper respiratory tract, skin, eyes.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.

Section 11. Toxicological information

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. Contains isothiazolinones. May cause allergic reaction. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Limestone	6450	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Limestone	Acute LC50 >56000 mg/l	Fish	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Section 12. Ecological information

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class (es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

DOT : None identified.

IMDG : None identified.

IATA : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14. Transport information

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : CARCINOGENICITY - Category 1A

Composition/information on ingredients

Name	%	Classification
crystalline silica, respirable powder (<10 microns)	<1.0	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

⚠ **WARNING**: Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 1 * **Flammability** : 0 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 1 **Flammability** : 0 **Instability** : 0

Date of previous issue : **2/4/2021**

Organization that prepared the SDS : EHS

Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET

Date of issue/Date of revision 21 June 2021
Version 18

Section 1. Identification

Product name : 6-70 SPEEDHIDE INTERIOR LATEX FLAT-WHITE/PASTEL BASE
Product code : 00408272
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Consumer applications, Professional applications.
Use of the substance/ mixture : Coating.
Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)
Technical Phone Number : 1-800-441-9695 (8:00 am to 5:00 pm EST)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : CARCINOGENICITY - Category 1A

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 11.3% (oral), 33.3% (dermal), 13.5% (inhalation)

This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : May cause cancer.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection.

Response : IF exposed or concerned: Get medical advice or attention.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Contains isothiazolinones. May cause allergic reaction. Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Emits toxic fumes when heated.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product name : 6-70 SPEEDHIDE INTERIOR LATEX FLAT-WHITE/PASTEL BASE

Ingredient name	%	CAS number
Limestone	≥10 - ≤20	1317-65-3
titanium dioxide	≥10 - ≤20	13463-67-7
Kaolin	≥5.0 - ≤10	1332-58-7
Diatomaceous earth	≥1.0 - ≤5.0	61790-53-2
crystalline silica, respirable powder (<10 microns)	<1.0	14808-60-7

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions : If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Limestone	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
titanium dioxide	**OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States, 3/2020).** TWA: 10 mg/m³ 8 hours.
Kaolin	**ACGIH TLV (United States, 3/2020).** TWA: 2 mg/m³ 8 hours. Form: Respirable fraction **OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
Diatomaceous earth	**OSHA PEL Z3 (United States, 6/2016).** TWA: 20 mppcf 8 hours. TWA: 80 mg/m³ / (%SiO2) 8 hours.
crystalline silica, respirable powder (<10 microns)	**ACGIH TLV (United States, 3/2020).**

Section 8. Exposure controls/personal protection

	TWA: 0.025 mg/m³ 8 hours. Form: Respirable **OSHA PEL Z3 (United States, 6/2016).** TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable **OSHA PEL (United States, 5/2018).** TWA: 50 µg/m³ 8 hours. Form: Respirable dust

Key to abbreviations

A	=	Acceptable Maximum Peak	S	=	Potential skin absorption
ACGIH	=	American Conference of Governmental Industrial Hygienists.	SR	=	Respiratory sensitization
C	=	Ceiling Limit	SS	=	Skin sensitization
F	=	Fume	STEL	=	Short term Exposure limit values
IPEL	=	Internal Permissible Exposure Limit	TD	=	Total dust
OSHA	=	Occupational Safety and Health Administration.	TLV	=	Threshold Limit Value
R	=	Respirable	TWA	=	Time Weighted Average
Z	=	OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances			

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses with side shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
The respiratory protection shall be in accordance to 29 CFR 1910.134.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Characteristic.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 113.33°C (236°F) [Product does not sustain combustion.]

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Evaporation rate : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.36

Density (lbs / gal) : 11.35

Solubility : Soluble in the following materials: cold water.

Partition coefficient: n-octanol/water : Not applicable.

Viscosity : Kinematic (40°C (104°F)): >21 mm^2/s (>21 cSt)

Volatility : 69% (v/v), 50.33% (w/w)

% Solid. (w/w) : 49.67

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: carbon oxides metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Limestone	LD50 Oral	Rat	6450 mg/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Kaolin	LC50 Inhalation Dusts and mists	Rat	>5.07 mg/l	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
titanium dioxide	-	2B	-
Diatomaceous earth	-	3	-
crystalline silica, respirable powder (<10 microns)	-	1	Known to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
OSHA: +
Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
crystalline silica, respirable powder (<10 microns)	Category 1	inhalation	-

Target organs : Contains material which causes damage to the following organs: eyes.
Contains material which may cause damage to the following organs: lungs, upper respiratory tract, skin, stomach.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself. Contains isothiazolinones. May cause allergic reaction. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Limestone	6450	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Limestone titanium dioxide	Acute LC50 >56000 mg/l Acute LC50 >100 mg/l Fresh water	Fish Daphnia - Daphnia magna	96 hours 48 hours

Persistence and degradability

Section 12. Ecological information

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class (es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

DOT : None identified.

IMDG : None identified.

IATA : None identified.

14. Transport information

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : CARCINOGENICITY - Category 1A

Composition/information on ingredients

Name	%	Classification
titanium dioxide	≥10 - ≤20	CARCINOGENICITY - Category 2
crystalline silica, respirable powder (<10 microns)	<1.0	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

⚠ **WARNING**: Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 1 * **Flammability** : 1 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 1 **Flammability** : 1 **Instability** : 0

Date of previous issue : **5/30/2021**

Section 16. Other information

Organization that prepared the SDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

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Safety Data Sheet

Product identifier used on the label: PRONTO 15W-40 CK-4 12/1Q
Product Code: PR015KPL
Revision Date: 03-18-2021
Replaces: 12-12-2020

1. Identification

Product identifier used on the label: **PRONTO 15W-40 CK-4 12/1Q**
Product Code: PR015KPL

Other means of identification:
Synonyms: No data available

Recommended use of the chemical and restrictions on use:
Recommended use: Motor Oil

Restrictions on use: Uses other than those described above

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Warren Distribution, Inc.
950 S. 10th St., Suite 300
Omaha, NE 68108-3296

Phone number: +01 (800) 825-1235 +01 (402) 341-9397

E-mail address: sds@wd-wpp.com

Emergency phone number: CHEMTREC: +1 (800) 424-9300 International: +01 (703) 527-3887

2. Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

GHS Classification: Not classified as hazardous under OSHA

Hazards not otherwise classified: No data available

3. Composition/information on ingredients

Chemical Name	Common name and synonyms	CAS #	%
Petroleum distillates, hydrotreated heavy paraffinic	No data available	64742-54-7	80 - 100
Distillates, petroleum, solvent-dewaxed light paraffinic	No data available	64742-56-9	0.5 - 1.5
Petroleum distillates, solvent-refined heavy paraffinic	No data available	64741-88-4	0.5 - 1.5
Paraffin oils, petroleum, catalytic dewaxed heavy	No data available	64742-70-7	0.5 - 1.5
Distillates, petroleum, solvent-dewaxed heavy paraffinic	No data available	64742-65-0	0.5 - 1.5

Benzenamine, ar-nonyl-N-(nonylphenyl)-	No data available	36878-20-3	0.5 - 1.5
2-Butenedioic acid (E)-, di-C8-18-alkyl ester	No data available	68610-90-2	0.5 - 1.5
Alkyl phenol	No data available	125643-61-0	0.5 - 1.5

One or more hazardous ingredient(s) is claimed as a trade secret under the OSHA Hazard Communication Standard. The hazards of this (these) ingredient(s) are given on this SDS.

4. First-aid measures

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen.

Eye Contact: Use eye wash to remove a chemical from the eye. Flush the affected eye for at least fifteen minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Seek medical attention if irritation persists.

Skin Contact: Wash with soap and water. Get medical attention if irritation develops or persists.

Ingestion: Minimal risk of harm if swallowed. Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

Most important symptoms/effects, acute and delayed: No data available

Indication of immediate medical attention and special treatment needed, if necessary: No additional first aid information available.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media: Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire. Do not direct a stream of water into the hot burning liquid.

Unsuitable extinguishing media: No data available

Specific hazards arising from the chemical:	Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire.
Hazardous combustion products:	Carbon monoxide, Sulfur containing gases, Nitrogen containing gases, oxides of phosphorus, Hydrogen sulfide
Special protective equipment and precautions for fire-fighters:	Do not enter fire area without proper protection including self- contained breathing apparatus and full protective equipment. Use methods for the surrounding fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	No health affects expected from the clean up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this SDS.
Methods and materials for containment and cleaning up:	No special spill clean up considerations. Collect and discard in regular trash.

7. Handling and storage

Precautions for safe handling:	Mildly irritating material. Avoid unnecessary exposure. Follow all protective equipment recommendations provided in Section 8.
Conditions for safe storage, including any incompatibilities:	
Safe storage conditions:	Store in a cool dry place. Isolate from incompatible materials.
Materials to Avoid/Chemical Incompatibility:	Strong oxidizing agents

8. Exposure controls/personal protection

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available:

Chemical component	OSHA PEL	ACGIH TLV	ACGIH STEL	IDLH
Petroleum distillates, hydrotreated heavy paraffinic	5 mg/m3 TWA	5 mg/m3 TWA	10 mg/m3 STEL	No data available
Distillates, petroleum, solvent-dewaxed heavy paraffinic	5 mg/m3 TWA	5 mg/m3 TWA	10 mg/m3 STEL	No data available

Appropriate engineering controls:	Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort.

Individual protection measures, such as personal protective equipment:

Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.
Respirator Type(s):	None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.
Eye protection:	Wear safety glasses when handling this product if there is a likelihood of contact with eyes.
Skin protection:	Where use can result in skin contact, practice good personal hygiene and wear impervious gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves:	Neoprene, Nitrile
General hygiene conditions:	Follow all protective equipment recommendations provided in Section 8.

9. Physical and chemical properties

Appearance (physical state, color etc.):	
Physical state:	Liquid
Color:	Brown
Odor:	Mild
Odor Threshold:	Not determined
pH:	No data available
Melting point/freezing point:	
Melting Point:	No data available
Freezing point:	No data available
Initial boiling point and boiling range (°C):	No data available
Flash Point (°C):	224
Evaporation Rate:	No data available
Flammability (solid, gas):	No data available

Upper/lower flammability or explosive limits:	
Upper flammability or explosive limits:	Not established
Lower flammability or explosive limits:	Not established
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	0.88
Solubility(ies):	Negligible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition Temperature:	Not determined
Viscosity:	116.2

10. Stability and reactivity

Reactivity:	There are no known reactivity hazards associated with this product.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	None expected under standard conditions of storage.
Conditions to avoid (e.g., static discharge, shock, or vibration):	Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. Moisture (will lead to product performance degradation).
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	Carbon monoxide, Sulfur containing gases, Nitrogen containing gases, oxides of phosphorus, Hydrogen sulfide

11. Toxicological information

Description of the various toxicological (health) effects and the available data used to identify those effects:

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	Skin contact, Inhalation, Ingestion, Eye contact
Symptoms related to the physical, chemical and toxicological characteristics:	No data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure:

Ingestion:	Estimated to be > 5.0 g/kg.
Skin Contact:	This material is likely to be slightly irritating to skin based on animal data.Can cause minor skin irritation, defatting, and dermatitis.
Absorption:	Estimated to be > 5.0 g/kg; practically non-toxic
Inhalation:	No hazard in normal industrial use. Likely to be practically non-toxic based on animal data.
Eye Contact:	This material is likely to be non-irritating to eyes based on animal data.
Sensitization:	Non-hazardous under Respiratory Sensitization category.No data available to indicate product or components may be a skin sensitizer.
Mutagenicity:	No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
Carcinogenicity:	Not expected to cause cancer. This product meets the IP-346 criteria of <3% PAH's and is not considered a carcinogen by the International Agency for Research on Cancer.
Reproductive toxicity	Not known or reported to cause reproductive or developmental toxicity.
STOT-single exposure:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.
Other information:	None known.

Numerical measures of toxicity (such as acute toxicity estimates):

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Benzenamine, ar-nonyl-N-(nonylphenyl)-	Oral LD50 Rat > 5000 mg/kg	Dermal LD50 Rabbit > 2000 mg/kg	
2-Butenedioic acid (E)-, di-C8-18-alkyl ester	Oral LD50 Rat > 5000 mg/kg	Dermal LD50 Rabbit > 5000 mg/kg	
Distillates, petroleum, solvent-dewaxed light paraffinic	Oral LD50 Rat > 5000 mg/kg	Dermal LD50 Rabbit > 5000 mg/kg	Inhalation LC50 (4h) Rat > 5399 MG/M3
Petroleum distillates, solvent-refined heavy paraffinic	Oral LD50 Rat > 5000 mg/kg	Dermal LD50 Rabbit > 2000 mg/kg	Inhalation LC50 (4h) Rat > 5530 MG/M3
Paraffin oils, petroleum, catalytic dewaxed heavy	Oral LD50 Rat > 15000 mg/kg	Dermal LD50 Rabbit > 5000 mg/kg	

Distillates, petroleum, solvent-dewaxed heavy paraffinic	Oral LD50 Rat > 15000 mg/kg	Dermal LD50 Rabbit > 5000 mg/kg	Inhalation LC50 (4h) Rat > 2400 MG/M3
Petroleum distillates, hydrotreated heavy paraffinic	Oral LD50 Rat > 15000 mg/kg	Dermal LD50 Rabbit > 5000 mg/kg	

Is the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA:

Chemical Name	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen
There are no components that are known or reported to cause cancer.			

12. Ecological information

Ecotoxicity (aquatic and terrestrial, where available): Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.

Ecological Toxicity Data:

Chemical Name	CAS #	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
Alkyl phenol	125643-61-0	No data available	No data available	LC50 (96h) DANIO RERIO > 1000 mg/L
2-Butenedioic acid (E)-, di-C8-18-alkyl ester	68610-90-2	EC50 (48h) Daphnia magna > 100 mg/L	No data available	LC50 (96h) BRACHYDANIO RERIO 2200 mg/L
Benzenamine, ar-nonyl-N-(nonylphenyl)-	36878-20-3	EC50 (48h) Daphnia magna > 100 mg/L	EC50 (72h) Green Algae > 100 mg/L	LC50 (96h) Pimephales promelas (Fathead Minnow) > 1000 mg/L
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9	LC50 (48h) > 1000 mg/L	No data available	LC50 (96h) > 5000 mg/L
Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0	EC50 (48h) Daphnia magna > 1000 mg/L	No data available	LC50 (96h) Rainbow Trout > 5000 mg/L
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	EC50 (48h) Daphnia magna > 1000 mg/L	No data available	LC50 (96h) Rainbow Trout > 5000 mg/L
Petroleum distillates,	64742-54-7	EC50 (48h) Daphnia	No data available	LC50 (96h)

hydrotreated heavy paraffinic		magna > 1000 mg/L		Rainbow Trout > 5000 mg/L

Persistence and degradability: Biodegrades slowly.

Bioaccumulative potential: Bioconcentration may occur.

Mobility in soil: This material is expected to have essentially no mobility in soil. It absorbs strongly to most soil types.

Other adverse effects (such as hazardous to the ozone layer): None known.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: Spent or discarded material is non-hazardous according to environmental regulations.

Contaminated packaging: Recycle containers whenever possible.

14. Transport information

Carriage of dangerous goods by road (DOT), rail or inland waterways:

DOT Basic Description: Not regulated for road transport

International carriage of dangerous goods by sea (IMDG/IMO):

UN number: Not regulated by IMDG

UN Proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group, if applicable: Not applicable

International carriage of dangerous goods by air (IATA):

UN number: Not regulated by IATA

UN Proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group, if applicable: Not applicable

Environmental hazards (e.g., Marine pollutant (Yes/No)):	None.
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	No data available
Special precautions which a user needs to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises:	No data available

15. Regulatory information

Safety, health and environmental regulations specific for the product in question:

TSCA Status: All components of this material are on the Active US TSCA Inventory or are exempt.

Regulated Components:

Chemical Name	CAS #	CERCLA	Sara EHS	Sara 313	U.S. HAP
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	N	N	N	N
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9	N	N	N	N
Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0	N	N	N	N
Paraffin oils, petroleum, catalytic dewaxed heavy	64742-70-7	N	N	N	N
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	N	N	N	N
Alkyl phenol	125643-61-0	N	N	N	N
2-Butenedioic acid (E)-, di-C8-18-alkyl	68610-90-2	N	N	N	N

ester					
Benzenamine, ar-nonyl-N-(nonylphenyl)-	36878-20-3	N	N	N	N

Chemical Name	CAS #	California Prop 65 - Cancer	California Prop 65 - Dev. Toxicity	California Prop 65 - Reprod fem	California Prop 65 - Reprod male
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	N	N	N	N
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9	N	N	N	N
Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0	N	N	N	N
Paraffin oils, petroleum, catalytic dewaxed heavy	64742-70-7	N	N	N	N
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	N	N	N	N
Alkyl phenol	125643-61-0	N	N	N	N
2-Butenedioic acid (E)-, di-C8-18-alkyl ester	68610-90-2	N	N	N	N
Benzenamine, ar-nonyl-N-(nonylphenyl)-	36878-20-3	N	N	N	N

Chemical Name	CAS #	Massachusetts RTK List	New Jersey RTK List	Pennsylvania RTK List	Rhode Island RTK List	Minnesota Hazardous Substance List
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	N	N	N	N	N

Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9	Y	N	N	N	N
Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0	N	N	N	N	N
Paraffin oils, petroleum, catalytic dewaxed heavy	64742-70-7	Y	N	N	N	N
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	N	N	N	N	N
Alkyl phenol	125643-61-0	N	N	N	N	N
2-Butenedioic acid (E)-, di-C8-18-alkyl ester	68610-90-2	N	N	N	N	N
Benzenamine, ar-nonyl-N-(nonylphenyl)-	36878-20-3	N	N	N	N	N

16. Other information, including date of preparation or last revision.

SDS Prepared by: MCHONGOOFAFA

Revision Date: 03-18-2021

Revision Number: 58

Reason for revision: Activated by Document Formulation Generation
References: No data available
Other Info: No data available

Disclaimer: This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in

this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Safety Data Sheet
19 Asphalt Cements/Mastics/Coatings

SDS Revision Date: **12/01/2019**

1. Identification

1.1. Product identifier

Product Identity	19 Asphalt Cements/Mastics/Coatings
Alternate Names	19 Asphalt Cements/Mastics/Coatings

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	See Technical Data Sheet.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	Karnak Corporation 330 Central Ave. Clark, NJ 07066 USA
Emergency	www.karnakcorp.com
CHEMTREC (USA)	(800) 424-9300
24 hour Emergency Telephone No.	OUTSIDE THE U.S AND CANADA 1-202-483-7616
Customer Service: Karnak Corporation	1-800-526-4236

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Liq. 3;H226	Flammable liquid and vapor.
Eye Irrit. 2;H319	Causes serious eye irritation.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Carc. 2;H351	Suspected of causing cancer.
STOT RE 1;H372	Causes damage to organs through prolonged or repeated exposure. Specific Target Organs: (central nervous system)

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

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Danger

H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.

Prevention :

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
P235 Keep cool.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical / ventilating / light / equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response :

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P308+313 IF exposed or concerned: Get medical advice / attention.
P314 Get Medical advice / attention if you feel unwell.
P321 Specific treatment (see information on this label).
P331 Do NOT induce vomiting.
P333+313 If skin irritation or a rash occurs: Get medical advice / attention.
P337+313 If eye irritation persists: Get medical advice / attention.
P363 Wash contaminated clothing before reuse.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

Storage :

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal :

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Asphalt (petroleum) CAS Number: 0008052-42-4	50 - 75	Not Classified	1 2
Stoddard solvent CAS Number: 0008052-41-3	10 - 25	STOT RE 1;H372 Asp. Tox. 1;H304	1 2
Kaolin CAS Number: 0001332-58-7	10 - 25	Eye Irrit. 2;H319	1 2
Cellulose CAS Number: 0009004-34-6	1.0 - 10	Not Classified	1 2
Magnesium aluminium silicate CAS Number: 0012174-11-7	1.0 - 10	Carc. 2;H351	1
Styrene-Butadiene polymer CAS Number: 0009003-55-8	0.10 - 1.0	Skin Sens. 1;H317	1

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Skin: Moderately irritating.
Ingestion: Abdominal irritation.
Inhalation: If enlivened by primer or heat, over exposure to fume could cause irritation, dizziness.

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Inhalation	If respiratory discomfort occurs, remove to fresh air. If discomfort continues, administer oxygen and get medical attention.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	If this product comes in contact with skin, remove material with mineral oil, then wash with soap and plenty of water.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview	Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure to these products. Exposure to high concentrations of fumes may have an anesthetic effect. Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.
Eyes	Causes serious eye irritation.
Skin	May cause an allergic skin reaction.

5. Fire-fighting measures

5.1. Extinguishing media

Class "B" dry chemical, carbon dioxide, or other suitable extinguishing material such as dry sand. Do not use halogenated agents. When flames have been eliminated, cover residue with dry extinguishing agent or dry sand and allow it to remain undisturbed until it has cooled. If fire appears to increase in intensity, stop using these agents. Apply Class "D" extinguishing agent or more dry, inert, granular material. Ring fire with extinguishing material and allow the fire to burn out.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of carbon, various hydrocarbon fragments

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust / fume / gas / mist / vapors / spray.

Do not get in eyes, on skin, or on clothing.

5.3. Advice for fire-fighters

When heated above flash point, material will release flammable vapors which can burn or be explosive in confined spaces if ignited. Do not mix with strong oxidants such as liquid chlorine or concentrated oxygen.

If the fire does not respond to above agents or they are not available, use foam or water FOG as a last resort. Water may also be used to cool exposed, but not burning, containers. These products may float and be re-ignited on top of water.
Closed containers may explode in a fire. Keep containers cool and remove to a safe location.
In a confined space, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face-piece and protective clothing. Persons without respiratory protection should leave area.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Contain spill as quickly as possible. Keep flowing material away from heat, sparks, or open flames. Do not smoke near a spill. Use clay (Oil Dry™), sand, earth, etc. to absorb the spill. Put material into a suitable steel drum which can be closed securely.

7. Handling and storage

7.1. Precautions for safe handling

The requirements of the Highly Flammable Liquids and Liquefied Petroleum Gases Regulations apply if the flashpoint is between 21°C and 32°C.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Store in cool, dry area, away from heat, sparks and naked flames.
Keep containers sealed when not in use.

Keep container closed when not in use. Store in a dry ventilated area. Maintain package labeling during storage.

Incompatible materials: Strong oxidizing agents

Vapors are heavier than air and may travel along the ground or be moved by ventilation to locations distant from the point of material handling. To prevent fumes from entering buildings or confined areas, close all air intake sources near the material handling or the work area. To prevent ignition, avoid smoking, keep away from heat, open flames and sources of static or electrical sparking. Use explosion proof motors and equipment. Tank trucks or other containers should be grounded and/or bonded when the material is transferred.
Avoid prolonged or repeated inhalation of vapors or spray mists. Avoid prolonged or repeated skin contact. Adhere to good hygienic practices. Avoid open flames. Use with adequate ventilation.
Store in a cool, dry place, out of direct sunlight and away from heat, sparks, and flame.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0001332-58-7	Kaolin	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	TWA: 2 mg/m3
		NIOSH	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		Supplier	No Established Limit
0008052-41-3	Stoddard solvent	OSHA	TWA 500 ppm (2900 mg/m3)
		ACGIH	TWA: 290 mg/m3STEL: 580 mg/m3
		NIOSH	TWA 350 mg/m3 C 1800 mg/m3 [15-minute]
		Supplier	No Established Limit
0008052-42-4	Asphalt (petroleum)	OSHA	No Established Limit
		ACGIH	TWA: 0.5 mg/m32B
		NIOSH	Ca C 5 mg/m3 [15-minute]
		Supplier	No Established Limit
0009003-55-8	Styrene-Butadiene polymer	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0009004-34-6	Cellulose	OSHA	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	TWA: 10 mg/m3
		NIOSH	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		Supplier	No Established Limit
0012174-11-7	Magnesium aluminium silicate	OSHA	No Established Limit
		ACGIH	No Established Limit

		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0001332-58-7	Kaolin	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0008052-41-3	Stoddard solvent	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0008052-42-4	Asphalt (petroleum)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;
0009003-55-8	Styrene-Butadiene polymer	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0009004-34-6	Cellulose	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0012174-11-7	Magnesium aluminium silicate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory In case of burning material, use SCAB.

Eyes Safety glasses or face shield for liquid material.

Skin Protective clothing as necessary to prevent wetting of the skin. Solvent-resistant gloves.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Long sleeves and impervious clothing to protect against splashing.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Dark Liquid
Odor	Mild Petroleum
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	NA
Initial boiling point and boiling range	300-350F
Flash Point	(PMCC): 104F min.
Evaporation rate (Ether 1)	(Butyl Acetate=1)@77F: 0.2
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** Not Measured **Upper Explosive Limit:** Not Measured
Vapor pressure (Pa)	3
Vapor Density	(Air=1): > 4
Specific Gravity	(H2O=1): 0.8 - 1.2
Solubility in Water	Insoluble
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Excessive heat and open flame.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Oxides of carbon, various hydrocarbon fragments

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11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Asphalt (petroleum) - (8052-42-4)	No data available	No data available	No data available	No data available	No data available
Stoddard solvent - (8052-41-3)	No data available	No data available	No data available	No data available	No data available
Kaolin - (1332-58-7)	No data available	No data available	No data available	No data available	No data available
Cellulose - (9004-34-6)	5,000.00, Rat - Category: 5	2,000.00, Rabbit - Category: 4	No data available	No data available	No data available
Magnesium aluminium silicate - (12174-11-7)	No data available	No data available	No data available	No data available	No data available
Styrene-Butadiene polymer - (9003-55-8)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	2	Suspected of causing cancer.

Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	1	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Asphalt (petroleum) - (8052-42-4)	Not Available	Not Available	Not Available
Stoddard solvent - (8052-41-3)	Not Available	Not Available	Not Available
Kaolin - (1332-58-7)	Not Available	Not Available	Not Available
Cellulose - (9004-34-6)	100.00, Fish (Piscis)	Not Available	Not Available
Magnesium aluminium silicate - (12174-11-7)	Not Available	Not Available	Not Available
Styrene-Butadiene polymer - (9003-55-8)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Bury in an approved landfill according to federal, state, and local regulations. Empty containers that have been completely emptied and the residue allowed to dry are not considered hazardous waste.

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14. Transport information

	DOT (Domestic Ground Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Exemption: 173.150(f)(2): FP >= 38 °C (100 °F), no other hazard class, reclassed as combustible liquid, non-bulk is not regulated	UN1999	UN1999
14.2. UN proper shipping name		Tars, liquid including road oils and cutback bitumens	Tars, liquid including road oils and cutback bitumens
14.3. Transport hazard class(es)		**IMDG:** 3	**Air Class:** 3
14.4. Packing group		III	III
14.5. Environmental hazards		EmS No. F-E, S-E	ERG Guide 130
14.6. Special precautions for user		**IMDG:** Marine Pollutant: No ERG Guide 130	

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification B3 D2A

US EPA Tier II Hazards

Fire: Yes
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and R s:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

California Proposition 65 (0.0%):

⚠ WARNING: This product can expose you to chemicals including asphalt, which is known to the State of California to cause cancer and/or reproductive hazards. For more information, go to www.P65Warnings.ca.gov.

New ersey RTK Substances (1%):

Asphalt (petroleum)

Cellulose

Kaolin

Stoddard solvent

Pennsylvania RTK Substances (1%):

Asphalt (petroleum)

Cellulose

Kaolin

Stoddard solvent

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H304 May be fatal if swallowed and enters airways.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The information has been completed to the best of our knowledge and is believed to be accurate and reliable as from the date indicated. However, no warranty is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy oneself as to the suitability and completeness of such information for his own particular use.

End of Document

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2014 Revised On 09/29/2014

1 Identification of the substance and manufacturer

Trade name: STRIPE ORANGE FLUORESCENT (SOLVENT)

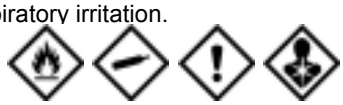
Product code: 0000200957
Product category PC9a Paints and coatings.
Manufacturer/Supplier: Seymour of Sycamore
917 Crosby Avenue
Sycamore, IL 60178
Phone: 815-895-9101 www.seymourpaint.com
Emergency telephone number: CHEMTEL 1-800-255-3924, 813-248-0585 *if located outside the U.S.*

2 Hazard(s) identification

Classification of the substance or mixture

Flam. Aerosol 1	H222	Extremely flammable aerosol.
Press. Gas	H280	Contains gas under pressure; may explode if heated.
Carc. 2	H351	Suspected of causing cancer.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.
Eye Irrit. 2A	H319	Causes serious eye irritation.
STOT SE 3	H335	May cause respiratory irritation.

GHS Hazard pictograms



GHS02 GHS04 GHS07 GHS08

Signal word Danger
Hazard statements
Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Suspected of causing cancer.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Obtain special instructions before use.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapours/spray.
Use personal protective equipment as required.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
If eye irritation persists: Get medical advice/attention.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
1317-65-3	Calcium Carbonate	27.11%
74-98-6	propane	15.74%
64742-89-8	VM&P Naphtha	10.35%
106-97-8	n-butane	9.25%
64742-47-8	Mineral Spirits	8.14%
142-82-5	heptane	6.46%
110-19-0	isobutyl acetate	5.41%
872-50-4	N-methyl-2-pyrrolidone	0.36%

4 First-aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Remove contaminated clothing. Wash exposed area with soap and water.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water.
Rinse mouth with water. Do not induce vomiting.

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Trade name: STRIPE ORANGE FLUORESCENT (SOLVENT)

(Contd. of page 1)

Most important symptoms and effects: Dizziness
Indication of any immediate medical attention needed: No further relevant information available.

5 Fire-fighting measures

Extinguishing agents: CO_2, extinguishing powder or water spray. Fight larger fires with water spray.
Special hazards: Can form explosive gas-air mixtures.
Protective equipment for firefighters: A respiratory protective device may be necessary.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Methods and material for containment and cleaning up: Ensure adequate ventilation.

7 Handling and storage

Precautions for safe handling Use only in well ventilated areas.
Storage requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions.
Store locked up.

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

74-98-6 propane	
PEL (USA)	Long-term value: 1800 mg/m³, 1000 ppm
REL (USA)	Long-term value: 1800 mg/m³, 1000 ppm
TLV (USA)	refer to Appendix F
106-97-8 n-butane	
REL (USA)	Long-term value: 1900 mg/m³, 800 ppm
TLV (USA)	Short-term value: 2370 mg/m³, 1000 ppm
142-82-5 heptane	
PEL (USA)	Long-term value: 2000 mg/m³, 500 ppm
REL (USA)	Long-term value: 350 mg/m³, 85 ppm Ceiling limit value: 1800* mg/m³, 440* ppm *15-min
TLV (USA)	Short-term value: 2050 mg/m³, 500 ppm Long-term value: 1640 mg/m³, 400 ppm
110-19-0 isobutyl acetate	
PEL (USA)	Long-term value: 700 mg/m³, 150 ppm
REL (USA)	Long-term value: 700 mg/m³, 150 ppm
TLV (USA)	Long-term value: 713 mg/m³, 150 ppm
872-50-4 N-methyl-2-pyrrolidone	
WEEL (USA)	Long-term value: 10 ppm Skin

Ingredients with biological limit values:

872-50-4 N-methyl-2-pyrrolidone	
BEI (USA)	100 mg/L Medium: urine Time: end of shift Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone

Hygienic protection: Keep away from foodstuffs and animal feed. Wash hands after use.
Immediately remove all soiled and contaminated clothing.
Wash hands after use.
Do not eat or drink while working.
Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure exists, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygeine.
Hand protection: Protective gloves. The glove material must be impermeable and resistant to the substance.
Eye protection: Tightly sealed goggles

9 Physical and chemical properties

Appearance: Aerosol.

(Contd. on page 3)

Safety Data Sheet
acc. to OSHA HCS

Trade name: STRIPE ORANGE FLUORESCENT (SOLVENT)

(Contd. of page 2)

Odor:	Aromatic
Odor threshold:	Not determined.
pH-value:	Not determined.
Melting point/Melting range	Undetermined.
Boiling point:	-44 °C (-47 °F)
Flash point:	-19 °C (-2 °F)
Flammability (solid, gas):	Extremely flammable.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not self-igniting.
Danger of explosion:	In use, may form flammable/explosive vapour-air mixture.
Lower Explosion Limit:	1.7 Vol %
Upper Explosion Limit:	10.9 Vol %
Vapor pressure:	Not determined.
Relative Density:	Between 0.77 and 0.85 (Water equals 1.00)
Vapour density	Not determined.
Evaporation rate	Not applicable.
Partition coefficient: n-octonal/water:	Not determined.
Solubility:	Not determined.
Viscosity:	Not determined.
VOC content:	502.8 g/l / 4.20 lb/gl
VOC content (less exempt solvents):	56.9 %
MIR Value:	0.62
Solids content:	43.1 %

10 Stability and reactivity

Reactivity:	Stable at normal temperatures.
Conditions to avoid:	Do not allow can to exceed 120 degrees Fahrenheit. Do not warehouse in subfreezing temperatures.
Chemical stability:	Not fully evaluated.
Possibility of hazardous reactions:	No dangerous reactions known.
Incompatible materials:	No further relevant information available.
Hazardous decomposition:	No dangerous decomposition products known.

11 Toxicological information

LD/LC50 values that are relevant for classification:		
106-97-8 n-butane		
Inhalative	LC50/4 h	658 mg/l (rat)
110-19-0 isobutyl acetate		
Oral	LD50	4763 mg/kg (rbt)
872-50-4 N-methyl-2-pyrrolidone		
Oral	LD50	3600 mg/kg (rat)
Dermal	LD50	8000 mg/kg (rbt)

Information on toxicological effects: No data available.
Sensitization: No sensitizing effects known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)
None of the ingredients is listed.

NTP (National Toxicology Program)
None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

12 Ecological information

Aquatic toxicity:	Hazardous for water, do not empty into drains.
Persistence and degradability:	The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.
Other adverse effects:	No further relevant information available.

13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2014 Revised On 09/29/2014

Trade name: STRIPE ORANGE FLUORESCENT (SOLVENT)

(Contd. of page 3)

Recommendation: Completely empty cans should be recycled.

14 Transport information

UN-Number UN1950
DOT Aerosols, flammable
Transport hazard class(es):
Class 2.1
Marine pollutant: Yes
Symbol (fish and tree)
Special marking (ADR): Symbol (fish and tree)
Special precautions for user: Warning: Gases
EMS Number: F-D,S-U
Packaging Group: --
UN "Model Regulation": UN1950, Aerosols, ENVIRONMENTALLY HAZARDOUS, 2.1

15 Regulatory information

SARA Section 355 (extremely hazardous substances):
None of the ingredients in this product are listed.

SARA Section 313 (Specific toxic chemical listings):
None of the ingredients is listed.

CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

100-41-4	ethyl benzene

EPA:

142-82-5	heptane	D
110-19-0	isobutyl acetate	D

16 Other information

Contact: Regulatory Affairs

Safety Data Sheet
FURNACE CEMENT (M) NON-ASBESTOS

SDS Revision Date: 03/04/2020

1. Identification

1.1. Product identifier

Product Identity	FURNACE CEMENT (M) NON-ASBESTOS
Alternate Names	40-355, 40-360, 40-365, 40-370, 40-371, 40-375 40-377, Blended Formula, FURNACE CEMENT (M) NON-ASBESTOS

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	See Technical Data Sheet.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	ComStar International Inc. 20-45 128th Street, College Point, NY 11356
Telephone No.	718-445-7900 800-328-0142 Fax: 718-353-5998

Emergency 24 HR response No: 1-800-424-9300 & 703-527-3887 CHEMTREC

Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Irrit. 2; H315 Causes Skin Irritation

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Warning

.

[Prevention]:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P271 Use only outdoors or in a well-ventilated area.

[Response]:

P312 Call a POISON CENTER or doctor / physician if you feel unwell.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
SODIUM SILICATE CAS#: 1344-09-8	>5	Skin Irrit. 2 Eye Irrit. 2	[1][2]
BENTONITE CAS#: 1302-78-9	>60	Not Classified	[1]
ETHYLENE GLYCOL CAS#: 107-21-1	<10	Acute toxicity, Oral 4, H302	[1]
TALC CAS#: 14807-96-6	>20	Acute Toxicity, Inhalation 4 Skin irritation 3 Specific target organ toxicity - single exposure 3	[1][2]
MICA CAS#: 12001-26-2	>10	Skin Irrit 2 Eye Irrit 2B Carcinogenicity (inhalation) 1A SPECIFIC Target (inhalation) 1	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview	No specific symptom data available. See section 2 for further details.
Inhalation	Harmful if inhaled.

5. Fire-fighting measures

5.1. Extinguishing media

Water fog, C02, dry chemical, universal foams

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus and protective clothing.

ERG Guide No. ---

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

For Large Spills: Flush spill area with water spray. Prevent run-off from entering drains, sewers, or streams, collect run-off.

7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes and skin. Wash thoroughly after handling. Do not breathe vapors or fumes.

Prevention of Fire and Explosion: Keep from contact with oxidizing materials, alkalis and acids. Store away from heat, sunlight and moisture.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Oxidizing agents, alkali metals

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
1344-09-08	SODIUM SILICATE	OSHA	2 mg/m3
		ACGIH	2 mg/m3
		NIOSH	No Established Limit
		Supplier	No Established Limit
1302-78-9	BENTONITE	OSHA	27 mppcf
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
107-21-1	ETHYLENE GLYCOL	OSHA	No Established Limit
		ACGIH	50 ppm as Vapor/mist
		NIOSH	Ceiling 50 ppm
		Supplier	No Established Limit
14807-96-6	TALC	OSHA	20 mppcf
		ACGIH	2 mg/m3
		NIOSH	TWA 2 mg/m^3 (resp)
		Supplier	No Established Limit
12001-26-2	MICA	OSHA	20 mppcf
		ACGIH	No Established Limit
		NIOSH	TWA 3 mg/m^3 (resp)
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
1344-09-08	SODIUM SILICATE	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
1302-78-9	BENTONITE	OSHA	Select Carcinogen: No
		NTP	Known: Yes; Suspected: No
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
107-21-1	ETHYLENE GLYCOL	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
14807-96-6	TALC	OSHA	Select Carcinogen: No
		NTP	Known: Yes; Suspected: No
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
12001-26-2	MICA	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory	If engineering controls do not maintain airborne concentrations to an acceptable level, a NIOSH approved respirator must be worn. Respirator Type: Organic vapor. If respirators are used, a program should be instituted to assure Compliance with OSHA Standard 29 CFR 1910.134.
Eyes	Safety glasses with side shields, goggles or face shield are recommended.
Skin	Wear overalls to keep skin contact to a minimum.
Engineering Controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, evaporation from large surfaces, spraying, heating, etc. Recommended Decontamination Facilities: Eye bath, washing facilities.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Grey paste
Odor	Slight
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	N/A C
Flash Point	None
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** 135C(275F): NA **Upper Explosive Limit:** 199C(390F): NA
Vapor pressure (Pa)	N/A
Vapor Density	Not Measured
Specific Gravity	N/A
Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	(ASTM D 2155): NA
Decomposition temperature	Not Measured
Viscosity (cSt)	N/A
Volatiles (% by weight)	NA
Octanol/Water Partition Coefficient	NA

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong Oxidizers

10.6. Hazardous decomposition products

No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
SODIUM SILICATE (1344-09-08)	3.400 mg/kg, Rat	No data available	2000mg/m^3	No data available	No data available
BENTONITE (1302-78-9)	No data available	35 mg/kg, Rats	No data available	No data available	No data available
ETHYLENE GLYCOL (107-21-1)	4,700 mg/kg, Rat	10,626 mg/kg, Rabbit	No data available	No data available	No data available
TALC (14807-96-6)	> 1600 mg/kg, Rat	No data available	No data available	No data available	No data available
MICA (12001-26-2)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable

Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr. LC50 fish, mg/l	48 hr. EC50 crustacea, mg/l	ErC50 algae, mg/l
SODIUM SILICATE (1344-09-08)	1108 mg/l	1700 mg/l	207 mg/l
BENTONITE (1302-78-9)	19,000 mg/L	Not Available	Not Available
ETHYLENE GLYCOL (107-21-1)	18,500 mg/L	41,000 mg/L	Not Available
TALC (14807-96-6)	Not Available	Not Available	Not Available
MICA (12001-26-2)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	**DOT Hazard Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification Not Regulated

US EPA Tier II Hazards

Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): No
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Extremely Hazardous:

ETHYLENE GLYCOL

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

ETHYLENE GLYCOL
TALC
MICA

Pennsylvania RTK Substances (>1%):

TALC

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Material Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

End of Document

Safety Data Sheet

SUPER HEAT

SDS Revision Date: **4/22/2020**

1. Identification

1.1. Product identifier

Product Identity	SUPER HEAT
Alternate Names	60-129,60-130, 60-145, 60-150, 60-160, Blended Formula, SUPER HEAT

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	See Technical Data Sheet.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	ComStar International Inc. 20-45 128th Street, College Point, NY 11356
Telephone No.	718-445-7900 800-328-0142 Fax: 718-353-5998

Emergency 24 HR response No: 1-800-424-9300 & 703-527-3887 CHEMTREC

Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Irrit 2; H315 May cause skin irritation

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Warning

.

[Prevention]:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P271 Use only outdoors or in a well-ventilated area.

[Response]:

P312 IF: Call a POISON CENTER or doctor / physician if you feel unwell.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
2 BUTOXYETHANOL CAS#: 111-76-2	>5	Acute Tox. 4 Eye Irrit. 2 Skin Irrit. 2	[1][2]
AROMATIC HYDROCARBON CAS#: 8030306 or 64742-94-5	>80	Asp. Tox. 1 Aquat.Chronic 2	[1][2]
DIPROPYLENE GLYCOL MONOMETHYL ETHER CAS#: 3590-94-8	>20	Eye Irrit. 2B Flammable Liquid: 4	[2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview No specific symptom data available.
See section 2 for further details.

Inhalation Harmful if inhaled.

5. Fire-fighting measures

5.1. Extinguishing media

Water fog, C02, dry chemical, universal foams

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus and protective clothing.

ERG Guide No. ---

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
For Large Spills: Flush spill area with water spray. Prevent run-off from entering drains, sewers, or streams, collect run-off.

7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes and skin. Wash thoroughly after handling. Do not breathe vapors or fumes.

Prevention of Fire and Explosion: Keep from contact with oxidizing materials, alkalis and acids. Store away from heat, sunlight and moisture.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Oxidizing agents, alkali metals

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
111-76-2	2 BUTOXYETHANOL	OSHA	50 ppm
		ACGIH	25 ppm
		NIOSH	5 ppm (24 mg/m^3) TWA [skin]
		Supplier	No Established Limit
8030-30-6 or 64742-94-5	AROMATIC HYDROCARBON	OSHA	50 ppm
		ACGIH	25 ppm
		NIOSH	No Established Limit
		Supplier	No Established Limit
34590-94-8	DIPROPYLENE GLYCOL MONOMETHYL ETHER	OSHA	100 ppm
		ACGIH	150 ppm
		NIOSH	TWA 100 ppm (600 mg/m^3) ST 150 ppm (900 mg/m^3) [skin]
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
111762	2 BUTOXYETHANOL	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
8030306 or 64742-94-5	AROMATIC HYDROCARBON	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
102-71-6	TRIETHONOLAMINE	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
34590-94-8	DIPROPYLENE GLYCOL MONOMETHYL ETHER	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory	If engineering controls do not maintain airborne concentrations to an acceptable level, a NIOSH approved respirator must be worn. Respirator Type: Organic vapor. If respirators are used, a program should be instituted to assure Compliance with OSHA Standard 29 CFR 1910.134.
Eyes	Safety glasses with side shields, goggles or face shield are recommended.
Skin	Wear overalls to keep skin contact to a minimum.
Engineering Controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, evaporation from large surfaces, spraying, heating, etc. Recommended Decontamination Facilities: Eye bath, washing facilities.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Clear Liquid
Odor	Petroleum odor
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	370 F/188 C
Flash Point	None
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** 135C(275F): NA **Upper Explosive Limit:** 199C(390F): NA
Vapor pressure (Pa)	6 mmHg (at 70 F)
Vapor Density	Not Measured
Specific Gravity	> 2 (H20 = 1)
Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	(ASTM D 2155): NA
Decomposition temperature	Not Measured
Viscosity (cSt)	25C/77F: NA
Volatiles (% by weight)	NA
Octanol/Water Partition Coefficient	NA

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong Oxidizers

10.6. Hazardous decomposition products

No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
2 BUTOXYETHANOL (111-76-2)	470 mg/kg	220 mg/kg	2.21 mg/L	No data available	No data available
AROMATIC HYDROCARBON (8030306 or 64742-94-5)	>5000 mg/kg	>2000 mg/kg	>590 mg/m3/4H	No data available	No data available
DIPROPYLENE GLYCOL MONOMETHYL ETHER (34590-94-8)	5230 mg/kg Rat	>13,000 mg/kg	500 ppm	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	4	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable

Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr. LC50 fish, mg/l	48 hr. EC50 crustacea, mg/l	ErC50 algae, mg/l
2 BUTOXYETHANOL (111-76-2)	Not Available	Not Available	Not Available
AROMATIC HYDROCARBON (8030-30-6 or 64742-94-5)	2.34 mg/L	0.95 mg/L	2.5 mg/L
DIPROPYLENE GLYCOL MONOMETHYL ETHER (34590-94-8)	1,000 mg/l	609.98 mg/	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	**DOT Hazard Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable

14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification Not Regulated

US EPA Tier II Hazards

Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): No
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Pennsylvania RTK Substances (>1%):

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H331 Toxic if inhaled.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

End of Document

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/01/2015 Reviewed on 08/07/2017

1 Identification

· **Product identifier**

· **Trade name: Bar's Leaks® Liquid Radiator Stop Leak**

· **Article number:** 1194, 1196

· **Recommended use and restriction on use**
· **Recommended use:** Sealant
· **Restrictions on use:** No further relevant information available.

· **Details of the supplier of the Safety Data Sheet**
· **Manufacturer/Supplier:**
Bar's Products
P.O. Box 187
Holly, MI 48442 USA
Phone: (810) 603-1321

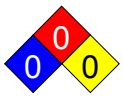
· **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

· **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).
· **Additional information:**
There are no other hazards not otherwise classified that have been identified.
0 percent of the mixture consists of ingredient(s) of unknown toxicity.

· **Label elements**
· **GHS label elements**
The product is not classified as hazardous according to OSHA GHS regulations within the United States.
· **Hazard pictograms** Not Regulated
· **Signal word** Not Regulated

· **Hazard-determining components of labeling:** None.
· **Hazard statements** Not Regulated
· **Precautionary statements** Not Regulated
· **Hazard description:**
· **WHMIS-symbols:** Not hazardous under WHMIS.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 0
Fire = 0
Reactivity = 0

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/01/2015 Reviewed on 08/07/2017

Trade name: Bar's Leaks® Liquid Radiator Stop Leak

(Contd. of page 1)

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Contains no hazardous substances.

· **Dangerous components:** None in reportable quantities.
· **Additional information:**
For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**
· **General information:** No special measures required.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Clean with water and soap.
If skin irritation is experienced, consult a doctor.
· **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed**
Slight irritant effect on eyes.
Gastric or intestinal disorders
Nausea in case of ingestion.
· **Danger** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
· **For safety reasons unsuitable extinguishing agents:** None.
· **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.

(Contd. on page 3)

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/01/2015 Reviewed on 08/07/2017

Trade name: Bar's Leaks® Liquid Radiator Stop Leak

(Contd. of page 2)

Wear fully protective suit.
· **Additional information** No further relevant information available.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
For large spills, wear protective clothing.
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to item 13.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Provide ventilation for receptacles.
Avoid storage near extreme heat, ignition sources or open flame.
· **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizing agents.
· **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/01/2015 Reviewed on 08/07/2017

Trade name: Bar's Leaks® Liquid Radiator Stop Leak

(Contd. of page 3)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Keep away from foodstuffs, beverages and feed.
· **Engineering controls:** No further relevant information available.
· **Breathing equipment:**
Not required under normal conditions of use.
Use suitable respiratory protective device when aerosol or mist is formed.
For spills, respiratory protection may be advisable.
· **Protection of hands:**
Wear protective gloves to handle contents of damaged or leaking units.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**

Safety glasses

· **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.
· **Limitation and supervision of exposure into the environment** No special requirements.
· **Risk management measures** See Section 7 for additional information.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Viscous
Color:	Brown
· **Odor:**	Odorless
· **Odor threshold:**	Not determined.

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/01/2015 Reviewed on 08/07/2017

Trade name: Bar's Leaks® Liquid Radiator Stop Leak

(Contd. of page 4)

· **pH-value at 20 °C (68 °F):**	8.0 - 9.5
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)
· **Flash point:**	Not applicable.
· **Flammability (solid, gaseous):**	Product is not flammable.
· **Auto-ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Product is not self-igniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure:**	Not determined.
· **Density at 20 °C (68 °F):**	1 g/cm³ (8.345 lbs/gal)
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic at 20 °C (68 °F):	900 mPas
Kinematic:	Not determined.
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity**
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **Possibility of hazardous reactions**
Reacts with strong acids and oxidizing agents.
Toxic fumes may be released if heated above the decomposition point.
· **Conditions to avoid** Store away from oxidizing agents.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/01/2015 Reviewed on 08/07/2017

Trade name: Bar's Leaks® Liquid Radiator Stop Leak

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11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **LD/LC50 values that are relevant for classification:** None.
· **Primary irritant effect:**
· **on the skin:** Slight irritant effect on skin and mucous membranes.
· **on the eye:** Slight irritant effect on eyes.
· **Sensitization:** No sensitizing effects known.
· **Subacute to chronic toxicity:** No further relevant information available.
· **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· **Carcinogenic categories**

· **NTP (National Toxicology Program)**
None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

· **Probable Routes of Exposure**
Inhalation.
Eye contact.
Skin contact.
· **Repeated Dose Toxicity:** No further relevant information available.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:** Generally not hazardous for water
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Smaller quantities can be disposed of with household waste.

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Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

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Trade name: Bar's Leaks® Liquid Radiator Stop Leak

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Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**
· **DOT, ADR, ADN, IMDG, IATA** Not Regulated
· **UN proper shipping name**
· **DOT, ADR, ADN, IMDG, IATA** Not Regulated
· **Transport hazard class(es)**

· **DOT, ADR, ADN, IMDG, IATA**
· **Class** Not Regulated
· **Packing group**
· **DOT, ADR, IMDG, IATA** Not Regulated
· **Environmental hazards:**
· **Marine pollutant:** No
· **Special precautions for user** Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
· **UN "Model Regulation":** -

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **United States (USA)**
· **SARA**

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**
None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**
None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

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acc. to OSHA HCS (29 CFR 1910.1200)

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Trade name: Bar's Leaks® Liquid Radiator Stop Leak

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· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **State Right to Know Listings**
None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**
All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**
None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**
None of the ingredients is listed.

· **Other regulations, limitations and prohibitive regulations**
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 05/01/2015 / -

· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent

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Printing date 05/01/2015 Reviewed on 08/07/2017

Trade name: Bar's Leaks® Liquid Radiator Stop Leak

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LD50: Lethal dose, 50 percent

· **Sources**

SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com

OHNSEN S PREMIUM DOT 3 BRAKE FLUID 450 DEG 32 FL.OZ.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 04/19/2017 Supersedes:10/19/2015 Version: 1.2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Trade name : JOHNSEN'S PREMIUM DOT 3 BRAKE FLUID 450 DEG 32 FL.OZ.

Product code : 2232

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Brake Fluid

1.3. Details of the supplier of the safety data sheet

Technical Chemical Company
P.O. BOX 139
Cleburne, Texas 76033
T 817-645-6088

1.4. Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Oral)	H302
Skin Irrit. 2	H315
Eye Dam. 1	H318
Repr. 2	H361
STOT RE 2	H373

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS05 GHS07 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) :
P201 - Obtain special instructions
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust, fumes, gas,mist, vapor spray
P264 - Wash affected areas thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves,protective clothing,eye protection,face protection
P301+P312 - If swallowed: Call a poison center, doctor if you feel unwell
P302+P352 - If on skin: Wash with plenty of soap and water
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P310 - Immediately call a poison center,doctor, physician
P314 - Get medical advice/attention if you feel unwell
P321 - Specific treatment: See section 4.1 on SDS
P330 - Rinse mouth
P332+P313 - If skin irritation occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P405 - Store locked up
P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

2.3. Other hazards

Other hazards not contributing to the : None under normal conditions.

classification

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Triethylene Glycol Monomethyl Ether	(CAS No) 112-35-6	5 - 50	Not classified as hazardous
Triethyleneglycol Monoethyl Ether	(CAS No) 112-50-5	5 - 50	Not classified as hazardous
Triethylene Glycol Monobutyl Ether	(CAS No) 143-22-6	5 - 50	Eye Dam. 1, H318
3,6,9,12-Tetraoxahexadecane-1-ol	(CAS No) 1559-34-8	5 - 20	Not classified as hazardous
Polyethylene Glycol 200-600	(CAS No) 25322-68-3	5 - 20	Not classified as hazardous
2-(2-Butoxyethoxy) Ethanol	(CAS No) 112-34-5	5 - 20	Eye Irrit. 2A, H319
Tetraethylene Glycol Monomethyl Ether	(CAS No) 23783-42-8	5 - 20	Not classified as hazardous
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether	(CAS No) 9038-95-3	5 - 20	Not classified as hazardous
Polyalkylene Glycol Monobutyl Ether	(CAS No) 9004-77-7	5 - 20	Not classified as hazardous
Diethylene Glycol	(CAS No) 111-46-6	5 - 15	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Diethylene Glycol Monomethyl Ether	(CAS No) 111-77-3	< 5	Flam. Liq. 4, H227 Repr. 2, H361
Diethyleneglycolmonoethyl Ether	(CAS No) 111-90-0	< 5	Eye Irrit. 2A, H319
Trade Secret Inhibitor Package	(CAS No) Trade Secret	< 3	Not classified as hazardous

The exact percentage is a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Allow breathing of fresh air. Allow the victim to rest.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Suspected of damaging fertility or the unborn child. Causes damage to organs.

Symptoms/injuries after inhalation : May cause irritation or asthma-like symptoms.

Symptoms/injuries after skin contact : Itching. Skin rash/inflammation. Red skin. Causes skin irritation.

Symptoms/injuries after eye contact : Inflammation/damage of the eye tissue. Irritation of the eye tissue. Redness of the eye tissue. Causes serious eye damage.

Symptoms/injuries after ingestion : May be harmful if swallowed and enters airways. May be fatal if swallowed and enters airways. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources.

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill. Contain released substance, pump into suitable containers. Plug the leak, cut off the supply.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Avoid breathing dust,fume,gas,mist,vapor spray.

Hygiene measures : Wash contaminated clothing before reuse. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Follow Label Directions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-(2-Butoxyethoxy) Ethanol (112-34-5)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm (Diethylene glycol monobutyl ether; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction and vapor)

8.2. Exposure controls

Appropriate engineering controls : Local exhaust venilation, vent hoods . Ensure good ventilation of the work station.

Personal protective equipment : Gloves. Safety glasses. Avoid all unnecessary exposure.

Materials for protective clothing : GIVE EXCELLENT RESISTANCE:

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Wear appropriate mask.

Environmental exposure controls : Avoid release to the environment.

Consumer exposure controls : Avoid contact during pregnancy/while nursing.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Colour	:	Colourless to light yellow.
Odour	:	Mild.
Odour threshold	:	No data available
pH	:	7.5 - 11.5
Relative evaporation rate (butylacetate=1)	:	< 0.01
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	232 - 273 °C
Flash point	:	> 135 °C
Auto-ignition temperature	:	310 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	< 0.01 mm Hg
Relative vapour density at 20 °C	:	> 1 (air=1)
Relative density	:	1.025 - 1.075
Solubility	:	Soluble in water.
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	2 mm²/s @ 100 deg C
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

VOC content : < 1 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

None. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

OHNSEN S PREMIUM DOT 3 BRAKE FLUID 450 DEG 32 FL.OZ.	
LD50 oral rat	> 2000 mg/kg

Triethylene Glycol Monomethyl Ether (112-35-6)	
LD50 oral rat	11865 mg/kg (Rat)
LD50 dermal rabbit	7455 mg/kg (Rabbit)

Triethyleneglycol Monoethyl Ether (112-50-5)	
LD50 oral rat	7750 mg/kg (Rat)

Triethyleneglycol Monoethyl Ether (112-50-5)	
LD50 dermal rabbit	8168 mg/kg (Rabbit)

Triethylene Glycol Monobutyl Ether (143-22-6)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	3480 mg/kg (Rabbit)

3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rat	> 4000 mg/kg (Rat)

Polyethylene Glycol 200-600 (25322-68-3)	
LD50 oral rat	> 15000 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
LD50 oral rat	5660 mg/kg (Rat)
LD50 dermal rabbit	2764 mg/kg (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)

Diethylene Glycol (111-46-6)	
LD50 dermal rabbit	11890 mg/kg (Rabbit)

Diethylene Glycol Monomethyl Ether (111-77-3)	
LD50 oral rat	4140 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 20 mg/l/4h (Rat)

Diethyleneglycolmonoethyl Ether (111-90-0)	
LD50 oral rat	5445 mg/kg (Rat)
LD50 dermal rat	5940 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5.2 mg/l/4h (Rat)

Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
LD50 oral rat	> 15000 mg/kg (Rat)

Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
LD50 oral rat	> 2000 mg/kg bodyweight (Rat)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Rabbit)

Skin corrosion/irritation : Causes skin irritation.
pH: 7.5 - 11.5

Serious eye damage/irritation : Causes serious eye damage.
pH: 7.5 - 11.5

Respiratory or skin sensitisation : Not classified as hazardous

Germ cell mutagenicity : Not classified as hazardous

Carcinogenicity : Not classified as hazardous

Polyalkylene Glycol Monobutyl Ether (9004-77-7)	
IARC group	4

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (single exposure) : Not classified as hazardous

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified as hazardous

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.

Symptoms/injuries after inhalation : May cause irritation or asthma-like symptoms.

Symptoms/injuries after skin contact : Itching. Skin rash/inflammation. Red skin. Causes skin irritation.

Symptoms/injuries after eye contact : Inflammation/damage of the eye tissue. Irritation of the eye tissue. Redness of the eye tissue. Causes serious eye damage.

Symptoms/injuries after ingestion : May be harmful if swallowed and enters airways. May be fatal if swallowed and enters airways. Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Triethylene Glycol Monomethyl Ether (112-35-6)	
LC50 fish 1	> 5000 mg/l (LC50; 96 h)

Triethylene Glycol Monomethyl Ether (112-35-6)	
EC50 Daphnia 1	> 10000 mg/l (LC50; 48 h)
Threshold limit algae 1	> 500 mg/l (EC50; 72 h)

Triethyleneglycol Monoethyl Ether (112-50-5)	
LC50 fish 1	> 10000 mg/l (LC50; 96 h)
EC50 Daphnia 1	> 10000 mg/l (LC50; 48 h)

Triethylene Glycol Monobutyl Ether (143-22-6)	
LC50 fish 2	2200 mg/l (LC50; 96 h)
EC50 Daphnia 2	> 500 mg/l (EC50; 48 h)
Threshold limit algae 1	> 500 mg/l (EC50; 72 h)

3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
LC50 fish 1	> 1409 mg/l (LC50; 96 h)
EC50 Daphnia 1	> 1000 mg/l (EC50; 48 h)
Threshold limit algae 1	> 1000 mg/l (EC50; 96 h)

Polyethylene Glycol 200-600 (25322-68-3)	
LC50 fish 2	> 5000 mg/l (LC50; 24 h)
Threshold limit algae 2	500 mg/l (EC0; 720 h)

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
LC50 fish 1	1300 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Lepomis macrochirus; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	> 100 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)

Diethylene Glycol (111-46-6)	
LC50 fish 1	> 5000 ppm (LC50; 24 h)
EC50 Daphnia 1	> 10000 mg/l (EC50; 24 h)

Diethylene Glycol Monomethyl Ether (111-77-3)	
LC50 fish 1	1000 mg/l (LC50; 96 h)
EC50 Daphnia 1	> 500 mg/l (EC50; 48 h)
Threshold limit algae 1	> 500 mg/l (EC50; 72 h)

Diethyleneglycolmonoethyl Ether (111-90-0)	
LC50 fish 1	12900 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 1	3940 mg/l (EC50; 48 h)

Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
LC50 fish 1	> 10000 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Brachydanio rerio)

Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
LC50 other aquatic organisms 1	> 10000 mg/l (96 h)

12.2. Persistence and degradability

OHNSEN S PREMIUM DOT 3 BRAKE FLUID 450 DEG 32 FL.OZ.	
Persistence and degradability	Not established.

Triethylene Glycol Monomethyl Ether (112-35-6)	
Persistence and degradability	Inherently biodegradable. Non degradable in the soil. Photodegradation in the air. Not established.

Triethyleneglycol Monoethyl Ether (112-50-5)	
Persistence and degradability	Readily biodegradable in water.

Triethylene Glycol Monobutyl Ether (143-22-6)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.02 g O_2 /g substance
Chemical oxygen demand (COD)	1.83 g O_2 /g substance

3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
Persistence and degradability	Not readily biodegradable in water. Inherently biodegradable.
ThOD	2.05 g O_2 /g substance

Polyethylene Glycol 200-600 (25322-68-3)	
Persistence and degradability	Biodegradability in water: no data available. Not established.

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.25 g O_2 /g substance

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Chemical oxygen demand (COD)	2.08 g O_2 /g substance
ThOD	2.173 g O_2 /g substance
BOD (% of ThOD)	0.11

Diethylene Glycol (111-46-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.02 g O_2 /g substance
Chemical oxygen demand (COD)	1.51 g O_2 /g substance
ThOD	1.51 g O_2 /g substance
BOD (% of ThOD)	0.015

Diethylene Glycol Monomethyl Ether (111-77-3)	
Persistence and degradability	Readily biodegradable in water. Photolysis in the air. Photodegradation in the air.
Chemical oxygen demand (COD)	1.71 g O_2 /g substance
ThOD	1.73 g O_2 /g substance

Diethyleneglycolmonoethyl Ether (111-90-0)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.20 g O_2 /g substance
Chemical oxygen demand (COD)	1.85 g O_2 /g substance
ThOD	1.9078849 g O_2 /g substance
BOD (% of ThOD)	0.11

Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
Persistence and degradability	Inherently biodegradable. Photolysis in the air.

Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
Persistence and degradability	Not readily biodegradable in water.

Trade Secret Inhibitor Package (Trade Secret)	
Persistence and degradability	Not established.

Polyalkylene Glycol Monobutyl Ether (9004-77-7)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

OHNSEN S PREMIUM DOT 3 BRAKE FLUID 450 DEG 32 FL.OZ.	
Bioaccumulative potential	Not established.

Triethylene Glycol Monomethyl Ether (112-35-6)	
Log Pow	-1.13
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

Triethyleneglycol Monoethyl Ether (112-50-5)	
Bioaccumulative potential	Not bioaccumulative.

Triethylene Glycol Monobutyl Ether (143-22-6)	
Log Pow	0.51 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
Log Pow	-0.26 (Calculated)
Bioaccumulative potential	Bioaccumulation: not applicable.

Polyethylene Glycol 200-600 (25322-68-3)	
Log Pow	-1.2
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
BCF fish 1	0.46 (BCF)
Log Pow	0.56 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Diethylene Glycol (111-46-6)	
BCF fish 1	100 (BCF; Other; 3 days; Leuciscus melanotus; Static system; Fresh water; Experimental value)
Log Pow	-1.98 (Calculated; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Diethylene Glycol Monomethyl Ether (111-77-3)	
Log Pow	-1.14 - -0.68

Diethylene Glycol Monomethyl Ether (111-77-3)	
Bioaccumulative potential	Bioaccumulation: not applicable.

Diethyleneglycolmonoethyl Ether (111-90-0)	
Log Pow	-1.19 - -0.08
Bioaccumulative potential	Bioaccumulation: not applicable.

Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
Log Pow	-0.6
Bioaccumulative potential	Bioaccumulation: not applicable.

Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
Bioaccumulative potential	Not bioaccumulative.

Trade Secret Inhibitor Package (Trade Secret)	
Bioaccumulative potential	Not established.

Polyalkylene Glycol Monobutyl Ether (9004-77-7)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

Triethylene Glycol Monomethyl Ether (112-35-6)	
Surface tension	0.0314 N/m

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Surface tension	0.034 N/m (25 °C)

Diethylene Glycol (111-46-6)	
Surface tension	0.0485 N/m
Log Koc	Koc,SRC PCKOCWIN v1.66; 1; Calculated value; log Koc; SRC PCKOCWIN v1.66; 0; Calculated value

Diethylene Glycol Monomethyl Ether (111-77-3)	
Surface tension	0.035 N/m (25 °C)

Diethyleneglycolmonoethyl Ether (111-90-0)	
Surface tension	0.032 N/m (25 °C)

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

US DOT (ground): Not Regulated,

ICAO/IATA (air): Not Regulated,

IMO/IMDG (water): Not Regulated,

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not Regulated

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

OHNSEN S PREMIUM DOT 3 BRAKE FLUID 450 DEG 32 FL.OZ.	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard

Triethylene Glycol Monomethyl Ether (112-35-6)
Subject to reporting requirements of United States SARA Section 313

Triethyleneglycol Monoethyl Ether (112-50-5)
Subject to reporting requirements of United States SARA Section 313

Triethylene Glycol Monobutyl Ether (143-22-6)
Subject to reporting requirements of United States SARA Section 313

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Reactive hazard

15.2. International regulations

CANADA

Triethyleneglycol Monoethyl Ether (112-50-5)

Triethylene Glycol Monobutyl Ether (143-22-6)

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

EU-Regulations

Triethyleneglycol Monoethyl Ether (112-50-5)

Triethylene Glycol Monobutyl Ether (143-22-6)

2-(2-Butoxyethoxy) Ethanol (112-34-5)

Classification according to Regulation (EC) No. 1272/2008 CLP

Classification according to Directive 67/548/EEC DSD or 1999/45/EC DPD

Xi; R41

Full text of R-phrases: see section 16

15.2.2. National regulations

Triethyleneglycol Monoethyl Ether (112-50-5)

Triethylene Glycol Monobutyl Ether (143-22-6)

2-(2-Butoxyethoxy) Ethanol (112-34-5)

15.3. US State regulations

OHNSEN S PREMIUM DOT 3 BRAKE FLUID 450 DEG 32 FL.OZ.	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

Triethylene Glycol Monomethyl Ether (112-35-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Triethyleneglycol Monoethyl Ether (112-50-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Triethylene Glycol Monobutyl Ether (143-22-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Polyethylene Glycol 200-600 (25322-68-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

2-(2-Butoxyethoxy) Ethanol (112-34-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Diethylene Glycol (111-46-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Diethylene Glycol Monomethyl Ether (111-77-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Diethyleneglycolmonoethyl Ether (111-90-0)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Tetraethylene Glycol Monomethyl Ether (23783-42-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether **(9038-95-3)**				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Trade Secret Inhibitor Package (Trade Secret)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Polyalkylene Glycol Monobutyl Ether (9004-77-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

Triethylene Glycol Monomethyl Ether (112-35-6)

State or local regulations

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - New Jersey - Right to Know Hazardous Substance List

Triethyleneglycol Monoethyl Ether (112-50-5)

State or local regulations

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - New Jersey - Right to Know Hazardous Substance List

Triethylene Glycol Monobutyl Ether (143-22-6)

State or local regulations

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - New Jersey - Right to Know Hazardous Substance List

2-(2-Butoxyethoxy) Ethanol (112-34-5)

State or local regulations

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : None.

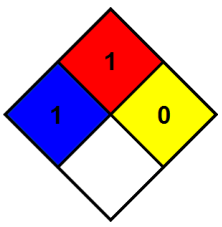
Full text of H-statements:

H227	Combustible liquid
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 1 Slight Hazard

Physical : 0 Minimal Hazard

Personal Protection : B

SDS US (GHS HazCom 2012) - TCC

The Supplier identi ied in Section o this S S has evaluated this product and certi ies it to e la eled and packaged in compliance ith the applica le provisions o the ederal azardous Su stance Act as stated in C R and en orced y the Consumer roduct Sa ety Commission and here applica le the products that re uire Child Resistant Closures are packaged in accordance ith the oison revention ackaging Act as stated in C R and en orced y the Consumer roduct Sa ety Commission All closures have een tested in accordance ith the latest protocols o other testing is re uired to certi y compliance ith the a ove The date o manu acture is stamped on the product

isclaimer: The in ormation and recommendations contained herein are ased upon tests elieved to e relia le o ever the manu acturer/distri utor o this product does not guarantee their accuracy or completeness OR S A A O T S OR AT O CO ST T T A ARRA T T R R SS OR AS TO T SA T O T OO S T RC A TA T O T OO S OR T T SS O T OO S OR A ART C AR R OS Ad ustment to con orm to actual conditions o usage may e re uired The manu acturer/distri utor assumes no responsi ility or results o tained or or incidental or conse uential damages including lost pro its arising rom the use o these data o arranty against in ringement o any patent copyright or trademark is made or implied

HEADS UP INDUSTRIES MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CUSTOMER PRODUCT NAME (S)	**HEADS UP** **ULTRA GRIP** **6408 (HU-98090)**
DISTRIBUTED BY	THE EASTHILL GROUP dba/ THE EASTWOOD COMPANY 263 SHOEMAKER ROAD, POTTSTOWN, PA 19464 USA & CANADA: 800-345-1178 OUTSIDE USA: 610-323-2200 EMERGENCY: CHEM-TREC 800-424-9300
PREPARATION DATE	Feb. 2, 2005
Prepared By	Vena Burnell

2. COMPOSITION/INFORMATION ON INGREDIENTS

OSHA HAZARDOUS INGREDIENTS TABLE

CHEMICAL	CAS #	OSHA PEL	ACGIH TLV	OTHER
2-Propanone	67-64-1	1000 ppm	500 ppm	750 ppm STEL
*Hexane	110-54-3	50 ppm	50 ppm	
*Cyclohexane	110-82-7	300 ppm	300 ppm	
Liquefied Petroleum Gas	68476-86-8	Unknown	1000 ppm	

* Indicates ingredients that are subject to the reporting requirements of Section 313 of EPCRA and 40CFR 372.

3. HAZARDS IDENTIFICATION

HMIS RATING: Health 1, Flammability 4, Reactivity 0
NFPA RATING: Toxicity 1, Flammability 4, Reactivity 0

HEALTH EFFECTS

Inhalation	High concentrations of vapors may irritate nose and throat and cause symptoms of intoxication such as dizziness, nausea, headache, or indigestion.
Eye Contact	Direct spray or vapors will cause irritation. Symptoms include stinging, tearing, redness, and swelling of the eyes.
Skin Contact	Product may cause mild irritation. Prolonged or repeated contact may dry the skin. Symptoms include redness, burning, drying ad cracking of skin, and skin burns.
Ingestion	Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This can result in lung inflammation and other lung injury.

PRIMARY ROUTES OF EXPOSURE: Inhalation, eye/skin contact.
CONDITIONS AGGRAVATED BY EXPOSURE: None known.
ANY INGRED. LISTED CARCINOGEN: **OSHA** Not listed. **IARC** Not listed. **NTP** Not listed.

4. FIRST AID

Inhalation	Remove victim to fresh air. Apply artificial respiration if needed. Get medical attention.
Eye Contact	Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation persists.
Skin Contact	Remove contaminated clothing and wash skin with soap and water. Get medical

attention if irritation persists.

Ingestion DO NOT INDUCE VOMITING unless directed by a physician or poison control center. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Extinguisher Media	Foam, Dry Chemical (B-C), CO_2
Flash Point	**-4°F(-20.0°C)(Hexane)**
Flammability	**EXTREMELY FLAMMABLE**

UNUSUAL HAZARDS: Do not expose to temperature exceeding 120°F as containers may vent, rupture or burst.
SPECIAL FIRE FIGHTING PROCEDURES: Keep containers cool using water spray. Use proper equipment to protect personnel from bursting containers.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURES FOR CLEANING UP LEAKS AND SPILLS: Absorb spill with inert material then place in a chemical waste container. Dispose of spill material in accordance with regulations.

7. HANDLING, STORAGE, AND DISPOSAL

HANDLING: Read label cautions carefully. Follow the directions to avoid injury. Use with adequate ventilation. Do not use near fire, sparks or flames. Make sure containers are properly grounded before use or transfer of material. Deliberately concentrating and inhaling the contents of this container may be harmful and fatal. Do not puncture or incinerate (burn) container. Keep out of reach of children.
STORAGE: Do not store near fire, sparks, or flame. Do not store at temperatures above 120°F. Keep out of reach of children.
DISPOSAL: Dispose of waste material in accordance with state, local, and federal regulations.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

See Section 2 for applicable exposure limits.
ENGINEERING CONTROLS: Maintain adequate ventilation.
PERSONAL PROTECTIVE EQUIPMENT: Use respirator only as a last resort to control exposure when engineering controls are not feasible.
Wear chemical-resistant **GLOVES** if repeated skin contact occurs or causes irritation.
Wear **SAFETY GLASSES or GOGGLES** to prevent eye contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Mixture packaged in pressurized aerosol spray container
Appearance and Odor(Concentrate)	Translucent Mustard with sweet pungent odor
Specific Gravity(Concentrate)	0.790 g/ml
Solubility in Water	Insoluble
pH	Not applicable
Evaporation Rate (BuAc=1)	>14.4
% - VOC	54.66%
Boiling Point	>100°F

10. STABILITY AND REACTIVITY

STABILITY: Product is stable.
CONDITIONS TO AVOID: Do not use or store near fire, sparks, or flame.
HAZARDOUS POLYMERIZATION: Will not occur.
INCOMPATIBILITIES: Avoid contact with acids, strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2, various hydrocarbons.

11. OTHER INFORMATION

We believe all information given is accurate. It is offered in good faith but without guarantee. Since conditions of use are beyond our control, user assumes all responsibility and risk.

SAFETY DATA SHEET

Revision Date: *16-Dec-2019* **Revision Number:** *4*

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	**ADVANCE SATIN FINISH WHITE**
Product Code	**79201**
Alternate Product Code	79201
Product Class	Water thinned paint
Color	White
Recommended use	Paint
Restrictions on use	No information available

Manufacturer
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 1-866-708-9180
www.benjaminmoore.com

Emergency Telephone
CHEMTREC (US): 800-424-9300
CHEMTREC (outside US): (703)-527-3887

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization	Category 1

Label elements

Warning

Hazard statements
May cause an allergic skin reaction

Appearance liquid **Odor** little or no odor

Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves

Skin
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other information
No information available

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Titanium dioxide	13463-67-7	20 - 25
Silica amorphous	7631-86-9	1 - 5
Tetramethyl-5-decyne-4,7-diol, 2,4,7,9-	126-86-3	0.1 - 0.5

4. FIRST AID MEASURES

General Advice No hazards which require special first aid measures.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Wash clothing before reuse. Destroy contaminated articles such as shoes.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water. Consult a physician if necessary.

Most Important Symptoms/Effects May cause allergic skin reaction.

Notes To Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific Hazards Arising From The Chemical	Closed containers may rupture if exposed to fire or extreme heat.
Sensitivity to mechanical impact	No
Sensitivity to static discharge	No
Flash Point Data	
Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable
Flammability Limits In Air	
Lower flammability limit:	Not applicable
Upper flammability limit:	Not applicable

NFPA **Health:** 1 **Flammability:** 0 **Instability:** 0 **Special:** Not Applicable

NFPA Legend
0 - Not Hazardous
1 - Slightly
2 - Moderate
3 - High
4 - Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
Other Information	Prevent further leakage or spillage if safe to do so.
Environmental precautions	See Section 12 for additional Ecological Information.
Methods for Cleaning Up	Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Avoid breathing vapors, spray mists or sanding dust. In case of insufficient ventilation, wear suitable respiratory equipment.
Storage	Keep container tightly closed. Keep out of the reach of children.
Incompatible Materials	No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL
Titanium dioxide	10 mg/m³ - TWA	15 mg/m³ - TWA
Silica amorphous	N/E	20 mppcf - TWA

Legend
ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits
OSHA - Occupational Safety & Health Administration Exposure Limits
N/E - Not Established

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.
Skin Protection Protective gloves and impervious clothing.
Respiratory Protection In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene Measures Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Odor	little or no odor
Odor Threshold	No information available
Density (lbs/gal)	10.7 - 11.3
Specific Gravity	1.28 - 1.35
pH	No information available
Viscosity (cps)	No information available
Solubility(ies)	No information available
Water solubility	No information available
Evaporation Rate	No information available
Vapor pressure	No information available
Vapor density	No information available
Wt. % Solids	45 - 55
Vol. % Solids	30 - 40
Wt. % Volatiles	45 - 55
Vol. % Volatiles	60 - 70
VOC Regulatory Limit (g/L)	< 50
Boiling Point (°F)	212
Boiling Point (°C)	100
Freezing point (°F)	32
Freezing Point (°C)	0
Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable

Autoignition Temperature (°F)	No information available
Autoignition Temperature (°C)	No information available
Decomposition Temperature (°F)	No information available
Decomposition Temperature (°C)	No information available
Partition coefficient	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not Applicable
Chemical Stability	Stable under normal conditions.
Conditions to avoid	Prevent from freezing.
Incompatible Materials	No materials to be especially mentioned.
Hazardous Decomposition Products	None under normal use.
Possibility of hazardous reactions	None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Principal Routes of Exposure Eye contact, skin contact and inhalation.

Acute Toxicity

Product Information No information available

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact	May cause slight irritation.
Skin contact	Prolonged skin contact may cause skin irritation and/or dermatitis. May cause sensitization by skin contact.
Inhalation	May cause irritation of respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Sensitization	May cause an allergic skin reaction
Neurological Effects	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	No information available.
Developmental Effects	No information available.
Target organ effects	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Other adverse effects	No information available.
Aspiration Hazard	No information available

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 36674 mg/kg
ATEmix (dermal) 160565 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Silica amorphous 7631-86-9	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h

Carcinogenicity
The information below indicates whether each agency has listed any ingredient as a carcinogen:.

Chemical name	IARC	NTP	OSHA
Titanium dioxide	2B - Possible Human Carcinogen		Listed

• Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

Legend
IARC - International Agency for Research on Cancer
NTP - National Toxicity Program
OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects
The environmental impact of this product has not been fully investigated.

Product Information

Acute Toxicity to Fish
No information available

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

Persistence / Degradability
No information available.

Bioaccumulation
No information available.

Mobility in Environmental Media
No information available.

Ozone
No information available

Component Information

Acute Toxicity to Fish

Titanium dioxide
LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)
Tetramethyl-5-decyne-4,7-diol, 2,4,7,9-
LC50: 42 mg/L (Carp (Cyprinus carpio) - 24 hr.)

Acute Toxicity to Aquatic Invertebrates

Tetramethyl-5-decyne-4,7-diol, 2,4,7,9-
LC50: 91 mg/L (Daphnia magna - 48 hr.)

Acute Toxicity to Aquatic Plants

Tetramethyl-5-decyne-4,7-diol, 2,4,7,9-
EC50: 82 mg/L (Algae (Selenastrum capricornutum) - 72 hrs.)

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

14. TRANSPORT INFORMATION

DOT Not regulated

ICAO / IATA Not regulated

IMDG / IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: United States Yes - All components are listed or exempt.
DSL: Canada No - Not all of the components are listed.
One or more component is listed on NDSL.

Federal Regulations

SARA 311/312 hazardous categorization

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No

Sudden release of pressure hazard	No
Reactive Hazard	No

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

None

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following HAPs:

None

US State Regulations

California Proposition 65

WARNING: Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania
Titanium dioxide	X	X	X
Silica amorphous	X	X	X

Legend
X - Listed

16. OTHER INFORMATION

HMIS - **Health:** 1 **Flammability:** 0 **Reactivity:** 0 **PPE:** -

HMIS Legend
0 - Minimal Hazard
1 - Slight Hazard
2 - Moderate Hazard
3 - Serious Hazard
4 - Severe Hazard
* - Chronic Hazard
X - Consult your supervisor or S.O.P. for "Special" handling instructions.
Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Prepared By	Product Stewardship Department Benjamin Moore & Co. 101 Paragon Drive Montvale, NJ 07645 800-225-5554
Revision Date:	16-Dec-2019
Revision Summary	Not available

Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

End of Safety Data Sheet

SAFETY DATA SHEET

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision Date 27-Oct-2016 **Version** 3

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code 80208
Product Name 767 ANTI-SEIZE LUBRICANT 1LB

Contains CALCIUM OXIDE, DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Lubricant

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Importer
ITW Permatex
10 Columbus Blvd.
Hartford, CT 06106 USA
Telephone: 1-87-Permatex
(877) 376-2839

E-mail address
mail@permatex.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number - 800-255-3924 (00+ 1+ 813-248-0585) ChemTel

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 - (H302)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

Classification according to Directive 67/548/EEC or 1999/45/EC
Full text of R-phrases: see section 16

2.2. Label elements

Contains CALCIUM OXIDE, DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC

Signal word
Warning

Statements of hazard
H302 - Harmful if swallowed
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)
P273 - Avoid release to the environment
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product

Other Information
• The classification as a carcinogen 1 need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346. This note applies only to certain complex oil derived substances in Annex I

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	EC No	CAS No	Weight-%	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC	265-155-0	64742-52-5	40-60	Carc.Cat.2; R45	Carc. 1B (H350)	No data available
CALCIUM OXIDE	215-138-9	1305-78-8	15-25	-	No data available	No data available
ALUMINIUM POWDER	231-072-3	7429-90-5	<10	F; R11-15 F; R15-17	Flam. Sol. 1 (H228) Water-react. 2 (H261)	No data available
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT	265-176-5	64742-71-8	<10	Carc.Cat.2; R45	Carc. 1B (H350)	No data available

Full text of R-phrases: see section 16

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice Get medical advice/attention if you feel unwell.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Skin contact IF ON SKIN:. Wash with soap and water. If symptoms persist, call a physician. Wash contaminated clothing before reuse.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion IF SWALLOWED:. Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Self-protection of the first aider Use personal protective equipment as required.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2). Foam. Dry chemical.

Unsuitable extinguishing media
Water

5.2. Special hazards arising from the substance or mixture

None in particular.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Wash thoroughly after handling.

For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling
Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash thoroughly after handling.

General Hygiene Considerations
When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place.

Incompatible materials
Strong oxidizing agents, Acids, Alkalis, Amines

7.3. Specific end use(s)

Specific use(s)
Lubricant.

Risk Management Methods (RMM)
The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Chemical Name	European Union	United Kingdom	France	Spain	Germany
CALCIUM OXIDE 1305-78-8	-	TWA: 2 mg/m³ STEL: 6 mg/m³	TWA: 2 mg/m³	TWA: 2 mg/m³	TWA: 1 mg/m³
ALUMINIUM POWDER 7429-90-5	-	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³	TWA: 10 mg/m³ TWA: 5 mg/m³	TWA: 10 mg/m³ TWA: 5 mg/m³	-
Chemical Name	**Italy**	**Portugal**	**Netherlands**	**Finland**	**Denmark**
CALCIUM OXIDE 1305-78-8	-	TWA: 2 mg/m³	-	TWA: 2 mg/m³	TWA: 2 mg/m³
ALUMINIUM POWDER 7429-90-5	-	TWA: 10 mg/m³ TWA: 5 mg/m³	-	TWA: 1.5 mg/m³	TWA: 5 mg/m³ TWA: 2 mg/m³
Chemical Name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
CALCIUM OXIDE 1305-78-8	TWA: 2 mg/m³ STEL 4 mg/m³	TWA: 2 mg/m³ STEL: 2 mg/m³	STEL: 6 mg/m³ STEL: 4 mg/m³ TWA: 2 mg/m³ TWA: 1 mg/m³	Ceiling: 2 mg/m³	TWA: 2 mg/m³ STEL: 6 mg/m³
ALUMINIUM POWDER 7429-90-5	TWA: 10 mg/m³ STEL 20 mg/m³	TWA: 3 mg/m³	TWA: 2.5 mg/m³ TWA: 1.2 mg/m³	TWA: 5 mg/m³ STEL: 5 mg/m³	TWA: 1 mg/m³ STEL: 3 mg/m³

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
ALUMINIUM POWDER 7429-90-5	-	60	-	-	-

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Use exhaust ventilation to keep airborne concentrations below exposure limits.

Personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made

from neoprene, as appropriate.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Paste
Appearance	Silver
Odor	Petroleum
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	> 93 °C / > 200 °F	Tag Closed Cup
Evaporation rate	< 1	Butyl acetate = 1
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<5 mm Hg	
Vapor density	>1	Air = 1
Relative density	1.17	
Water solubility	Negligible	
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	0
Density	No information available
Bulk density	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not applicable

10.2. Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Excessive heat.

10.5. Incompatible materials

Strong oxidizing agents
Acids
Alkalis
Amines

10.6. Hazardous decomposition products

Carbon oxides

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

Inhalation	May cause irritation of respiratory tract.
Eye contact	Irritating to eyes. May cause redness and tearing of the eyes.
Skin contact	May cause skin irritation and/or dermatitis. Prolonged contact may cause redness and irritation.
Ingestion	Harmful if swallowed.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1978.00 mg/kg

Unknown acute toxicity

99.10265 % of the mixture consists of ingredient(s) of unknown toxicity.
73.4381 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
99.10265 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
99.10265 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
99.10265 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
99.10265 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Chemical Name	European Union
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC	Carc. 1B
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT	Carc. 1B

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organ Effects Central Vascular System (CVS), Eyes, Respiratory system, Skin.

Aspiration hazard: No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC	-	5000: 96 h Oncorhynchus mykiss mg/L LC50	1000: 48 h Daphnia magna mg/L EC50
CALCIUM OXIDE	-	1070: 96 h Cyprinus carpio mg/L LC50 static	-

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

Mobility in soil
No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

Waste codes / waste designations according to EWC / AVV No data available

Other Information Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

IMDG
14.1 UN/ID no Not regulated
14.2 Proper shipping name: Not regulated

14.3 Hazard Class Not regulated
14.4 Packing Group None
14.5 Environmental hazard Not applicable
14.6 Special Provisions No information available
14.7 EmS-No Not applicable

RID
14.1 UN/ID no Not regulated
14.2 Proper shipping name: Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group None
14.5 Environmental hazard Not applicable
14.6 Special Provisions No information available
14.7 Classification code No information available

ADR
14.1 UN/ID no Not regulated
14.2 Proper shipping name: Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group None
14.5 Environmental hazard Not applicable
14.6 Special Provisions No information available
14.7 Classification code No information available

IATA
14.1 UN/ID no Not regulated
14.2 Proper shipping name: Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group None
14.5 Environmental hazard Not applicable
14.6 Special Provisions No information available
14.7 ERG Code Not applicable

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical Name	French RG number	Title
ALUMINIUM POWDER 7429-90-5	RG 32 RG 16,RG 16bis	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use:
This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical Name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC - 64742-52-5	Use restricted. See item 28.	
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT - 64742-71-8	Use restricted. See item 28.	

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of R-phrases referred to under sections 2 and 3
No information available

Full text of H-Statements referred to under section 3
H350 - May cause cancer if swallowed
H250 - Catches fire spontaneously if exposed to air
H261 - In contact with water releases flammable gases

Legend
SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Revision Date 27-Oct-2016

Revision Note Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

End of Safety Data Sheet

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: HIPERF QT 2PK ZINC COLD GALV COMPOUND

Revision Date: 8/15/2018

Product Identifier: 206194T

Supercedes Date: 8/15/2018

Recommended Use: Cold Galvanizing Compound/High Performance Epoxy Ester

Supplier:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Rust-Oleum Canada (ROCA)
200 Confederation Parkway
Concord, ON L4K 4T8
Canada
Emergency Phone: 800-387-3625

Manufacturer:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
2% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Flammable Liquid, category 3	H226	Flammable liquid and vapour.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.
Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P370+P378	In case of fire: Use alcohol film forming foam, carbon dioxide, dry chemical, dry sand to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P201	Obtain special instructions before use.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P272	Contaminated work clothing should not be allowed out of the workplace.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	For specific treatment see label

GHS SDS PRECAUTIONARY STATEMENTS

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.

P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P270	Do not eat, drink or smoke when using this product.
P363	Wash contaminated clothing before reuse.

3. Composition / Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.%	GHS Symbols	GHS Statements
Zinc	7440-66-6	83	GHS07	H302
Hydrotreated Light Distillate	64742-47-8	7.1	GHS08	H304
Zinc Oxide	1314-13-2	2.7	Not Available	Not Available
Stoddard Solvent	8052-41-3	2.3	GHS08	H304-372
Zeolite	1318-02-1	0.4	GHS06	H331
Methyl ethyl ketoxime	96-29-7	0.1	GHS05-GHS06-GHS08	H302-312-317-318-331-351

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: If swallowed, get medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: No unusual fire or explosion hazards noted. Closed containers may explode when exposed to extreme heat due to buildup of steam. Keep containers tightly closed. Combustible liquid and vapor.

SPECIAL FIREFIGHTING PROCEDURES: Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Avoid excess heat.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Zinc	7440-66-6	85.0	N.E.	N.E.	N.E.	N.E.
Hydrotreated Light Distillate	64742-47-8	10.0	N.E.	N.E.	N.E.	N.E.
Zinc Oxide	1314-13-2	5.0	2 mg/m3	10 mg/m3	5 mg/m3	N.E.
Stoddard Solvent	8052-41-3	5.0	100 ppm	N.E.	500 ppm	N.E.
Zeolite	1318-02-1	1.0	N.E.	N.E.	N.E.	N.E.
Methyl ethyl ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

Appearance:	Liquid	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	3.518	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Negligible	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	149 - 537	**Explosive Limits, vol%:**	0.8 - 6.0
Flammability:	Supports Combustion	**Flash Point, °C:**	38
Evaporation Rate:	Slower than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: No Information

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Substance causes moderate eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Irritating to the nose, throat and respiratory tract. Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
7440-66-6	Zinc	630 mg/kg Rat	N.E.	N.E.
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
1314-13-2	Zinc Oxide	>5000 mg/kg Rat	N.E.	N.E.
1318-02-1	Zeolite	5000 mg/kg Rat	>2000 mg/kg Rabbit	2.4 mg/L Rat
96-29-7	Methyl ethyl ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Do not incinerate closed containers. Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1263	1263	N.A.
Proper Shipping Name:	Not Regulated	Paint	Paint	Not Regulated
Hazard Class:	N.A.	3	3	N.A.
Packing Group:	N.A.	III	III	N.A.
Limited Quantity:	No	Yes	Yes	No

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Flammable (gases, aerosols, liquids, or solids), Carcinogenicity, Acute Toxicity (any route of exposure), Respiratory or Skin Sensitization, Specific target organ toxicity (single or repeated exposure)

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.

Zinc	7440-66-6
Zinc Oxide	1314-13-2

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	3*	**Flammability:**	2	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	3	**Flammability:**	2	**Instability**	0

Volatile Organic Compounds 340 g/L

SDS REVISION DATE: 8/15/2018

REASON FOR REVISION:
Revision Description Changed
Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
01 - Identification
16 - Other Information

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The manufacturer believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. The manufacturer makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: HIPERF QT 2PK ZINC COLD GALV COMPOUND

Revision Date: 8/15/2018

Product Identifier: 206194T

Supercedes Date: 8/15/2018

Recommended Use: Cold Galvanizing Compound/High Performance Epoxy Ester

Supplier:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Rust-Oleum Canada (ROCA)
200 Confederation Parkway
Concord, ON L4K 4T8
Canada
Emergency Phone: 800-387-3625

Manufacturer:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
2% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Flammable Liquid, category 3	H226	Flammable liquid and vapour.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.
Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P370+P378	In case of fire: Use alcohol film forming foam, carbon dioxide, dry chemical, dry sand to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P201	Obtain special instructions before use.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P272	Contaminated work clothing should not be allowed out of the workplace.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	For specific treatment see label

GHS SDS PRECAUTIONARY STATEMENTS

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.

P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P270	Do not eat, drink or smoke when using this product.
P363	Wash contaminated clothing before reuse.

3. Composition / Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.%	GHS Symbols	GHS Statements
Zinc	7440-66-6	83	GHS07	H302
Hydrotreated Light Distillate	64742-47-8	7.1	GHS08	H304
Zinc Oxide	1314-13-2	2.7	Not Available	Not Available
Stoddard Solvent	8052-41-3	2.3	GHS08	H304-372
Zeolite	1318-02-1	0.4	GHS06	H331
Methyl ethyl ketoxime	96-29-7	0.1	GHS05-GHS06-GHS08	H302-312-317-318-331-351

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: If swallowed, get medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: No unusual fire or explosion hazards noted. Closed containers may explode when exposed to extreme heat due to buildup of steam. Keep containers tightly closed. Combustible liquid and vapor.

SPECIAL FIREFIGHTING PROCEDURES: Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Avoid excess heat.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Zinc	7440-66-6	85.0	N.E.	N.E.	N.E.	N.E.
Hydrotreated Light Distillate	64742-47-8	10.0	N.E.	N.E.	N.E.	N.E.
Zinc Oxide	1314-13-2	5.0	2 mg/m3	10 mg/m3	5 mg/m3	N.E.
Stoddard Solvent	8052-41-3	5.0	100 ppm	N.E.	500 ppm	N.E.
Zeolite	1318-02-1	1.0	N.E.	N.E.	N.E.	N.E.
Methyl ethyl ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

Appearance:	Liquid	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	3.518	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Negligible	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	149 - 537	**Explosive Limits, vol%:**	0.8 - 6.0
Flammability:	Supports Combustion	**Flash Point, °C:**	38
Evaporation Rate:	Slower than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: No Information

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Substance causes moderate eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Irritating to the nose, throat and respiratory tract. Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
7440-66-6	Zinc	630 mg/kg Rat	N.E.	N.E.
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
1314-13-2	Zinc Oxide	>5000 mg/kg Rat	N.E.	N.E.
1318-02-1	Zeolite	5000 mg/kg Rat	>2000 mg/kg Rabbit	2.4 mg/L Rat
96-29-7	Methyl ethyl ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Do not incinerate closed containers. Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1263	1263	N.A.
Proper Shipping Name:	Not Regulated	Paint	Paint	Not Regulated
Hazard Class:	N.A.	3	3	N.A.
Packing Group:	N.A.	III	III	N.A.
Limited Quantity:	No	Yes	Yes	No

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Flammable (gases, aerosols, liquids, or solids), Carcinogenicity, Acute Toxicity (any route of exposure), Respiratory or Skin Sensitization, Specific target organ toxicity (single or repeated exposure)

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.

Zinc	7440-66-6
Zinc Oxide	1314-13-2

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	3*	**Flammability:**	2	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	3	**Flammability:**	2	**Instability**	0

Volatile Organic Compounds 340 g/L

SDS REVISION DATE: 8/15/2018

REASON FOR REVISION:
Revision Description Changed
Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
01 - Identification
16 - Other Information

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The manufacturer believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. The manufacturer makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Initial Preparation Date: *12/10/2003*
Last Revision Date: *None*
Effective Date: *10/19/2005*

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTITY: VALUECRAFT 50/50 PREDILUTED ANTIFREEZE & COOLANT

1. CHEMICAL PRODUCT & COMPANY INFORMATION

OLD WORLD INDUSTRIES, INC.
4065 COMMERCIAL AVENUE
NORTHBROOK, ILLINOIS 60062
PHONE: 847-559-2000
EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	*CAS#*	*% by Wt*	*PEL (OSHA)*	*TLV (ACGIH)*
Water	7732-18-5	49 - 50	None	None
Ethylene Glycol	107-21-1	45 - 48	50 ppm	50 ppm
Diethylene Glycol	111-46-6	0 - 2	None	None
Dipotassium Phosphate	7758-11-4	< 2	None	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Slight odor.	***May be fatal if swallowed.***	***Vapors can cause eye irritation.***

Lowest Known LD50 (Oral)	107-21-1	11,680 mg/kg (Rats)
Lowest Known LD50 (Skin)	107-21-1	19,060 mg/kg (Rabbits)

HAZARD RATING SYSTEM

NFPA: HEALTH: 1	**FLAMMABILITY: 1**	**REACTIVITY: 0**
HMIS: HEALTH: 2	**FLAMMABILITY: 1**	**REACTIVITY: 0**

KEY: 0 – Minimal 1 – Slight 2 - Moderate 3 - Serious 4 - Severe

POTENTIAL HEALTH EFFECTS

Routes of Exposure: Inhalation, Ingestion, Skin Contact/Absorption, Eye Contact

Eye: May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. Vapors or mists may cause eye irritation.

Skin: Prolonged or repeated exposure not likely to cause significant skin irritation. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Repeated skin exposure may result in absorption of harmful amounts. Massive contact with damaged skin or of material sufficiently hot to burn skin may result in absorption of potential lethal amounts.

Ingestion: Single dose oral toxicity is considered to be moderate. Excessive exposure may cause central nervous system effects, cardiopulmonary effects (metabolic acidosis), and kidney failure. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing amounts larger than that may cause serious injury, even death.

Inhalation: At room temperature, exposures to vapors are minimal due to physical properties; higher temperatures may generate vapor levels sufficient to cause adverse effects.

Systemic (Other Target Organ) Effects: Repeated excessive exposures may cause severe kidney and also liver and gastrointestinal effects. Signs and symptoms of excessive exposure may be central nervous system effects. Signs and symptoms of excessive exposure may be nausea and/or vomiting. Signs and symptoms of excessive exposure may be anesthetic or narcotic effects. Observations in animals include formation of bladder stones after repeated oral doses of ethylene glycol. Reports of kidney failure and death in burn patients suggest the ethylene glycol may have been a factor. The use of topical applications containing this material may not be appropriate in severely burned patients or individuals with impaired renal function.

Cancer Information: Based on data from long-term animal studies, ethylene glycol is not believed to pose a carcinogenic risk to man.

Teratology (Birth Defects): Exposure to ethylene glycol has caused birth defects in laboratory animals only at doses toxic to the mother.

Reproductive Effects: Ethylene glycol has not interfered with reproduction in animal studies except at very high doses.

CHRONIC, PROLONGED OR REPEATED OVEREXPOSURE

Effects of Repeated Overexposure: Repeated inhalation of ethylene glycol mist may produce signs of central nervous system involvement, particularly dizziness and nystagmus.

Other Effects of Overexposure: repeated skin contact with ethylene glycol may, in a very small proportion of cases, cause sensitization with the development of allergic contact dermatitis. The incidence is significantly less than 1% with the undiluted material.

4. FIRST AID MEASURES
Ensure physician has access to this MSDS.

TREATMENT

Eyes: Immediately flush eyes with large amounts of water for 15 minutes, lifting lower and upper lids. Get medical attention as soon as possible. Contact lenses should never be worn when working with this chemical.

Skin: Flush area of skin contact immediately with large amounts of water for at least 15 minutes while removing contaminated clothing. If irritation persists after flushing, get medical attention promptly. Wash clothing before re-use.

Inhalation: If inhaled, immediately remove victim to fresh air and call ***emergency medical care.*** If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion: Obtain medical attention immediately. If patient is fully conscious, give two glasses of water. Do not induce vomiting. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whisky. For children, give proportionally less liquor, according to weight.

Notes to Physician:
It is estimated that the lethal oral dose to adults is of the order of 1.0 ml/kg. Ethylene glycol is metabolized by alcohol dehydrogenate to various metabolites including glyceraldehydes, glycolic acid and oxalic acid which cause an elevated anion-gap metabolic acidosis and renal tubular injury. The signs and symptoms in ethylene glycol poisoning are those of metabolic acidosis, CNS depression, and kidney injury. Urinalysis may show albuminuria, hematuria and oxaluria. Clinical chemistry may reveal anion-gap metabolic acidosis and uremia. The currently recommended medical management of ethylene glycol poisoning includes elimination of ethylene glycol and metabolites, correction of metabolic acidosis and prevention of kidney injury. It is essential to have immediate and follow up urinalysis and clinical chemistry. There should be particular emphasis on acid-base balance and renal function tests. A continuous infusion of 5% sodium bicarbonate with frequent monitoring of electrolytes and fluid balance is used to achieve correction of metabolic acidosis and forced diuresis. As a competitive substrate for alcohol dehydrogenase, ethanol is antidotal. Given in the early stages of intoxication, it blocks the formulation of nephrotoxic metabolites. A therapeutically effective blood concentration of ethanol is in the range 100-150 mg/dl, and should be achieved by a rapid loading dose and maintained by intravenous infusion. For severe and/or deteriorating cases, hemodialysis may be required. Dialysis should be considered for patients who are symptomatic, have severe metabolic acidosis, a blood ethylene glycol concentration greater than 25 md/dl, or compromise of renal functions.

A more effective intravenous antidote for physician use is 4-methylpyrazole, a potent inhibitor of alcohol dehydrogenases, which effectively blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occurred. A generally recommended protocol is a loading dose of 15 mg/kg followed by 10 mg/kg every 12 hours for 4 doses and then 15 mg/kg every 12 hours until ethylene glycol concentrations are below 20 mg/100 ml. Slow intravenous infusion is required. Since 4-methyplyrozole is dialyzable, increased dosage may be necessary

during hemodialysis. Additional therapeutic measures may include the administration of cofactors involved in the metabolism of ethylene glycol. Thiamine (100 mg) and pyridoxine (50 mg) should be given every six hours.

Pulmonary edema with hypoxemia has been described in a number of patients following poisoning with ethylene glycol. The mechanism of production has not been elucidated, but it appears to be non-cardiogenic in origin in several cases. Respiratory support with mechanical ventilation and positive end expiratory pressure may be required. There may be cranial nerve involvement in the late stages of toxicity from swallowed ethylene glycol. In particular, effects

have been reported involving the seventh, eighth and ninth cranial nerves, presenting with bilateral facial paralysis, diminished hearing and dysphasia.

5. FIRE FIGHTING MEASURES

Flammable Properties
Flash Point: None, since % of water is over 20.
Autoignition Temperature: Autoignition temperature for 100% ethylene glycol is 398°C (748°F).

Flammability Limits - % of vapor concentration at which product can ignite in presence of spark.
Lower Flammability Limit: Not determined
Upper Flammability Limit: Not determined

Flammability limits are not determined on this product because the solution consists of 50% water. If and when the water evaporates and 100% glycol is left, the upper and lower flammability limits would be 3.2% and 15.3% (the same as concentrated Ethylene glycol).

Hazardous Combustion Products: Hazardous combustion products may include and are not limited to carbon monoxide, carbon dioxide and trace amounts of aldehydes and organic acids. When available oxygen is limited, as in a fire or when heated to very high temperatures by a hot wire or plate, carbon monoxide and other hazardous compounds such as aldehydes might be generated.

Extinguishing Media: Water fog or fine spray. Alcohol resistant foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively. Carbon dioxide. Dry chemical. Do not use direct water stream. May spread fire.

Fire Fighting Instructions: No fire and explosion hazards expected under normal storage and handling conditions (i.e. ambient temperatures). However, ethylene glycol or solutions of ethylene glycol and water can form flammable vapors with air if heated sufficiently. Keep people away. Isolate fire area and deny unnecessary entry.

Protective Equipment for Fire Fighters: Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

6. ACCIDENTAL RELEASE MEASURES

Protect People: Material is moderately toxic when ingested. Take adequate precautions to keep people, especially children away from spill site. PVC-coated rubber gloves and monogoggles or face shield can be used during cleanup of spill site. Product on surfaces can cause slippery conditions. Practice reasonable care and cleanliness. Avoid breathing spray mists if generated. Keep out of reach of children. Product may become a solid at temperatures below -18°C (0°F). Do not store near food, foodstuffs, drugs or potable water supplies.

Protect the Environment: Do not dump used product or diluted material into sewers, on the ground, or into any body of water.

Cleanup: Small spills: Soak up with absorbent material. Large spills: Dike and pump into suitable containers for disposal. Ensure compliance with all applicable statues that require notification of appropriate government officials.

7. HANDLING AND STORAGE

Steps to be Taken in Case Material is Released or Spilled: Eliminate all sources of ignition in vicinity of the spilled or released fluid.

Other Precautions: Use normal precautions in handling any combustible liquid. Keep container closed when not in use. Store away from heat or open flame. Product on surfaces can cause slippery conditions. Practice reasonable care and cleanliness. Avoid breathing spray mists if generated. Keep out of reach of children. Product may become a solid at temperatures below -37°C (-34°F). Do not store near food, foodstuffs, drugs or potable water supplies.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Respiratory protection is required if airborne concentration exceeds TLV. At any detectable concentration any self-contained breathing apparatus with a full face piece and operated in a pressure-demand or other positive pressure mode or any supplied-air respirator with a full face piece and operated in a pressure-demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive pressure mode.

Escape: Any air-purifying full face piece respirator (gas mask) with a chin-style or front- or back-mounted organic vapor canister or any appropriate escape-type self-contained breathing apparatus.

Skin Protection: Protective gloves recommended when prolonged skin contact cannot be avoided. Polyethylene; Neoprene; Nitrile; Polyvinyl alcohol; Natural Rubber, Butyl Rubber. Safety shower should be available.

Eye Protection: Safety goggles and face shield. Emergency eyewash should be available. Contact lenses should not be worn when working with this chemical.

Engineering Controls: Use general or local exhaust ventilation to meet TLV requirements.

EXPOSURE LIMITS

Component	**Exposure Limits**	**Skin Form**
Ethylene glycol	100 mg/m3 CEILING ACGIH	Aerosol
Ethylene glycol	125 mg/m3 CEILING OSHA-vacated	
	50 ppm CEILING OSHA – vacated	
	100 mg/m3 CEILING UCC	Aerosol and Vapor
Diethylene glycol	50 ppm TWA8 AIHA WEEL	Aerosol and Vapor
Diethylene glycol	10 mg/m3 TWA8 AIHA WEEL	Aerosol

In the Exposure Limits Chart above, if there is no specific qualifier (i.e., Aerosol) listed in the Form Column for a particular limit, the listed limit includes all airborne forms of the substance that can be inhaled.

A "blank" in the Skin column indicates that exposure by the cutaneous (skin) route is not a potential significant contributor to overall exposure.

9. PHYSICAL / CHEMICAL PROPERTIES

Boiling Range:	106 - 108°C (224 - 227°F)
Freeze Point:	-37°C (-34°F)
Specific Gravity (Water =1):	1.07
Pounds/Gallons:	8.9
Vapor Pressure (mm of Hg) @ 20C:	<0.1
Vapor Density (air=1):	2.1
Water Solubility:	Complete
Evaporation Rate (BuAc = 1):	Nil
% Volatile By Volume:	50
Appearance:	Green
Odor:	Mild
pH:	10.5-11.0

10. STABILITY & REACTIVITY DATA

Stability:	Stable
Conditions to Avoid:	Keep away from flame
Incompatibility (Materials to Avoid):	Strong acid or oxidizing agents
Hazardous Decomposition Products:	Incomplete combustion may produce CO gas
Hazardous Polymerization:	Will not occur

11. TOXICOLOGICAL INFORMATION

(Concentrated Ethylene Glycol)

Skin: The dermal LD50 has not been determined.

Ingestion: The lethal dose in humans is estimated to be 100 ml (3 ozs.). The oral LD50 for rats is in the 6000-13,000-mg/kg range.

Mutagenicity (The Effects on Genetic Material): In vitro mutagenicity studies were negative. Animal mutagenicity studies were negative.

Significant Data with Possible Relevance to Humans: Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses. The no-effect doses for developmental toxicity for ethylene glycol given by gavage over the period of organogenesis has been shown to be 150 mg/kg/day for the mouse and 500 mg/kg/day for the rat. Also, in a preliminary study to asses the effects of exposure of pregnant rats and made to aerosis at concentrations of 150, 1000 and 25000 mg/m3 for 6 hours a day throughout the period of organogenesis, teratogenic effects were produced at the highest concentration, but only in mice. The conditions of these latter experiments did not allow a conclusion as to whether the developmental toxicity was mediated by inhalation of aerosol percutaneous absorption of ethylene glycol from contaminated skin, or swallowing ethylene glycol as a result of grooming the wetted coat. In a further study, comparing effects from high aerosol concentration by whole-body or nose-only exposure, it was shown that nose-only exposure resulted in maternal toxicity (1000 and 25000 mg/m3) and developmental toxicity with minimal evidence of teratogenicity (2500 mg/m3). The no-effects concentration (based on maternal toxicity) was 500 mg/m3. In a further study in mice, no teratogenic effects could be produced when ethylene glycol was applied to skin of pregnant

mice over the period of organogenesis. The above observations suggest that ethylene glycol is to be regarded as an animal teratogen. There is currently no available information to suggest that ethylene glycol has caused birth defects in humans. Cutaneous application of ethylene glycol is ineffective in producing developmental toxicity. Exposure to high aerosol concentrations is only minimally effective in producing developmental toxicity. The major route for producing developmental toxicity is perorally. Two chronic feeding studies, using rats and mice, have not produced any evidence that ethylene glycol causes dose-related increases in tumor incidence or a different pattern of tumors compared with untreated controls. The absence of carcinogenic potential for ethylene glycol has been supported by numerous in vitro genotoxicity studies showing that it does not produce mutagenic or clastogenic effects.

A chronic dietary feeding study of diethylene glycol with rats showed mild kidney injury at 1%, while concentrations of 2% and 4% caused more marked kidney injury. In addition, at 2% and 4% of diethylene glycol in the diet, some rats developed benign papillary tumors in the urinary bladder. These have been attributed to the presence of urinary bladder calcium oxalate stones. No evidence for carcinogenicity was found with a chronic skin-painting study with diethylene glycol in mice. The absence of a direct chemical carcinogenic effect addords with the results in vitro genotoxicity studies that show that it does not produce mutagenic or clastogenic effects. A feeding study employing up to 5.0% diethylene glycol in the diet failed to produce any teratogenic effects. In a mouse continuous breeding study with large doses of diethylene glycol in drinking water, there was evidence for reproductive toxicity at 3.5% (equivalent to 6.1 g/kg/day) as reduced number of litter, live pups per litter and live pup weight. No such effects were seen at 1.75% (approximately 3.05 g/kg/day). The relevance of these very high dosages to human health is uncertain. Pregnant rats receiving undiluted diethylene glycol by gavage over the period of organogenesis had toxic effects at 4.0 and 8.0 ml/kg/day as mortality, decreased body weight, decreased food consumption increased water consumption and increased liver and kidney weights. Fetotoxicity was seen only at these maternally toxic dosages. Decreased fetal body weight occurred at 8.0 ml/kg/day, and increased skeletal variants at 4.0 and 8.0 ml/kg/day. No embryotixic or teratogenic effects were seen. Neither maternal toxicity nor fetotoxicity occurred at 1.0 ml/kg/day. In a study with mice also receiving undiluted diethylene glycol over the period of organogenesis, maternal toxicity occurred at 2.5 and 10.0 ml/kg/day, but not at 0.5 ml/kg/day. Definitive developmental toxicity was not seen in this species.

ACUTE TOXICITY

Peroral: The lethal dose in humans is estimated to be 3 oz. or 100 ml.
Rat: LD50 (6000 – 13000) mg/kg

Percutaneous:
Rabbit: LD50 = >22270 mg/kg; 24 h occluded

Inhalation:
Rat: 8-hour exposure, substantially saturated vapor studies, dynamic generation method

Mortality: 0/6

Inhalation: Mist/vapor study, rat, at 170°C, 8-hour exposure = 2.2 mg/l

Mortality: 0/6

Inhalation:
Rat: 8-hour exposure, fog = 10000 ppm; 65° - 70°C

Mortality: 0/6

IRRITATION

Skin:

Rabbit: 24-hour occluded contact, 0.5 ml
Results: Minor erythema and edema

Skin:

Human: Primary irritation patch test, 48-hour occluded, 0.2 ml
Results: Evidence of irritation

Eye:

Rabbit: 0.1 ml
Results: Minor transient iritis, conjunctival irritation with discharge

REPEATED EXPOSURE

In a 7-day dietary study with rats, a significant increase in kidney weights in females was observed at 5.0 gm/kg. The NOEL was 2.5 gm/kg.

In a 24-month dietary study with rats, increased mortality in males was observed at the highest dose, 1.0 gm/kg/day. There were multiple signs: mineralization of several organs, including the cardiac vessels, cardiac muscle, vas deferens, stomach and pulmonary vessels; cellular hyperplasia of the parathyroids, hemosiderosis of the spleen, myocardial fibrosis, portal fibrosis of the liver, bile duct hyperplasia and hydronephrosis and oxylate nephrosis of the kidneys. Ethylene glycol was not oncogenic.

In a 90-day dietary study with dogs, repeated exposures to 2.5 gm/kg resulted in acute renal failure and deaths. The NOAEL was 1.0 gm/kg.

SENSITIZATION (ANIMAL AND HUMAN STUDIES)

Repeated skin contact with ethylene glycol may, in a very small proportion of cases, cause sensitization with the development of allergic contact dermatitis. The incidence is significantly less than 1% with the undiluted material.

REPRODUCTIVE TOXICITY

A three-generation study indicated that ethylene glycol did not affect reproductive parameters at dietary concentrations up to 1.0 gm/kg/day in any generation.

CHRONIC TOXICITY AND CARCINOGENICITY

Two chronic feeding studies, using rats and mice, have not produced any evidence that ethylene glycol causes dose-related increases in tumor incidence or a different pattern of tumors compared with untreated controls. The absence of a carcinogenic potential for ethylene glycol has been supported by numerous in vitro genotoxicity studies showing that it does not produce mutagenic or clastogenic effects.

GENETIC TOXICOLOGY

In Vitro: Ethylene glycol was devoid of genotoxic activity in an Ames test, forward gene mutation and sister chromatid exchange (SCE) studies in Chinese Hamster Ovary (CHO) cells and an in vitro cytogenetics study.

In Vivo: Ethylene glycol by three different routes (intravenous, peroral and percutaneous) demonstrates apparent first-order pharmacokinetic behavior for the disposition in and the elimination from the plasma. Dose-dependent changes occur for the elimination of metabolites in the urine and as $14CO^2$ after single doses for the intravenous and

peroral, but not the percutaneous route. The hypothesis from literature sources exists that developmental toxicity is caused by a metabolite of ethylene glycol, called glycolic acid, and not parent ethylene glycol. Under most conditions of ethylene glycol exposure, the glycolic acid metabolite is present in the blood in very low levels. However, it can become the major metabolite following large doses of ethylene glycol due to saturation of glycolic acid oxidation and/or elimination. When levels of this acidic metabolite exceed the capacity of maternal blood buffers to neutralize it, a maternal metabolic acidosis ensues, which has been hypothesized to be the true agent responsible for ethylene glycol induced developmental toxicity. Research suggests that ethylene glycol developmental toxicity is due to a dose-rate dependent toxicokinetic shift leading to glycolate accumulation and metabolic acidosis.

ADDITIONAL STUDIES

Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses. The no-effect doses for developmental toxicity for ethylene glycol given by gavage over the period of organogenesis has been shown to be 150 mg/kg/day for the mouse and 500 mg/kg/day for the rat. Also, in a preliminary study to assess the effects of exposure of pregnant rats and mice to aerosols at concentrations of 150, 1000 and 2500 mg/m^3 for 6 hours a day throughout the period of organogenesis, teratogenic effects were produced at the highest concentration, but only in mice. The conditions of these latter experiments did not allow a conclusion as to whether the developmental toxicity was mediated by inhalation of aerosol, percutaneous absorption of ethylene glycol from contaminated skin, or swallowing of ethylene glycol as a result of grooming the wetted coat. In a further study, comparing effects from high aerosol concentration by whole-body or nose-only exposure, it was shown that nose-only exposure resulted in maternal toxicity (1000 and 2500 mg/m^3) and developmental toxicity with minimal evidence of teratogenicity (2500 mg/m^3). The no-effects concentration (based on maternal toxicity) was 500 mg/m^3. In a further study in mice, no teratogenic effects could be produced when ethylene glycol was applied to the skin of pregnant mice over the period of organogenesis. The above observations suggest that ethylene glycol is to be regarded as an animal teratogen. There is currently no available information to suggest that ethylene glycol has caused birth defects in humans. Cutaneous application of ethylene glycol is ineffective in producing developmental toxicity. Exposure to high aerosol concentrations is only minimally effective in producing developmental toxicity.

12. ECOLOGICAL INFORMATION

(Concentrated Ethylene Glycol)

ENVIRONMENTAL FATE

Movement & Partitioning: Bioconcentration potential is low (BCF less than 100 or Log Kow less than 3). Log octanol/water partition coefficient (log Kow) is -1.36. Henry's Law Constant (H) is 6.0E-08 atm-m3/mol. Bioconcentration factor (BCF) is 10 in golden orfe.

Degradation & Transformation: Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD greater than 40%). 5-Day biochemical oxygen demand (BOD5) is 0.78 p/p. 10-Day biochemical oxygen demand (BOD10) is 1.06 p/p. 20-Day biochemical oxygen demand (BOD20) is 1.15 p/p. Theoretical oxygen demand (THOD) is calculated to be 1.29 p/p. Biodegradation may occur under both aerobic and anaerobic conditions (in either the presence or absence of oxygen). Inhibitory concentration (IC50) in OECD "Activated Sludge, Respiration Inhibition Test" (Guideline # 209) is < 1000 mg/L. Degradation is expected in the atmospheric environment within days to weeks.

Ecotoxicology: Material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100 mg/L in most sensitive species). Acute LC50 for fathead minnow (Pimephales promelas) is 51000 mg/L. Acute LC50 for bluegill (Lepomis macrochirus) is 27549 mg/L. Acute LC50 for rainbow trout (Oncorhynchus mykiss) is about 18000-46000 mg/L. Acute LC50 for guppy (Poecilia reticulata) is 49300 mg/L. Acute LC50 for water flea (Daphnia magna) is 46300-51100 mg/L. Acute LC50 for the cladoceran Ceriodaphnia dubia is 10000-25800 mg/L.

Acute LC50 for crayfish is 91430 mg/L. Acute LC50 for brine shrimp (Artemia salina) is 20000 mg/L. Acute LC50 for golden orfe (Leuciscus idus) is greater than 10000 mg/L. Acute LC50 for goldfish (Carassius auratus) is greater than 5000 mg/L. Growth inhibition EC50 for green alga Selenastrum capricornutum is 9500-13000 mg/L.

BOD (% Oxygen Consumption):

Day 5	Day 10	Day 15	Day 20	Day 30
51%	80%		97%	

ECOTOXICITY

Toxicity to Micro-organisms:
Bacterial / NA: 16 h; IC50
Result Value: >10000 mg/l

Toxicity to Aquatic Invertebrates:
Daphnia: 48 h; LC50
Result Value: >100000 mg/l

Toxicity to Fish
Fathead Minnow: 94 h; LC50
Result Value: 70000 mg/l

FURTHER INFORMATION

Chemical Oxygen Demand (COD) – Measured: 1.29 mg/mg
Theoretical Oxygen Demand (THOD) – Calculated: 1.30 mg/mg

Octanol/Water Partition Coefficient – Measured: -1.36

13. DISPOSAL CONSIDERATIONS

DO NOT discharge to sewer. Wear appropriate personal protection. Take up with sand, vermiculite, or similar inert material. Dispose in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION
Non-Bulk
Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner package)

Bulk

Proper Shipping Name:	Environmentally Hazardous Substance, LIQUID N.O.S. (ETHYLENE GLYCOL)
Technical Name:	ETHYLENE GLYCOL
ID Number:	UN 3082
Hazard Class:	9
Packing Group:	PG III
Reportable Quantity:	5,000 lb.

IATA
Non-Bulk
Not Regulated by IATA

IMDG
Non-Bulk
Not regulated by IMDG (in quantities under 5,000 lbs in any one inner package)

15. REGULATORY INFORMATION

THIS PRODUCT CONTAINS COMPONENT(S) CITED ON THE FOLLOWING REGULATIONS.

Chemical Name	***Cas Number***
Ethylene Glycol	107-21-1

United States - TSCA Inventory: Listed

Water Standards: No data available

Atmospheric Standards: Clean Air Act (1990) - List of Hazardous Air Contaminants: listed

CERCLA: Reportable Quantity (RQ): 5,000 pounds (532 gallons)

OSHA Hazard Communication Standard: This product is a "hazardous chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III: Section 311/312 - Categories: Acute hazard; chronic hazard

Section 312 - Inventory Reporting: Ethylene glycol is subject to Tier I and/or Tier II annual inventory reporting.

Section 313 - Emission Reporting: Ethylene glycol is subject to Form R reporting requirements.

Section 302 - Extremely Hazardous Substances: Ethylene glycol is not listed.

State Right-To-Know:

California - Exposure Limits - Ceilings:	vapor-50 ppm ceiling; 125 mg/m3 ceiling
Director's List of Hazardous Substances:	listed
Florida - Hazardous Substances List:	listed
Massachusetts - Right-to-Know List:	listed
Minnesota - Haz. Subs. List:	listed (particulate and vapor)
New Jersey - Right-to-Know List (Total):	Present greater than 1.0%
Pennsylvania Right-to-Know List:	environmental hazard

Canadian Regulations: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required.

WHMIS Information: D2A - material has potential toxic effects. Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): The normal consumer use of this product does not result in exposure to chemicals known to the state of California to cause Cancer and/or reproductive harm above the significant risk level for carcinogens or the maximum allowable dose levels for reproductive toxins. Warnings are not required for consumer packaging. However, industrial or other occupational use of this product at higher frequency and using larger quantities of this product may result in exposures exceeding these levels and are labeled accordingly.

California SCAQMD Rule 443.1 (South Coast Air Quality Management District Rule 443.1, Labeling of Materials Containing Organic Solvents):

VOC: Vapor pressure 0.06 mmHg at 20°C
1113.38 g/l

16. OTHER INFORMATION

Contact: Thomas Cholke Phone: (847) 559-2225

Old World Industries, Inc. makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, Inc. as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, Inc. assume liability arising out of the use by others of this product referred to herein. The data in this MSDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

NAPA Concentrate Antifreeze & Coolant

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : NAPA Concentrate Antifreeze & Coolant

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Automotive Engine Antifreeze & Coolant

1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC
4065 Commercial Ave.
Northbrook, IL 60062 - USA
T (847) 559-2000
www.oldworldind.com

1.4. Emergency telephone number

Emergency number : (800) 424-9300; (703) 527 3887 (International)
Chemtrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Oral) H302
STOT RE 2 H373

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS07 GHS08

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H302 - Harmful if swallowed
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe mist, spray, vapors
P264 - Wash affected areas thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear personal protective equipment as required
P301+P310 - If swallowed: Immediately call doctor/physician or poison center
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P308+P313 - If exposed or concerned: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% by wt	GHS-US classification
ethylene glycol	(CAS No) 107-21-1	90 - 97	Acute Tox. 4 (Oral), H302
diethylene glycol	(CAS No) 111-46-6	< 5	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
water	(CAS No) 7732-18-5	< 4	Not classified
denatonium benzoate	(CAS No) 3734-33-6	30 - 50 ppm	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek immediate medical advice. Allow the victim to rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

First-aid measures after skin contact : Remove contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Rinse immediately with plenty of water (for at least 15 minutes). Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label).

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. If eye irritation persists: Rinse immediately with plenty of water. Get medical advice/attention.

First-aid measures after ingestion : Obtain emergency medical attention. Rinse mouth. If the person is fully conscious, make him/her drink two glasses of water. Never give an unconscious person anything to drink. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes damage to organs (kidneys) oral.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz).

4.3. Indication of any immediate medical attention and special treatment needed

A more effective intravenous antidote for physician uses is 4-methylpyrazaole, a potent inhibitor of alcohol dehydrogenases, which effectively blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occured.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water fog. Fine water spray. Alcohol-resistant foam. Foam. Carbon dioxide. Dry chemical powder. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream. May spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Special protective equipment for fire fighters : Wear positive pressure self-contained breathing apparatus (SCBA). Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Refer to section 8.2.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use. Product may become solid at temperatures below -18 ºC (0 ºF). Do not store near food, foodstuffs, drugs or potable water supplies. Do not cut, drill, weld, use a blowtorch on, etc. containers even when empty.

Incompatible products : Keep away from strong acids, strong bases and oxidizing agents.

Incompatible materials : Sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethylene glycol (107-21-1)		
USA ACGIH	ACGIH Ceiling (mg/m³)	100.00 mg/m³
USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract (URT) & Eye irritant

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Safety glasses.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : If exposed to levels above exposure limits wear appropriate respiratory protection.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Green

Odor : Mild

Odor threshold	:	No data available
pH 50% water solution	:	10.5 - 11
Relative evaporation rate (butylacetate=1)	:	Nil
Freezing point	:	-18 °C (0 ºF)
Boiling point	:	158 °C (317 ºF)
Flash point	:	116 °C (241 ºF) [100% Ethylene Glycol] *ASTM D56*
Auto-ignition temperature	:	400 °C (752 ºF) [100% Ethylene Glycol] *Literature*
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	< 0.1 mm Hg @ 20 ºC
Relative vapor density at 20 °C	:	No data available
Specific Gravity	:	1.12
Density	:	1.12 kg/l (9.3 lbs/gal)
Solubility	:	Water: Complete
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Explosive limits	:	3.2 - 15.3 vol %

9.2. Other information

VOC content : 0.00 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Keep away from any flames or sparking source. Extremely high or low temperatures.

10.5. Incompatible materials

Keep away from strong acids, strong bases and oxidizing agents.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Fume. Alcohols. Aldehydes. Ethers.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

ethylene glycol (107-21-1)	
LD50 oral rat	> 5,000 mg/kg (Rat)
ATE US (oral)	500 mg/kg bodyweight
diethylene glycol (111-46-6)	
LD50 oral rat	12,565 mg/kg (Rat)
LD50 dermal rabbit	11,890 mg/kg (Rabbit)
ATE US (oral)	500 mg/kg bodyweight
ATE US (dermal)	11,890 mg/kg bodyweight
denatonium benzoate (3734-33-6)	
LD50 oral rat	584 mg/kg (Rat)

ethylene glycol (107-21-1)	
LD50 dermal rabbit	> 2,000 mg/kg (Rabbit)
ATE US (oral)	584 mg/kg bodyweight

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz).

SECTION 12: Ecological information

12.1. Toxicity

ethylene glycol (107-21-1)	
LC50 fish 1	53,000 mg/l (96 h; Pimephales promelas; Static system)
EC50 Daphnia 1	> 10,000 mg/l (24 h; Daphnia magna)
LC50 fish 2	40,761 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Static system)
Threshold limit algae 1	> 10,000 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	2,000 mg/l (192 h; Microcystis aeruginosa)
diethylene glycol (111-46-6)	
LC50 fish 1	> 5,000 ppm (24 h; Carassius auratus)
LC50 other aquatic organisms 1	1,174 mg/l (Xenopus laevis)
EC50 Daphnia 1	> 10,000 mg/l (24 h; Daphnia magna)
LC50 fish 2	61,072 ppm (168 h; Poecilia reticulata)
TLM fish 1	> 32,000 mg/l (96 h; Gambusia affinis)
TLM other aquatic organisms 1	> 1,000 ppm (96 h)
Threshold limit other aquatic organisms 1	1,174 mg/l (72 h; Xenopus laevis; Toxicity test)
Threshold limit other aquatic organisms 2	10,745 mg/l (16 h; Protozoa; Toxicity test)
Threshold limit algae 1	2,700 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	100 mg/l (Selenastrum capricornutum)
denatonium benzoate (3734-33-6)	
LC50 fish 1	> 1,000 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	13 mg/l (48 h; Daphnia magna)

12.2. Persistence and degradability

ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.47 g O_2/g substance
Chemical oxygen demand (COD)	1.24 g O_2/g substance
ThOD	1.29 g O_2/g substance
BOD (% of ThOD)	0.36 % ThOD
diethylene glycol (111-46-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.02 g O_2/g substance
Chemical oxygen demand (COD)	1.51 g O_2/g substance
ThOD	1.51 g O_2/g substance

ethylene glycol (107-21-1)	
BOD (% of ThOD)	0.015 % ThOD
denatonium benzoate (3734-33-6)	
Persistence and degradability	Biodegradability in water: no data available. No (test) data on mobility of the substance available.

12.3. Bioaccumulative potential

ethylene glycol (107-21-1)	
BCF fish 1	10 (72 h; Leuciscus idus)
BCF other aquatic organisms 1	0.21 - 0.6 (Procambarus sp.; Chronic)
BCF other aquatic organisms 2	190 (24 h; Algae)
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
diethylene glycol (111-46-6)	
Log Pow	-1.98
Bioaccumulative potential	Bioaccumulation: not applicable.
denatonium benzoate (3734-33-6)	
Log Pow	1.78 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

ethylene glycol (107-21-1)	
Surface tension	0.048 N/m (20 ºC / 68 ºF)
diethylene glycol (111-46-6)	
Surface tension	0.0485 N/m

12.5. Other adverse effects

Effect on ozone layer : No known effect on the ozone layer

Effect on global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III

UN-No.(DOT) : 3082

DOT NA no. : UN3082

Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s.

Department of Transportation (DOT) Hazard Classes : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)

DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : III - Minor Danger

DOT Packaging Exceptions (49 CFR 173.xxx) : 155

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	No limit
DOT Vessel Stowage Location	:	A - The material may be stowed ''on deck'' or ''under deck'' on a cargo vessel and on a passenger vessel.
Other information	:	Non Bulk: Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner package).

ADR

No additional information available

Transport by sea

UN-No. (IMDG) : Not regulated by IMDG (in quantities under 5,000 lbs in any one inner package)

Air transport

UN-No.(IATA) : Not regulated by IATA (in quantities under 5,000 lbs in any one inner package)

SECTION 15: Regulatory information

15.1. US Federal regulations

NAPA Concentrate Antifreeze & Coolant	
EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed

ethylene glycol (107-21-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb(s)
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Ethylene glycol is subject to Tier I and/or Tier II annual inventory reporting.
SARA Section 313 - Emission Reporting	Ethylene glycol is subject to Form R Reporting requirements.

diethylene glycol (111-46-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

denatonium benzoate (3734-33-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

NAPA Concentrate Antifreeze & Coolant	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

WHMIS Classification

Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

NAPA Concentrate Antifreeze & Coolant
DSL (Canada): The intentional ingredients of this product are listed ECL (South Korea): The intentional ingredients of this product are listed. EINECS (Europe): The intentional ingredients of this product are listed ENCS (Japan): The intentional ingredients of this product are listed

15.3. US State regulations

ethylene glycol (107-21-1)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

diethylene glycol (111-46-6)
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

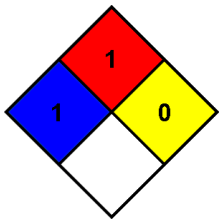
Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 1 Slight Hazard

Physical : 0 Minimal Hazard

Personal Protection : B

SDS GHS US (GHS HazCom 2012) OWI

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Revision Number: 005.1 **Issue date:** 02/08/2021

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **Loctite® PL® Premium Polyurethane Construction Adhesive**
Product type/use: 1-component-polyurethane adhesive
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 1390595
Item number: 1390595
Region: United States
Contact information:
Telephone: +1 (860) 571-5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
DANGER:	CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED. MAY CAUSE RESPIRATORY IRRITATION. CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1

PICTOGRAM(S)

Precautionary Statements

Prevention: Do not breathe dust or fumes. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.

Response: IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a poison center or physician. Take off contaminated clothing.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Talc	14807-96-6	>= 30 - < 40
Methylenebis(phenylisocyanate)	101-68-8	>= 10 - < 20
Hydrocarbon C11-25 dearomatized	64742-46-7	1 - 5
Methylene bisphenyl isocyanate	26447-40-5	1 - 5
Polymeric diphenylmethane diisocyanate	9016-87-9	1 - 5

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation: If inhaled, immediately remove the affected person to fresh air. Immediate medical treatment necessary.

Skin contact: Wash affected area immediately with soap and water. If symptoms develop and persist, get medical attention. Remove contaminated clothes.

Eye contact: In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

Ingestion: Do not induce vomiting. Rinse the mouth. Drink plenty of water. Immediate medical advice necessary.

Symptoms: See Section 11.

Notes to physician: An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.Treatment based on judgement of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water fog. Foam Carbon dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: None known.

Hazardous combustion products: Nitrous gases Irritating fumes. Isocyanate vapors.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Do not empty into drains / surface water / ground water.

Clean-up methods: Ensure adequate ventilation. Scrape up spilled material and place in a closed container for disposal. Wear suitable protective clothing, gloves and eye/face protection.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid extreme temperatures. Exposure to vapors of heated MDI can be extremely dangerous. Wash thoroughly after handling. Protect from moisture. Use only with adequate ventilation.

Storage: For safe storage, store between 15 °C (59°F) and 30 °C (86°F)
Avoid moisture. Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Talc	2 mg/m3 TWA Respirable fraction.	0.1 mg/m3 TWA Respirable. 20 MPPCF TWA 2.4 MPPCF TWA Respirable.	None	50 ppm
Methylenebis(phenylisocyanate)	0.005 ppm TWA	0.02 ppm (0.2 mg/m3) Ceiling	None	None
Hydrocarbon C11-25 dearomatized	5 mg/m3 TWA Inhalable fraction.	5 mg/m3 PEL Mist.	None	None
Methylene bisphenyl isocyanate	None	None	None	None
Polymeric diphenylmethane diisocyanate	None	None	None	None

Engineering controls: Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Respiratory protection: Observe OSHA regulations for respirator use (29 CFR 1910.134). Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists. Respirator with combination filter for vapor/particulate. However, due to the poor warning properties of MDI, proper fit and timely replacement of filter elements must be ensured.

Eye/face protection: Safety glasses with side-shields. Full face protection should be used if the potential for splashing or spraying of product exists.

Skin protection: Suitable protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Highly viscous, Solid
Color: Tan
Odor: Mild
Odor threshold: Not available.
pH: Neutral, Weakly, Alkaline
Vapor pressure: Not available.
Boiling point/range: 172 - 341 °C (341.6 - 645.8 °F)no method
Melting point/ range: Not applicable
Specific gravity: 1.294 - 1.378
Vapor density: Heavier than air
Flash point: > 93.34 °C (> 200.01 °F)
Flammable/Explosive limits - lower: 1.6 %
Flammable/Explosive limits - upper: 10.2 %
Autoignition temperature: No information available.
Flammability: Not applicable
Evaporation rate: Not available.
Solubility in water: Slightly soluble
Partition coefficient (n-octanol/water): Not available.
VOC content: < 3 %; 76 g/l (by weight, calculated using CARB method; g/L less water, less exempts calculated using SCAQMD method)
Viscosity: Not available.
Decomposition temperature: Not available.

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous reactions: Contact with moisture, other materials that react with isocyanates, or temperatures above 350° F (177° C), may cause polymerization.

Hazardous decomposition products: Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. nitrogen oxides Aromatic isocyanates. carbon oxides.

Incompatible materials: Oxidizing agents. Alcohols. Water.

Reactivity: Not available.

Conditions to avoid: Avoid moisture. Keep away from open flames, hot surfaces and sources of ignition. Prolonged exposure to heat.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Inhalation, Skin, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation: As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Chronic overexposure to isocyanates has been reported to cause lung damage. Dryness of nasal passages, sore throat, cough, tightness of chest, shortness of breath. Persons suffering from allergic reactions to isocyanates should avoid contact with the product. This product may cause sensitization by inhalation and skin contact. May cause respiratory tract irritation.

Skin contact: Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals. This product may discolor the skin.

Eye contact: Contact with eyes will cause irritation.

Ingestion: Ingestion of this product may cause nausea, vomiting and diarrhea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Talc	None	Irritant, Lung, Some evidence of carcinogenicity
Methylenebis(phenylisocyanate)	Inhalation LC50 (Rat, 4 h) = 0.38 mg/l	Irritant, Respiratory, Allergen
Hydrocarbon C11-25 dearomatized	Inhalation LC50 (Rat, 4 h) = 1.72 mg/l	Irritant
Methylene bisphenyl isocyanate	None	Allergen, Irritant, Mutagen, Respiratory
Polymeric diphenylmethane diisocyanate	None	Allergen, Irritant, Kidney, Liver, Respiratory

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Talc	No	No	No
Methylenebis(phenylisocyanate)	No	No	No
Hydrocarbon C11-25 dearomatized	No	No	No
Methylene bisphenyl isocyanate	No	No	No
Polymeric diphenylmethane diisocyanate	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

International Air Transportation (ICAO/IATA)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

Water Transportation (IMO/IMDG)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	None above reporting de minimis.
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
CERCLA/SARA Section 313:	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Methylenebis(phenylisocyanate) (CAS# 101-68-8). Polymeric diphenylmethane diisocyanate (CAS# 9016-87-9).
California Proposition 65:	No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDSL Status:	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: This Safety Data Sheet contains changes from the previous version in Section(s): 3, 13, 15

Prepared by: Product Safety and Regulatory Affairs

Issue date: 02/08/2021

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SAFETY DATA SHEET

Section 1. Identification

Product name Castrol GTX 10W-40

SDS # 452859

Code 452859-US81

Relevant identified uses of the substance or mixture and uses advised against

Product use Engine Oils.
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Supplier BP Lubricants USA Inc.
1500 Valley Road
Wayne, NJ 07470
Telephone: (973) 633-2200

EMERGENCY HEALTH INFORMATION: 1 (800) 447-8735

Outside the US: +1 703-527-3887 (CHEMTREC)

EMERGENCY SPILL INFORMATION: 1 (800) 424-9300 CHEMTREC (USA)

Section 2. Hazards identification

OSHA/HCS status This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture Not classified.

GHS label elements

Signal word No signal word.

Hazard statements No known significant effects or critical hazards.

Precautionary statements

General Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention Not applicable.

Response Not applicable.

Storage Not applicable.

Disposal Not applicable.

Hazards not otherwise classified Defatting to the skin.
USED ENGINE OILS
Used engine oil may contain hazardous components which have the potential to cause skin cancer.
See Toxicological Information, section 11 of this Safety Data Sheet.

Section 3. Composition/information on ingredients

Substance/mixture Mixture

Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives.

Ingredient name	CAS number	%
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	≥75 - ≤90
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	≤10

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

Skin contact Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Ingestion Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training.

Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treatment should in general be symptomatic and directed to relieving any effects.

Specific treatments No specific treatment.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

Unsuitable extinguishing media Do not use water jet.

Specific hazards arising from the chemical In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products Combustion products may include the following:
carbon oxides (CO, CO_2) (carbon monoxide, carbon dioxide)

Special protective actions for fire-fighters No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Special protective equipment for fire-fighters Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Not suitable

Prolonged exposure to elevated temperature

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated heavy paraffinic	**ACGIH TLV (United States).** TWA: 5 mg/m³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction **OSHA PEL (United States).** TWA: 5 mg/m³ 8 hours. Issued/Revised: 6/1993
Distillates (petroleum), hydrotreated heavy paraffinic	**ACGIH TLV (United States).** TWA: 5 mg/m³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction **OSHA PEL (United States).** TWA: 5 mg/m³ 8 hours. Issued/Revised: 6/1993

Section 8. Exposure controls/personal protection

While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.
Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.
Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
Appropriate techniques should be used to remove potentially contaminated clothing.
Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety glasses with side shields.

Skin protection

Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/ manufacturer and with a full assessment of the working conditions.

Body protection

Use of protective clothing is good industrial practice.
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Section 9. Physical and chemical properties

Appearance

Physical state Liquid.

Color Brown.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point Not available.

Boiling point Not available.

Flash point Closed cup: 230°C (446°F) [Pensky-Martens.]

Pour point -33 °C

Evaporation rate Not available.

Flammability (solid, gas) Not applicable. Based on - Physical state

Lower and upper explosive (flammable) limits Not available.

Vapor pressure Not available.

Vapor density Not available.

Density <1000 kg/m³ (<1 g/cm³) at 15°C

Solubility insoluble in water.

Partition coefficient: n-octanol/water Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Kinematic: 95 mm^2/s (95 cSt) at 40°C
Kinematic: 13.7 to 14.5 mm^2/s (13.7 to 14.5 cSt) at 100°C

Section 10. Stability and reactivity

Reactivity No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

Chemical stability The product is stable.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid Avoid all possible sources of ignition (spark or flame).

Incompatible materials Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated heavy paraffinic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Section 11. Toxicological information

Skin contact No known significant effects or critical hazards.

Inhalation Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data.

Skin contact Adverse symptoms may include the following:
irritation
dryness
cracking

Inhalation No specific data.

Ingestion No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Potential chronic health effects

General USED ENGINE OILS
Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use. Used engine oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used engine oil must therefore be avoided and a high standard of personal hygiene maintained.

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Teratogenicity No known significant effects or critical hazards.

Developmental effects No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

No testing has been performed by the manufacturer.

Persistence and degradability

Expected to be biodegradable.

Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

Mobility in soil

Section 12. Ecological information

Soil/water partition coefficient (K_{OC}) Not available.

Mobility Spillages may penetrate the soil causing ground water contamination.

Other adverse effects No known significant effects or critical hazards.

Other ecological information Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

Section 13. Disposal considerations

Disposal methods The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

Special precautions for user Not available.

Transport in bulk according to Annex II of MARPOL and the IBC Code Not available.

Section 15. Regulatory information

U.S. Federal regulations

United States inventory (TSCA 8b) All components are active or exempted.

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 311/312

Classification Not applicable.

Section 15. Regulatory information

SARA 313

Form R - Reporting requirements	This product does not contain any hazardous ingredients at or above regulated thresholds.
Supplier notification	This product does not contain any hazardous ingredients at or above regulated thresholds.

State regulations

Massachusetts	The following components are listed: OIL MIST, MINERAL; OIL MIST, MINERAL
New Jersey	None of the components are listed.
Pennsylvania	None of the components are listed.

California Prop. 65

⚠ **WARNING**: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Naphthalene and Ethylbenzene, which are known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Other regulations

Australia inventory (AICS)	All components are listed or exempted.
Canada inventory	All components are listed or exempted.
China inventory (IECSC)	All components are listed or exempted.
Japan inventory (ENCS)	At least one component is not listed.
Korea inventory (KECI)	All components are listed or exempted.
Philippines inventory (PICCS)	At least one component is not listed.
Taiwan Chemical Substances Inventory (TCSI)	All components are listed or exempted.
REACH Status	For the REACH status of this product please consult your company contact, as identified in Section 1.

Section 16. Other information

National Fire Protection Association (U.S.A.)

History

Date of issue/Date of revision	09/21/2020.
Date of previous issue	07/23/2019.
Prepared by	Product Stewardship
Key to abbreviations	ACGIH = American Conference of Industrial Hygienists ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS Number = Chemical Abstracts Service Registry Number GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) OEL = Occupational Exposure Limit SDS = Safety Data Sheet STEL = Short term exposure limit TWA = Time weighted average UN = United Nations

Section 16. Other information

UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.
Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

Indicates information that has changed from previously issued version.

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: STRUST +SSPR 6PK GLOSS WHITE

Revision Date: 3/11/2020

Product Identifier: 7792830

Supercedes Date: 12/13/2019

Recommended Use: Topcoat / Aerosols

Supplier: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
35% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Eye Irritation, category 2A	H319	Causes serious eye irritation.

GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. NO SMOKING.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.

P501	Dispose of contents/container in accordance with local, regional and national regulations.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P264	Wash hands thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

3. Composition / Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Propane	74-98-6	10-25	GHS04	H280
Acetone	67-64-1	10-25	GHS02-GHS07	H225-319-332-336
n-Butyl Acetate	123-86-4	10-25	GHS02-GHS07	H226-336
Titanium Dioxide	13463-67-7	10-25	Not Available	Not Available
n-Butane	106-97-8	2.5-10	GHS04	H280
Solvent Naphtha, Light Aromatic	64742-95-6	2.5-10	GHS07-GHS08	H304-332
Xylenes (o-, m-, p- Isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Barium Sulfate	7727-43-7	1.0-2.5	GHS07	H332
Propylene Glycol Monobutyl Ether	5131-66-8	1.0-2.5	GHS07	H302-315-319
1,2,4-Trimethylbenzene	95-63-6	1.0-2.5	GHS02-GHS07-GHS08	H226-304-315-319-332-335
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07-GHS08	H225-304-332-351-373
Barium Metaborate	13701-59-2	0.1-1.0	GHS07	H302-332

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can.

SPECIAL FIREFIGHTING PROCEDURES: Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
Acetone	67-64-1	20.0	250 ppm	500 ppm	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	20.0	50 ppm	150 ppm	150 ppm	N.E.
Titanium Dioxide	13463-67-7	15.0	10 mg/m3	N.E.	15 mg/m3	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	5.0	N.E.	N.E.	N.E.	N.E.
Xylenes (o-, m-, p- Isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Barium Sulfate	7727-43-7	5.0	5 mg/m3	N.E.	15 mg/m3	N.E.
Propylene Glycol Monobutyl Ether	5131-66-8	5.0	N.E.	N.E.	N.E.	N.E.
1,2,4-Trimethylbenzene	95-63-6	5.0	N.E.	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.
Barium Metaborate	13701-59-2	1.0	0.5 mg/m3	6 mg/m3	0.5 mg/m3	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Specific Gravity:	0.846	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 537	**Explosive Limits, vol%:**	0.9 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: No Information

EFFECTS OF OVEREXPOSURE - INHALATION: High gas, vapor, mist or dust concentrations may be harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010)May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.E.
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.E.
1330-20-7	Xylenes (o-, m-, p- Isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
7727-43-7	Barium Sulfate	307000 mg/kg Rat	N.E.	N.E.
5131-66-8	Propylene Glycol Monobutyl Ether	1900 mg/kg Rat	N.E.	N.E.
95-63-6	1,2,4-Trimethylbenzene	3280 mg/kg Rat	>3160 mg/kg Rabbit	18 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
13701-59-2	Barium Metaborate	530 mg/kg Rat	>2000 mg/kg Rabbit	N.E.

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Do not incinerate closed containers. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint and Related Spray Products in Ltd Qty	Aerosols	Aerosols, flammable	Aerosols
Hazard Class:	N.A.	2	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Gas under pressure, Carcinogenicity, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure)

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Xylenes (o-, m-, p- Isomers)	1330-20-7
1,2,4-Trimethylbenzene	95-63-6
Ethylbenzene	100-41-4
Barium Metaborate	13701-59-2

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. State Regulations:

California Proposition 65:

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

Maximum Incremental Reactivity 0.95

SDS REVISION DATE: 3/11/2020

REASON FOR REVISION:

Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
01 - Identification
02 - Hazard Identification
09 - Physical & Chemical Properties
15 - Regulatory Information
16 - Other Information
Revision Statement(s) Changed

Legend: N.A. - Not Applicable, N.D. - Not Determined, N.E. - Not Established

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet:
Material Name: Elmer's Carpenter's Wood Filler
SDS ID: SDS-3
Issue Date: 2015-08-11
Revision: 1.5

Other Sections
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
Elmer's Carpenter's Wood Filler

Trade Names
Elmer's Carpenter's Wood Filler

Synonyms
E842; E847; E848; E849; E855; E859; E860; E861; E864; E868; 60842, 60848, 60849, 63842, 63846, 63847, 63848, 63849, 60853, 60854, 60859, 60860, 60864, 60868

Product Use
building/construction product

Restrictions on Use
None known.

Details of the supplier of the safety data sheet

Elmer's Products, Inc
460 Polaris Parkway, Suite 500
Westerville, OH 43082
USA
Phone:1-888-435-6377
Fax:1-800-741-6046
Email:comments@elmers.com

Emergency Phone Number:
Poison Control Center
1-888-516-2502

For additional product information, access our website at www.elmers.com. To place an order, call 1-800-848-9400.

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
None needed according to classification criteria

GHS Label Elements

Symbol(s)
None needed according to classification criteria

Signal Word
None needed according to classification criteria

Hazard Statement(s)
None needed according to classification criteria

Precautionary Statement(s)

Prevention
None needed according to classification criteria

Response
None needed according to classification criteria

Storage
None needed according to classification criteria

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
NA	Non-hazardous substance	100

Section 4 - FIRST AID MEASURES

Inhalation
If adverse effects occur, remove to uncontaminated area. May cause discomfort with contact. If discomfort persists, contact a physician.

Skin
If on skin, wash immediately with plenty of soap and water. Get medical attention if irritation develops.

Eyes
Remove contact lenses, if present and easy to do. IMMEDIATELY wash with large amounts of warm water, occasionally lifting upper and lower lids, until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.

Ingestion
Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious or convulsive person. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms/Effects

Acute
No information on significant adverse effects.

Delayed
No information on significant adverse effects.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
carbon dioxide, regular dry chemical, regular foam, water

Unsuitable Extinguishing Media
None known.

Hazardous Combustion Products
oxides of carbon

Advice for firefighters
Slight fire hazard.

Fire Fighting Measures
Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment. See Section 8 for personal protection information.

Methods and Materials for Containment and Cleaning Up
Stop leak if possible without personal risk. Absorb with earth, sand or other non-combustible material and transfer to container. Collect spilled material in appropriate container for disposal.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Use only with adequate ventilation. Wash thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities
None needed according to classification criteria
Store in accordance with all current regulations and standards. Protect from freezing. Keep separated from incompatible substances.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

ACGIH, NIOSH, EU, OSHA (US) and Mexico have not developed exposure limits for any of this product's components

Biological limit value
There are no biological limit values for any of this product's components.

Engineering Controls
Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection
Wear splash resistant safety goggles. When sanding: Wear safety glasses or safety goggles, with a faceshield, as appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection
Wear appropriate chemical resistant clothing.

Respiratory Protection
Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use. Any chemical cartridge respirator with organic vapor cartridge(s). Any

chemical cartridge respirator with a full facepiece and organic vapor cartridge(s). Any air-purifying respirator with a full facepiece and an organic vapor canister. For Unknown Concentrations or Immediately Dangerous to Life or Health -. Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode. Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Glove Recommendations
Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	paste	**Physical State**	Liquid
Odor	mild acrylic odor	**Color**	various colors
Odor Threshold	Not available	**pH**	8.3 - 9.2
Melting Point	Not available	**Boiling Point**	100 °C
Freezing point	0 °C	**Evaporation Rate**	Not available
Boiling Point Range	Not available	**Flammability (solid, gas)**	Not flammable
Autoignition	Not available	**Flash Point**	Not available
Lower Explosive Limit	Not available	**Decomposition**	Not available
Upper Explosive Limit	Not available	**Vapor Pressure**	Not available
Vapor Density (air=1)	Not available	**Specific Gravity (water=1)**	1.309
Water Solubility	miscible	**Partition coefficient: n-octanol/water**	Not available
Viscosity	Not available	**Solubility (Other)**	Not available
Density	Not available	**Physical Form**	paste
Percent Solids	76 - 80 %		

Section 10 - STABILITY AND REACTIVITY

Reactivity

No hazard expected.

Chemical Stability
Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions
Will not polymerize.

Conditions to Avoid
Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials
strong oxidizing materials.

Hazardous decomposition products

Combustion
oxides of carbon

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation
No information on significant adverse effects.

Skin Contact
No information on significant adverse effects.

Eye Contact
May cause irritation.

Ingestion
No information on significant adverse effects.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and no selected endpoints have been identified

Immediate Effects
No information on significant adverse effects.

Delayed Effects
No information on significant adverse effects.

Irritation/Corrosivity Data
No information on significant adverse effects.

Respiratory Sensitization
No information available for the product.

Dermal Sensitization
No information available for the product.

Component Carcinogenicity
None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

Germ Cell Mutagenicity
No information available for the product.

Tumorigenic Data
No data available

Reproductive Toxicity
No information available for the product.

Specific Target Organ Toxicity - Single Exposure
No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure
No target organs identified.

Aspiration hazard
No data available.

Medical Conditions Aggravated by Exposure
No data available.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity
No LOLI ecotoxicity data are available for this product's components

Persistence and Degradability
No information available for the product.

Bioaccumulative Potential
No information available for the product.

Biodegradation
No information available for the product.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose in accordance with all applicable regulations.

Component Waste Numbers
The U.S. EPA has not published waste numbers for this product's components

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Section 14 - TRANSPORT INFORMATION

US DOT Information:
UN/NA #: Not regulated.

TDG Information:
UN#: Not regulated.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations
None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.
SARA Section 311/312 (40 CFR 370 Subparts B and C)
Acute Health: No **Chronic Health:** No **Fire:** No **Pressure:** No **Reactivity:** No

U.S. State Regulations
None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA

Not listed under California Proposition 65

Canada Regulations
This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Canadian WHMIS Ingredient Disclosure List (IDL)

The components of this product are either not listed on the IDL or are present below the threshold limit listed on the IDL.

WHMIS Classification

Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

Component Analysis - Inventory

U.S. Inventory (TSCA)

All the components of this substance are listed on or are exempt from the inventory.

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

New SDS: 08/07/2014

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.

"CONTRACTOR SERIES" SYNTHETIC LUBRICANT

INGERSOLL-RAND

CONTRACTOR SERIES

MATERIAL SAFETY DATA SHEET

Effective Date: 4/15/99

Contractor Series Oil is a diester based synthetic lubricant formulated for use in Ingersoll-Rand "Contractor Series" Reciprocating Air compressors.
Part No. 97338131 (.5 liter bottle)
Part No. 97338149 (6-pack .5 liter bottles)

1.) PRODUCT IDENTIFICATION: Mixture-Chemical Family: Diester

2.) HAZARDOUS INGREDIENTS: The components of this product are not listed as hazardous or toxic according to OSHA (29 CFR OSHA 1910.1200), NTP, IARC, and SARA 313.

Hazardous Materials Identification System (HMIS):

Health	Flammability	Reactivity	Ratings Key:	
0	1	0	4 = Highest Hazard	0 = Lowest

3.) PHYSICAL DATA:

Boiling Point: N/A
Viscosity: 93.5 cSt @ 40° C
Vapor Density: Greater than air
Solubility in Water: Negligible
Appearance: Light straw colored fluid
Odor: Mild ester odor
Pour Point: -52° F
Specific Gravity: 0.92
Percent Volatile: Negligible
Evaporation Rate: Not volatile, slower than Butyl Acetrate
Viscosity Index: 128

4.) FIRE AND EXPLOSION HAZARD DATA:

Flash Point: 500° F (250° C)
Method Used: ASTM D92
Flammable Limits: Not established
Fire Fighting Media: Water spray, dry chemical, foam or carbon dioxide
Fire Fighting Procedures: Use water to keep fire-exposed container cool. Wear self-contained positive pressure breathing apparatus and full protective gear to fight fire. Cool with water spray.
Special Fire and Explosion Hazard: None expected
Auto Ignition Temperature: 790° F

5.) HEALTH HAZARD: This product does not contain any components considered to be health hazards under the OSHA Hazard Communication Standards 29CFR 1910.1200 or under the WHMIS Controlled Product Regulations in Canada.

Effects on exposure: Prolonged or repeated skin contact may tend to remove natural skin oils, thus leading to possible irritation and dermatitis.
Medical Conditions Generally Aggravated by Exposure: May aggravate previous skin condition.
Skin Contact: With repeated contact, a skin defatter. May develop redness or mild irritation.
Skin Absorption: Not established
Ingestion (Acute): Can cause gastrointestinal irritation. No hazard expected in normal use.
Inhalation (Acute): No hazard expected in normal use.
Eyes: Mild irritation.
Systemic & Other Effects: Not established

"CONTRACTOR SERIES"
SYNTHETIC LUBRICANT

INGERSOLL-RAND
CONTRACTOR SERIES

6.) REACTIVITY DATA:

Stability: Stable under normal storage conditions
Incompatibility: Avoid contact with strong oxidizers such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.
Hazardous Decomposition: Burning will produce toxic fumes.
Hazardous Polymerization: Will not occur under normal conditions
Conditions to Avoid: Open flames

7.) HANDLING AND STORAGE:

Exposure Guidelines: Not established. OSHA TLV/TWA 5mg/m^3 oil mist can be used.
Ventilation: Local exhaust to capture vapor, mist or fumes, if necessary.
Respiratory Protection: Use NIOSH-approved equipment: filter, fume or mist respirator under misty conditions.
Skin Protection: For prolonged use, use chemical resistant gloves to minimize skin contact.
Eye Protection: Use safety glasses with side shields.
Special Handling: If splashing occurs, use apron. Do not get in eyes, on skin or clothing. Wash thoroughly after handling.
Storage: Store in a cool, dry place. Keep containers closed when not in use.

8.) ENVIRONMENTAL AND DISPOSAL INFORMATION:

Steps to be Taken in Case of Spills: Ventilate area. Prevent spread of spill. Absorb with sand or an inert, absorbing material. Sweep or scoop up and place in a disposal container. Do not contaminate any lakes, pools, ponds, streams, ground water or soil.
Waste Disposal Method: Dispose of in accordance with local, state or federal laws.

9.) FIRST AID:

Eyes: Flush with water for at least 15 minutes. Hold eyelids open while flushing. If irritation persists get medical attention.
Skin: Remove contaminated clothing and wash skin thoroughly with soap and water.
Ingestion: Drink 8-10 ounces of water. Do not induce vomiting. Get medical attention immediately.
Inhalation: Remove to fresh air. Get medical attention if discomfort persists.

10.) PREPARED BY: Ingersoll-Rand

Note: *This information is furnished without warranty, representation, inducement or license of any kind, except that it is accurate to the best of Ingersoll-Rand's knowledge or obtained from sources believed by Ingersoll-Rand to be accurate, and Ingersoll-Rand does not assume any legal responsibility for use or reliance upon same. Customers are encouraged to conduct their own tests. Before using any product, READ ITS LABEL.*

Emergency Contact:
Telephone: 704/896-4200
Telex: 572584 IRACDSN DVDS
800-B Beaty Street
Davidson, NC 28036
Form: 3175

INGERSOLL-RAND
AIR COMPRESSORS

SAFETY DATA SHEET

224

Section 1. Identification

Product name : MINWAX® WOOD FINISH®
Special Walnut

Product code : 224

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : MINWAX Company
10 Mountainview Road
Upper Saddle River, NJ 07458

Emergency telephone number of the company : US/Canada: (800) 424-9300
Mexico: CHEMTREC México 800-681-9531. Available 24 hours and 365 days per year

Product Information Telephone Number : US/Canada: (800) 523-9299
Mexico: 800-717-3123 / 55-5333-1501

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: 800-717-3123 / 55-5333-1501

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 59.9% (oral), 59.9% (dermal), 59.9% (inhalation)

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Storage : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Light Aliphatic Hydrocarbon	≥50 - ≤75	64742-47-8
Heavy Naphthenic Petroleum Oil	≥10 - ≤25	64742-52-5
Med. Aliphatic Hydrocarbon Solvent	≤5	64742-88-7
Aliphatic Solvent	≤3	64742-47-8
Mineral Spirits (Odorless)	<1	64742-47-8
Carbon Black	≤0.3	1333-86-4
Hydrotreated Heavy Petroleum Naphtha	≤0.3	64742-48-9

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : No specific data.

Section 4. First aid measures

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : **This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Light Aliphatic Hydrocarbon	64742-47-8	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Heavy Naphthenic Petroleum Oil	64742-52-5	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2020).** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **NIOSH REL (United States, 10/2016).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist
Med. Aliphatic Hydrocarbon Solvent	64742-88-7	**OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.
Aliphatic Solvent	64742-47-8	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Mineral Spirits (Odorless)	64742-47-8	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Carbon Black	1333-86-4	**ACGIH TLV (United States, 3/2020).** TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction **NIOSH REL (United States, 10/2016).** TWA: 3.5 mg/m³ 10 hours. TWA: 0.1 mg of PAHs/cm³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 3.5 mg/m³ 8 hours.
Hydrotreated Heavy Petroleum Naphtha	64742-48-9	None.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Petroleum refining, hydrotreated light distillate	64742-47-8	**CA British Columbia Provincial (Canada, 1/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.** 8 hrs OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.
Medium aliphatic solvent naphtha (petroleum) C9-C12	64742-88-7	**CA Ontario Provincial (Canada, 6/2019).** TWA: 525 mg/m³ 8 hours.
Petroleum refining, hydrotreated light distillate	64742-47-8	**CA British Columbia Provincial (Canada, 1/2020). Absorbed through skin.**

		TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.** 8 hrs OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.
Carbon black	1333-86-4	**CA British Columbia Provincial (Canada, 1/2020).** TWA: 3 mg/m³ 8 hours. Form: Inhalable **CA Ontario Provincial (Canada, 6/2019).** TWA: 3 mg/m³ 8 hours. Form: Inhalable particulate matter. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 3.5 mg/m³ 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 3.5 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 7 mg/m³ 15 minutes. TWA: 3.5 mg/m³ 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Light Aliphatic Hydrocarbon	64742-47-8	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Aliphatic Solvent	64742-47-8	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : **This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Boiling point/boiling range : 148°C (298.4°F)

Flash point : Closed cup: 41°C (105.8°F) [Pensky-Martens Closed Cup]

Evaporation rate : 0.13 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1%
Upper: 8.8%

Vapor pressure : 0.17 kPa (1.27 mm Hg) [at 20°C]

Vapor density : 5 [Air = 1]

Relative density : 0.85

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): <0.205 cm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Section 9. Physical and chemical properties

Aerosol product

Heat of combustion : 30.919 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Heavy Naphthenic Petroleum Oil	LD50 Oral	Rat	>5000 mg/kg	-
Carbon Black	LD50 Oral	Rat	>15400 mg/kg	-
Hydrotreated Heavy Petroleum Naphtha	LC50 Inhalation Vapor	Rat	8500 mg/m³	4 hours
	LD50 Oral	Rat	>6 g/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Heavy Naphthenic Petroleum Oil	Skin - Severe irritant	Rabbit	-	500 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Carbon Black	-	2B	-

Reproductive toxicity

Not available.

Section 11. Toxicological information

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Light Aliphatic Hydrocarbon	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects
Med. Aliphatic Hydrocarbon Solvent	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects
Aliphatic Solvent	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects
Mineral Spirits (Odorless)	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects
Hydrotreated Heavy Petroleum Naphtha	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Light Aliphatic Hydrocarbon	Category 2	-	-
Med. Aliphatic Hydrocarbon Solvent	Category 1	-	-
Aliphatic Solvent	Category 2	-	-
Mineral Spirits (Odorless)	Category 2	-	-
Hydrotreated Heavy Petroleum Naphtha	Category 2	-	-

Aspiration hazard

Name	Result
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1
Med. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Aliphatic Solvent	ASPIRATION HAZARD - Category 1
Mineral Spirits (Odorless)	ASPIRATION HAZARD - Category 1
Hydrotreated Heavy Petroleum Naphtha	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Section 11. Toxicological information

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : No specific data.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Causes damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Light Aliphatic Hydrocarbon	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days
Aliphatic Solvent	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days
Mineral Spirits (Odorless)	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days

Persistence and degradability

Not available.

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Hydrotreated Heavy Petroleum Naphtha	-	10 to 2500	high

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : **This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT. Marine pollutant (Light Aliphatic Hydrocarbon, Med. Aliphatic Hydrocarbon Solvent)
Transport hazard class(es)	3 	3 	3 	3 	3  
Packing group	III	III	III	III	III

Section 14. Transport information

Environmental hazards	No.	No.	No.	Yes. The environmentally hazardous substance mark is not required.	Yes.
Additional information	This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials. **ERG No.** 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). **ERG No.** 128	- **ERG No.** 128	The environmentally hazardous substance mark may appear if required by other transportation regulations.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. **Emergency schedules** F-E, S-E

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 5(a)2 final significant new use rules**: Chlorodiazocarboxylate

This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

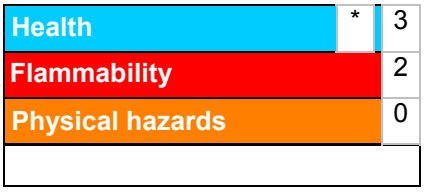
International regulations

Section 15. Regulatory information

International lists : **Australia inventory (AIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 4/13/2021

Date of issue/Date of revision : 4/13/2021

Date of previous issue : 10/14/2020

Version : 21

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available

Section 16. Other information

SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

RDMI1001A

Section 1. Identification

Product name : KRYLON® MARK-IT® Inverted Marking Paint
Red Fluorescent

Product code : RDMI1001A

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 18.7% (oral), 28.5% (dermal), 18.7% (inhalation)

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Pressurized container: Do not pierce or burn, even after use.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Toluene	<10	108-88-3
Propane	≤10	74-98-6
Light Aliphatic Hydrocarbon	≤10	64742-47-8
Butane	≤5	106-97-8
Lt. Aliphatic Hydrocarbon Solvent	≤3	64742-89-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

Skin contact : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Toluene	108-88-3	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 3/2020).** TWA: 20 ppm 8 hours.
Propane	74-98-6	**NIOSH REL (United States, 10/2016).** TWA: 1000 ppm 10 hours. TWA: 1800 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Light Aliphatic Hydrocarbon	64742-47-8	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Butane	106-97-8	**NIOSH REL (United States, 10/2016).** TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2020). Explosive potential.** STEL: 1000 ppm 15 minutes.
Lt. Aliphatic Hydrocarbon Solvent	64742-89-8	None.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Toluene	108-88-3	**CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.** 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 188 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 1/2020).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019). Absorbed through skin.** TWAEV: 50 ppm 8 hours.

Section 8. Exposure controls/personal protection

		TWAEV: 188 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.
Normal propane	74-98-6	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 1/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.** **CA Ontario Provincial (Canada, 6/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Petroleum refining, hydrotreated light distillate	64742-47-8	**CA British Columbia Provincial (Canada, 1/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.** 8 hrs OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.
Butane	106-97-8	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 1/2020). Explosive potential.** STEL: 1000 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019). Explosive potential.** STEL: 1000 ppm 15 minutes.

Occupational exposure limits (Mexico)

Section 8. Exposure controls/personal protection

	CAS #	Exposure limits
Toluene	108-88-3	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.
Propane	74-98-6	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
Light Aliphatic Hydrocarbon	64742-47-8	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Butane	106-97-8	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : 7

Melting point/freezing point : Not available.

Boiling point/boiling range : Not available.

Flash point : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]

Evaporation rate : 2 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 0.9%
Upper: 9.5%

Vapor pressure : 101.3 kPa (760 mm Hg) [at 20°C]

Vapor density : 1 [Air = 1]

Relative density : 0.86

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): <0.205 cm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Type of aerosol : Spray

Heat of combustion : 13.195 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m³	4 hours

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Propane	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Light Aliphatic Hydrocarbon	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Butane	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Section 11. Toxicological information

Lt. Aliphatic Hydrocarbon Solvent	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	-	-
Propane	Category 2	-	-
Light Aliphatic Hydrocarbon	Category 2	-	-
Butane	Category 2	-	-
Lt. Aliphatic Hydrocarbon Solvent	Category 2	-	-

Aspiration hazard

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
Propane	ASPIRATION HAZARD - Category 1
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 11. Toxicological information

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	5293.29 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Toluene	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Light Aliphatic Hydrocarbon	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days
Lt. Aliphatic Hydrocarbon Solvent	Acute LC50 >100000 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Toluene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Toluene Lt. Aliphatic Hydrocarbon Solvent	- -	90 10 to 2500	low high

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	-	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations:	-	-	**Emergency schedules** F-D, S-U

Section 14. Transport information

	ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	2.13-2.17 (Class 2). **ERG No.** 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	**ERG No.** 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

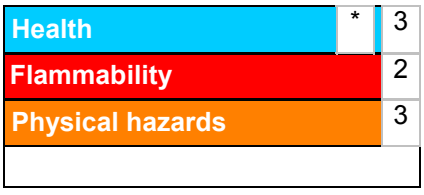
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists : **Australia inventory (AIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
TOXIC TO REPRODUCTION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 4/18/2021

Date of issue/Date of revision : 4/18/2021

Date of previous issue : 10/13/2020

Version : 16

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

51508

Section 1. Identification

Product name : KRYLON® ColorMaster™ with Covermax™ Technology Paint + Primer Semi-Gloss White

Product code : 51508

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 13.8% (oral), 24.5% (dermal), 24.8% (inhalation)

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Pressurized container: Do not pierce or burn, even after use.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Acetone	≥25 - ≤50	67-64-1
Propane	≥10 - ≤25	74-98-6
Butane	≥10 - ≤25	106-97-8
Isobutyl Acetate	≤10	110-19-0
Toluene	≤10	108-88-3
Titanium Dioxide	≤10	13463-67-7
Ethyl 3-Ethoxypropionate	≤2.4	763-69-9
Trimethylpentanediol Diisobutyrate	≤1	6846-50-0
Methyl Ethyl Ketoxime	≤0.3	96-29-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Section 4. First aid measures

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Acetone	67-64-1	**ACGIH TLV (United States, 3/2020).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
Propane	74-98-6	**NIOSH REL (United States, 10/2016).** TWA: 1000 ppm 10 hours. TWA: 1800 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Butane	106-97-8	**NIOSH REL (United States, 10/2016).** TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2020). Explosive potential.** STEL: 1000 ppm 15 minutes.
Isobutyl Acetate	110-19-0	**NIOSH REL (United States, 10/2016).** TWA: 150 ppm 10 hours.

Section 8. Exposure controls/personal protection

		TWA: 700 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 150 ppm 8 hours. TWA: 700 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2020).** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
Toluene	108-88-3	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 3/2020).** TWA: 20 ppm 8 hours.
Titanium Dioxide	13463-67-7	**ACGIH TLV (United States, 3/2020).** TWA: 10 mg/m³ 8 hours. **OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours. Form: Total dust
Ethyl 3-Ethoxypropionate	763-69-9	None.
Trimethylpentanediol Diisobutyrate	6846-50-0	None.
Methyl Ethyl Ketoxime	96-29-7	**AIHA WEEL (United States, 7/2020). Skin sensitizer.** TWA: 10 ppm 8 hours.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
acetone	67-64-1	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes. **CA British Columbia Provincial (Canada, 1/2020).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 500 ppm 8 hours. TWAEV: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.
Normal propane	74-98-6	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours.

Section 8. Exposure controls/personal protection

		CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 1/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.** **CA Ontario Provincial (Canada, 6/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Butane	106-97-8	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 1/2020). Explosive potential.** STEL: 1000 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019). Explosive potential.** STEL: 1000 ppm 15 minutes.
Isobutyl acetate	110-19-0	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 1/2020).** TWA: 150 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 150 ppm 8 hours. TWAEV: 713 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 188 ppm 15 minutes. TWA: 150 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
Toluene	108-88-3	**CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.** 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 188 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 1/2020).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019). Absorbed through skin.** TWAEV: 50 ppm 8 hours. TWAEV: 188 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.**

Section 8. Exposure controls/personal protection

		STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.
Titanium dioxide	13463-67-7	**CA British Columbia Provincial (Canada, 1/2020).** TWA: 10 mg/m³ 8 hours. Form: Total dust TWA: 3 mg/m³ 8 hours. Form: respirable fraction **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 10 mg/m³ 8 hours. Form: Total dust. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 10 mg/m³ 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 10 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**AIHA WEEL (United States, 7/2020). Skin sensitizer.** TWA: 10 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Acetone	67-64-1	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.
Propane	74-98-6	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
Butane	106-97-8	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
Isobutyl Acetate	110-19-0	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 150 ppm 8 hours.
Toluene	108-88-3	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Section 8. Exposure controls/personal protection

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Boiling point/boiling range : Not available.

Flash point : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1%
Upper: 12.8%

Vapor pressure : 101.3 kPa (760 mm Hg) [at 20°C]

Vapor density : 1.55 [Air = 1]

Relative density : 0.78

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): <0.205 cm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Type of aerosol : Spray

Heat of combustion : 27.174 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m³	4 hours
Isobutyl Acetate	LD50 Dermal	Rabbit	>17400 mg/kg	-
	LD50 Oral	Rat	13400 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Ethyl 3-Ethoxypropionate	LD50 Oral	Rat	3200 mg/kg	-
Methyl Ethyl Ketoxime	LD50 Oral	Rat	930 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
Isobutyl Acetate	Eyes - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

Section 11. Toxicological information

Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug I	-
Ethyl 3-Ethoxypropionate	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Trimethylpentanediol Diisobutyrate	Skin - Mild irritant	Guinea pig	-	5 g	-
	Skin - Mild irritant	Human	-	504 hours 1 % I	-
Methyl Ethyl Ketoxime	Eyes - Severe irritant	Rabbit	-	100 uL	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Titanium Dioxide	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Propane	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Butane	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Isobutyl Acetate	Category 3	-	Narcotic effects
Toluene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 2	-	-
Propane	Category 2	-	-
Butane	Category 2	-	-
Toluene	Category 2	-	-

Aspiration hazard

Section 11. Toxicological information

Name	Result
Propane	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Section 11. Toxicological information

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	6009.19 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - Acartia tonsa - Copepodid	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
Toluene	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
Methyl Ethyl Ketoxime	Acute LC50 843000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
Toluene	-	-	Readily

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Toluene	-	90	low
Trimethylpentanediol Diisobutyrate	-	5340	high
Methyl Ethyl Ketoxime	-	2.5 to 5.8	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- **ERG No.**	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). **ERG No.**	- **ERG No.**	-	**Emergency schedules** F-D, S-U

Section 14. Transport information

	126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

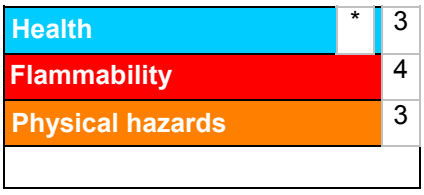
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists : **Australia inventory (AIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 4/18/2021

Date of issue/Date of revision : 4/18/2021

Date of previous issue : 1/18/2021

Version : 18

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of

Section 16. Other information

sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

51601

Section 1. Identification

Product name : KRYLON® ColorMaster™ with Covermax™ Technology Paint + Primer Gloss Black

Product code : 51601

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 13.8% (oral), 27.5% (dermal), 25.9% (inhalation)

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Pressurized container: Do not pierce or burn, even after use.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Acetone	≥25 - ≤50	67-64-1
Propane	≥10 - ≤25	74-98-6
Butane	≥10 - ≤25	106-97-8
Toluene	≥10 - ≤25	108-88-3
Isobutyl Acetate	≥10 - ≤25	110-19-0
Ethyl 3-Ethoxypropionate	≤3	763-69-9
Carbon Black	≤1	1333-86-4
Methyl Ethyl Ketoxime	≤0.3	96-29-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Section 4. First aid measures

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Acetone	67-64-1	**ACGIH TLV (United States, 3/2020).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
Propane	74-98-6	**NIOSH REL (United States, 10/2016).** TWA: 1000 ppm 10 hours. TWA: 1800 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Butane	106-97-8	**NIOSH REL (United States, 10/2016).** TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2020). Explosive potential.** STEL: 1000 ppm 15 minutes.
Toluene	108-88-3	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours.

Section 8. Exposure controls/personal protection

		CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 3/2020).** TWA: 20 ppm 8 hours.
Isobutyl Acetate	110-19-0	**NIOSH REL (United States, 10/2016).** TWA: 150 ppm 10 hours. TWA: 700 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 150 ppm 8 hours. TWA: 700 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2020).** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
Ethyl 3-Ethoxypropionate	763-69-9	None.
Carbon Black	1333-86-4	**ACGIH TLV (United States, 3/2020).** TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction **NIOSH REL (United States, 10/2016).** TWA: 3.5 mg/m³ 10 hours. TWA: 0.1 mg of PAHs/cm³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 3.5 mg/m³ 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**AIHA WEEL (United States, 7/2020). Skin sensitizer.** TWA: 10 ppm 8 hours.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
acetone	67-64-1	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes. **CA British Columbia Provincial (Canada, 1/2020).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 500 ppm 8 hours. TWAEV: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.
Normal propane	74-98-6	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours.

Section 8. Exposure controls/personal protection

		CA Quebec Provincial (Canada, 7/2019). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 1/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.** **CA Ontario Provincial (Canada, 6/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Butane	106-97-8	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 1/2020). Explosive potential.** STEL: 1000 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019). Explosive potential.** STEL: 1000 ppm 15 minutes.
Toluene	108-88-3	**CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.** 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 188 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 1/2020).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019). Absorbed through skin.** TWAEV: 50 ppm 8 hours. TWAEV: 188 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.
Isobutyl acetate	110-19-0	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 1/2020).** TWA: 150 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 150 ppm 8 hours. TWAEV: 713 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).**

Section 8. Exposure controls/personal protection

		STEL: 188 ppm 15 minutes. TWA: 150 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
Carbon black	1333-86-4	**CA British Columbia Provincial (Canada, 1/2020).** TWA: 3 mg/m³ 8 hours. Form: Inhalable **CA Ontario Provincial (Canada, 6/2019).** TWA: 3 mg/m³ 8 hours. Form: Inhalable particulate matter. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 3.5 mg/m³ 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 3.5 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 7 mg/m³ 15 minutes. TWA: 3.5 mg/m³ 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**AIHA WEEL (United States, 7/2020). Skin sensitizer.** TWA: 10 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Acetone	67-64-1	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.
Propane	74-98-6	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
Butane	106-97-8	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
Toluene	108-88-3	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.
Isobutyl Acetate	110-19-0	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 150 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Boiling point/boiling range : Not available.

Flash point : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1%
Upper: 12.8%

Vapor pressure : 101.3 kPa (760 mm Hg) [at 20°C]

Vapor density : 1.55 [Air = 1]

Relative density : 0.74

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): <0.205 cm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Section 9. Physical and chemical properties

Type of aerosol : Spray

Heat of combustion : 27.905 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m³	4 hours
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Isobutyl Acetate	LD50 Dermal	Rabbit	>17400 mg/kg	-
	LD50 Oral	Rat	13400 mg/kg	-
Ethyl 3-Ethoxypropionate	LD50 Oral	Rat	3200 mg/kg	-
Carbon Black	LD50 Oral	Rat	>15400 mg/kg	-
Methyl Ethyl Ketoxime	LD50 Oral	Rat	930 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

Section 11. Toxicological information

Isobutyl Acetate	Eyes - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Ethyl 3-Ethoxypropionate	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Methyl Ethyl Ketoxime	Eyes - Severe irritant	Rabbit	-	100 uL	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Carbon Black	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Propane	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Butane	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Toluene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Isobutyl Acetate	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 2	-	-
Propane	Category 2	-	-
Butane	Category 2	-	-
Toluene	Category 2	-	-

Aspiration hazard

Section 11. Toxicological information

Name	Result
Propane	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Section 11. Toxicological information

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	4531.01 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - Acartia tonsa - Copepodid	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
Toluene	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Methyl Ethyl Ketoxime	Acute LC50 843000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
Toluene	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Toluene	-	90	low
Methyl Ethyl Ketoxime	-	2.5 to 5.8	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- **ERG No.** 126	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). **ERG No.** 126	- **ERG No.** 126	-	**Emergency schedules** F-D, S-U

Section 14. Transport information

	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

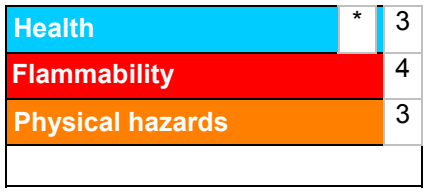
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists : **Australia inventory (AIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 4/13/2021

Date of issue/Date of revision : 4/13/2021

Date of previous issue : 1/18/2021

Version : 21

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

1025

Section 1. Identification

Product name : PlastiKote® Car Color®
GM lt Slate Metallic

Product code : 1025

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Valspar
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : 1-800-323-8418

Regulatory Information Telephone Number : (216) 566-2902

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 23%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 23%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 21%

GHS label elements

Hazard pictograms :

Section 2. Hazards identification

Signal word : Danger

Hazard statements : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Pressurized container: Do not pierce or burn, even after use.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Acetone	≥25 - ≤50	67-64-1
Propane	≥10 - ≤25	74-98-6
Butane	≤10	106-97-8
Xylene, mixed isomers	≤6.6	1330-20-7
2-Methylpropane	≤10	75-28-5
2-Butoxyethanol	≤3.3	111-76-2
2-methoxy-1-methylethyl acetate	≤5	108-65-6
1-Methoxy-2-propanol	≤5	107-98-2
Ethylbenzene	≤3	100-41-4
Methyl Methacrylate	≤0.3	80-62-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : May cause an allergic skin reaction.

Section 4. First aid measures

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Acetone	67-64-1	**ACGIH TLV (United States, 3/2019).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
Propane	74-98-6	**NIOSH REL (United States, 10/2016).** TWA: 1000 ppm 10 hours. TWA: 1800 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Butane	106-97-8	**NIOSH REL (United States, 10/2016).** TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2019). Explosive potential.** STEL: 1000 ppm 15 minutes.
Xylene, mixed isomers	1330-20-7	**ACGIH TLV (United States, 3/2019).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
2-Methylpropane	75-28-5	**NIOSH REL (United States, 10/2016).** TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2019). Explosive potential.** STEL: 1000 ppm 15 minutes.
2-Butoxyethanol	111-76-2	**ACGIH TLV (United States, 3/2019).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2016). Absorbed through skin.** TWA: 5 ppm 10 hours. TWA: 24 mg/m³ 10 hours.

Section 8. Exposure controls/personal protection

		OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours.
2-methoxy-1-methylethyl acetate	108-65-6	**AIHA WEEL (United States, 7/2018).** TWA: 50 ppm 8 hours.
1-Methoxy-2-propanol	107-98-2	**ACGIH TLV (United States, 3/2019).** TWA: 50 ppm 8 hours. TWA: 184 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 369 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 360 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 540 mg/m³ 15 minutes.
Ethylbenzene	100-41-4	**ACGIH TLV (United States, 3/2019).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Methyl Methacrylate	80-62-6	**ACGIH TLV (United States, 3/2019). Skin sensitizer.** TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 410 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 410 mg/m³ 8 hours.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Acetone	67-64-1	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes. **CA British Columbia Provincial (Canada, 5/2019).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Ontario Provincial (Canada, 1/2018).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 500 ppm 8 hours. TWAEV: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada,**

		7/2013). STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.
Normal propane	74-98-6	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 1000 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 5/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Butane	106-97-8	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 800 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 5/2019). Explosive potential.** STEL: 1000 ppm 15 minutes.
Xylene	1330-20-7	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 5/2019).** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 1/2018).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Methyl-2 propane	75-28-5	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 800 ppm 8 hours.

Section 8. Exposure controls/personal protection

		CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 5/2019). Explosive potential.** STEL: 1000 ppm 15 minutes.
Ethylene glycol monobutyl ether	111-76-2	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 97 mg/m³ 8 hours. 8 hrs OEL: 20 ppm 8 hours. **CA British Columbia Provincial (Canada, 5/2019).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 20 ppm 8 hours. TWAEV: 97 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 30 ppm 15 minutes. TWA: 20 ppm 8 hours.
Propylene glycol monomethyl ether	107-98-2	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 553 mg/m³ 15 minutes. 8 hrs OEL: 369 mg/m³ 8 hours. 15 min OEL: 150 ppm 15 minutes. **CA British Columbia Provincial (Canada, 5/2019).** STEL: 100 ppm 15 minutes. TWA: 50 ppm 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 100 ppm 8 hours. TWAEV: 369 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 553 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethylbenzene	100-41-4	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes. **CA British Columbia Provincial (Canada, 5/2019).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes.

Methyl methacrylate	80-62-6	STEV: 543 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 205 mg/m³ 8 hours. 8 hrs OEL: 50 ppm 8 hours. 15 min OEL: 410 mg/m³ 15 minutes. 15 min OEL: 100 ppm 15 minutes. **CA British Columbia Provincial (Canada, 5/2019). Skin sensitizer.** TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. **CA Ontario Provincial (Canada, 1/2018). Skin sensitizer.** TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. **CA Quebec Provincial (Canada, 1/2014). Skin sensitizer.** TWAEV: 50 ppm 8 hours. TWAEV: 205 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Skin sensitizer.** STEL: 100 ppm 15 minutes. TWA: 50 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Acetone	67-64-1	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.
Propane	74-98-6	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
Butane	106-97-8	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
Xylene, mixed isomers	1330-20-7	**NOM-010-STPS-2014 (Mexico, 4/2016).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
2-Methylpropane	75-28-5	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
2-Butoxyethanol	111-76-2	**NOM-010-STPS-2014 (Mexico, 4/2016).** **Absorbed through skin.** TWA: 20 ppm 8 hours.
1-Methoxy-2-propanol	107-98-2	**NOM-010-STPS-2014 (Mexico, 4/2016).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethylbenzene	100-41-4	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Section 8. Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point/boiling range : Not available.

Flash point : Closed cup: -35°C (-31°F) [Tagliabue Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1%
Upper: 13.74%

Vapor pressure : 101.3 kPa (760 mm Hg) [at 20°C]

Vapor density : 1.55 [Air = 1]

Section 9. Physical and chemical properties

Relative density : 0.73

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): <0.205 cm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Type of aerosol : Spray

Heat of combustion : 28.268 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m^3	4 hours
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
2-Methylpropane	LC50 Inhalation Vapor	Rat	658000 mg/m^3	4 hours
2-Butoxyethanol	LCLo Inhalation Vapor	Guinea pig	>3.1 mg/l	1 hours
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
	LD50 Oral	Rat	1300 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
1-Methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	6600 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Methyl Methacrylate	LC50 Inhalation Vapor	Rat	78000 mg/m^3	4 hours
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	7872 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 Ul	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 Ul	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
1-Methoxy-2-propanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Xylene, mixed isomers	-	3	-
2-Butoxyethanol	-	3	-
Ethylbenzene	-	2B	-
Methyl Methacrylate	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Acetone	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Propane	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Butane	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Xylene, mixed isomers	Category 3	Not applicable.	Respiratory tract irritation
2-Methylpropane	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
2-Butoxyethanol	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
2-methoxy-1-methylethyl acetate	Category 3	Not applicable.	Narcotic effects
1-Methoxy-2-propanol	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Ethylbenzene	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Methyl Methacrylate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 2	Not determined	Not determined
Propane	Category 2	Not determined	Not determined
Butane	Category 2	Not determined	Not determined
Xylene, mixed isomers	Category 2	Not determined	Not determined
2-Methylpropane	Category 2	Not determined	Not determined
2-Butoxyethanol	Category 2	Not determined	Not determined
1-Methoxy-2-propanol	Category 2	Not determined	Not determined
Ethylbenzene	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
Propane	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
2-Methylpropane	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Section 11. Toxicological information

Skin contact : May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Route	ATE value
Oral	19406.29 mg/kg
Dermal	9506.27 mg/kg
Inhalation (gases)	66836.51 ppm
Inhalation (vapors)	217.25 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 6900 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
2-Butoxyethanol	Acute EC50 >1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1250000 µg/l Marine water	Fish - Menidia beryllina	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Methyl Methacrylate	Acute LC50 130000 µg/l Fresh water	Fish - Pimephales promelas - Adult	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
Xylene, mixed isomers	-	-	Readily
2-Butoxyethanol	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene, mixed isomers	-	8.1 to 25.9	low

Mobility in soil

Section 12. Ecological information

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- **ERG No.** 126	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). **ERG No.** 126	- **ERG No.** 126	-	**Emergency schedules** F-D, S-U

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

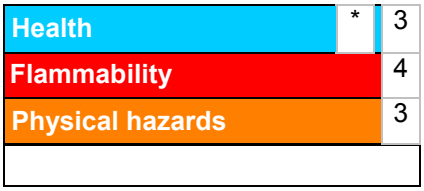
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method

Section 16. Other information

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 11/30/2019

Date of issue/Date of revision : 11/30/2019

Date of previous issue : 5/22/2019

Version : 6

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

623

Section 1. Identification

Product name : PlastiKote® Rust Converter

Product code : 623

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Valspar
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : 1-800-323-8418

Regulatory Information Telephone Number : (216) 566-2902

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : May cause damage to organs.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response : IF exposed or concerned: Call a POISON CENTER or doctor.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements FOR PROFESSIONAL USE ONLY.

Section 2. Hazards identification

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Tannic Acid	≤3	1401-55-4
2-Butoxyethanol	≤3	111-76-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : May cause damage to organs following a single exposure if inhaled.

Section 4. First aid measures

Skin contact : May cause damage to organs following a single exposure in contact with skin.

Ingestion : May cause damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Tannic Acid 2-Butoxyethanol	1401-55-4 111-76-2	None. **ACGIH TLV (United States, 3/2020).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2016).** **Absorbed through skin.** TWA: 5 ppm 10 hours. TWA: 24 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** **Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours.

Occupational exposure limits (Canada)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
Ethylene glycol monobutyl ether	111-76-2	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 97 mg/m³ 8 hours. 8 hrs OEL: 20 ppm 8 hours. **CA British Columbia Provincial (Canada, 1/2020).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 20 ppm 8 hours. TWAEV: 97 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 30 ppm 15 minutes. TWA: 20 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
2-Butoxyethanol	111-76-2	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : 8

Melting point/freezing point : Not available.

Boiling point/boiling range : 100°C (212°F)

Flash point : Closed cup: 94°C (201.2°F) [Pensky-Martens Closed Cup]

Evaporation rate : 0.09 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1.1%
Upper: 10.6%

Vapor pressure : 2.3 kPa (17.5 mm Hg) [at 20°C]

Vapor density : 1 [Air = 1]

Relative density : 1.13

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >0.205 cm^2/s (>20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Tannic Acid	LD50 Oral	Rat	2800 mg/kg	-
2-Butoxyethanol	LCLo Inhalation Vapor	Guinea pig	>3.1 mg/l	1 hours
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
	LD50 Oral	Rat	1300 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Tannic Acid	-	3	-
2-Butoxyethanol	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Tannic Acid	Category 2	-	-
2-Butoxyethanol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
2-Butoxyethanol	Category 2	-	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Section 11. Toxicological information

Eye contact : No known significant effects or critical hazards.

Inhalation : May cause damage to organs following a single exposure if inhaled.

Skin contact : May cause damage to organs following a single exposure in contact with skin.

Ingestion : May cause damage to organs following a single exposure if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	14995.35 mg/kg
Dermal	23721.72 mg/kg
Inhalation (vapors)	519.62 mg/l
Inhalation (dusts and mists)	59.52 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Tannic Acid	Acute LC50 37 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
2-Butoxyethanol	Acute EC50 >1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1250000 µg/l Marine water	Fish - Menidia beryllina	96 hours

Section 12. Ecological information

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-Butoxyethanol	-	-	Readily

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	-	-	-	-	-

Section 14. Transport information

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

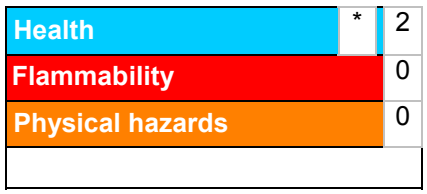
Not applicable.

International regulations

International lists : **Australia inventory (AIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method Calculation method

History

Date of printing : 4/18/2021

Date of issue/Date of revision : 4/18/2021

Date of previous issue : 10/14/2020

Version : 5

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

1. Identification

Product number	79211SP
Product identifier	**BDA – BELT DRESSING**
Company information	ATLANTIC CHEMICAL & EQUIPMENT 3471 ATLANTA INDUSTRIAL PKWY. ATLANTA, GA 30331 United States
Company phone	General Assistance 1-800-929-2436
Emergency telephone US	1-800-424-9300
Version #	01
Recommended use	coating
Recommended restrictions	None known.

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 1B
	Carcinogenicity	Category 1
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements

Signal word	Danger
Hazard statement	Extremely flammable aerosol. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of causing genetic defects. May cause cancer.

Precautionary statement

Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Butane		106-97-8	20 - 40
Trichloroethylene		79-01-6	20 - 40
Propane		74-98-6	10 - 20
Synthetic Isoparaffinic Hydrocarbon		64741-66-8	2.5 - 10
1,2-Butylene Oxide		106-88-7	0.1 - 1
Other components below reportable levels			10 - 20

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media Powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical Contents under pressure. Pressurized container may explode when exposed to heat or flame.

Special protective equipment and precautions for firefighters Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire-fighting equipment/instructions Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

General fire hazards Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Prevent product from entering drains. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 2 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Trichloroethylene (CAS 79-01-6)	Ceiling	200 ppm
	TWA	100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Trichloroethylene (CAS 79-01-6)	STEL	25 ppm
	TWA	10 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm
Trichloroethylene (CAS 79-01-6)	TWA	25 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
1,2-Butylene Oxide (CAS 106-88-7)	TWA	5.9 mg/m3 2 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Trichloroethylene (CAS 79-01-6)	15 mg/l	Trichloroacetic acid	Urine	*
	0.5 mg/l	Trichloroethanol, without hydrolysis	Blood	*

* - For sampling details, please see the source document.

Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear appropriate chemical resistant gloves.
Skin protection	
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Skin protection	
Respiratory protection	If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear.
Physical state	Gas.
Form	Aerosol.
Color	Colorless. Light yellow.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	194 °F (90 °C) estimated
Flash point	-156.0 °F (-104.4 °C) Propellant estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	6.7 % estimated
Flammability limit - upper (%)	43.8 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	45 - 55 psig @70F estimated
Vapor density	Not available.
Relative density	Not available.

Solubility(ies)

Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	779.98 °F (415.55 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.

Other information

Specific gravity	0.817 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Nitrates. Fluorine. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Narcotic effects. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Narcotic effects.

Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l
Propane (CAS 74-98-6)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l
		658 mg/l/4h
Synthetic Isoparaffinic Hydrocarbon (CAS 64741-66-8)		
Acute		
Dermal		
LD50	Rabbit	> 1900 mg/kg, 24 Hours
Inhalation		
LC50	Rat	> 5020 mg/m3, 4 Hours
		> 4980 mg/m3
		> 4980 mg/m3, 4 Hours
		> 4.96 mg/l, 4 Hours
Oral		
LD50	Rat	4820 mg/kg
Trichloroethylene (CAS 79-01-6)		
Acute		
Dermal		
LD50	Rat	19031 mg/kg

Components	Species	Test Results
Inhalation		
LC50	Rat	12500 ppm, 4 Hours
		1044 mg/l/4h

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity Suspected of causing genetic defects.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

1,2-Butylene Oxide (CAS 106-88-7)	2B Possibly carcinogenic to humans.
Trichloroethylene (CAS 79-01-6)	If <1L: Consumer Commodity Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Trichloroethylene (CAS 79-01-6)	Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not likely, due to the form of the product.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Product		Species	Test Results
BDA – BELT DRESSING (CAS Mixture)			
Aquatic			
Crustacea	EC50	Daphnia	6.1487 mg/L, 48 Hours estimated
Fish	LC50	Fish	144.4846 ppm, 96 hours estimated
Components		**Species**	**Test Results**
1,2-Butylene Oxide (CAS 106-88-7)			
Aquatic			
Algae	IC50	Algae	500 mg/L, 72 Hours
Crustacea	EC50	Daphnia	69.8 mg/L, 48 Hours
Fish	LC50	Fish	160, 96 Hours
Synthetic Isoparaffinic Hydrocarbon (CAS 64741-66-8)			
Aquatic			
Algae	IC50	Algae	30000 mg/L, 72 Hours
Trichloroethylene (CAS 79-01-6)			
Aquatic			
Crustacea	EC50	Daphnia	2.2 mg/L, 48 Hours
Fish	LC50	Fish	40.8933, 96 Hours
		Flagfish (Jordanella floridae)	3.1 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Butane	2.89
Propane	2.36
Trichloroethylene	2.61

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste U List: Reference

Trichloroethylene (CAS 79-01-6)	U228

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

14. Transport information

DOT

UN number UN1950
UN proper shipping name Aerosols, flammable
Transport hazard class(es)
Class 2.1
Subsidiary risk 6.1(PGIII)
Label(s) 2.1, 6.1
Packing group Not applicable.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions N82
Packaging exceptions 306
Packaging non bulk None
Packaging bulk None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

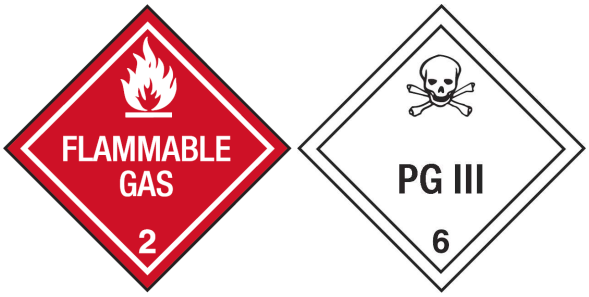
IATA

UN number UN1950
UN proper shipping name Aerosols, flammable, containing substances in Division 6.1, Packing Group III
Transport hazard class(es)
Class 2.1
Subsidiary risk 6.1(PGIII)
Packing group Not applicable.
Environmental hazards No.
ERG Code 10P
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed.
Cargo aircraft only Allowed.
Packaging Exceptions LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
Subsidiary risk	6.1(PGIII)
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	NOT a LTD QTY
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

DOT



IATA; IMDG

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

1,2-Butylene Oxide (CAS 106-88-7)	Listed.
Trichloroethylene (CAS 79-01-6)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Trichloroethylene	79-01-6	20 - 40
1,2-Butylene Oxide	106-88-7	0.1 - 1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

1,2-Butylene Oxide (CAS 106-88-7)
Trichloroethylene (CAS 79-01-6)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Butane (CAS 106-97-8)
Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

1,2-Butylene Oxide (CAS 106-88-7)
Butane (CAS 106-97-8)
Propane (CAS 74-98-6)
Trichloroethylene (CAS 79-01-6)

US. New Jersey Worker and Community Right-to-Know Act

1,2-Butylene Oxide (CAS 106-88-7)
Butane (CAS 106-97-8)
Propane (CAS 74-98-6)
Trichloroethylene (CAS 79-01-6)

US. Pennsylvania Worker and Community Right-to-Know Law

1,2-Butylene Oxide (CAS 106-88-7)
Butane (CAS 106-97-8)
Propane (CAS 74-98-6)
Trichloroethylene (CAS 79-01-6)

US. Rhode Island RTK

1,2-Butylene Oxide (CAS 106-88-7)
Butane (CAS 106-97-8)
Propane (CAS 74-98-6)
Trichloroethylene (CAS 79-01-6)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Trichloroethylene (CAS 79-01-6) Listed: April 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 06-07-2015

Version # 01

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SAFETY DATA SHEET

Heavy-Duty Synthetic Diesel Oil

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200 and WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR).

1. Identification

Product identifier

Product name Heavy-Duty Synthetic Diesel Oil

Product number ADN

Recommended use of the chemical and restrictions on use

Application Diesel oil.

Uses advised against Avoid the formation of mists.

Details of the supplier of the safety data sheet

Supplier
AMSOIL INC.
Bordner, Ladner, Gervais
Scotia Plaza, 40 King St W
Toronto, ON, Canada M5H 3Y4
T: +1 416-367-6547

Manufacturer
AMSOIL INC.
One AMSOIL Center,
Superior, WI 54880, USA.
T: +1 715-392-7101
compliance@amsoil.com

Emergency telephone number

Emergency telephone
CHEMTREC: Within USA and Canada: 1-800-424-9300
Outside the USA and Canada: +1 703-741-5970
(collect calls accepted) 24/7

2. Hazard(s) identification

Classification of the substance or mixture

OSHA/WHMIS Regulatory Status This Product is not Hazardous under the OSHA Hazard Communication Standard and according to the hazard criteria of the Hazardous Product Regulations.

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Heavy-Duty Synthetic Diesel Oil

Hydrogenated base oil CAS number: 72623-87-1	**80 - 100%**
Classification Asp. Tox. 1 - H304	
bis(Nonylphenyl)amine CAS number: 36878-20-3	**1 - <2.5%**
Classification Aquatic Chronic 4 - H413	
Zinc alkyldithiophosphate CAS number: 84605-29-8	**1 - <2.5%**
Classification Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Chronic 2 - H411	

The full text for all hazard statements is displayed in Section 16.

Composition comments The exact percentage is withheld as a trade secret in accordance with 29 CFR 1910.1200.

4. First-aid measures

Description of first aid measures

General information Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

Ingestion Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Prolonged inhalation of high concentrations may damage respiratory system.

Ingestion Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.

Skin contact Prolonged contact may cause dryness of the skin.

Heavy-Duty Synthetic Diesel Oil

Eye contact May cause temporary eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

Specific treatments No special treatment required.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up. Contains Hydrocarbons. The product is immiscible with water and will spread on the water surface.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves, that provides a basic level of protection during chemical incidents is defined by the Canada Occupational Health and Safety Regulations, by provincial guidelines on occupational health and safety or by NFPA standards if applicable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Use protective equipment appropriate for surrounding materials.

Environmental precautions

Environmental precautions Avoid discharge to the aquatic environment.

Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Reuse or recycle products wherever possible. Absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of contents/container in accordance with national regulations.

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

Heavy-Duty Synthetic Diesel Oil

7. Handling and storage

Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid contact with used product. Do not reuse empty containers.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Keep container tightly closed, in a cool, well ventilated place. Protect containers from damage.

Storage class Chemical storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Comments The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Under conditions which may generate mists, the following exposure limits are recommended:
Long-term exposure limit (8-hour TWA): 5 mg/m³
Short-term exposure limit (15-minute): 10 mg/m³

Exposure controls

Appropriate engineering controls Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.6), and any relevant provincial regulation relating to health and safety at work. The following protection should be worn: Chemical splash goggles.

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.9), and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Heavy-Duty Synthetic Diesel Oil

Hygiene measures	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.
Environmental exposure controls	Not regarded as dangerous for the environment.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Brown.
Odor	Mild hydrocarbon.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	232°C Cleveland open cup. [ASTM D 92]
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	0.8560
Solubility(ies)	Not known.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	79.3 cSt @ 40°C 12.0 cSt @ 100°C [ASTM D 445]
Explosive properties	Not considered to be explosive.
Oxidizing properties	Does not meet the criteria for classification as oxidizing.
Fire point	254°C Cleveland open cup. [ASTM D 92]
Pour point	-38°C [ASTM D 97]

10. Stability and reactivity

Heavy-Duty Synthetic Diesel Oil

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Not regarded as a health hazard under current legislation.

Acute toxicity - oral

Notes (oral LD_{50})	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	78,247.26

Acute toxicity - dermal

Notes (dermal LD_{50})	Based on available data the classification criteria are not met.
ATE dermal (mg/kg)	234,741.78

Acute toxicity - inhalation

Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.
ATE inhalation (vapours mg/l)	2,347.42

Skin corrosion/irritation

Animal data	Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation	Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization	Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility	Based on available data the classification criteria are not met.

Heavy-Duty Synthetic Diesel Oil

Reproductive toxicity - development	Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard	Based on available data the classification criteria are not met.

General information	No specific health hazards known. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin Contact	Prolonged contact may cause dryness of the skin.
Eye contact	May cause temporary eye irritation.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	No specific target organs known.
Medical considerations	Skin disorders and allergies.

Toxicological information on ingredients.

Hydrogenated base oil

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} > 5000 mg/kg, Oral, Rat Read-across data. REACH dossier information.

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} > 5000 mg/kg, Dermal, Rabbit Read-across data. REACH dossier information.

Acute toxicity - inhalation

Notes (inhalation LC_{50})	LC_{50} > 5.53 mg/l, Inhalation, Rat 4 hours Read-across data. REACH dossier information.

Skin corrosion/irritation

Animal data	Dose: 0.5 ml, 24 hours, Rabbit Erythema/eschar score: Very slight erythema - barely perceptible (1). Edema score: No oedema (0). Read-across data. REACH dossier information. Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Dose: 0.1 ml, 30 seconds, Rabbit Cornea score: 0 Iris score: 0 Conjunctivae score: 0.33 Read-across data. REACH dossier information.

Skin sensitization

Skin sensitization	Buehler test - Guinea pig: Not sensitizing. Read-across data. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro	Chromosome aberration: Negative. Read-across data. REACH dossier information.

Heavy-Duty Synthetic Diesel Oil

Reproductive toxicity

Reproductive toxicity - fertility	Screening - NOAEL > 1000 mg/kg/day, Oral, Rat P Read-across data. REACH dossier information.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	LOAEL 125 mg/kg/day, Oral, Rat Read-across data. REACH dossier information.

Aspiration hazard

Aspiration hazard	Aspiration hazard if swallowed.

12. Ecological information

Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
Toxicity	Based on available data the classification criteria are not met.

Ecological information on ingredients.

Hydrogenated base oil

Acute aquatic toxicity

Acute toxicity - fish	LL_{50}, 96 hours: > 100 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EL_{50}, 48 hours: > 10000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	NOEL, 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata

Persistence and degradability

Persistence and degradability	The degradability of the product is not known.

Ecological information on ingredients.

Hydrogenated base oil

Biodegradation	Water - Degradation 31%: 28 days Inherently biodegradable.

Bioaccumulative potential

Bio-Accumulative Potential	No data available on bioaccumulation.
Partition coefficient	Not available.

Mobility in soil

Mobility	No data available.

Other adverse effects

Other adverse effects	None known.

13. Disposal considerations

Waste treatment methods

Heavy-Duty Synthetic Diesel Oil

General information The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT, TDG).

UN Number

UN No. (International) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Transport hazard class(es)

Transport labels
No transport warning sign required.

Packing group

Packing group (International) Not applicable.

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

Not applicable.

DOT TIH Zone Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

Regulatory References OSHA Hazard Communication Standard 29 CFR §1910.1200 Hazardous Products Regulation (SOR/2015-17) Transportation of Dangerous Goods Regulations -SOR/2015-100.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
None of the ingredients are listed or exempt.

Heavy-Duty Synthetic Diesel Oil

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
The following ingredients are listed or exempt:

Zinc alkyldithiophosphate
1.0 %

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories
None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals
None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)
None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances
None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List
None of the ingredients are listed or exempt.

Rhode Island "Right To Know" List
None of the ingredients are listed or exempt.

Minnesota "Right To Know" List
None of the ingredients are listed or exempt.

New Jersey "Right To Know" List
None of the ingredients are listed or exempt.

Pennsylvania "Right To Know" List
None of the ingredients are listed or exempt.

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
None of the ingredients are listed or exempt.

16. Other information

Heavy-Duty Synthetic Diesel Oil

Abbreviations and acronyms used in the safety data sheet	C.A.S. = Chemical Abstracts Service; E.C. No = European Commission number; GHS = Globally Harmonised System; OSHA = Occupational Safety and Health Administration; WHMIS = Workplace Hazardous Materials Information System; DOT = Department of Transport; TDG = Transport of Dangerous Goods Regulations; IMDG = International Maritime Dangerous Goods; IATA = International Air Transport Association; SARA = Superfund Amendments and Reauthorization Act; CERCLA = Comprehensive Environmental; EPCRA = Emergency Planning and Community Right-to-Know Act; TSCA = Toxic Substances Control Act; LD/LC/EC = Lethal Dose,Lethal Concentration/Effect Concentration for 50% of population; NOEC = No Overall Effect Concentration; NOEL = No Overall Effect Level; REACH = Registration, Evaluation, Authorisation & Restriction of Chemicals; STOT-RE = Single Target Organ Toxicity - Repeat Exposure; STOT-SE= Specific Target Organ Toxicity - Single Exposure; PBT = Persistent, Bioaccumulative, Toxic; vPvB = Very Persistent, Very Bioaccumulative.
Key literature references and sources for data	Source: European Chemicals Agency, http://echa.europa.eu/
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision comments	This is the first issue.
Revision date	1/28/2019
SDS No.	8431
Hazard statements in full	H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H318 Causes serious eye damage. H411 Toxic to aquatic life with long lasting effects. H413 May cause long lasting harmful effects to aquatic life.

Safety Data Sheet

The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

1. Product And Company Identification

Product Name: ARMOR ALL® Auto Glass Cleaner

Responsible Party: The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

Information Phone Number: +1 203-205-2900
Emergency Phone Number:
For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for Outside US and Canada (call collect)
SDS Date Of Preparation: 01/14/2015
Product Use and Uses Advised Against: Automotive maintenance product – For consumer and professional use

2. Hazards Identification

Note: This product is a consumer product and is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will differ from the OSHA SDS shown below.

GHS Classification:

Physical:	**Health:**
Not Hazardous	Not Hazardous

GHS Label Elements: None

3. Composition/Information On Ingredients

Component	**CAS No.**	**Amount**
Non-Hazardous Ingredients	Mixture	95 -99%
Propylene glycol n-butyl ether	5131-66-8	1-5%

4. First Aid Measures

Inhalation: If symptoms of exposure develop, remove to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Rinse eyes with plenty of water. If skin irritation or redness develops, seek medical attention.

Eye Contact: Flush eyes with plenty of water. If irritation or other symptoms persist, seek medical attention.

Ingestion: If the victim is fully conscious, have them drink a glass of water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

Most Important Symptoms: Direct eye contact may cause mild irritation. Inhalation of high vapor concentrations may cause minor upper respiratory tract irritation. Prolonged or repeated skin contact may cause irritation and dryness in some individuals.

The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention should not be required.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: This product will not sustain combustion. Use any media that is appropriate for the surrounding fire. Cool fire exposed containers with water.

Specific Hazards Arising from the Chemical: This product contains a very small amount of a flammable liquid. Flammable vapors may collect in confined areas. Closed containers may rupture if exposed to extreme heat.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Eliminate all sources of ignition. Ventilate the area. Wear appropriate protective equipment.

Environmental Precautions: Prevent entry in storm sewers and waterways. Report spill as required by local and national regulations.

Methods for Containment and Clean-Up: Absorb with an inert material. Collect into a suitable container for disposal.

7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid breathing vapors or mists. Use with adequate ventilation. Keep containers closed when not in use.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, dry, well ventilated area.

8. Exposure Controls / Personal Protection

Exposure Guidelines:

CHEMICAL	EXPOSURE LIMIT
Non-Hazardous Ingredients	None Established
Propylene glycol n-butyl ether	50 ppm TWA (manufacturer recommended)

Engineering Controls: General ventilation should be adequate for all normal use.

Personal Protective Equipment

Respiratory Protection: None under normal use conditions. For operations where exposures are excessive, a NIOSH approved respirator with an organic vapor cartridge or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice.

Gloves: None normally required. Impervious gloves such as rubber, neoprene or nitrile can be used if needed to avoid prolonged or repeated skin contact.

Eye Protection: None required for normal use. Avoid eye contact. Safety glasses or goggles are recommended if eye contact is possible.

Other Protective Equipment/Clothing: None required under normal use conditions.

9. Physical and Chemical Properties

Appearance and Odor: Liquid with a citrus odor.

Physical State: Liquid	**Odor Threshold:** Not available
pH: 9.0-11.0	**Specific Gravity:** 1.0 @ 25°C
Initial Boiling Point/Range: 212°F (100°C)	**Vapor Pressure:** Not determined
Melting/Freezing Point: Not determined	**Vapor Density:** Not determined
Solubility In Water: Easily soluble	**Percent Volatile:** >95%
Viscosity: Not determined	**Evaporation Rate:** Not determined
Coefficient Of Water/Oil Distribution: Not determined	**VOC Content:** Not determined
Flash Point: >220°F (>104.4°C)	**Autoignition Temp:** Not determined
Decomposition Temperature: Not determined	**Flammability Limits:** LEL: Not determined UEL: Not determined
Flammability (solid, gas): Not applicable	

10. Stability and Reactivity

Reactivity: Not normally reactive
Chemical Stability: Stable.
Possibility of Hazardous Reactions: None known.
Conditions To Avoid: None known.
Incompatible Materials: None known.
Hazardous Decomposition Products: None Known.

11. Toxicological Information

POTENTIAL HEALTH EFFECTS:

Acute Hazards:

Inhalation: Inhalation of high vapor concentrations may cause upper respiratory tract irritation.

Skin Contact: Prolonged or repeated contact may cause irritation and dryness in some individuals.

Eye Contact: Direct contact may cause slight eye irritation.

Ingestion: Swallowing may cause gastrointestinal disturbances.

Chronic Hazards: None currently known.

Carcinogenicity Listing: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:

Propylene glycol n-butyl ether:	LD50 Oral Rat: 3,300 mg/kg LD50 Skin Rat: >2,000 mg/kg

12. Ecological Information

Ecotoxicity:

Propylene glycol n-butyl ether:	LC50 Guppy: 560-1000 mg/L/ 96 hr. LC50 Daphnia: >1000 mg/L/ 48 hr.

Persistence and Degradability: Readily biodegradable

Bio accumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description: Not Regulated

Canadian TDG Hazardous Materials Description: Not Regulated

IMDG Dangerous Goods Description: Not Regulated

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: This product has no RQ. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not hazardous

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

Canada:

Canadian WHMIS Classification: Not a controlled product.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian DSL.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

16. Other Information

NFPA Rating (NFPA 704):	Health: 0	Fire: 0	Instability: 0
HMIS Rating:	Health: 0	Fire: 0	Physical Hazard: 0

REVISION SUMMARY: Update to OSHA HazCom 2012 GHS format. Changes to all sections.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH

SAFETY DATA SHEET
ABC DRY CHEMICAL

SECTION I. Chemical Product and Company Identification

Product Name:	ABC Dry Chemical Fire Extinguishant (Fire Extinguishing Agent, Non-pressurized and Pressurized)
Synonym:	Multi-Purpose Dry Chemical
Manufacturer:	Buckeye Fire Equipment Company PO Box 428 Kings Mountain, NC 28086
Telephone:	704.739.7415
Web Address:	www.buckeyefire.com
Email Address:	bfec@buckeyef.com
Recommended Use:	Fire suppression, not for human or animal drug use.
Emergency:	CHEMTREC 1.800.424.9300
Revision Date:	08/05//2019

SECTION II. Hazard Identification

Note: This SDS covers both pressurized and non-pressurized containers of the product.

GHS – Classification (Pressurized):

Hazard Classification: Gas Under Pressure-Compressed Gas

GHS Label Elements:

Hazard Symbols:
Signal Word: WARNING

Hazard Statements: Contents Under Pressure: may explode if heated
Precautionary Statements: P251 Pressurized container; do not pierce or burn, even after use.

GHS – Classification (Non-pressurized):

Eye Irritation:	Category 2B
Skin Irritation:	Category 5
Acute Toxicity-Inhalation:	Category 5

GHS Label Elements:

Hazard Symbols:
Signal Word: WARNING

Hazard Statements:

H313	May be harmful in contact with skin.
H320	Causes eye irritation
H333	May be harmful if inhaled.

Precautionary Statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P234	Keep in original container.
P251	Pressurized container; do not pierce or burn, even after use
P261	Avoid breathing dust
P264	Wash hands and face thoroughly after handling
P270	Do not eat, drink, or smoke when using this product
P281	Use personal protective equipment as required

P285	In case of inadequate ventilation, wear respiratory protection
P301+322+331	If swallowed, drink 2-3 glasses of water and do not induce vomiting
302+352	If on skin, wash with soap and water
304+313+341	If inhaled, and if distress occurs, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice/attention.
305+351+338	If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and east to do and continue to rinse.
337+313	If eye irritation persists, get medical advice/attention.
P401+402+403	Store in original container or extinguisher in a dry, well ventilated place.

SECTION III. Composition/Information on Ingredients

This product is a mixture.

Chemical Name	Weight %*	CAS #
Monoammonium phosphate	85	7722-76-1
Barium Sulfate	8	7727-43-7
Mica	< 3	12001-26-2
Amorphous Silica (non-crystalline)	< 3	112926-00-8 (7631-86-9)
Stannous octoate	< .3	301-10-0
Silicone	< .1	63148-57-2
Pigment	< .1	6358-31-2

Note: Pressurized product uses nitrogen as the expellant 7727-37-9

* % is rounded to the nearest appropriate number. Values are not to be considered product specifications

SECTION IV. First Aid Measures

Eye Exposure- Flush eyes with water until pain-free. If irritation develops or persists, seek medical attention.

Skin Exposure- Wash with plenty of soap and water. If irritation develops or persists, seek medical attention.

Inhalation- Move victim to fresh air. If irritation develops or persists, seek medical attention.

Ingestion- If victim is conscious and alert, give 2-3 glasses of water to drink. Do not induce vomiting. If vomiting occurs and the victim is conscious, give additional water to further dilute the chemical. Prevent aspiration of swallowed product by laying victim on side with head lower than their waist. Seek medical attention. Do not leave victim unattended.

Medical Conditions Possibly Aggravated by Exposure- Inhalation of the product may aggravate existing chronic respiratory conditions such as asthma, emphysema, or bronchitis. Contact with the skin may aggravate an existing skin disease. Chronic overexposure may cause pneumoconiosis (“Dusty Lung” disease).

SECTION V. Firefighting Measures

Extinguishing Media: N/A. This product is an extinguishing agent. It is nonflammable and noncombustible.
Special Firefighting Procedures: N/A
Unusual Fire and Explosion Hazards: This product may decompose in fire and release oxides of carbon, potassium, and nitrogen (Refer to Section X).
Sensitivity to Mechanical Impact or Static Discharge: None

SECTION VI. Accidental Release Measures

In case of accidental release, use the appropriate respiratory protection. Clean up the product using a vacuum or wet sweep and shovel to minimize the generation of dust. Bag or drum the product for disposal. If the product is used and/or contaminated, use personal protective equipment and containment means that are appropriate for the composition of the mixture. Product should be prevented from entering waterways.

SECTION VII. Handling and Storage

Avoid eye, respiratory, and skin exposure. Use the appropriate personal protective equipment when handling. Wash thoroughly after handling (Refer to Section VIII). Product should be stored in its original container or extinguisher. When the product is contained under pressure (e.g., an extinguisher), inspect the container for rust or damage that may compromise the container integrity. Do not store the product in high humidity and do not mix with other extinguishing agents, particularly potassium bicarbonate-based agents.

SECTION VIII. Exposure Controls and Personal Protection

Exposure Guidelines:

	OSHA PEL	ACGIH TLV
Monoammonium phosphate	Particulates Not Otherwise Classified Total Dust- 15 mg/m³ Respirable Fraction- 5 mg/m³	Particulates Not Otherwise Classified Total Dust- 10 mg/m³ Respirable Fraction- 3 mg/m³
Barium sulfate	Particulates Not Otherwise Classified Total Dust- 15 mg/m³ Respirable Fraction- 5 mg/m³	Particulates Not Otherwise Classified Total Dust- 10 mg/m³ Respirable Fraction- 3 mg/m³
Mica	6 mg/m³	3 mg/m³
Amorphous Silica	6 mg/m³	10 mg/m³
Stannous octoate	.1 mg/m³	.1 mg/m³
Silicone	Not Regulated	Not Regulated
Pigment	Not Regulated	Not Regulated

During the use of this product on fires, exhaust gases and products of incomplete combustion are the main respiratory hazards. In the manufacture of this product, employers and employees must use their collective judgment in determining the on-the-job settings where the use of a dust mask or respirator is prudent. The need for respiratory protection is not likely for short-term use in well-ventilated areas.

Respiratory Protection: Use an N-95 dust mask for limited exposures and use air-purifying respirators with high efficiency particulate air filters (HEPA filters) for prolonged exposures.

Eye Protection: Wear chemical goggles or full-face air-purifying respirator.

Skin Protection: Use nitrile, latex, or similar gloves and coveralls. Good personal hygiene practices are essential. After handling the product, avoid food, tobacco products, or other means of transferring the product from hand to mouth until after thoroughly washing.

SECTION IX. Physical and Chemical Properties

Chemical Agent
Appearance and Odor: Light yellow fine powder that is odorless.
Apparent Density: 0.82
Solubility: The product is coated with water repellant silicone. Not immediately soluble in water.
pH: Approximately 4 -5
Flash Point: N/A
Flammability: N/A
Vapor Pressure: N/A
Boiling Point: N/A
Explosive or Oxidizing Properties: None

Expellant- Nitrogen
Appearance and Odor: Colorless and odorless.
Specific Gravity: 0.075 lb./ft³@ 70°F as vapor
Solubility: N/A
pH: N/A
Flash Point: Nonflammable
Flammability: Nonflammable
Vapor Pressure: N/A
Boiling Point: -321°F
Explosive or Oxidizing Properties: None

SECTION X. Stability and Reactivity

Reactivity: Pressurized containers may rupture or explode if exposed to high heat
Stability: Stable
Incompatibles: Magnesium, strong oxidizers such as calcium hypochlorite (pool chlorine), strong alkalis, and isocyanic acids.
Decomposition Products: This product may decompose in fire and release carbon monoxide, carbon dioxide, and sulfur dioxide. Oxides of phosphorous and ammonia have been reported.
Hazardous Polymerization: Will not occur
Hazardous Reactions: None

SECTION XI. Toxicological Information

Acute Toxicity: Monoammonium phosphate LD50 (rat): > 1000mg/kg body weight.
Target organs in humans: respiratory system, eyes, and skin. This product is an irritant to epithelial tissue and may aggravate dermatitis. No indication that the product causes sensitization.

Chronic Toxicity: Pneumoconiosis, or "Dusty Lung" disease, may result from chronic exposure to any dust.

Reproductive Toxicity: This product is not known to have any reproductive effects.

Nitrogen: Simple asphyxiant. Exposure at high concentrations can cause suffocation by reducing the available oxygen.

SECTION XII. Ecological Information

Ecotoxicity: Negative effects are unknown. Provides nutrient nitrogen and phosphorous to plant life.
Degradability: Degrades rapidly in wet or humid environment.
Bioaccumulation: Unknown extent.
Mobility in Soil: Water-soluble. May leech into groundwater.

SECTION XIII. Disposal Consideration

This product is not a RCRA characteristically hazardous or listed hazardous waste. Dispose of according to state or local laws, which may be more restrictive than federal regulations. Be aware that product used on a fire may be altered or contaminated and thereby require different disposal considerations.

SECTION XIV. Transportation Information

This product is not defined as a hazardous material under U.S. Department of Transportation 49 CFR 172, or by Transport Canada "Transportation of Dangerous Goods" regulations.

Please Note: Although this material is not considered hazardous, when contained in a stored pressure fire extinguisher pressurized with a nonflammable gas, the extinguisher itself is considered a hazardous material by the U.S. Department of Transportation (USDOT) and Transport Canada (TC). The proper shipping name shall be Fire Extinguisher and the UN Identification Number is UN 1044. The USDOT hazard class is Limited Quantity when pressurized to less than 241 psig and when shipped via highway or rail. For shipment by Air or Water consult the current IATA or IMDG Regulations respectively.

SECTION XV. Regulatory Information

International Inventory Status: All ingredients are on the following inventories

Country	Agency	Country	Agency
U.S.A.	TSCA	Australia	AICS
Canada	DSL	Japan	MITI
Europe	EINECS/ELINCS	South Korea	KECL

European Risk and Safety Phrases:

EU Classification- Harmful

R Phrases-	22	Harmful if swallowed
	36/37/38	Irritating to eyes, respiratory system, and skin.
S Phrases-	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	36	Wear suitable protective clothing

U.S. Federal Regulatory Information:

Non-pressurized; None of the chemicals in this product are under SARA reporting requirements or have SARA Threshold Planning Quantities or CERCLA Reportable Quantities or are regulated under TSCA 8(d).
Pressurized: SARA Title III Section 311/312 Categorization is Pressure Hazard

State Regulatory Information:

Chemicals in this product are covered under the specific State regulations noted:

Alaska	Designated Toxic and Hazardous Substances- None		
California	Permissible Exposure Limits for Chemical Contaminants- None		
Florida	Substance list- Mica dust	Pennsylvania	Hazardous Substance List- None
Illinois	Toxic Substance List- No	Rhode Island	Hazardous Substance List- Mica dust
Kansas	Section 302/303 List- None	Texas	Hazardous Substance List- No
Massachusetts	Substance list- Mica dust	West Virginia	Hazardous Substance List- None
Minnesota	List of Hazardous Substances- None	Wisconsin	Toxic and Hazardous Substances- None
Missouri	Employer Information/Toxic Substance List- None		
New Jersey	Right to Know Hazardous Substance List- None		
North Dakota	List of Hazardous Chemicals, Reportable Quantities- None		

California Proposition 65- No component is listed on the California Proposition 65 List

SECTION XVI. Other Information

This Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

HMIS RATINGS:

Health	1
Flammability	0
Reactivity	0

Personal Protective Equipment: use N-95 dust mask (See Section 8)

WHMIS (Canadian Workplace Hazardous Materials Identification)
D2B- May irritate eyes, mucous membranes, and/or skin

Revised on 7/24/19: Page 1, Section II GHS-classification (Non-pressurized) changed (Class) to (Category) Skin Irritation: Class 3 to Category 5, and Inhalations from Class 5 to Category 5. Revised 8/5/19 (Section II) to add "Acute Toxicity" to Inhalation: Category 5

SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: **MOBIL 1 10W-30**
Product Description: Synthetic Base Stocks and Additives
Product Code: 2015101010J2, 481176-00, 972273
Intended Use: Engine oil

COMPANY IDENTIFICATION

Supplier: **EXXON MOBIL CORPORATION**
22777 Springwoods Village Parkway
Spring, TX. 77389 USA

24 Hour Health Emergency	609-737-4411
Transportation Emergency Phone	800-424-9300 or 703-527-3887 CHEMTREC
Product Technical Information	800-662-4525
MSDS Internet Address	http://www.exxon.com, http://www.mobil.com

SECTION 2 HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation.

ENVIRONMENTAL HAZARDS

No significant hazards.

NFPA Hazard ID:	Health:	0	Flammability:	1	Reactivity:	0
HMIS Hazard ID:	Health:	0	Flammability:	1	Reactivity:	0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
1-DECENE, HOMOPOLYMER HYDROGENATED	68037-01-4	10 - < 20%	H304

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed

spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Aldehydes, Smoke, Fume, Sulfur oxides, Oxides of carbon, Incomplete combustion products

FLAMMABILITY PROPERTIES

Flash Point [Method]: >200°C (392°F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: N/D

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

Avoid contact with used product. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and

grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

STORAGE

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers. Keep away from incompatible materials.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit / Standard			NOTE	Source
1-DECENE, HOMOPOLYMER HYDROGENATED	Aerosols (thoracic fraction)	TWA	5 mg/m3		N/A	ExxonMobil

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur the following are recommended: 5 mg/m³ - ACGIH TLV (inhalable fraction), 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Color: Amber
Odor: Characteristic
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.86
Flammability (Solid, Gas): N/A
Flash Point [Method]: >200°C (392°F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: N/D
Boiling Point / Range: N/D
Decomposition Temperature: N/D
Vapor Density (Air = 1): > 2 at 101 kPa [Estimated]
Vapor Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C [Estimated]
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): N/D
Solubility in Water: Negligible
Viscosity: 67.4 cSt (67.4 mm2/sec) at 40 °C | 10.7 cSt (10.7 mm2/sec) at 100°C

Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A
Pour Point: -36°C (-33°F)

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
Ingestion	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
Eye	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
Aspiration: Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on assessment of the components.

Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

OTHER INFORMATION

For the product itself:

Diesel engine oils: Not carcinogenic in animals tests. Used and unused diesel engine oils did not produce any carcinogenic effects in chronic mouse skin painting studies.
Oils that are used in gasoline engines may become hazardous and display the following properties: Carcinogenic in animal tests. Caused mutations in vitro. Possible allergen and photoallergen. Contains polycyclic aromatic compounds (PAC) from combustion products of gasoline and/or thermal degradation products.

Contains:
Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitizing in test animals and humans.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC	3 = IARC 1	5 = IARC 2B
2 = NTP SUS	4 = IARC 2A	6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

Marine Pollutant: No

AIR (IATA): Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: This material is not considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: AICS, DSL, IECSC, KECI, PICCS, TSCA

Special Cases:

Inventory	Status
ENCS	Restrictions Apply

EPCRA SECTION 302: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
PHENOL, 4,4-METHYLENEBIS(2,6-BIS(1,1-DIMETHYLETHYL)-	118-82-1	5
PHOSPHORODITHOIC ACID, O,O-DI C1-14-ALKYL ESTERS, ZINC SALTS (2:1) (ZDDP)	68649-42-3	15
ZINC ALKYLDITHIOPHOSPHATE	68649-42-3	15, 19
ZINC DITHIOPHOSPHATE	68649-42-3	15, 19

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):
H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:
Updates made in accordance with implementation of GHS requirements.

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Internal Use Only

MHC: 0B, 0B, 0, 0, 0, 0 PPEC: A

DGN: 7004362XUS (1005845)

Antifreeze Concentrate

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations Version: AFCONC.001

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Antifreeze Concentrate

Product Codes: Green, Global, Super Life, HD Truck Extended Life

Synonyms: Engine Antifreeze Coolant

1.2. Intended Use of the Product

Engine Antifreeze Coolant

1.3. Name, Address, and Telephone of the Responsible Party

Company

CAM2 International, LLC

683 Haining Road

Vicksburg, MS 39183

(800) 338-2262

www.CAM2.com

1.4. Emergency Telephone Number

Emergency Number : 1-800-424-9300, CHEMTREC

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Acute Oral Tox, 4

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

Signal Word (GHS-US) : Warning

Hazard Statements (GHS-US) : H302 Harmful if Swallowed

Precautionary Statements (GHS-US) :

Prevention

P264 – Wash face, hands, and any exposed skin thoroughly after handling.

P270 – Do not eat, drink, or smoke when using this product.

Response

P301 +P312 – IF SWALLOWED: Call a poison center if you feel unwell.

P330 – Rinse Mouth

Disposal

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards

None Known

2.4. Unknown Acute Toxicity (GHS-US)

none of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Ethylene Glycol	(CAS No) 107-21-1	92 - 100	H302, Acute Oral Cat 4
Proprietary Additive Mixture	(CAS No) None	0 - 8	Not Classified

*The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

*More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water or soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Do NOT induce vomiting. Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: No known significant effects or critical hazards.

Inhalation: Overexposure may be irritating to the respiratory system.

Skin Contact: Repeated or prolonged skin contact may cause irritation.

Eye Contact: Direct contact with the eyes is likely irritating.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: No known significant effects or critical hazards.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable but will support combustion.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.
Firefighting Instructions: Use water spray or fog for cooling exposed containers.
Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.
Hazardous Combustion Products: Under fire conditions, may produce fumes, smoke, oxides of carbon and hydrocarbons.

Other Information: Refer to Section 9 for flammability properties.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).
Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.
Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.
Incompatible Materials: Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Engine Antifreeze Coolant

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Ethylene Glycol	(CAS No) 107-21-1	ACGIH TVL Ceiling 100mg/m3 OSHA PEL Ceiling 50 ppm OSHA PEL Ceiling 125 mg/m3

8.2. Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Gloves.

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	:	Liquid
Appearance	:	Clear; may be dyed
Odor	:	Characteristic
Odor Threshold	:	Not available
pH	:	9-10
Evaporation Rate	:	Not available
Melting Point	:	Not available
Boiling Point	:	100°C/212°F
Flash Point	:	Typical 130°C/266°F
Auto-ignition Temperature	:	200°C/392°F
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	Not available
Upper Flammable Limit	:	Not available
Vapor Pressure	:	Not available
Relative Vapor Density at 20 °C	:	Not available
Relative Density	:	Not available
Specific Gravity	:	Typical 1.1 at 15°C/59°F

Solubility	:	Completely Soluble
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	Not available
Viscosity, Kinematic	:	Not available
Explosive Properties	:	Product is not explosive
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	:	Not expected to present an explosion hazard due to static discharge

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials: Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products: No decomposition expected under normal use and storage conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity: Not classified
LD50 and LC50 Data: Not Classified
Skin Corrosion/Irritation: Not classified
Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Teratogenicity: Not classified
Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Overexposure may be irritating to the respiratory system.
Symptoms/Injuries After Skin Contact: Repeated or prolonged skin contact may cause irritation.
Symptoms/Injuries After Eye Contact: Direct contact with the eyes is likely irritating.
Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse gastrointestinal effects.
Chronic Symptoms: Not Classified

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Ethylene Glycol

LD50 Oral Rat 4000 mg/kg
LD50 Dermal Rabbit 9530 ul/kg

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General:

Ethylene Glycol

Algae

EC50 96 hr. 6500- 13000mg/l (Pseudokirchneriella subcapitata)

Fish

LC50 96 hr. 14 – 18 mL/L (Oncorhynchus mykiss)
LC50 96 h: 40000 - 60000 mg/L static (Pimephales promelas)
LC50 96 h: = 16000 mg/L static (Poecilia reticulata)
LC50 96 h: = 27540 mg/L static (Lepomis macrochirus)
LC50 96 h: = 40761 mg/L static (Oncorhynchus mykiss)
LC50 96 h: = 41000 mg/L (Oncorhynchus mykiss)

Microorganisms

EC50 = 10000 mg/L 16 h
EC50 = 620 mg/L 30 min
EC50 = 620.0 mg/L 30 min

Daphnia Magna (Water Flea)

EC50 48 h: = 46300 mg/L (Daphnia magna)

12.2. Persistence and Degradability

Not available

12.3. Bioaccumulative Potential

Not available

12.4. Mobility in Soil

Not available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Sewage Disposal Recommendations: Do not empty into drains; dispose of this material and its container in a safe way. Do not empty into drains. Do not dispose of waste into sewer.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT

UN Number -	UN3082
Proper Shipping Name -	Environmentally hazardous substances, liquid, n.o.s.
Hazard Class	9
Packing Group	III
Reportable Quantity (RQ)	Ethylene glycol: RQ kg=9080
DOT Packaging Exceptions	155
DOT Packaging Non Bulk	203
Other Information	Non Bulk is not regulated by the US DOT (in quantities under 5,000 lbs in any one inner package.)

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

14.4. In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

SARA Section 311/312 Hazard Classes	Acute Health Hazard
SARA Section 313 – Threshold Value 1%	Ethylene glycol, 107-21-1, wt% 50 - 58
CERCLA – RQ, 5,000 lbs	Ethylene glycol

15.2. US State Regulations

California - Prop 65 – This product does not contain any Proposition 65 Chemicals.
Illinois – Right to Know – Ethylene glycol
Massachusetts – Right to Know - Ethylene glycol
New Jersey – Right to Know – Ethylene glycol
Pennsylvania – Right to Know – Ethylene glycol
Rhode Island – Right to Know – Ethylene glycol

15.3. Canadian Regulations

WHMIS Classification	Not Classified

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 11/21/2017
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

H302	Harmful if Swallowed
P264	Wash face, hands, and any exposed skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P301 + P312	IF SWALLOWED: Call a poison center if you feel unwell.
P330	Rinse Mouth
P501	Dispose of contents/container in accordance with local, regional, national, and international regulations.

Party Responsible for the Preparation of This Document

CAM2 International, LLC
683 Haining Road
Vicksburg, MS 39183
(800) 338-2262
www.CAM2.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2

Safety Data Sheet

24 Hour Emergency Phone Numbers
Medical/Poison Control:
In U.S.: Call 1-800-222-1222

Outside U.S.: Call your local poison control center

Transportation/National Response Center:

1-800-535-5053
1-352-323-3500

NOTE: The National ResponseCenter emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this SDS are further described in Section 16.

1. Identification

This Safety Data Sheet is available in American Spanish upon request.
Los Datos de Serguridad pueden obtenerse en Espanol si lo riquiere.

Product Name: Ready Mixed Concrete Patch

Product UPC Number: 070798310841, 070798310902

Product Use/Class: Spackling Compound

Manufacturer: DAP Products Inc.
2400 Boston Street Suite 200
Baltimore, MD 21224-4723
888-327-8477 (non - emergency matters)

SDS Coordinator: MSDS@dap.com

Emergency Telephone:
Transportation: 1-800-535 -5053
1-352-323-3500
Poison Control: 1-800-222-1222

Revision Date: 2/18/2019

Supercedes Date: 6/19/2015

SDS No: 00079707001

Preparer: Regulatory and Environmental Affairs

2. Hazards Identification

GHS Classification
Not a hazardous substance or mixture.

Symbol(s) of Product

None

Signal Word
Not a hazardous substance or mixture.

Possible Hazards
38% of the mixture consists of ingredients of unknown acute toxicity

3. Composition/Information on Ingredients

Chemical Name	CAS-No.	Wt. %	GHS Symbols	GHS Statements
Clay	1332-58-7	1-5	No Information	No Information

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

FIRST AID - SKIN CONTACT: Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist.

FIRST AID - EYE CONTACT: In case of contact, immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention immediately.

FIRST AID - INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: No Information

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

EXTINGUISHING MEDIA: Alcohol Foam, Carbon Dioxide, Dry Chemical, Foam, Water Fog

6. Accidental Release Measures

ENVIRONMENTAL MEASURES: No Information

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

7. Handling and Storage

HANDLING: KEEP OUT OF REACH OF CHILDREN!DO NOT TAKE INTERNALLY. Use only with adequate ventilation. Ensure fresh air entry during application and drying. Do not breathe dust. Removal of this product after use will result in the generation of Dust. If dry-sanded, exposure to dust may result in the build-up of material in eyes, ears, nose, and mouth which may cause irritation. While dry sanding, use of a NIOSH-approved dust mask is recommended. Wash thoroughly after handling.

STORAGE: Avoid excessive heat and freezing. Do not store at temperatures above 120 degrees F. Store away from caustics and oxidizers. Keep containers tightly closed.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

Chemical Name	ACGIH TLV-TWA	ACGIH-TLV STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Clay	2 mg/m3 TWA particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	N.E.	15 mg/m3 TWA total dust, 5 mg/m3 TWA respirable fraction	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation Sk = Skin Sensitizer N.E. = Not Established

Personal Protection

RESPIRATORY PROTECTION: When concentrations exceed the exposure limits specified, use of a NIOSH-approved dust, mist and fume respirator is recommended. Where the protection factor of the respirator may be exceeded, use of a full facepiece, supplied air, or Self Contained Breathing Apparatus (SCBA) may be necessary. If concentrations

exceed the exposure limits specified, use of a NIOSH-approved supplied air respirator is recommended. Where the protection factor is exceeded, use of a Self Contained Breathing Apparatus (SCBA) may be necessary. Use an approved NIOSH/OSHA respirator if dry sanded. A respiratory protection program that meets the OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION: Wear protective gloves.

EYE PROTECTION: Safety glasses with side-shields.

OTHER PROTECTIVE EQUIPMENT: Not required under normal use.

HYGIENIC PRACTICES: Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Appearance:	Gray	**Physical State:**	Paste
Odor:	Musty	**Odor Threshold:**	Not Established
Density, g/cm3:	1.79 - 1.88	**pH:**	Between 7.0 and 12.0
Freeze Point, °C:	Not Established	**Viscosity (mPa.s):**	Not Established
Solubility in Water:	No Information	**Partition Coeff., n-octanol/water:**	Not Established
Decomposition Temperature, °C:	Not Established	**Explosive Limits, %:**	N.E. - N.E.
Boiling Range, °C:	100 - 100	**Auto-Ignition Temperature, °C**	Not Established
Minimum Flash Point, °C:	100	**Vapor Pressure, mmHg:**	Not Established
Evaporation Rate:	Slower Than n-Butyl Acetate	**Flash Method:**	Seta Closed Cup
Vapor Density:	Heavier Than Air	**Flammability, NFPA:**	Non-Flammable
Combustibility:	Does not support combustion		

(See "Other information" Section for abbreviation legend)
(If product is an aerosol, the flash point stated above is that of the propellant.)

10. Stability and Reactivity

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Do not breathe dust. Avoid dust formation in confined areas. Excessive heat and freezing.

INCOMPATIBILITY: Incompatible with strong bases and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Above 1450 degree C: SO2 and CaO.

11. Toxicological Information

EFFECT OF OVEREXPOSURE - INHALATION: Prolonged, repeated, or high exposures may cause irritation to the respiratory tract (nose, mouth, mucous membranes). Dust from dry sanding may cause eye, skin, nose, throat and respiratory tract irritation.

EFFECT OF OVEREXPOSURE - SKIN CONTACT: Under normal use conditions, this product is not expected to cause adverse health effects. Prolonged or repeated contact with skin may cause mild irritation.

EFFECT OF OVEREXPOSURE - EYE CONTACT: Under normal use conditions, this product is not expected to cause adverse health effects. Direct eye contact may cause irritation. May cause eye irritation.

EFFECT OF OVEREXPOSURE - INGESTION: Under normal use conditions, this product is not expected to cause adverse health effects. Single dose oral toxicity is very low. Amounts ingested incidental to industrial handling are not likely to cause injury; however, ingestion of large amounts may cause injury. Ingestion may result in obstruction when material hardens.

CARCINOGENICITY: No Information

EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS: Prolonged or repeated inhalation of dust may cause lung damage.

PRIMARY ROUTE(S) OF ENTRY: Skin Contact, Inhalation, Eye Contact

Acute Toxicity Values
The acute effects of this product have not been tested. Data on individual components are tabulated below

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
1332-58-7	Clay	>5000 mg/kg Rat	>5000 mg/kg Rat	N.I.

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Ecological injuries are not known or expected under normal use.

13. Disposal Information

DISPOSAL INFORMATION: This product does not meet the definition of a hazardous waste according to U.S. EPA Hazardous Waste Management Regulation, 40 CFR Section 261. Dispose as hazardous waste according to all local, state, federal and provincial regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: As packaged:
Not a dangerous good under International Air Transport (IATA).
Not a dangerous good under International Maritime Transport (IMO).
Not a dangerous good under Canada Transport of Dangerous Goods (TDG).

DOT UN/NA Number:	N.A.
DOT Proper Shipping Name:	Not Regulated
DOT Technical Name:	N.A.
DOT Hazard Class:	N.A.
Hazard SubClass:	N.A.
Packing Group:	N.A.

15. Regulatory Information

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.
This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

Revision Date: 2/18/2019 **Supersedes Date:** 6/19/2015

Reason for revision:

Revision Description Changed
Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
01 - Product Information
02 - Hazards Identification
05 - Flammability Information
08 - Exposure Controls/Personal Protection
09 - Physical & Chemical Information
11 - Toxicological Information
13 - Disposal Information
14 - Transportation Information
15 - Regulatory Information
16 - Other Information
Substance Chemical Name Changed
Substance Regulatory CAS Number Changed
Substance Hazardous Flag Changed
Substance Hazard Threshold % Changed
Revision Statement(s) Changed

Datasheet produced by: Regulatory Department

HMIS Ratings:

Health:	Flammability:	Reactivity:	Personal Protection:
2*	0	0	X

VOC Less Water Less Exempt Solvent, g/L: 36.8
VOC Material, g/L: 27
VOC as Defined by California Consumer Product Regulation, Wt/Wt%: 0.0
VOC Actual, Wt/Wt%: 1.4

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

No GHS Pictograms exist for Section 3

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.

POWER SERVICE PRODUCTS, INC.
SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

PRODUCT NAME: DIESEL KLEEN +CETANE BOOST

Unless otherwise noted, all sections of this SDS apply to each of the following products and part numbers.

PART NUMBERS:

1:400 Treatment Ratio	3016-09, 3025-08, 3025-12, 3080-06, 3100
1:1,000 Treatment Ratio	3128-04, 3101
1:1,500 Treatment Ratio	3850-02, 3855-01, 3860-01, 3800

COMPANY IDENTIFICATION:
Power Service Products, Inc.
P.O. Box 1089
Weatherford, TX 76086
Email: psp@powerservice.com
Phone: 800/643-9089 or 817-599-9486
Fax: 817-599-4893

Emergency Phone Number: Within USA 1-800-424-9300. Outside USA 001-703-527-3887 (Call Collect).

RECOMMENDED USES: Diesel fuel additive

SECTION 2 – HAZARD(S) IDENTIFICATION

CLASSIFICATION UNDER 29 CFR 1910.1200(d)

(NC=product does not meet classification criteria)

	1:400 Treatment Ratio	**1:1000 Treatment Ratio**	**1:1500 Treatment Ratio**
Health Hazard Criteria	**Category**	**Category**	**Category**
Acute Toxicity, Oral:	NC	NC	NC
Acute Toxicity, Dermal:	NC	NC	NC
Acute Toxicity, Inhalation, Vapors:	3	3	3
Skin Corrosion/Irritation:	2	2	2
Serious Eye Damage/Eye Irritation:	2	2	2
Respiratory Sensitization:	NC	NC	NC

	1:400 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Health Hazard Criteria	**Category**	**Category**	**Category**
Skin Sensitization:	NC	NC	NC
Germ Cell Mutagenicity:	NC	NC	NC
Carcinogenicity:	2	2	2
Reproductive Toxicity:	NC	NC	NC
Specific Target Organ Toxicity, Single Exposure:	3	3	3
Specific Target Organ Toxicity, Repeated or Prolonged Exposure:	NC	NC	NC
Aspiration Hazard:	1	1	1

	1:400 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Physical Properties Criteria	**Category**	**Category**	**Category**
Explosives:	NC	NC	NC
Flammable Gases:	NC	NC	NC
Flammable Aerosols:	NC	NC	NC
Oxidizing Gases:	NC	NC	NC
Gases Under Pressure:	NC	NC	NC
Flammable Liquids:	3	3	4
Flammable Solids:	NC	NC	NC
Self-Reactive Chemicals:	NC	NC	NC
Pyrophoric Liquids:	NC	NC	NC
Pyrophoric Solids:	NC	NC	NC
Self-Heating Chemicals:	NC	NC	NC
Chemicals Which, in Contact with Water, Emit Flammable Gases:	NC	NC	NC
Oxidizing Liquids:	NC	NC	NC
Oxidizing Solids:	NC	NC	NC
Organic Peroxides:	NC	NC	NC
Corrosive to Metals:	NC	NC	NC

LABEL SIGNAL WORD, HAZARD STATEMENTS, SYMBOLS AND PRECAUTIONARY STATEMENTS UNDER 29 CFR 1910.1200(f):

Please see the Note regarding product labeling in Section 16.

	1:400 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Signal Word	**Danger**	**Danger**	**Danger**

Hazard Statements:	
TREATMENT RATIOS: 1:400 and 1:1000	**TREATMENT RATIOS: 1:1500**
Flammable liquid and vapor. Toxic if inhaled. May be fatal if swallowed and enters airways. Causes skin and serious eye irritation. May cause respiratory irritation.	Combustible liquid. Toxic if inhaled. May be fatal if swallowed and enters airways. Causes skin and serious eye irritation. May cause respiratory irritation.
Symbols:	
	
Precautionary Statement(s):	
Keep away from sparks and open flames. No smoking. Keep container tightly closed. Use only non-sparking tools. Ground/Bond container and receiving equipment. Use explosion-proof pumps when pumping. Take precautionary measures against static discharge. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves and eye protection. Store locked up and in cool, well ventilated place. KEEP OUT OF REACH OF CHILDREN.	Keep away from flames and hot surfaces. No smoking. Keep container tightly closed. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves and eye protection. Store locked up and in cool, well ventilated place. KEEP OUT OF REACH OF CHILDREN.
Hazards Not Otherwise Classified:	
None	**None**

SECTION 3 - COMPOSITION / INFORMATION ON SUBSTANCES

The specific chemical identity and exact concentration percentage has been withheld as a Trade Secret. Specific chemical information will be made available to health professionals in accordance with 29 CFR 1910.1200.

INGREDIENTS CLASSIFIED AS HEALTH HAZARDS

TREATMENT RATIO 1:400			
Chemical Name	**Common Name/Synonyms**	**CAS Number**	**Concentration (%)**
Petroleum Distillates	Trade secret	Trade secret	40 - 90
Alkyl Nitrates	Trade secret	Trade secret	10 - 30
Hexan-1-ol, 2-ethyl	Trade secret	Trade secret	1 – 5

TREATMENT RATIO 1:1000			
Chemical Name	**Common Name/Synonyms**	**CAS Number**	**Concentration (%)**
Petroleum Distillates	Trade secret	Trade secret	25 - 65
Alkyl Nitrates	Trade secret	Trade secret	20 – 50
Aromatic hydrocarbons	Trade secret	Trade secret	1 – 5
Hexan-1-ol, 2-ethyl	Trade secret	Trade secret	5 – 10

TREATMENT RATIO 1:1500			
Chemical Name	**Common Name/Synonyms**	**CAS Number**	**Concentration (%)**
Alkyl Nitrates	Trade secret	Trade secret	35 - 80
Petroleum Distillates	Trade secret	Trade secret	10 - 25
Hexan-1-ol, 2-ethyl	Trade secret	Trade secret	5 - 12
Aromatic Hydrocarbons	Trade secret	Trade secret	2 - 5

SECTION 4 - FIRST AID MEASURES

As a precaution, exposure to liquids, vapors, mists and fumes should be minimized.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice.

SKIN CONTACT: Wash with plenty of water. Take remove contaminated clothing and wash it before reuse. If skin irritation occurs get medical advice/attention.

INHALATION: Remove person to fresh air and keep comfortable for breathing. Call a doctor.

INGESTION: If swallowed, IMMEDIATELY call a doctor. Do NOT induce vomiting.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO_2) to extinguish flames.

SPECIFIC HAZARDS: Vapors are heavier than air and may travel along the ground to a distant ignition source and flash back. See Section 10 for Stability and Reactivity. **NOTE:** EMPTY CONTAINERS CONTAIN COMBUSTIBLE VAPORS THAT CAN CAUSE FLASH FIRES OR EXPLOSIONS. CONTAINERS ARE SINGLE-TRIP CONTAINERS AND SHOULD NOT BE USED FOR ANY REASON AFTER BEING EMPTIED. DO NOT USE CUTTING TORCH EQUIPMENT OR ANY OTHER FLAME OR OTHER SOURCES OF IGNITION ON ANY EMPTY CONTAINER.

PROTECTIVE E UIPMENT AND PRECAUTIONS: Use standard protective equipment including self-contained breathing apparatus (SCBA).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE E UIPMENT, AND EMERGENCY PROCEDURES: Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas. Eliminate all sources of ignition in the vicinity of the spill or released vapor. See Section 2 for Hazards Identification. See Section 4 for First Aid Measures. See Section 5 for Fire Fighting Information. See Section 8 for Personal Protective Equipment.

SPILL CONTAINMENT AND CLEAN-UP: Eliminate potential sources of ignition. Stop leak if it can be done without risk. Dike and contain spill. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. A vapor suppressing foam may be used to reduce vapors. Local, state and federal laws and/or regulations may apply to releases and disposal of this material, as well as those materials and items employed in the clean-up releases. The user/responder will need to determine which local, state and federal laws and/or regulations are applicable. The National Response Center can be reached at 1-800-424-8802.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid contact with eyes and skin. Use only with adequate ventilation. Use proper bonding and/or grounding procedures. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Keep away from ignition sources such as heat, sparks, and flames. No smoking.

CONDITIONS FOR SAFE STORAGE: DO NOT USE OR STORE near heat, sparks, or flame. USE AND STORE ONLY IN A WELL-VENTILATED AND COOL AREA. Handle containers with care. Keep container tightly closed when not in use. Store locked up.

STORAGE TEMPERATURE:

Treatment Ratio	Part Numbers:	Storage Temperature:
1:400 Treatment Ratio	3016-09, 3025-08, 3025-12, 3080-06, 3100	0°F - 104°F (-18°C - 40°C)
1:1,000 Treatment Ratio	3128-04, 3101	0°F - 104°F (-18°C - 40°C)
1:1,500 Treatment Ratio	3850-02, 3855-01, 3860-01, 3800	0°F - 104°F (-18°C - 40°C)

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN COMBUSTIBLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

		OSHA	ACGIH		NIOSH			
	CAS #	PEL	TLV	STEL	REL	STEL	IDLH	Note
Ethylbenzene	100-41-4	100 ppm	20 ppm	not est.	100 ppm	125 ppm	800 ppm (LEL)	n/a
Naphthalene	91-20-3	10 ppm	10 ppm	not est.	10 ppm	15 ppm	250 ppm	skin
Petroleum Distillates	n/a	500 ppm	not est.	not est.	not est.	not est.	not est.	n/a
1,2,4-trimethylbenzene	95-63-6	not est.	25 ppm	not est.	25 ppm	not est.	not est.	n/a
Xylene, mixed isomers	1330-20-7	100 ppm	100 ppm	150 ppm	100 ppm	150 ppm	900 ppm	n/a
Cumene	98-82-8	50 ppm	50 pm	not est.	50 ppm	not est.	900 ppm (LEL)	skin

ENGINEERING CONTROLS: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Local exhaust ventilation is recommended to control exposure.

PERSONAL PROTECTIVE E UIPMENT (PPE):

Eyes and Face: Eye protection such as safety glasses or chemical goggles is recommended if contact is likely.

Skin: Chemical/oil resistant clothing and gloves are recommended. Wear additional protective clothing as appropriate.

Respiratory: Wear a NIOSH/MSHA approved respirator as necessary.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Practice good housekeeping.

NOTE: These precautions are for room temperature handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

	1:400 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Appearance	Liquid, straw color	Liquid, brown	Liquid, brown
Odor	Aromatic solvent	Aromatic solvent	Aromatic solvent
Odor Threshold	Not available	Not available	Not available
pH	Not applicable	Not applicable	Not applicable
Melting point/Freezing point	Not available	Not available	Not available
Initial Boiling Point and Boiling Range	194.6°F (90°C)	280.6°F (138°C)	249.4°F (120.8°C)
Flash Point	119°F (49°C)	126°F (52°C)	139°F (60°C)

	1:400 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Evaporation Rate	Not available	Not available	Not available
Flammability	Not available	Not available	Not available
Upper / lower Flammability or Explosive Limits	Not available	Not available	Not available
VAPOR PRESSURE (psi)	Not available	Not available	Not available
Vapor Density	Not available	Not available	Not available
Specific Gravity (ASTM D4052)	0.95	0.94	0.94
Solubility	Not available	Not available	Not available
Partition Coefficient; n-octanol / water	Not available	Not available	Not available
Auto-ignition Temperature	Not available	Not available	Not available
Decomposition temperature	Not available	Not available	Not available
Viscosity	Not available	Not available	Not available
Pour Point	Not available	Not available	Not available

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: see Incompatible Materials below

CHEMICAL STABILITY: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

POSSIBILITY OF HAZARDOUS REACTION: Hazardous polymerization will not occur.

CONDITIONS TO AVOID: Flames, high energy ignition sources, and elevated temperatures.

INCOMPATIBLE MATERIALS: May react with strong oxidizing agents, such as; chlorates, nitrates, peroxides, etc.; alkalis; lead and lead alloys; reducing agents; brass; copper.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides, products of incomplete combustion and nitrogen oxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE

	INGESTION	INHALATION	SKIN CONTACT	EYE CONTACT	SKIN ABSORPTION
1:400 Treatment Ratio		**X**	**X**	**X**	**X**
1:1000 Treatment Ratio		**X**	**X**	**X**	**X**
1:1500 Treatment Ratio		**X**	**X**	**X**	**X**

SYMPTOMS RELATED TO PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS: Breathing of high vapor concentrations may cause dizziness, light-

headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. The vapor or fumes from this material may cause respiratory irritation. Breathing this material at elevated concentrations causes central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors, or convulsions, loss of consciousness, coma or death.

DELAYED AND IMMEDIATE EFFECTS AND CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE: Repeated skin exposure to a component of this product may cause irritation, even a burn; may cause a more severe response on covered skin, such as under clothing or gloves. Inhalation exposure to a component of this product has caused fetotoxicity in the presence of maternal toxicity in animals.

NUMERICAL MEASURES OF TOXICITY

Note: the information provided below are estimates; testing of the product is not available.

Treatment Ratio	Acute Oral Toxicity (ATE_{mix} estimate)	Acute Dermal Toxicity (ATE_{mix} estimate)	Acute Inhalation (ATE_{mix} estimate)
1:400 Treatment Ratio	Does not meet criteria	Does not meet criteria	5.81 (vapors)
1:1,000 Treatment Ratio	Does not meet criteria	Does not meet criteria	4.63 (vapors)
1:1,500 Treatment Ratio	Does not meet criteria	Does not meet criteria	3.77 (vapors)

SENSITIZATION: No information available.

MUTAGENICITY: No information available.

CARCINOGENICITY LISTINGS – the following substances are listed as indicated:

Chemical	**List**
Cumene	IARC, NTP
Ethylbenzene	IARC
Naphthalene	IARC, NTP

REPODUCTIVE TOXICITY: No information available.

TERATOGENICITY/EMBRYOTOXICITY: This product contains a component of a complex mixture (Xylenes (1330-20-7)) that has been shown to cause teratogenicity and/or embryotoxicity.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): Respiratory tract irritation.

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): No information available

ASPIRATION HAZARD: Aspiration hazard identified.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: This material is expected to be toxic to aquatic organisms.

PERSISTENCE AND DEGRADABILITY: No information not available

BIOACCUMULATIVE POTENTIAL: No information not available

MOBILITY IN SOIL: No information not available

OTHER ADVERSE EFFECTS: No information not available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Information: Disposal of unused product may be subject to RCRA hazardous waste regulations (40 CFR Part 261). Disposal of the used product may also be regulated as hazardous waste due to resulting mixture characteristics, mixture components or product use. Such changes to the product may result in different and/or additional hazardous waste codes.

State or local laws may impose additional regulatory requirements regarding disposal. *aste characterizations and compliance ith applica le la s are the responsi ility solely o the aste generator*

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN COMBUSTIBLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA. Dispose of empty containers appropriately per local, state and federal regulations.

SECTION 14 - TRANSPORTATION INFORMATION

The following part numbers are regulated for transportation as follows:

3016-09 **3025-08** **3025-12** **3080-06**	**DOT (Domestic Ground):** Not Regulated
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates) 3, III, (49°C cc) LTD QTY
3128-04	**DOT (Domestic Ground):** Not Regulated

	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates) 3, III, (52°C cc) LTD QTY
3855-01 **3850-02**	**DOT (Domestic Ground):** Not Regulated
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates) 3, III (60°C cc) MP (2-Ethylhexyl Nitrate)
3860-01	**DOT (Domestic Ground):** NA 1993 Combustible liquid, n.o.s. (Petroleum Distillates) Comb liq, III MP (2-Ethylhexyl Nitrate)
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates) 3, III (60°C cc) MP (2-Ethylhexyl Nitrate)
3100 **3101** **3800**	**DOT (Domestic Ground):** NA 1993 Combustible liquid, n.o.s. (Petroleum Distillates) Comb liq, III MP (2-Ethylhexyl Nitrate), RQ (Napthalene)
	IMDG (Ocean Transport): Not offered

All part numbers not recommended for transport by air.

SECTION 15 - REGULATORY INFORMATION

14(a) Consumer Product Safety Act General Certificate of Conformity

Power Service Products, Inc. certifies that this product meets the statutory and regulatory requirements of the US Consumer Products Safety Act, the Federal Hazardous Substances Act, and the Poison Prevention Packaging Act of 1970, as applicable. The Power Service products are manufactured in the United States in Weatherford, Texas, unless otherwise indicated on the product label. The product manufacture lot code is stamped on the product container. This Certification is based upon a reasonable testing program conducted by Power Service Products, Inc. which includes a quality control program incorporating, as necessary, confirmation of compliance by component suppliers. Third-party testing is not required to certify compliance. Further details may be obtained by contacting the Power Service Products, Inc. EHS Manager at 1-800-643-9089.

Contents of this SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200

TSCA STATUS: All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.

EPA SARA TITLE III CHEMICAL LISTINGS:

Section 302 Extremely Hazardous Substances: None

Sections 311/ 312 Hazard Class:
Acute Health Effects: Yes Sudden Release of Pressure Hazard: No
Chronic Health Effects: Yes Reactivity Hazard: No
Fire Hazard: Yes

NFPA (NATIONAL FIRE PROTECTION ASSOCIATION) RATING:
HEALTH: **2**
FIRE: **2**
REACTIVITY: **0**

Section 313:
Specific chemical information is being withheld as a Trade Secret. The following chemicals subject to the reporting requirements of EPCRA Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (40 CFR Part 372) may be present in this product at a concentration that does not exceed the specified upper weight percentage.

Treatment Ratio	CAS Number	Chemical Name	Max %
1:400 Treatment Ratio	100-41-4	Ethylbenzene	10.0
	95-63-6	1,2,4-trimethybenzene	1.5
	1330-20-7	xylene, mixed isomers	2.5
	91-20-3	Naphthalene	0.5
1:1,000 Treatment Ratio	100-41-4	Ethylbenzene	6.0
	95-63-6	1,2,4-trimethybenzene	1.5
	1330-20-7	xylene, mixed isomers	1.5
	91-20-3	Naphthalene	1.0
1:1,500 Treatment Ratio	100-41-4	Ethylbenzene	1.5
	95-63-6	1,2,4-trimethybenzene	1.5
	1330-20-7	xylene, mixed isomers	0.5
	91-20-3	Naphthalene	1.5

State or local laws may impose additional regulatory requirements for components of this material. It is the responsibility solely of the Employer to maintain compliance with State and Local reporting.

This product contains a chemical known to the state of California to cause cancer and/or birth defects or other reproductive harm: ethylbenzene, toluene, cumene, naphthalene.

SECTION 16 – OTHER INFORMATION

DATE OF PREPARATION / REVISION: November 25, 2020

NOTE regarding product labeling: The OSHA Hazard Communication Standard applies to hazardous chemicals known to be present in the workplace. However, the labeling and Safety Data Sheet requirements do not apply to consumer products when they are used in

the workplace for the purposes intended by the manufacturer and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the intended purpose. Power Service Products intends for product packaged in 1 gallon or smaller containers to be used by consumers and has labeled those containers as required under the Consumer Product Safety Commission regulations. Power Service Products intends for product packaged in containers larger than 1 gallon to be used in the workplace and has labeled those products as required by the OSHA Hazard Communication Standard. The Consumer Product Safety Commission and OSHA Hazard Communication Standard labeling requirements are different and variations between the consumer and industrial labels may occur. It is the employer's responsibility to purchase the appropriate product for use in the workplace.

The information contained herein is offered in good faith and is believed to be accurate based on the data available to us as of the date of SDS preparation. The information in this document applies to this specific product as supplied. It may not be appropriate for this product if the product is used in combination with other materials. The information in this document is not intended to constitute product performance information. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product. No statement shall be construed as an endorsement of any product or process. The recommended industrial hygiene and safe handling procedures are believed to be valid in the context of the intended use as described in product labeling. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. You are urged to obtain material safety data sheets for all products you buy, process, use or distribute, and are encouraged to advise those who may come in contact with such products of the information contained therein. Regulatory requirements are subject to change and may differ between locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. No warranty or guarantee is expressed or implied with respect to this product, the accuracy and sufficiency of the data or recommendations herein, or the results to be obtained from the use of this product. IN NO EVENT SHALL POWER SERVICE PRODUCTS, INC. BE LIABLE FOR ANY LOSS, CLAIM, DAMAGE OR LIABILITY OF ANY KIND, WHICH MAY ARISE FROM OR IN CONNECTION WITH THE INFORMATION CONTAINED IN THIS DOCUMENT OR FROM THE USE, HANDLING OR STORAGE OF THE PRODUCT BY THE BUYER/USER, WHETHER DIRECT, INDIRECT, OR CONSEQUENTIAL, OR FOR ANY CLAIM BY ANY THIRD PARTY, BEYOND THE PURCHASE PRICE OR REPLACEMENT OF THE PRODUCT IN CONNECTION WITH WHICH SUCH LOSS, CLAIM, DAMAGE OR LIABILITY AROSE.

THE FOREGOING LIMITATIONS APPLY REGARDLESS OF THE CAUSES OR CIRCUMSTANCES GIVING RISE TO SUCH LOSS, CLAIM, DAMAGE OR LIABILITY, EVEN IF SUCH LOSS, CLAIM, DAMAGE, OR LIABILITY IS BASED ON NEGLIGENCE OR OTHER TORTS OR BREACH OF CONTRACT.

SAFETY DATA SHEET

Section 1: Product and Company Identification

Product Name: **UTILITY PASTE SOLDERING FLUX**

Product Use: Soldering flux for copper, brass, galvanized iron, lead, zinc, tin, silver, nickel, mild steel, terne plate and malleable iron.

Manufacturer: **UTILITY**
700 Main Street
Westbury, NY 11590

Phone Number: Tel: 1-516-997-6300
Fax: 1-516-997-6345

24-hour Emergency: **INFOTRAC: (800) 535-5053**

Section 2: Hazards Identification

Protective Clothing	NFPA Rating (USA)	EU Classification	WHMIS (Canada)	Transportation
		**Not classified as dangerous**	 **Not controlled**	**Not Regulated**

Emergency Overview: Exposure to hazardous substances is not expected when handling this product for its intended use.

Appearance, Color and Odor: Tan paste; faint odor.

USA: This material is not considered hazardous by the OSHA hazard Communication Standard (29 CFR 1910.1200).

Canada: This is not a controlled product under WHMIS.

European Union (EU): This product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Potential Health Effects **ACUTE (short term): see Section 8 for exposure controls**

Relevant Route(s) of Exposure: Skin contact, Inhalation.

Inhalation: Inhalation of vapors is not expected with normal use. Over exposure to high vapor concentrations may cause nasal and respiratory irritation, sore throat, coughing and difficulty breathing. High concentrations may also cause dizziness, headache, nausea, vomiting or in extreme cases, unconsciousness or asphyxiation.

Ingestion: Not an expected route of occupational exposure. Low oral toxicity. Swallowing large quantities may cause abdominal and chest pain, nausea, vomiting, diarrhea or dizziness. Aspiration into the lungs may occur during swallowing or from vomiting, resulting in lung injury.

Skin: This product has been tested and found to be non-irritating to skin.

Eye: This product has been tested and found to be non-irritating to eyes. Solids may cause temporary irritation as a foreign object in the eye.

CHRONIC (long term): see Section 11 for additional toxicological data

Chronic effects are not expected with normal use. Prolonged or repeated over exposure to high vapor concentrations may cause damage to the respiratory tract or lungs.

Medical Conditions Aggravated by Exposure: Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver, or kidneys may have increased susceptibility to excessive exposure.

Interactions With Other Chemicals: Not available

SAFETY DATA SHEET

Section 3: Composition / Information on Ingredients

Hazardous Ingredients:

Chemical Name	CAS No.	Wt.%	EINECS / ELINCS	Symbol	Risk Phrases
Ammonium Chloride	12125-02-9	5 – 25	235-186-4	Xn, Xi	R22, R36
Zinc Chloride	7646-85-7	5 - 25	231-592-0	Xn, Xi	R22,R36
Petrolatum	8009-03-8	30 – 70	232-373-2	None	None

Note: See Section 16 for the full text of the R-phrases above.

Section 4: First Aid Measures

Inhalation: Move victim to fresh air and get medical attention.

Eye Contact: Flush with water for 15 minutes. Get medical attention.

Skin Contact: Quickly and gently, blot or brush away excess paste. Remove contaminated clothing and shoes. Wash with lukewarm water and non-abrasive soap. If irritation develops, get medical attention.

Ingestion: Call a physician or Poison Control Center at once. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5: Fire Fighting Measures

Flammable Properties: Product will burn if involved in a fire but does not ignite readily.

Suitable extinguishing Media: Use water spray, dry chemical, carbon dioxide, or an appropriate foam. Use water spray to cool fire-exposed containers.

Unsuitable extinguishing Media: Not applicable

Explosion Data:

Sensitivity to Mechanical Impact: Not applicable

Sensitivity to Static Discharge: Not applicable

Specific Hazards arising from the Chemical: During a fire, products of combustion may include carbon dioxide, carbon monoxide, ammonia, hydrogen chloride, smoke and irritating and toxic fumes may be formed.

Protective Equipment and precautions for firefighters: Self-contained breathing apparatus and protective clothing should be worn. Remove all unprotected personnel.

NFPA

Health: 0
Flammability: 0
Instability: 0

Section 6: Accidental Release Measures

Personal Precautions: Wear protective gloves. Spilled product may pose a slipping hazard.

Environmental Precautions: Prevent the product from entering sewers or waterways.

Methods for Containment: Stop the spill if it is safe to do so. Contain spilled flux with earth, sand, or absorbent material which does not react with spilled material.

Methods for Clean-up: Scrape or scoop up the spilled product and collect for proper disposal. Dispose of any contaminated, unusable product as described in Section 13 of this SDS.

SAFETY DATA SHEET

Section 7: Handling and Storage

Handling: Avoid contact with eyes and skin; do not breathe fumes. Do not ingest. Keep out of reach of children. Use this material with adequate ventilation. Keep container closed when not in use. Wash thoroughly with detergent and water after handling, before eating, drinking, smoking or using the toilet.

Storage: Store in a cool, dry area, away from incompatible materials (see Section 10).

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines

Ingredient	ACGIH TLV (8-hr. TWA)	U.S. OSHA PEL (8-hr. TWA)	Ontario (Canada) TWAEV	UK OEL (8-hr. TWA)
Ammonium Chloride	10 mg/m^3 (fume); 20 mg/m^3 STEL	10 mg/m^3 (fume); 20 mg/m^3 STEL	10 mg/m^3; 20 mg/m^3 STEV	10 mg/m^3 (fume); 20 mg/m^3 STEL
Zinc Chloride	1 mg/m^3 (fume); 2 mg/m^3 STEL	1 mg/m^3 (fume); 2 mg/m^3 STEL	1 mg/m^3; 2 mg/m^3 STEL	1 mg/m^3 (fume); 2 mg/m^3 STEL

STEV = Short Term Exposure Value STEL = Short Term Exposure Limit

Exposure Controls

Engineering Controls: Provide adequate ventilation/local exhaust to keep vapor concentrations below the exposure limits listed above.

Personal Protection: Workers must comply with the Personal Protective Equipment requirements of the workplace in which this product is handled. For operations requiring specific protection for mechanical hazards and heat protection refer to the appropriate occupational safety standard.

Eye/Face Protection: Wear eye/face protection (e.g. goggles/face shield) appropriate for the workplace where this material is handled and the conditions of use.

Skin Protection: Wear appropriate protective gloves and clean, body-covering clothing, when workplace conditions warrant their use.

Respiratory Protection: If ventilation and other engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protective equipment (RPE). Where occupational exposure limits are exceeded, workers must wear an approved respirator. In workplaces where respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection. Consult with respirator manufacturer to determine respirator selection, use and limitations.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements, European Standard EN529 or Canadian Standards Association (CSA) Standard Z94.4-2002 must be followed whenever workplace conditions warrant a respirator's use.

General Hygiene Measures: Do not ingest. Avoid contact with skin and eyes. Keep out of reach of children. Wash hands after handling.

Section 9: Physical and Chemical Properties

Physical State:	Paste	**Vapor Pressure (mm Hg @ 25°C):**	<0.01 @ 68^{0}F (20^{0}C)
Appearance:	Tan	**Vapor Density (Air = 1):**	Not applicable
pH:	Not measurable	**Volatile Organic Compounds (VOC) Content:**	0% or (0g/L)
Relative Density (water = 1):	1.1	**Solubility in Water:**	Insoluble
Boiling Point:	Not applicable	**Odor Type:**	Low odor
Freezing Point:	Not applicable	**Odor Threshold:**	Not applicable
Viscosity:	Not applicable	**Evaporation Rate (n-Butyl Acetate = 1):**	Not applicable
Oxidizing Properties:	Not applicable	**Auto Ignition Temperature (°C):**	Not applicable
Flash Point and Method:	>204°C (400°F) TOC	**Flammability Limits (%):**	Not established

SAFETY DATA SHEET

Section 10: Stability and Reactivity

Chemical Stability: Stable at normal room temperature.

Conditions to Avoid: None known

Incompatible Materials: None known

Hazardous Decomposition Products: Toxic fumes of zinc, chloride and HCl may evolve during soldering.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Section 11: Toxicological Information

Toxicity Data:

Zinc Chloride:	Oral-Rat LD_{50}:	> 350 mg/kg (rat)
	Inhalation-Rat	LCLo Oral: 1960 mg/m^3/10M
Ammonium Chloride:	Oral-Rat LD50:	> 1650 mg/kg (rat)
	Inhalation-Rat	LC50 Oral: N/D
Petrolatum:	Oral-Rat LD50:	N/D
	Inhalation-Rat	LC50 Oral: N/D

Chronic Toxicity Data

Carcinogenicity: Normal use of this product will not result in exposure to any component that is considered a human carcinogen by IARC (International Agency for Research on Cancer), ACGIH (American Conference of Governmental Industrial Hygienists, OSHA or NTP (National Toxicology Program).

Section 12: Ecological Information

Ecotoxicity: Zinc Chloride - 7.2 ppm/96hr/medium bluegill/TLm
Ammonium Chloride - 6 ppm/96hr/sunfishl/TLm

Persistence/Degradability: None known

Bioaccumulation/Accumulation: Product is not readily biodegradeable.

Mobility: Not applicable

Section 13: Disposal Considerations

Waste Disposal Method: Do not discard into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage.
The conditions of use, storage and disposal of this product are beyond our control and may be beyond our knowledge. The supplier does not assume responsibility and expressly disclaims liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

USA: Dispose of in accordance with local, state and federal laws and regulations.

Canada: Dispose of in accordance with local, provincial and federal laws and regulations.

EU: Waste must be disposed of in accordance with relevant EU Directives and national, regional and local environmental control regulations.

Section 14: Transport Information:

U.S. Hazardous Materials Regulation (DOT 49CFR): Not regulated

Canadian Transportation of Dangerous Goods (TDG): Not regulated

ADR/RID: Not regulated

IMDG: Not regulated

Marine Pollutants: Not applicable

ICAO/IATA: Not regulated

SAFETY DATA SHEET

Section 15: Regulatory Information

USA

TSCA Status: All ingredients in the product are listed on the TSCA inventory.

SARA Title III

Sec. 302/304: None
Sec: 311/312: Not applicable
Sec. 313: Not applicable
CERCLA RQ: Not applicable

California Prop 65: This product is not known to contain chemicals known to the State of California to cause cancer or reproductive harm.

Canada

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

WHMIS Classification: Not controlled

DSL: All component substances are listed on Canada's Domestic Substances List (DSL).

EU Classification for the Substance/Preparation

Symbol: This product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Safety Phrases: S1/2: Keep locked up and out of the reach of children.

Section 16: Other Information

Full Text of R-phrases appearing in Section 3:

R22: Harmful if swallowed
R36: Irritating to eyes

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. UTILITY urges the customers receiving this Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents, and contractors of the information on the sheets. The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, UTILITY cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

DRYLOK Extreme Basement & Masonry Waterproofer (White)

Version number: REV 1.0 Date of compilation: 2020-02-28

SECTION 1: Identification

1.1 Product identifier

Trade name **DRYLOK Extreme Basement & Masonry Waterproofer (White)**

Alternative number(s) 28612

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Waterproofing sealers
Concrete masonry

1.3 Details of the supplier of the safety data sheet

United Gilsonite Laboratories, Inc.
1396 Jefferson Avenue
Dunmore PA 18509
United States

Telephone: +1 (570) 344-1202
Telefax: (570) 969-7634
e-mail: sales@ugl.com
Website: http://www.ugl.com/

e-mail (competent person) mark.fortese@ugl.com (Mark Fortese)

1.4 Emergency telephone number

Emergency information service 1-800-424-9300 Chemtrec (NORTH AMERICA)
This number is only available during the following office hours: Mon-Fri 08:00 AM - 05:00 PM

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.6	carcinogenicity	1A	Carc. 1A	H350
A.7	reproductive toxicity	2	Repr. 2	H361d

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger

- Pictograms

GHS08

- Hazard statements

H350 May cause cancer.
H361d Suspected of damaging the unborn child.

- Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	If exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling: Diethylene glycol monomethyl ether (DM), Quartz (SiO2)

2.3 Other hazards

Hazards not otherwise classified

Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
Toxic to aquatic life with long lasting effects (GHS category 2: aquatic toxicity - acute and/or chronic).

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Titanium dioxide	CAS No 13463-67-7	5 – < 10	Carc. 2 / H351	
Diethylene glycol monomethyl ether (DM)	CAS No 111-77-3	1 – < 5	Repr. 2 / H361d	
Aluminium oxide	CAS No 1344-28-1	< 1	Acute Tox. 3 / H331	
Quartz (SiO2)	CAS No 14808-60-7	< 1	Carc. 1A / H350	
1,2-benzisothiazol-3(2H)-one	CAS No 2634-33-5	< 1	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Skin Sens. 1 / H317	

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first- aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Control of the effects

Protect against external exposure, such as

Frost

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	alpha-Alumina	1344-28-1	REL							appx-D	NIOSH REL
US	alpha-alumina	1344-28-1	PEL		15					i, dust	29 CFR 1910.1000
US	alpha-alumina	1344-28-1	PEL		5					r, dust	29 CFR 1910.1000
US	aluminium, insoluble compounds	1344-28-1	TLV®		1					r	ACGIH® 2019

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	aluminium oxide	1344-28-1	PEL (CA)		10					dust	Cal/OSHA PEL
US	aluminium oxide	1344-28-1	PEL (CA)		5					r	Cal/OSHA PEL
US	titanium dioxide	13463-67-7	TLV®		10						ACGIH® 2019
US	titanium dioxide	13463-67-7	PEL		15					i, dust	29 CFR 1910.1000
US	titanium dioxide	13463-67-7	REL							lowest, appx-A	NIOSH REL
US	quartz	14808-60-7	PEL (CA)		0.05					r	Cal/OSHA PEL
US	silica, crystalline - quartz	14808-60-7	PEL		0.05					r	29 CFR 1910.1000
US	silica, crystalline - quartz	14808-60-7	REL		0.05 (10 h)					r, appx-A	NIOSH REL

Notation

appx-A	NIOSH Potential Occupational Carcinogen (Appendix A)
appx-D	see Appendix D - Substances with No Established RELs
Ceiling-C	ceiling value is a limit value above which exposure should not occur
dust	as dust
i	inhalable fraction
lowest	exposure by all routes should be carefully controlled to levels as low as possible
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified

Relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Diethylene glycol monomethyl ether (DM)	111-77-3	DNEL	50.1 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Diethylene glycol monomethyl ether (DM)	111-77-3	DNEL	2.22 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
1,2-benzisothiazol-3(2H)-one	2634-33-5	DNEL	6.81 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
1,2-benzisothiazol-3(2H)-one	2634-33-5	DNEL	0.966 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Diethylene glycol monomethyl ether (DM)	111-77-3	PNEC	12 mg/l	aquatic organisms	freshwater	short-term (single instance)
Diethylene glycol monomethyl ether (DM)	111-77-3	PNEC	1.2 mg/l	aquatic organisms	marine water	short-term (single instance)
Diethylene glycol monomethyl ether (DM)	111-77-3	PNEC	10,000 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Diethylene glycol monomethyl ether (DM)	111-77-3	PNEC	44.4 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Diethylene glycol monomethyl ether (DM)	111-77-3	PNEC	0.44 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Diethylene glycol monomethyl ether (DM)	111-77-3	PNEC	2.1 mg/kg	terrestrial organisms	soil	short-term (single instance)
1,2-benzisothiazol-3(2H)-one	2634-33-5	PNEC	4.03 µg/l	aquatic organisms	freshwater	short-term (single instance)
1,2-benzisothiazol-3(2H)-one	2634-33-5	PNEC	0.403 µg/l	aquatic organisms	marine water	short-term (single instance)
1,2-benzisothiazol-3(2H)-one	2634-33-5	PNEC	1.03 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
1,2-benzisothiazol-3(2H)-one	2634-33-5	PNEC	49.9 µg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
1,2-benzisothiazol-3(2H)-one	2634-33-5	PNEC	4.99 µg/kg	aquatic organisms	marine sediment	short-term (single instance)
1,2-benzisothiazol-3(2H)-one	2634-33-5	PNEC	3 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	white
Odor	like ammonia

Other safety parameters

pH (value)	9 (25 °C)
Melting point/freezing point	not determined
Initial boiling point and boiling range	193 °C at 760 mmHg
Flash point	not determined
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)

Explosive limits

- Lower explosion limit (LEL)	0.6 vol%
- Upper explosion limit (UEL)	20.4 vol%

Vapor pressure	1 mmHg at 64.3 °C
Density	not determined
Vapor density	this information is not available
Relative density	information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available

Auto-ignition temperature	194 °C (auto-ignition temperature (liquids and gases))
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

9.2 Other information

Solvent content	88.44 %
Solid content	11.35 %
Temperature class (USA, acc. to NEC 500)	T3A (maximum permissible surface temperature on the equipment: 180°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	**CAS No**	**Exposure route**	**ATE**
Aluminium oxide	1344-28-1	inhalation: vapor	3 $^{mg}/_{l}$/4h
Aluminium oxide	1344-28-1	inhalation: dust/mist	0.888 $^{mg}/_{l}$/4h
1,2-benzisothiazol-3(2H)-one	2634-33-5	oral	670 $^{mg}/_{kg}$

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans			
Name of substance	**CAS No**	**Classification**	**Number**
Quartz (SiO2)	14808-60-7	1	
Titanium dioxide	13463-67-7	2B	

Legend
1 Carcinogenic to humans
2B Possibly carcinogenic to humans

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Diethylene glycol monomethyl ether (DM)	111-77-3	LC50	5,741 mg/l	fish	96 h
Diethylene glycol monomethyl ether (DM)	111-77-3	EC50	1,192 mg/l	aquatic invertebrates	48 h
1,2-benzisothiazol-3(2H)-one	2634-33-5	LC50	16.7 mg/l	fish	96 h
1,2-benzisothiazol-3(2H)-one	2634-33-5	EC50	2.94 mg/l	aquatic invertebrates	48 h
1,2-benzisothiazol-3(2H)-one	2634-33-5	ErC50	150 µg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Diethylene glycol monomethyl ether (DM)	111-77-3	EC50	>1,000 mg/l	microorganisms	30 min
1,2-benzisothiazol-3(2H)-one	2634-33-5	EC50	13 mg/l	microorganisms	3 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Endocrine disrupting potential

None of the ingredients are listed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number not subject to transport regulations

14.2 UN proper shipping name not assigned

14.3 Transport hazard class(es) not assigned

14.4 Packing group not assigned

14.5 Environmental hazards non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT)

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG)

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name acc. to inventory	**CAS No**	**Remarks**	**Effective date**
aluminium oxide	1344-28-1	fibrous forms	1986-12-31

Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	CAS No	Functionality	Authoritative Lists
Titanium dioxide	13463-67-7		IARC Carcinogens - 2B Prop 65
Diethylene glycol monomethyl ether (DM)			CA TACs
Quartz (SiO2)	14808-60-7		IARC Carcinogens - 1

- Toxic or Hazardous Substance List (MA-TURA)

Name of substance	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshold	De Minimis Concentration Threshold
Quartz (SiO2)		1095			1.0 %
Aluminium oxide	1344-28-1				1.0 %
Diethylene glycol monomethyl ether (DM)		1022			1.0 %

- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
Quartz (SiO2)		A, *	
Titanium dioxide	13463-67-7	A	
Titanium dioxide		A	dust

Legend

*	Substances which are regulated by OSHA as carcinogens; have been categorized by the ACGIH as either "human carcinogens" or "suspect of carcinogenic potential for man"; have been evaluated by the International Agency for Research on Cancer (IARC) and found to be carcinogens or potential carcinogens; or have been listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP).
A	American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
dust	If the substance poses an airborne particulate exposure hazard, the substance is followed by the word "dust."

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
Quartz (SiO2)	14808-60-7		CA
Titanium dioxide	13463-67-7		
Aluminium oxide	1344-28-1		
Diethylene glycol monomethyl ether (DM)			

Legend

CA	Carcinogenic

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name of substance	CAS No	Classification
Titanium dioxide	13463-67-7	
Aluminium oxide	1344-28-1	E
Diethylene glycol monomethyl ether (DM)	111-77-3	

Legend

E	Environmental hazard

- Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
Quartz (SiO2)	14808-60-7	T
Titanium dioxide	13463-67-7	T
Aluminium oxide	1344-28-1	T

Legend

T	Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals			
Name acc. to inventory	**CAS No**	**Remarks**	**Type of the toxicity**
titanium dioxide	13463-67-7	airborne, unbound particles of respirable size	cancer

VOC content

Regulated Volatile Organic Compounds (VOC-EPA): Regulated Volatile Organic Compounds (VOC-Cal ARB):

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	0	no significant risk to health
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	0	material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
EU	REACH Reg.	not all ingredients are listed
US	TSCA	not all ingredients are listed

Legend

REACH Reg. REACH registered substances
TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2019	From ACGIH®, 2019 TLVs® and BEIs® Book. Copyright 2019. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
Cal ARB	California Air Resources Board
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EPA	Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LHS	Lower hazard substance
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)

Abbr.	Descriptions of used abbreviations
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Repr.	Reproductive toxicity
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
STEL	Short-term exposure limit
TLV®	Threshold Limit Values
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H350	May cause cancer.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

End of safety data sheet

SAFETY DATA SHEET

Issuing Date 03-Nov-2015 **Revision Date** 03-Nov-2015 **Revision Number** 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **Compressor Oil**

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Engine (motor) oil for Auto or Boat

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name Campbell Hausfeld

Supplier Address 100 Production drive
Harrison
OH
45030
US

Supplier Phone Number Phone:513-907-0866
Contact Phone513-367-3275

Supplier Email cbrooks@campbellhausfeld.com

Emergency telephone number

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Carcinogenicity	Category 1B

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Danger**

Hazard Statements
May cause cancer

Appearance Amber **Physical state** Liquid **Odor** Slight

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity
0 % of the mixture consists of ingredient(s) of unknown toxicity

Other information

Harmful to aquatic life with long lasting effects

Interactions with Other Chemicals
No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

.

Chemical Name	CAS No	Weight-%	Trade Secret
Residual oils (petroleum), solvent dewaxed	64742-62-7	10 - 30	*
Petroleum distillates, solvent dewaxed heavy paraffinic	64742-65-0	10 - 30	*
Petroleum distillates, hydrotreated heavy naphthenic	64742-52-5	10 - 30	*
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	10 - 30	*
phosphorodithioic acid O,O-dialkyl(C=l-14) esters zinc salts	68649-42-3	1 - 5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

Skin contact Wash with soap and water.

Inhalation Remove to fresh air.

Ingestion Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
No information available.

Uniform Fire Code	Combustible Liquid: III-B

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Other Information	Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Petroleum distillates, solvent dewaxed heavy paraffinic 64742-65-0	TWA: 5 mg/m³, as oil mist, mineral STEL: TWA: 10 mg/m³, as oil mist, mineral	TWA: 5 mg/m³, as oil mist, mineral	

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state Liquid

Appearance	Amber	**Odor**	Slight
Color	No information available	**Odor Threshold**	No information available

Property	**Values**	**Remarks Method**
pH	UNKNOWN	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	224 C / 435 F	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	.86	None known
Water Solubility	Insoluble in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	
Oxidizing properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability
Stable under recommended storage conditions.
Possibility of Hazardous Reactions
None under normal processing.
Conditions to avoid
None known based on information supplied.
Incompatible materials
None known based on information supplied.
Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information .

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Residual oils (petroleum), solvent dewaxed 64742-62-7	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 2.18 mg/L (Rat) 4 h
Petroleum distillates, solvent-refined heavy paraffinic 64741-88-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 2.18 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Residual oils (petroleum), solvent dewaxed 64742-62-7	A2	Group 1		X
Petroleum distillates, solvent dewaxed heavy paraffinic 64742-65-0	A2	Group 1		X
Petroleum distillates, hydrotreated heavy naphthenic 64742-52-5	A2	Group 1		X
Petroleum distillates, solvent-refined heavy paraffinic 64741-88-4	A2	Group 1		X

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity Contains a known or suspected carcinogen.

Target Organ Effects Skin. Respiratory system. Eyes. Gastrointestinal tract (GI).

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document
Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Residual oils (petroleum), solvent dewaxed 64742-62-7		96h LC50: > 5000 mg/L (Oncorhynchus mykiss)		48h EC50: > 1000 mg/L
Petroleum distillates, solvent dewaxed heavy paraffinic 64742-65-0		96h LC50: > 5000 mg/L (Oncorhynchus mykiss)		48h EC50: > 1000 mg/L
Petroleum distillates, hydrotreated heavy naphthenic 64742-52-5		96h LC50: > 5000 mg/L (Oncorhynchus mykiss)		48h EC50: > 1000 mg/L
Petroleum distillates, solvent-refined heavy paraffinic 64741-88-4		96h LC50: > 5000 mg/L (Oncorhynchus mykiss)		48h EC50: > 1000 mg/L
phosphorodithioic acid O,O-dialkyl(C=l-14) esters zinc salts 68649-42-3		96h LC50: 1.0 - 5.0 mg/L (Pimephales promelas) 96h LC50: 10.0 - 35.0 mg/L (Pimephales promelas)		48h EC50: 1 - 1.5 mg/L

Persistence and Degradability
No information available.

Bioaccumulation
No information available

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging Dispose of contents/containers in accordance with local regulations.

California Hazardous Waste Codes 221

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
phosphorodithioic acid O,O-dialkyl(C=l-14) esters zinc salts 68649-42-3	Toxic

14. TRANSPORT INFORMATION

DOT NOT REGULATED NOT REGULATED
Proper Shipping Name NON REGULATED
Hazard Class N/A

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA Not regulated
Proper Shipping Name NON REGULATED
Hazard Class N/A

IMDG/IMO Not regulated
Hazard Class N/A

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
phosphorodithioic acid O,O-dialkyl(C=l-14) esters zinc salts - 68649-42-3	68649-42-3	1 - 5	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
phosphorodithioic acid O,O-dialkyl(C=l-14) esters zinc salts 68649-42-3		X		

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

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Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Petroleum distillates, hydrotreated heavy naphthenic 64742-52-5					X
phosphorodithioic acid O,O-dialkyl(C=l-14) esters zinc salts 68649-42-3			X	X	

International Regulations

Canada
WHMIS Hazard Class
Not determined

16. OTHER INFORMATION

NFPA	**Health Hazards** 1	**Flammability** 1	**Instability** 0	**Physical and Chemical Hazards** -
HMIS	**Health Hazards** 1*	**Flammability** 1	**Physical Hazard** 0	**Personal Protection** X

Chronic Hazard Star Legend * = Chronic Health Hazard

Prepared By	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501
Issuing Date	03-Nov-2015
Revision Date	03-Nov-2015
Revision Note	No information available

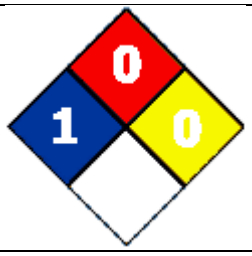
Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet

Material Safety Data Sheet 334

Hercules Chemical Company Inc.
111 South Street
Passaic NJ 07055-7398
Information Telephone: 1-800 221-9330
Internet: www.herchem.com

NFPA	HMIS	PPE	Transport Symbol
			

Preparation Date Mar 19, 07 **Revision Date** **Revision Number** 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: HERCULES DUCK BUTTER.
Intended Use: LUBRICANT

Manufacturer: Hercules Chemical Company, Inc.
111 South Street
Passaic, New Jersey 07055-7398

Information Telephone: (800) 221-9330

Internet: http://www.herchem.com

Emergency Phone: **CHEMTREC: (800) 424-9300**

MSDS Date of Preparation: **03/19/2007**

2. HAZARDS IDENTIFICATION

This product is a Water Dispersible Pipe Joint Lubricant

EMERGENCY OVERVIEW
A biodegradable soap.

Potential Health Effects.
Inhalation: Not a possible route of entry
Ingestion: None
Eye: May cause eye irritation.
Skin: May cause slight skin irritation on prolonged contact.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Blend of soap and non-toxic ingredients to lower freezing point.

HMIS Hazard Rating: 1 0 0 A

4. EMERGENCY AND FIRST AID PROCEDURES.

Eye: Immediately flush victim's eyes with large quantities of water, for 15 minutes, holding the eyelids apart. Get medical attention if irritation persists.
Skin: Wash with water.
Inhalation: Not a possible route of exposure.

Note: Never give anything by mouth to an unconscious person

5. FIRE FIGHTING MEASURES

Flashpoint: >220°F (104°C)
Flammable Limits: Not applicable
Autoignition Temperature: Not applicable
Extinguishing Media: water, water fog, alcohol foam**,** Dry Chemical, Carbon Dioxide
Unusual Fire or Explosion Hazards: None
Special Fire-Fighting Instructions: Firefighters and others who might be exposed to products of combustion, should wear positive pressure self-contained breathing apparatus and full protective clothing.
Hazardous Combustion Products: None

6. ACCIDENTAL RELEASE MEASURES

Spills/Leak Control: This product is a biodegradable soap.
For large quantities, dike, place any spilled material into drums for disposal in accordance with state and local regulations. Rinse spill area thoroughly into any sewer drains. Not a hazardous waste.

7. HANDLING AND STORAGE

Handling: No special precautions are required.
Storage: Store in a cool, dry area and in original container. Keep containers closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: None required.
Engineering Controls: Use with general or local exhaust ventilation.
Skin Protection: Wear protective gloves where prolonged contact is anticipated.
Eye Protection: Safety glasses.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: amber paste with bland odor.	**Boiling Point:** >220°F
Physical State: Paste	**Vapor Pressure:** N/A
Vapor Density: N/A	**Evaporation Rate:** None
Solubility In Water: Completely soluble	**Volatile Components:** 55%
Specific Gravity: 1.0	**Viscosity:** Viscous paste
Melting Point: < 32°F	**pH:** 11

10. STABILITY AND REACTIVITY

Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to avoid: Reactive alloys such as aluminum, brass, bronze. Avoid contact with strong oxidizing agents..
Incompatibility: Strong oxidizing agents.
Hazardous Decomposition Products: Oxides of carbon and nitrogen
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:
Inhalation: Not a known route of entry
Eye: May cause moderate to severe irritation.
Skin: May causes mild skin irritation with prolonged contact.
Sensitization: None.
Chronic: Possible skin and eye irritant
Carcinogenicity: Not a carcinogen
Mutagenicity: Not mutagenic.
Medical Conditions Aggravated by Exposure: Pre-existing skin disease maybe aggravated.
Reproductive Toxicity: None
Acute Toxicity Values: Not determined.

12. ECOLOGICAL INFORMATION

Environmental Toxicity:
Environmental Transport: Unknown.
Environmental Degradation: Soaps are well known to be biodegradable.
Soil Absorption/Mobility: Unknown

13. DISPOSAL CONSIDERATIONS

Dispose off in accordance with Federal, State, and Local regulations.

14. TRANSPORT INFORMATION

Transportation of Dangerous Goods Description: Not regulated

15. REGULATORY INFORMATION

EPA Regulation: None Apply
TSCA Inventory: All the components in this product are listed on the TSCA inventory.

16. OTHER INFORMATION

DISCLAIMER:
The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, Hercules cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

SAFETY DATA SHEET
HOT SHOT

SECTION 1: IDENTIFICATION

Product Name:	Hot Shot
Product Code:	H15
Product Use:	Heating oil additive
Manufacturer's Name:	E-ZOIL Products, Inc.
Address:	234 Fillmore Avenue
Address:	Tonawanda, NY 14150 USA
Business Phone:	855-693-9645
Emergency Phone:	800-633-8253 PERS
Date of Preparation:	October 1, 2015
Date of Last Revision:	June 1, 2020
Regulatory Standard:	CFR29 1910.1200 HazCom 2012

SECTION 2: HAZARDS IDENTIFICATION

GHS-US classification
Flammable Liquid 4
Acute toxicity 4 (Oral)
Skin Irritation 2
Eye Irritation 2A
Carcinogenicity 2
Aspiration Toxicity 1

Hazard pictograms (GHS-US):

Signal word (GHS-US): Danger

Hazard statements (GHS-US): Combustible liquid. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. May be fatal if swallowed and enters airways.

Precautionary statements: Keep away from flames/hot surfaces. No smoking. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/ protective clothing/eye protection/face protection. If exposed or concerned: Get medical advice or attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/ attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local, regional, national and international regulations.

Other information: None.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS Number	%
Ethylene glycol butyl ether	111-76-2	60 - 80
Triethanolamine	102-71-6	1 - 5
Fatty Acid	Trade Secret	1 - 5
Benzene, trimethyl-	25551-13-7	1 - 5
1,3,5-Trimethylbenzene	108-67-8	1 - 5
Naphthalene	91-20-3	1 - 5

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: FIRST AID MEASURES

First-aid measures after inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

First-aid measures after eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion: If swallowed, do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Symptoms/injuries after inhalation: May cause respiratory tract irritation.

Symptoms/injuries after skin contact: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/injuries after ingestion: Harmful if swallowed. May cause stomach distress, nausea or vomiting. May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis.

Indication of any immediate medical attention and special treatment needed:

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media: Foam. Dry chemical. Carbon dioxide.

Unsuitable extinguishing media: None known.

Fire hazard: Combustible liquid. Products of combustion may include, and are not limited to: oxides of carbon.

Protection during firefighting:	Keep upwind of fire. Wear full firefighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Use water spray to keep fire-exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

General measures:	Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.
For containment:	Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
Methods for cleaning up:	Scoop up material and place in a disposal container. Provide ventilation.

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: HANDLING AND STORAGE

Additional hazards when processed:	Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling:	Keep away from sources of ignition - No smoking. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use personal protective equipment as required.
Hygiene measures:	Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.
Technical measures:	Proper grounding procedures to avoid static electricity should be followed.
Storage conditions:	Keep out of the reach of children. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area. Keep container tightly closed when not in use.
Storage temperature:	39 – 120°F

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ethylene glycol butyl ether (111-76-2)		
ACGIH	ACGIH TWA (ppm)	20 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	240 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	50 ppm

Triethanolamine (102-71-6)		
ACGIH	ACGIH TWA (mg/m³)	5 mg/m³
OSHA	Not applicable	

Fatty Acid

ACGIH	Not applicable
OSHA	Not applicable

Benzene, trimethyl- (25551-13-7)		
ACGIH	ACGIH TWA (ppm)	25 ppm
OSHA	Not applicable	

1,3,5-Trimethylbenzene (108-67-8)	
ACGIH	Not applicable
OSHA	Not applicable

Naphthalene (91-20-3)		
ACGIH	ACGIH TWA (ppm)	10 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	50 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	10 ppm

Appropriate engineering controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand protection: Wear chemically resistant protective gloves.

Eye protection: Wear safety glasses with side shields or goggles.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Maintain levels below community environmental protection thresholds.

Other information: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Appearance: No data available
Color: Light yellow
Odor: Mild
Odor threshold: No data available
pH: No data available
Melting point: No data available
Freezing point: No data available
Boiling point: 340°F (171°C)
Flash point: 162°F (72°C)
Relative evaporation rate: No data available
Flammability (solid, gas): Flammable
Explosive limits: No data available
Explosive properties: No data available
Oxidizing properties: No data available

Vapor pressure:	0.6 mm Hg @ 68 ºF
Relative density:	0.897
Relative vapor density at 20 °C:	4.1 (Air =1)
Solubility:	Water > 90 %
Partition coefficient: n-octanol/water:	No data available
Log Kow:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical Stability: Stable under normal storage conditions. May form flammable/explosive vapor-air mixture.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.

Conditions to avoid: Heat. Incompatible materials. Sources of ignition.

Incompatible materials: Oxidizers.

Hazardous decomposition products: May include, and are not limited to: oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity: Harmful if swallowed.

Hot Shot	
LD50 oral rat	> 300 but ≤ 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Hot Shot	
LC50 inhalation rat	> 20 mg/l/4h
Ethylene glycol butyl ether (111-76-2)	
LD50 oral rat	1300 mg/kg
Triethanolamine (102-71-6)	
LD50 oral rat	4190 mg/kg
LD50 dermal rabbit	> 20 ml/kg
Fatty Acid	
LD50 oral rat	25 g/kg
Benzene, trimethyl- (25551-13-7)	
LD50 oral rat	8970 mg/kg
1,3,5-Trimethylbenzene (108-67-8)	
LC50 inhalation rat	24 g/m³/4h
Naphthalene (91-20-3)	
LD50 oral rat	490 mg/kg
LD50 dermal rabbit	> 20 g/kg

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitization: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Suspected of causing cancer.

Ethylene glycol butyl ether (111-76-2)	
IARC group	3 - Not classifiable
Triethanolamine (102-71-6)	
IARC group	3 - Not classifiable
Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity, 3 - Reasonably anticipated to be Human Carcinogen

Reproductive toxicity: Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

Aspiration hazard: May be fatal if swallowed and enters airways.

Symptoms/injuries after inhalation: May cause respiratory tract irritation.

Symptoms/injuries after skin contact: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/injuries after ingestion: Harmful if swallowed. May cause stomach distress, nausea or vomiting. May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis.

SECTION 12: ECOLOGICAL INFORMATION

Ecology - general: May cause long-term adverse effects in the aquatic environment.

Persistence and degradability

Hot Shot	
Persistence and degradability	Not established.

Bioaccumulative potential

Hot Shot	
Bioaccumulative potential	Not established.

Mobility in soil: No additional information available

Other adverse effects: Effect on the global warming – No known ecological damage caused by this product.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Additional information: Handle empty containers with care because residual vapors are flammable.

SECTION 14: TRANSPORT INFORMATION

UN number: NA1993

Proper shipping name: Combustible liquid, n.o.s., (Ethylene glycol monobutyl ether)

Transport hazard class(es): Combustible liquid

Packing group: III

This product may be reclassed as a combustible liquid. Refer to 49 CFR Section 173.150.

This product is not regulated for road or rail transportation in the United States if packaged in non-bulk containers equal to or less than 119 Gallons/450 liters.

SECTION 15: REGULATORY INFORMATION

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Federal regulations:

1,3,5-Trimethylbenzene (108-67-8)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
Naphthalene (91-20-3)	
Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	0.1 %

State regulations:

Hot Shot	
State or local regulations	This product contains a chemical known to the State of California to cause cancer.

SECTION 16: OTHER INFORMATION

Other information: None.

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific

material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

® Safety Data Sheet	**The Armor All/STP Products Company** 44 Old Ridgebury Road Suite 300 Danbury, CT 06810 Tel. 1-203-205-2900

1. Product And Company Identification

Product Name: ARMOR ALL® Tire Foam®

Responsible Party: The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

Information Phone Number: +1 203-205-2900
Emergency Phone Number:
For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for Outside US and Canada (call collect)
SDS Date Of Preparation: 01/30/15
Product Use and Uses Advised Against: Automotive maintenance product – For consumer and professional use

2. Hazards Identification

Note: This product is a consumer product and is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will not contain the OSHA label elements shown below on this SDS.

GHS Classification:

Physical:	**Health:**
Flammable Aerosol Category 1 Gases Under Pressure: Compressed Gas	Non Hazardous

GHS Label Elements:

Danger!

Statements of Hazard	**Prevention**
Extremely flammable aerosol. Contains gas under pressure; may explode if heated.	Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Pressurized Container. Do not pierce or burn, even after use. Protect from sunlight. Do not exposure to temperatures exceeding 50°C / 122°F.

Hazards not otherwise specified: None

Percentage of unknown toxicity: N/A

3. Composition/Information On Ingredients

Component	CAS No.	Amount
Propellant (propane, isobutane)	74-98-6 / 75-28-5	1 - <8%
Non-Hazardous Ingredients	Mixture	>92 – 99%

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

Inhalation: If symptoms of exposure develop, remove to fresh air. Seek medical attention if breathing problems or irritation persist.

Skin Contact: Rinse skin with plenty of water. If skin irritation or redness develops, seek medical attention.

Eye Contact: Flush eyes with plenty of water. If irritation or other symptoms persist, seek medical attention.

Ingestion: If the victim is fully conscious, have them drink a glass of water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

Most Important Symptoms: Direct eye contact may cause mild irritation.

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention should not be required.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use dry chemical, carbon dioxide, foam, or water spray.

Specific Hazards Arising from the Chemical: Contents under pressure. Keep away from ignition source and open flames. Exposure of containers to heat and flames can cause them to rupture, often with violent force. Thermal decomposition will generate oxides of carbon, sulfur, nitrogen, and silicon; and formaldehyde.

Special Fire Fighting Procedures: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting cans.

6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Eliminate all sources of ignition. Ventilate area with explosion proof equipment. Wear appropriate protective clothing and equipment.

Methods and Materials for Containment and Clean-Up: Place leaking can in a pail in a well-ventilated area away from ignition sources until pressure has dissipated. Collect liquid using inert material and place into a suitable container for disposal.

Environmental Precautions: Prevent entry into storm sewers and waterways. Report spill as required by local and national regulations.

7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin, and clothing. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture or incinerate containers.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well-ventilated area, away from incompatible materials. Do not store in direct sunlight or above 120°F. **U.F.C. (NFPA 30B) Level 1 Aerosol.**

8. Exposure Controls / Personal Protection

Exposure Guidelines:

CHEMICAL	EXPOSURE LIMIT
Propane	1000 ppm TWA OSHA PEL
Isobutane	None Established
Non-Hazardous Ingredients	None Established

Appropriate Engineering Controls: General ventilation should be adequate for normal use.

Personal Protective Equipment

Respiratory Protection: None under normal use conditions.

Gloves: None normally required.

Eye Protection: None required for normal use. Avoid eye contact.

Other Protective Equipment/Clothing: None required under normal use conditions.

9. Physical and Chemical Properties

Appearance And Odor: Opaque, white viscous liquid with a slight odor in an aerosol can.

Physical State: Liquid-based aerosol	**Odor Threshold:** Not determined
pH: 7.5 – 9.0	**Specific Gravity:** ~1
Initial Boiling Point/Range: Not determined	**Vapor Pressure:** Not determined
Melting/Freezing Point: Not determined	**Vapor Density:** Not determined
Solubility In Water: Easily soluble	**Percent Volatile:** Not determined
Viscosity: ~ 30 cP	**Evaporation Rate:** Not determined
Relative Density: Not determined	**VOC Content:** Not determined
Coefficient Of Water/Oil Distribution: Not determined	**Autoignition Temp:** Not determined
Flash Point: >200°F (>93°C) (Closed Cup) (Liquid component) Propellant is a flammable gas.	**Flammability (solid, gas):** Not applicable
Flammability Limits: LEL: 1.8% (Isobutane) UEL: 9.5% (Propane)	**Decomposition Temperature:** Not available

10. Stability and Reactivity

Reactivity: Not normally reactive.
Chemical Stability: Stable under normal storage and handling conditions.
Conditions to Avoid: Keep away from excessive heat, sparks and open flames. Containers may rupture at temperatures > 120°F (48.8°C).
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Thermal decomposition will generate oxides of carbon, sulfur, nitrogen, and silicon; and formaldehyde.

11. Toxicological Information

Potential Health Effects:

Acute Hazards:

Inhalation: No adverse effects expected from the normal use of this product.

Skin Contact: Prolonged or repeated contact may cause mild irritation in some individuals

Eye Contact: Direct contact may cause mild eye irritation with redness and tearing.

Ingestion: Ingestion is an unlikely route exposure for aerosol products. Swallowing may cause gastrointestinal disturbances.

Chronic Effects: None known

Carcinogenicity Listing: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Numerical Measures of Toxicity:

Propane:	LC50 Rat inhalation >800,000 ppm
Isobutane:	LC50 Rat inhalation 658 mg/l/4 hr.

12. Ecological Information

Ecotoxicity: No ecotoxicity data is currently available for product.

Persistence and Degradability: No data available for product.

Bio accumulative Potential: No data available for product.

Mobility in Soil: No data available for product.

Other Adverse Effects: No data available

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description: UN1950, Aerosols, Class 2.1, Ltd Qty

IMDG Dangerous Goods Description: UN1950, Aerosols, 2.1, Ltd Qty

IATA International Air Transport Association: UN1950, Aerosols, Class 2.1, Ltd Qty

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: This product has no RQ. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Fire Hazard, Sudden Release of Pressure

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Canada:

Canadian WHMIS Classification: Class A (Compressed Gas), Class B-5 (Flammable Aerosol)

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian DSL.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

16. Other Information

NFPA Rating (NFPA 704):	Health: 1	Fire: 4	Instability: 0
HMIS Rating:	Health: 1	Fire: 2	Physical Hazard: 0

REVISION SUMMARY: January 30, 2015 Update to GHS SDS format and name change: Changes to all sections.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH

Safety Data Sheet

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: ISUZU ATF III

Recommended use: Automatic transmission fluid.

Supplier:	Isuzu Australia Ltd	
ABN:	97 006 962 572	
Street Address:	66 Foundation Road Truganina VIC 3029 Australia	
Telephone:	**+613 9644 4444**	
Manufacturer:	Fuchs Lubricants (Australasia) Pty Ltd	Fuchs Lubricants (New Zealand) Pty Ltd
ABN:	88 005 681 916	
Street Address:	49 McIntyre Road Sunshine VIC 3020 Australia	Harbourside Business Park 485C Rosebank Road Avondale, Auckland New Zealand
Telephone:	**+613 9300 6400**	**+649 828 3255**
Facsimile:	**+613 9300 6401**	**+649 830 3643**

Emergency Telephone number: **Australia 1800 638 556 (24hr)**
New Zealand 0800 154 166 (24hr)

2. HAZARDS IDENTIFICATION

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia.

Signal Word
-

Hazard Classifications
Acute Hazard to the Aquatic Environment - Category 3
Chronic Hazard to the Aquatic Environment - Category 3

Hazard Statement
H412 Harmful to aquatic life with long lasting effects.

Prevention Precautionary Statement
P273 Avoid release to the environment.

Response Precautionary Statement
Not allocated

Storage Precautionary Statement
Not allocated

Disposal Precautionary Statement
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Poison Schedule: Not Applicable

DANGEROUS GOOD CLASSIFICATION

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Base oil		>60 %
Thiophene, 3-(decyloxy)tetrahydro-, 1,1-dioxide		<1 %
Ethanol, 2,2'-iminobis-, N-tallow alkyl derivatives		<1 %
Ingredients determined to be non-hazardous		Balance

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye contact: If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Notes to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazchem Code: Not applicable.

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Combustible material.

Fire fighting further advice: On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS
Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS
Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: Not applicable

7. HANDLING AND STORAGE

Handling: Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

	TWA		STEL		NOTICES
	ppm	mg/m3	ppm	mg/m3	
Oil mist, refined mineral	-	5	-	-	-

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal Protection Equipment: SAFETY SHOES, OVERALLS, GLOVES, SAFETY GLASSES.

Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Red
Odour:	Characteristic

Solubility in water:	Insoluble
Density:	0.85 g/cm3 @ 15°C (typical)
Relative Vapour Density (air=1):	N Av
Vapour Pressure (20 °C):	N Av
Flash Point (°C):	165 (typical)
Flammability Limits (%):	N Av
Pour Point/Range (°C):	-50 (typical)
Boiling Point/Range (°C):	N Av
pH:	N App
Viscosity:	35 mm2/s @ 40°C (typical)
Total VOC (g/Litre):	N Av

(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: This material is thermally stable when stored and used as directed.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Oxidising agents.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

Hazardous reactions: No known hazardous reactions.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation.

Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

Eye contact: May be an eye irritant.

Acute toxicity

Inhalation: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

Skin contact: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

Ingestion: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

Corrosion/Irritancy: Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as not corrosive or irritating to skin.

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as a Category Acute 3 Hazard. Acute toxicity estimate (based on ingredients): 10 - 100 mg/L

Long-term aquatic hazard: This material has been classified as a Category Chronic 3 Hazard. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): 10 - 100 mg/L, where the substance is not rapidly degradable and/or BCF ≥ 500 and/or log K_{ow} ≥ 4.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT
Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

MARINE TRANSPORT
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

This material/constituent(s) is covered by the following requirements:
- All components of this product are listed on or exempt from the Australian Inventory of Industrial Chemicals (AIIC).
- All components of this product are listed on or exempt from the New Zealand Inventory of Chemical (NZIoC).

HSNO Group Standard: HSR002605 - Lubricants (Low Hazard) Group Standard

16. OTHER INFORMATION

Reason for issue: Revised

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

SAFETY DATA SHEET

1. Identification

Product identifier **Hercules MegaBubble**

Other means of identification

Product code 7322E

Synonyms Part Numbers: 45801, 45802, 45803, 45804

Recommended use Leak Detector

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name HCC Holdings, Inc. an Oatey Affiliate

Address 4700 West 160th Street
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Hazardous to the aquatic environment, acute hazard Not applicable

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Propylene glycol	57-55-6	30-60
Water	7732-18-5	30-60
Glycerol	56-81-5	10-30

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Skin contact Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Glycerol (CAS 56-81-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
Propylene glycol (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Blue.
Odor	Odorless.
Odor threshold	Not available.
pH	7.2
Melting point/freezing point	Not available.
Initial boiling point and boiling range	212 °F (100 °C)
Flash point	> 212.0 °F (> 100.0 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.05
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	100 cP
Other information	
VOC (Weight %)	435 g/l

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Glycerol (CAS 56-81-5)		
Acute		
Oral		
LD50	Rat	12600 mg/kg
Propylene glycol (CAS 57-55-6)		
Acute		
Oral		
LD50	Rat	30 g/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.
Further information	This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Propylene glycol (CAS 57-55-6)			
Aquatic			
Crustacea	LC50	Ceriodaphnia dubia	18340 mg/l, 48 hours
Fish	LC50	Pimephales promelas	46500 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Glycerol (CAS 56-81-5)	-1.76
Propylene glycol (CAS 57-55-6)	-0.92

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List
Glycerol (CAS 56-81-5)

US. New Jersey Worker and Community Right-to-Know Act
Glycerol (CAS 56-81-5)
Propylene glycol (CAS 57-55-6)

US. Pennsylvania Worker and Community Right-to-Know Law
Glycerol (CAS 56-81-5)
Propylene glycol (CAS 57-55-6)

US. Rhode Island RTK
Not regulated.

US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-February-2015

Revision date -

Version # 01

HMIS® ratings Health: 0
Flammability: 0
Physical hazard: 0

Disclaimer HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

SAFETY DATA SHEET

SDS No. M0048 **Effective Date: 01/15/2018**

1. IDENTIFICATION

(a) Product identifier used on the label

FIBERFRAX® LDS MOLDABLE® CERAMIC FIBER

(b) Other means of identification

Pumpable-LDS; LDS Moldable (Caulking Grade)

(c) Recommended use of the chemical and restrictions on use

- **Primary Use:** Refractory Ceramic Fiber (RCF) materials are used primarily in industrial high temperature insulating applications. Examples include heat shields, heat containment, gaskets, expansion joints, industrial furnaces, ovens, kilns, boilers and other process equipment at applications up to 1400°C. RCF based products are not intended for direct sale to the general public. While RCFs are used in the manufacture of some consumer products, such as catalytic converter mats and wood burning stoves, the materials are contained, encapsulated, or bonded within the units.
- **Secondary Use:** Conversion into wet and dry mixtures and articles (refer to section 8).
- **Tertiary Use:** Installation, removal (industrial and professional) / Maintenance and service life (industrial and professional) (refer to section 8).

Uses Advised Against
Spraying of dry product.

d) Name, address, and telephone number

Unifrax I LLC
600 Riverwalk Parkway, Suite 120
Tonawanda, NY 14150

Product Stewardship Information Hotline
1-800-322-2293 (Monday - Friday 8:00 a.m. - 4:30 p.m. EST)

For additional SDSs, visit our web page, http: //www.unifrax.com or call Unifrax Customer Service at (716) 768-6500

(e) Emergency Phone Number:

CHEMTREC will provide assistance for chemical emergencies. Call **1-800-424-9300**

2. HAZARDS IDENTIFICATION

(a) Classification of the chemical

The U.S. Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS) 2012 indicates that IARC Group 2B corresponds to OSHA HCS 2012 Category 2 carcinogen classification (see, e.g., §1910.1200, Appendix F, Part D). WHMIS 2015 Carcinogenicity Category 2.

(b) Signal word, hazard statement(s), symbol(s) and precautionary statement(s)

Hazard Pictogram

Signal Word
Warning

Hazard Statements
Suspected of causing cancer by inhalation.

Precautionary statements
Do not handle until all safety instructions have been read and understood.
Use respiratory protection as required; see section 8 of the Safety Data Sheet.
If concerned about exposure, get medical advice.
Store in a manner to minimize airborne dust.
Dispose of waste in accordance with local, state and federal regulations.

Supplementary Information
May cause temporary mechanical irritation to exposed eyes, skin or respiratory tract.
Minimize exposure to airborne dust.

(c) Describe any hazards not otherwise classified that have been identified during the classification process

Mild mechanical irritation to skin, eyes and upper respiratory system may result from exposure.
These effects are usually temporary.

(d) **Mixture rule**

Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

(a) Chemical and (b) Common Name	(c) CAS Number	% BY WEIGHT
Water	7732-18-5	40-45
Silica (amorphous)	7631-86-9	25-30
Refractories, Fibers, Aluminosilicate	142844-00-6	20-25
Ethylene glycol	107-21-1	3-5
Polyethylene oxide	25322-68-3	1-2

***Synonyms:** RCF, ceramic fiber, Alumino Silicate Wool (ASW), synthetic vitreous fiber (SVF), man-made vitreous fiber (MMVF), man-made mineral fiber (MMMF), high temperature insulation wool (HTIW)

(d) Impurities and stabilizing additives
Not applicable.

4. FIRST AID MEASURES

(a) Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion

SKIN

Handling of this material may generate mild mechanical temporary skin irritation. If this occurs, rinse affected areas with water and wash gently. Do not rub or scratch exposed skin.

EYES
In case of eye contact flush abundantly with water; have eye bath available. Do not rub eyes.

NOSE AND THROAT
If these become irritated move to a dust free area, drink water and blow nose.
If symptoms persist, seek medical advice.

(b) Most important symptoms/effects, acute and delayed

Mild mechanical irritation to skin, eyes and upper respiratory system may result from exposure.
These effects are usually temporary.

(c) Indication of immediate medical attention and special treatment needed, if necessary

NOTES TO PHYSICIANS
Skin and respiratory effects are the result of temporary, mild mechanical irritation; fiber exposure does not result in allergic manifestations.

5. FIRE FIGHTING MEASURES

(a) Suitable (and unsuitable) extinguishing media

Use extinguishing agent suitable for surrounding combustible materials.

(b) Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

Non-combustible products, class of reaction to fire is zero.
Packaging and surrounding materials may be combustible.
Thermal decomposition of binder from fires or from first heat of product may release smoke, carbon monoxide and carbon dioxide. Use adequate ventilation or other precautions to eliminate exposure to vapors resulting from thermal decomposition of binder. Exposure to thermal decomposition fumes may cause respiratory tract irritation, bronchial hyper-reactivity or an asthmatic-type response.

(c) Special protective equipment and precautions for fire-fighters

NFPA Codes: Flammability: 0 Health: 1 Reactivity: 0 Special: 0

6. ACCIDENTAL RELEASE MEASURES

(a) Personal precautions, protective equipment, and emergency procedures

Minimize airborne dust. Compressed air or dry sweeping should not be used for cleaning. See Section 8 "Exposure Controls / Personal Protection" for exposure guidelines.

(b) Methods and materials for containment and cleaning up

Frequently clean the work area with appropriately filtered vacuum or wet sweeping to minimize the accumulation of debris. Do not use compressed air for clean-up.

EMPTY CONTAINERS

Product packaging may contain residue. Do not reuse.

7. HANDLING AND STORAGE

(a) Precautions for safe handling

Handle fiber carefully to minimize airborne dust. Limit use of power tools unless in conjunction with local exhaust ventilation. Use hand tools whenever possible.

(b) Conditions for safe storage, including any incompatibilities

Store in a manner to minimize airborne dust.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

(a) OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available

Components	OSHA PEL	NIOSH REL	ACGIH TLV	MANUFACTURER REG
Refractory Ceramic Fiber (RCF)	None established*	0.5 f/cc, 8-hr. TWA	0.2 f/cc TLV, 8-hr. TWA	0.5 f/cc, 8-hr. TWA**
Water	None established		None established.	None established
Silica (amorphous)	20 mppcf or 80 mg/m³ / % SiO2		10 mg/m³	None established
Ethylene glycol	50 ppm (125 mg/m³) C		50 ppm (127 mg/m³) TLV-C (vapor and mist)	None established
Polyethylene oxide	None established		None established.	None established

*Except for the state of California, where the PEL for RCF is 0.2 f/cc 8-hr TWA, there is no specific regulatory standard for RCF in the U.S. OSHAôs ñParticulate Not Otherwise Regulated (PNOR)ò standard [29 CFR 1910.1000, Subpart Z, Air Contaminants] applies generally - Total Dust Total Dust 15 mg/m^3; Respirable Fraction 5 mg/m^3.

**In the absence of an OSHA PEL, HTIW Coalition has adopted a recommended exposure guideline (REG), as measured under NIOSH Method 7400 B. For further information on the history and development of the REG see ñRationale for the Recommended Exposure Guidelineò at page 34 of the HTIW Coalition Product Stewardship Program http://www.htiwcoalition.org/documents/PSP_2012.pdf .

OTHER OCCUPATIONAL EXPOSURE LEVELS (OEL)

RCF-related occupational exposure limits vary internationally. Regulatory OEL examples include: California, 0.2 f/cc; Canadian provincial OELs ranging from 0.2 to 1.0 f/cc. The objectives and criteria underlying each of these OEL decisions also vary. The evaluation of occupational exposure limits and determining their relative applicability to the workplace is best performed, on a case-by-case basis, by a qualified Industrial Hygienist.

(b) Appropriate engineering controls

Use engineering controls such as local exhaust ventilation, point of generation dust collection, down draft work stations, emission controlling tool designs, and materials handling equipment designed to minimize airborne fiber emissions.

(c) Individual protection measures, such as personal protective equipment

Skin Protection
Wear personal protective equipment (e.g gloves), as necessary to prevent skin irritation. Washable or disposable clothing may be used. If possible, do not take unwashed clothing home. If soiled work clothing must be taken home, employees should be informed on best practices to minimize non-work dust exposure (e.g., vacuum clothes before leaving the work area, wash work clothing separately, and rinse washer before washing other household clothes).

Eye Protection
As necessary, wear goggles or safety glasses with side shields.

Respiratory Protection
When engineering and/or administrative controls are insufficient to maintain workplace concentrations below the 0.5 f/cc REG or a regulatory OEL, the use of appropriate respiratory protection, pursuant to the requirements of OSHA Standards 29 CFR 1910.134 and 29 CFR 1926.103, is recommended. A NIOSH certified respirator with a filter efficiency of at least 95% should be used. The 95% filter efficiency recommendation is based on NIOSH respirator selection logic sequence for exposure to manmade mineral fibers. Pursuant to NIOSH recommendations, N-95 respirators are appropriate for exposures up to 10 times the NIOSH Recommended Exposure Limit (REL). With respect to RCF, both the NIOSH REL and the industry REG have been set at 0.5 fibers per cubic centimeter of air (f/cm^3). Accordingly, N-95 would provide the necessary protection for exposures up to 5 f/cm^3. Further, the Respirator Selection Guide published by 3M Corporation, the primary respirator manufacturer, specifically recommends use of N-95 respirators for RCF exposures. In cases where exposures are known to be above 5.0 f/cm^3, 8 hour TWA, a filter efficiency of 100% should be used. Other factors to consider are the NIOSH filter series N, R or P -- (N) **N**ot resistant to oil, (R) **R**esistant to oil and (P) oil **P**roof. These recommendations are not designed to limit informed choices, provided that respiratory protection decisions comply with 29 CFR 1910.134.

The evaluation of workplace hazards and the identification of appropriate respiratory protection is best performed, on a case by case basis, by a qualified Industrial Hygienist.

Other Information

- Concentrations based upon an eight-hour time weighted average (TWA) as determined by air samples collected and analyzed pursuant to NIOSH method 7400 (B) for airborne fibers.
- The manufacturer recommends the use of a full-facepiece air purifying respirator equipped with an appropriate particulate filter cartridge during furnace tear-out events and the removal of used RCF to control exposures to airborne fiber and the potential presence of crystalline silica.

9. PHYSICAL AND CHEMICAL PROPERTIES

(a) Appearance	White, fibrous wool	**(j) Upper/lower flammability or explosive limits**	Not applicable
(b) Odor	Odorless	**(k) Vapor pressure**	Not applicable
(c) Odor threshold	Not applicable	**(l) Vapor density**	Not applicable
(d) pH	Not applicable	**(m) Relative density**	2.50 ï 2.75
(e) Melting point	1760° C (3200° F)	**(n) Solubility**	Insoluble
(f) Initial boiling point and boiling range	Not applicable	**(o) Partition coefficient: n-octanol/water**	Not applicable
(g) Flash point	Not applicable	**(p) Auto-ignition temperature**	Not applicable
(h) Evaporation rate	Not applicable	**(q) Decomposition temperature**	Not applicable
(i) Flammability	Not applicable	**(r) Viscosity**	Not applicable

10. STABILITY AND REACTIVITY

(a) **Reactivity**	RCF is non-reactive.
(b) **Chemical stability**	As supplied RCF is stable and inert.
(c) **Possibility of hazardous reactions**	None
(d) **Conditions to avoid**	Please refer to handling and storage advice in Section 7
(e) **Incompatible materials**	None
(f) **Hazardous decomposition products**	Thermal decomposition of binder from fires or from first heat of product may release smoke, carbon monoxide and carbon dioxide. Use adequate ventilation or other precautions to eliminate exposure to vapors resulting from thermal decomposition of binder. Exposure to thermal decomposition fumes may cause respiratory tract irritation, bronchial hyper-reactivity or an asthmatic-type response.

11. TOXICOLOGICAL INFORMATION

For more details on scientific publications referenced in this SDS see http://www.htiwcoalition.org/publications.html

(a) through (d)

TOXICOKINETICS, METABOLISM AND DISTRIBUTION

Basic Toxicokinetics
Exposure is predominantly by inhalation or ingestion. Man-made vitreous fibers of a similar size to RCF have not been shown to migrate from the lung and/or gut and do not become located in other organs of the body.

Human Toxicological Data/Epidemiology Data
In order to determine possible human health effects following RCF exposure, the University of Cincinnati has been conducting medical surveillance studies on RCF workers in the U.S.A; this epidemiological study has been ongoing for 25 years and medical surveillance of RCF workers continues. The Institute of Occupational Medicine (IOM) has conducted medical surveillance studies on RCF workers in European manufacturing facilities.

Pulmonary morbidity studies among production workers in the U.S.A. and Europe have demonstrated an absence of interstitial fibrosis. In the European study a reduction of lung capacity among smokers has been identified, however, based on the latest results from a longitudinal study of workers in the U.S.A. with over 17-year follow-up, there has been no accelerated rate of loss of lung function (McKay et al. 2011).

A statistically significant correlation between pleural plaques and cumulative RCF exposure was evidenced in the U.S.A. longitudinal study.

The final report of the USA mortality study (LeMasters et al., 2017) concluded that ñafter 30 years of follow-up, no excess of lung cancers in the mortality study and no significant association with radiographic findings of interstitial fibrosis were found in this group of workers.òThe study also found a small incidence of other effects that appear unrelated to RCF exposure. The final mortality report did not change the current hazard classification for RCF.

Information on Toxicological Effects

- *Acute toxicity: short term inhalation*
  No data available: Short term tests have been undertaken to determine fiber (bio) solubility rather than toxicity; repeat dose inhalation tests have been undertaken to determine chronic toxicity and carcinogenicity.

- *Acute toxicity: oral*
  No data available: Repeated dose studies have been carried out using gavage. No effect was found.

- *Skin corrosion/irritation*

Not a chemical irritant according to test method OECD no. 404.

- *Serious eye damage/irritation*
  Not possible to obtain acute toxicity information due to the morphology and chemical inertness of the substance.

- *Respiratory or skin sensitization*
  No evidence from human epidemiological studies of any respiratory or skin sensitization potential.

- G*erm cell mutagenicity/genotoxicity*
  Method: In vitro micronucleus test
  Species: Hamster (CHO)
  Dose: 1-35 mg/ml
  Routes of administration: In suspension
  Results: Negative

- *Carcinogenicity*
  Method: Inhalation, multi-dose
  Species: Rat
  Dose: 3 mg/m^3, 9 mg/m^3 and 16 mg/m^3
  Routes of administration: Nose only inhalation
  Results: Fibrosis just reached significant levels at 16 and 9 mg/m^3 but not at 3 mg/m^3. None of the parenchymal tumor incidences were higher than the historical control values for this strain of animal.

  Method: Inhalation, single dose
  Species: Rat
  Dose: 30 mg/m3
  Routes of administration: Nose only inhalation
  Results: Rats were exposed to a single concentration of 200 WHO fibers/ml specially prepared RCF for 24 months. High incidence of exposure-related pulmonary neoplasms (bronchoalveolar adenomas and carcinomas) was observed. A small number of mesotheliomas were observed in each of the fiber exposure groups (Mast et al 1995a).

  Method: Inhalation, single dose
  Species: Hamster
  Dose: 30 mg/m3
  Routes of administration: Nose only inhalation
  Results: Hamsters were exposed to a single concentration of 260 WHO fibers/ml specially prepared RCF for 18 months and developed lung fibrosis, a significant number of pleural mesotheliomas (42/102) but no primary lung tumors (McConnell et al 1995).

  Method: Inhalation, single dose
  Species: Rat
  Dose: RCF1: 130 F/ml and 50 mg/m3 (25% of non fibrous particles)
  RCF1a: 125 F/ml and 26 mg/m3 (2% of non fibrous particles)
  Routes of administration: Nose only inhalation
  Results: Rats were exposed to RCF1 and RCF1a for 3 weeks. The objective of the study was to compare lung retention and biological effects of the original RCF1 compared to RCF1a. The main difference of these 2 samples was the non-fibrous particle content of respectively 25% versus 2%. The post treatment observation was 12 months. Alveolar clearance was barely retarded after RCF1A exposure. After RCF1 exposure, however, a severe retardation of clearance was observed. (Bellmann et al 2001).

  After intraperitoneal injection of ceramic fibers into rats in three experiments (Smith et al 1987, Pott et al 1987, Davis et al 1984), mesotheliomas were found in the abdominal cavity in two studies, while the third report (Pott et al 1987) had incomplete histopathology. Only a few mesotheliomas were found in the abdominal cavity of hamsters after intraperitoneal injection in one experiment (Smith et al 1987). However, the ceramic fibers tested were of relatively large diameter. When rats and hamsters were exposed via intraperitoneal injection, tumor incidence was related to fiber length and dose (Smith et al 1987, Pott et al 1987, Miller et al 1999, Pott et al 1989). (From SCOEL publication (EU Scientific Committee on Occupational Exposure Limits) SCOEL/SUM/165, September 2011).

- *Reproductive toxicity*
  Method: Gavage
  Species: Rat
  Dose: 250mg/kg/day
  Routes of administration: Oral
  Results: No effects were seen in an OECD 421 screening study. There are no reports of any reproductive toxic effects of mineral fibers. Exposure to these fibers is via inhalation and effects seen are in the lung. Clearance of fibers is via the gut and the feces, so exposure of the reproductive organs is extremely unlikely.

- *STOT-Single exposure*
  Not applicable

- *STOT-Repeated exposure*
  Not applicable

- *Aspiration hazard*
  Not applicable

<u>See the following review publications for a summary and discussion:</u>
Interpretation of these animal experiments is complex and there is not complete agreement amongst scientists internationally. A summary of the evidence relating to RCF carcinogenicity in vivo can be found in SCOEL/SUM/165 and in Utell and Maxim 2010.

<u>Other information</u>
Numerous studies indicate the relevance of biopersistence as a determinant of toxic effects of fiber exposure. (Maxim et al 2006).

Irritant Properties

Negative results have been obtained in animal studies (EU method B 4) for skin irritation. Inhalation exposures using the nose only route produce simultaneous heavy exposures to the eyes, but no reports of excess eye irritation exist. Animals exposed by inhalation similarly show no evidence of respiratory tract irritation.

Human data confirm that only mechanical irritation, resulting in itching, occurs in humans. Screening at manufacturersôplants in the UK has failed to show any human cases of skin conditions related to fiber exposure.

(e) International Agency for Research on Cancer and National Toxicology Program

IARC, in 1988, Monograph v.43 (and later reaffirmed in 2002, v.81), classified RCF as possibly carcinogenic to humans (group 2B). IARC evaluated the possible health effects of RCF as follows:

- There is inadequate evidence in humans for the carcinogenicity of RCF.
- There is sufficient evidence in experimental animals for the carcinogenicity of RCF.

The Annual Report on Carcinogens (latest edition), prepared by NTP, classified respirable RCF as "reasonably anticipated" to be a carcinogen).

Not classified by OSHA.

12. ECOLOGICAL INFORMATION

(a) Ecotoxicity (aquatic and terrestrial, where available)	No known aquatic toxicity.
(b) Persistence and degradability	These products are insoluble materials that remain stable over time and are chemically identical to inorganic compounds found in the soil and sediment; they remain inert in the natural environment.
(c) Bioaccumulative potential	No bioaccumulative potential.

(d) Mobility in soil	No mobility in soil.
(e) Other adverse effects (such as hazardous to the ozone layer)	No adverse effects of this material on the environment are anticipated.

13. DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT

To prevent waste materials from becoming airborne during waste storage, transportation and disposal, a covered container or plastic bagging is recommended.

DISPOSAL

This product, as manufactured, is not classified as a hazardous waste according to Federal regulations (40 CFR 261). Any processing, use, alteration or chemical additions to the product, as purchased, may alter the disposal requirements. Under Federal regulations, it is the waste generator's responsibility to properly characterize a waste material, to determine if it is a "hazardous" waste. Check local, regional, state or provincial regulations to identify all applicable disposal requirements.

14. TRANSPORT INFORMATION

(a) UN number	Not Applicable
(b) UN proper shipping name	Not Applicable
(c) Transport hazard class(es)	Not Applicable
(d) Packing group, if applicable	Not Applicable
(e) Environmental hazards (e.g., Marine pollutant (Yes/No))	Not a marine pollutant
(f) Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)	Not Applicable
(g) Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises	Not Applicable

Canadian TDG Hazard Class & PIN: Not regulated

Not classified as dangerous goods under ADR (road), RID (train) or IMDG (ship).

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS

EPA	**Superfund Amendments and Reauthorization Act (SARA)** Title III - this product does not contain any substances reportable under Sections 302, 304, 313, (40 CFR 372). Sections 311 and 312 (40 CFR 370) apply (delayed hazard). **Hazard Categories**: Immediate Hazard ï No Delayed Hazard ï Yes Fire Hazard ï No Pressure Hazard ï No Reactivity Hazard - No **Toxic Substances Control Act (TSCA)** - RCF is not required to be listed on the TSCA inventory. **Comprehensive Environmental Response, Compensation and Liability Act** (**CERCLA)** and the **Clean Air Act (CAA)** - this product contains fibers with an average diameter greater than one micron and thus is not considered a hazardous air pollutant.
OSHA	Comply with **Hazard Communication Standards** 29 CFR 1910.1200 and 29 CFR 1926.59

	and the **Respiratory Protection Standards** 29 CFR 1910.134 and 29 CFR 1926.103.
California	ñCeramic fibers (airborne particles of respirable size)òis listed in **Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986** as a chemical known to the State of California to cause cancer.
Other States	RCF products are not known to be regulated by states other than California; however, state and local OSHA and EPA regulations may apply to these products. If in doubt, contact your local regulatory agency.

INTERNATIONAL REGULATIONS

Canada **Canadian Environmental Protection Act (CEPA)** - All substances in this product are listed, as required, on the Domestic Substance List (DSL)

Europe **Integration of RCF into ANNEX XV of the REACH Regulation**

RCF is classified under the CLP (classification, labelling and packaging of substances and mixtures) regulation as a category 1B carcinogen. On January 13, 2010 the European Chemicals Agency (ECHA) updated the candidate list for authorization (Annex XV of the REACH regulation) and added 14 new substances in this list including aluminosilicate refractory ceramic fibers.

As a consequence, EU (European Union) or EEA (European Economic Area) suppliers of articles which contain aluminosilicate refractory ceramic fibers in a concentration above 0.1% (w/w) have to provide sufficient information, available to them, to their customers or upon requests to a consumer within 45 days of the receipt of the request. This information must ensure safe use of the article, and as minimum contains the name of the substance.

16. OTHER INFORMATION

Product Stewardship Program

Unifrax I LLC has established a program to provide customers with up-to-date information regarding the proper use and handling of refractory ceramic fiber. In addition, Unifrax has also established a program to monitor airborne fiber concentrations at customer facilities. If you would like more information about this program, please call the Unifrax Product Stewardship Information Hotline at **1-800-322-2293**.

The manufacturers of refractory ceramic fibers (RCF), who comprise the membership of the HTIW Coalition, remain committed to the continued protection of the health and safety of their employees and all others who use or handle RCF. Building on its prior commitment to voluntary product stewardship, the HTIW Coalition has recently renewed its comprehensive Product Stewardship Program (PSP) for RCF, known as PSP 2017.

PSP 2017 is the fourth iteration of the Coalition's RCF product stewardship program first endorsed by OSHA in 2002 as PSP 2002, renewed in 2007 as PSP-HTW and again in 2012 as PSP 2012. Like its predecessors, PSP 2017 is designed to encourage feasible and necessary control of fiber exposure in the workplace and thereby reduce any potential risk that could be posed by such exposure. For more information regarding this cooperative program that promotes the health and safety of fiber workers nationwide, please visit **http://www.htiwcoalition.org** .

Hazardous Materials Identification System (HMIS) Hazard Rating

HMIS Health	1* (* denotes potential for chronic effects)
HMIS Flammability	0
HMIS Reactivity	0
HMIS Personal Protective Equipment	X (To be determined by user)

Additional Information on After Service Material

As produced, all RCF fibers are vitreous (glassy) materials which do not contain crystalline silica. Continued exposure to elevated temperatures may cause these fibers to devitrify (become crystalline). The first crystalline formation (mullite) begins to occur at approximately 985° C (1805° F). Crystalline phase silica may begin to form at approximately 1100° C (2012° F). When the glass RCF fibers devitrify, they form a mixed mineral crystalline silica containing dust. The crystalline silica is trapped in grain boundaries within a matrix predominately consisting of mullite. The occurrence and extent of crystalline phase formation is dependent on the duration and temperature of exposure, fiber chemistry and/or the presence of fluxing agents or furnace contaminants. The presence of crystalline phases can be confirmed only through laboratory analysis of the "hot face" fiber.

IARCÕs evaluation of crystalline silica states ñCrystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)ò and additionally notes ñcarcinogenicity in humans was not detected in all industrial circumstances studied.ò IARC also studied mixed mineral crystalline silica containing dusts such as coal dusts (containing 5 ï 15 % crystalline silica) and diatomaceous earth without seeing any evidence of disease. (IARC Monograph Vol. 68, 1997). NTP lists all polymorphs of crystalline silica amongst substances which may "reasonably be anticipated to be carcinogens".

IARC and NTP did not evaluate after-service RCF, which may contain various crystalline phases. However, an analysis of after-service RCF samples obtained pursuant to an exposure monitoring agreement with the USEPA, found that in the furnace conditions sampled, most did not contain detectable levels of crystalline silica. Other relevant RCF studies found that (1) simulated after-service RCF showed little, or no, activity where exposure was by inhalation or by intraperitoneal injection; and (2) after-service RCF was not cytotoxic to macrophage-like cells at concentrations up to 320 micrograms/cm² - by comparison, pure quartz or cristobalite were significantly active at much lower levels (circa 20 micrograms/cm²).

DEFINITIONS

ACGIH:	American Conference of Governmental Industrial Hygienists
ADR:	Carriage of Dangerous Goods by Road (International Regulation)
CAA:	Clean Air Act
CAS:	Chemical Abstracts Service
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act
DSL:	Domestic Substances List
EPA:	Environmental Protection Agency
EU:	European Union
f/cc:	Fibers per cubic centimeter
HEPA:	High Efficiency Particulate Air
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods Code
mg/m³:	Milligrams per cubic meter of air
mmpcf:	Million particles per cubic meter
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
OSHA:	Occupational Safety and Health Administration
29 CFR 1910.134 & 1926.103:	OSHA Respiratory Protection Standards
29 CFR 1910.1200 & 1926.59:	OSHA Hazard Communication Standards
PEL:	Permissible Exposure Limit (OSHA)
PIN:	Product Identification Number
PNOC:	Particulates Not Otherwise Classified
PNOR:	Particulates Not Otherwise Regulated
PSP:	Product Stewardship Program
RCRA:	Resource Conservation and Recovery Act

REL:	Recommended Exposure Limit (NIOSH)
RID:	Carriage of Dangerous Goods by Rail (International Regulations)
SARA:	Superfund Amendments and Reauthorization Act
SARA Title III:	Emergency Planning and Community Right to Know Act
SARA Section 302:	Extremely Hazardous Substances
SARA Section 304:	Emergency Release
SARA Section 311:	MSDS/List of Chemicals and Hazardous Inventory
SARA Section 312:	Emergency and Hazardous Inventory
SARA Section 313:	Toxic Chemicals and Release Reporting
STEL:	Short Term Exposure Limit`
SVF:	Synthetic Vitreous Fiber
TDG:	Transportation of Dangerous Goods
TLV:	Threshold Limit Value (ACGIH)
TSCA:	Toxic Substances Control Act
TWA:	Time Weighted Average
WHMIS:	Workplace Hazardous Materials Information System (Canada)

Revision Summary: Updated epidemiology summary information
Revison Date: 01/15/2018

SDS Prepared By: UNIFRAX RISK MANAGEMENT DEPARTMENT

DISCLAIMER

The information presented herein is presented in good faith and believed to be accurate as of the effective date of this Safety Data Sheet. Employers may use this SDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of the product. This summary of the relevant data reflects professional judgment; employers should note that information perceived to be less relevant has not been included in this SDS. Therefore, given the summary nature of this document, Unifrax I LLC does not extend any warranty (expressed or implied), assume any responsibility, or make any representation regarding the completeness of this information or its suitability for the purposes envisioned by the user.

Material Safety Data Sheet

FIR No.: 173219 **Level:** 3
Version Number: US-US-7 **Release Date:** 2009-11-12

1. Product and Company Identification

Product Name: SAE (5W-20 and 5W-30 Premium Synthetic Blend, 10W-30 Super Premium, and 10W-40 Premium) Motor Oil

Product Code: See Attachment

Application: Motor Oil

Supplier: Ford Motor Company
Attention: MSDS Information, P.O. Box 1899
Dearborn, Michigan 48121
1-800-392-3673

Emergency Telephone: Poison Control Center: 1-800-959-3673
CHEMTREC: U.S. and Canada: 1-800-424-9300
CHEMTREC: International: 1-703-527-3887

2. Composition/Information on Ingredients

This chemical product is a preparation.
This Chemical Product Contains No Other Ingredients Now Known To Be Hazardous as Defined by the Applicable Regulations.

Chemical Name	CAS Number	Percent Concentration	Hazard Classification
PETROLEUM DISTILLATES HYDROTREATED HEAVY PARAFFINIC	64742-54-7	60-100	HAZCOM RSMS_D_ALL RSMS_P_SOM
PETROLEUM DISTILLATES, SOLVENT DEWAXED HEAVY PARAFFINIC	64742-65-0	10-30	HAZCOM RSMS_D_ALL RSMS_P_SOM

3. Hazards Identification

Health: Exposure to oil mist/fume/vapor may cause respiratory tract irritation. Inhalation of mist and vapors may irritate the nose, throat, and lungs. This product is not expected to cause eye irritation under normal conditions of use. Symptoms of slight eye irritation may result when direct contact occurs.
Ingestion of this product may cause nausea, vomiting and diarrhea. No skin irritation can be expected from single short-term exposure to this product. Prolonged or repeated contact may produce some irritation.

4. First-Aid Measures

Inhalation: If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air.
If irritation persists, get medical attention.

Skin Contact: Wash skin with soap and water.
If irritation persists, get medical attention.

Eye Contact:
In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes and seek medical attention.
If irritation persists, get medical attention.

Ingestion:
If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

Notes to a Physician:
This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately.

5. Fire-Fighting Measures

Extinguishing Media:
Dry chemical, foam, carbon dioxide, water fog.

Specific Methods:
Use water to cool fire-exposed containers, structures, and to protect personnel.

Specific Hazards:
Water or foam may cause frothing if the product is heated above 93 degrees C (200 degrees F).
Empty container(s) may retain product residue -- solid, liquid, and/or vapor -- and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death.
Combustion may produce the following products: Oxides of carbon, nitrogen, and phosphorus.
Decomposition of this product may yield hydrogen sulfide and sulfur dioxide.

Protection of Firefighters:
Fire fighters should be equipped with NIOSH-approved, self-contained breathing apparatus (SCBA) and full protective clothing.

6. Accidental Release Measures

Personal Precautions:
Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.
Surfaces may become slippery after spillage.
Wear appropriate protective equipment and clothing during clean-up.

Environmental Precautions:
Do not allow the spilled product to enter public drainage system or open water courses.
Do not allow this material to drain into sewers/water supplies.
WATER SPILL: Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in confined waters.

Methods for Cleaning Up:
Dike the spilled material, where this is possible.
Absorb the spilled material with an inert absorbent (nonflammable) material.
In case of large spills, follow all facility Emergency Response Procedures.

7. Handling and Storage

Handling:

Technical Measures: Avoid the generation of oil mists.

Precautions and Advice for Safe Handling: Avoid contact with skin, eyes and clothing.
Elevated temperature or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, and lungs.
Avoid breathing vapors or mist.
Keep the container closed when not in use.
Use with adequate ventilation.

Storage:

Technical Measures: Do not reuse the empty container.

Storage Conditions: Keep the container tightly closed and in a cool, well-ventilated place.
Store this product away from strong oxidizing agents.

8. Exposure Controls/Personal Protection

Engineering Measures: Use adequate ventilation to control airborne concentrations below the exposure limits/guidelines. If user operations generate a vapor, dust, and/or mist, use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits/guidelines.
Local exhaust is suggested for use, where possible, in enclosed or confined spaces.
Eyewash and emergency showers are recommended.

Control Parameters: If oil mist is generated, observe the OSHA exposure limit of 5 mg/m3 (TWA) and the ACGIH exposure limit of 5 mg/m3 (TWA) and the ACGIH short term exposure limit (STEL) of 10 mg/m3. Ford Motor Company recommends an exposure limit of 1.0 mg/m3.

Personal Protective Equipment:

Respiratory Protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard 29 CFR 1910.134 and/or Canadian Standard CSA Z94.4.

Hand Protection: The use of nitrile-latex gloves is recommended.

Eye Protection: Wear safety glasses with side shields.

FIR No.:	173219	**Level:**	3
Version Number:	US-US-7	**Release Date:**	2009-11-12

Hygiene Measures: Remove contaminated clothing and wash the skin thoroughly with soap and water after work.
Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Specific Gravity:	0.85-0.88 H2O=1 @15.6°C
Physical State:	MIXTURE
Form:	LIQUID
Odor:	PETROLEUM
Color:	AMBER
pH:	N.AP
Temperature Range During which Changes in Physical State Occur:	
Flash Point:	185 minimum °C ASTM D93
Auto-ignition Temperature:	N.AV
Explosion Properties:	
UEL:	N.AV
LEL:	N.AV
Vapor Pressure:	<1@20°C mmHg
Vapor Density:	>1 (AIR=1)
Solubility:	NEGLIGIBLE IN WATER
Viscosity:	46-114@40°C cSt ASTM D445
Evaporation Rate:	<1 (BuAc = 1)

Material Safety Data Sheet

FIR No.:	173219	**Level:**	3
Version Number:	US-US-7	**Release Date:**	2009-11-12

10. Stability and Reactivity

Stability:

Stable at ambient and moderately elevated temperatures and pressures.
Hazardous polymerization will not occur.

Conditions and Materials to Avoid:

This product may react with strong oxidizing agents (bleach--sodium hypochlorite, calcium hypochlorite, hydrogen peroxide, permanganate, nitric acid, concentrated OXYGEN, perchlorates).
This product may react with strong reducing agents.

Hazardous Decomposition Products:

Decomposition of this product may emit oxides of nitrogen and carbon monoxide.
Decomposition of this product may yield oxides of phosphorus.
Decomposition of this product may emit oxides of sulfur.
Irritating and/or toxic gases may be emitted upon the product's decomposition.

11. Toxicological Information

Inhalation:

Exposure to oil mist/fume/vapor may cause respiratory tract irritation.

Skin Contact:

Prolonged or repeated contact with this product may dry and/or defat the skin.
Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.

Chronic (Long Term) Toxicity:

Base oil severely refined: Not carcinogenic in animal studies.
Representative material passes IP-346, Modified Ames test, and/or other screening tests.
Continuous long term contact with used motor oil has caused skin cancer in animal tests.

12. Ecological Information

No specific aquatic data available for this product.

13. Disposal Considerations

Waste from Residues:

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulation.
Empty containers may contain hazardous residues (vapors, liquid, and/or solid). Do not reuse the empty container without commercial cleaning or reconditioning.
Used oil: CAUTION - If contaminated by unburned fuel, this used crankcase oil may have a lower flashpoint than the value which is indicated above.

Contaminated Packaging:

No consideration given when disposed of according to local, state, and Federal regulations.

14. Transport Information

U.S. Department of Transportation (DOT) 49 - CFR 172.101
This product is not regulated as a dangerous good.

Canadian Transportation of Dangerous Goods (T.D.G.) - TDGR Schedule II
This product is not regulated as a dangerous good.

Secretary of Communication and Transportation (SCT) - NOM-002-SCT2/1994 (Mexico)
This product is not regulated as a dangerous good.

International and Domestic Air Transportation - ICAO & IATA Section 4.2
This product is not regulated as a dangerous good.

International Water Transportation - IMDG Code Amendment 31-02
This product is not regulated as a dangerous good.

15. Regulatory Information

Don't pollute. Conserve resources. Return used oil to collection centers.
Used engine oils, while not a component of this material, is on the Proposition 65 list of chemicals known to the State of California to cause cancer.
Material contains a chemical which is a Ford Motor Company Material of Concern. Use and release of this material should be minimized to the greatest extent possible.

16. Other Information

Petroleum distillate base oils used in the product are severely hydrotreated and/or solvent refined.
Key/Legend: N.AP = Not applicable; N.AV = Not available; ND = Not determined or No data; TLV = Threshold limit value; TWA = Time-weighted average; STEL = Short-term exposure limit; C = Ceiling limit

HMIS and NFPA Hazard Class Information:

HMIS Hazard Class:	Health: 1 (Slight)	Flammability: 1 (Slight)	Physical Hazard: 0 (Least)
NFPA Hazard Class:	Health: 0 (Least)	Flammability: 1 (Slight)	Instability: 0 (Least)

The following sections contain revisions OR NEW statements. 7
2
15
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Material Safety Data Sheet

FIR No.:	173219	**Level:**	3
Version Number:	US-US-7	**Release Date:**	2009-11-12

Preparation Information:

The chemical identification and properties for this material were provided by the manufacturer. For Canadian locations, a manufacture's MSDS is available upon request. Health and safety information has been evaluated by the Occupational and Environmental Health Sciences Department, Ford Motor Company, Diagnostic Service Center II, 1800 Fairlane Drive, Allen Park, MI 48101, USA.

Disclaimer:

The information on this data sheet represents our current data and is accurate to the best of our knowledge as to the proper handling of this product under normal conditions and in accordance with the application specified on the packaging and/or technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Material Safety Data Sheet

FIR No.: 173219 **Level:** 3
Version Number: US-US-7 **Release Date:** 2009-11-12

Attachment

Product Code	Container Size	Part of Kit	Kit Product Code
XO-10W30-5QSP	5 qt.		
XO-10W30-BSP	Bulk		
XO-10W30-DSP	55 U.S. Gallon Drum		
XO-10W30-DSP1	55 U.S. Gallon Drum		
XO-10W30-QSP	1 qt.		
XO-10W30-QSP1	1 qt.		
XO-10W30-RSP	Railcar		
XO-10W40-DP	55 U.S. Gallon Drum		
XO-10W40-QP	1 qt.		
XO-5W20-5QSP	5 qt.		
XO-5W20-BSP	Bulk		
XO-5W20-DSP	55 U.S. Gallon Drum		
XO-5W20-DSP1	55 U.S. Gallon Drum		
XO-5W20-QSP	1 qt.		
XO-5W20-QSP1	1 qt.		
XO-5W20-RSP	Railcar		
XO-5W20-TSP	261 U.S. Gallon Tote		
XO-5W30-5QSP	5 qt.		
XO-5W30-BSP	Bulk		
XO-5W30-DSP	55 U.S. Gallon Drum		
XO-5W30-DSP1	55 U.S. Gallon Drum		
XO-5W30-QSP	1 qt.		
XO-5W30-QSP1	1 qt.		
XO-5W30-RSP	Railcar		
XO-5W30-TSP	261 U.S. Gallon Tote		

SAFETY DATA SHEET

Revision Date: *27-May-2021* **Revision Number:** *8*

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	**BENJAMIN MOORE ULTRA SPEC 500 INTERIOR FLAT WHITE N53601**
Product Code	
Alternate Product Code	N53601
Product Class	Water thinned paint
Color	White
Recommended use	Paint
Restrictions on use	No information available

Manufacturer
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 1-866-708-9180
www.benjaminmoore.com

Emergency Telephone
CHEMTREC: +1 703-741-5970 / 1-800-424-9300
+1 703-527-3887 (outside US & Canada)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity	Category 2

Label elements

Warning

Hazard statements
Suspected of damaging fertility or the unborn child

Appearance liquid **Odor** little or no odor

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other information
No information available

WARNING: This product contains isothiazolinone compounds at levels of <0.1%. These substances are biocides commonly found in most paints and a variety of personal care products as a preservative. Certain individuals may be sensitive or allergic to these substances, even at low levels.

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Titanium dioxide	13463-67-7	20 - 25
Limestone	1317-65-3	5 - 10
Nepheline syenite	37244-96-5	1 - 5
Kaolin, calcined	92704-41-1	1 - 5
Diatomaceous earth	61790-53-2	1 - 5
Silica amorphous	7631-86-9	1 - 5
Aluminum hydroxide	21645-51-2	1 - 5
Trimethylolpropane	77-99-6	0.1 - 0.5

4. FIRST AID MEASURES

General Advice No hazards which require special first aid measures.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water. Consult a physician if necessary.

Most Important Symptoms/Effects	None known.
Notes To Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific Hazards Arising From The Chemical	Closed containers may rupture if exposed to fire or extreme heat.
Sensitivity to mechanical impact	No
Sensitivity to static discharge	No

Flash Point Data

Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable

Flammability Limits In Air

Lower flammability limit:	Not applicable
Upper flammability limit:	Not applicable

NFPA **Health:** 2 **Flammability:** 0 **Instability:** 0 **Special:** Not Applicable

NFPA Legend
0 - Not Hazardous
1 - Slightly
2 - Moderate
3 - High
4 - Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
Other Information	Prevent further leakage or spillage if safe to do so.
Environmental precautions	See Section 12 for additional Ecological Information.

Methods for Cleaning Up Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Avoid breathing vapors, spray mists or sanding dust. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage Keep container tightly closed. Keep out of the reach of children.

Incompatible Materials No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL
Titanium dioxide	TWA: 10 mg/m³	15 mg/m³ - TWA
Limestone	N/E	15 mg/m³ - TWA 5 mg/m³ - TWA
Diatomaceous earth	N/E	- 20 mppcf - TWA
Silica amorphous	N/E	20 mppcf - TWA
Aluminum hydroxide	TWA: 1 mg/m³ respirable particulate matter	N/E

Legend
ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits
OSHA - Occupational Safety & Health Administration Exposure Limits
N/E - Not Established

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.
Skin Protection Protective gloves and impervious clothing.
Respiratory Protection In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene Measures Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance liquid
Odor little or no odor
Odor Threshold No information available
Density (lbs/gal) 11.4 - 11.5
Specific Gravity 1.36 - 1.38
pH No information available
Viscosity (cps) No information available

Solubility(ies)	No information available
Water solubility	No information available
Evaporation Rate	No information available
Vapor pressure	No information available
Vapor density	No information available
Wt. % Solids	50 - 60
Vol. % Solids	35 - 45
Wt. % Volatiles	40 - 50
Vol. % Volatiles	55 - 65
VOC Regulatory Limit (g/L)	0
Boiling Point (°F)	212
Boiling Point (°C)	100
Freezing point (°F)	32
Freezing Point (°C)	0
Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Autoignition Temperature (°F)	No information available
Autoignition Temperature (°C)	No information available
Decomposition Temperature (°F)	No information available
Decomposition Temperature (°C)	No information available
Partition coefficient	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not Applicable
Chemical Stability	Stable under normal conditions.
Conditions to avoid	Prevent from freezing.
Incompatible Materials	No materials to be especially mentioned.
Hazardous Decomposition Products	None under normal use.
Possibility of hazardous reactions	None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Principal Routes of Exposure Eye contact, skin contact and inhalation.

Acute Toxicity

Product Information No information available

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact May cause slight irritation.
Skin contact Substance may cause slight skin irritation. Prolonged or repeated contact may dry skin and cause irritation.
Inhalation May cause irritation of respiratory tract.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Sensitization No information available
Neurological Effects No information available.
Mutagenic Effects No information available.
Reproductive Effects Possible risk of impaired fertility. Possible risk of harm to the unborn child.
Developmental Effects No information available.
Target organ effects No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Other adverse effects No information available.
Aspiration Hazard No information available

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 38353 mg/kg
ATEmix (dermal) 61802 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Kaolin, calcined 92704-41-1	> 2000 mg/kg (Rat)	-	-
Silica amorphous 7631-86-9	= 7900 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h
Aluminum hydroxide 21645-51-2	> 5000 mg/kg (Rat)	-	-
Trimethylolpropane 77-99-6	= 14100 mg/kg (Rat) = 14000 mg/kg (Rat)	-	> 0.29 mg/L (Rat) 4 h

Chronic Toxicity

Carcinogenicity
The information below indicates whether each agency has listed any ingredient as a carcinogen:.

Chemical name	IARC	NTP	OSHA
Titanium dioxide	2B - Possible Human Carcinogen		Listed

• Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

Legend
IARC - International Agency for Research on Cancer
NTP - National Toxicity Program
OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects
The environmental impact of this product has not been fully investigated.

Product Information

Acute Toxicity to Fish
No information available

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

Persistence / Degradability
No information available.

Bioaccumulation
There is no data for this product.

Mobility in Environmental Media
No information available.

Ozone
No information available

Component Information

Acute Toxicity to Fish

Titanium dioxide
LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated

environmental protection agency for more disposal options.

14. TRANSPORT INFORMATION

DOT Not regulated

ICAO / IATA Not regulated

IMDG / IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: United States	Yes - All components are listed or exempt.
DSL: Canada	No - Not all of the components are listed. One or more component is listed on NDSL.

Federal Regulations

SARA 311/312 hazardous categorization

Acute health hazard	No
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

None

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

None

US State Regulations

California Proposition 65

WARNING: Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania
Titanium dioxide	X	X	X
Limestone	X	X	X
Diatomaceous earth		X	
Silica amorphous	X		X

Legend
X - Listed

16. OTHER INFORMATION

HMIS - **Health:** 2* **Flammability:** 0 **Reactivity:** 0 **PPE:** -

HMIS Legend
0 - Minimal Hazard
1 - Slight Hazard
2 - Moderate Hazard
3 - Serious Hazard
4 - Severe Hazard
* - Chronic Hazard
X - Consult your supervisor or S.O.P. for "Special" handling instructions.
Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Prepared By
Product Stewardship Department
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
800-225-5554

Revision Date: 27-May-2021
Revision Summary Not available

Disclaimer
The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

End of Safety Data Sheet

Safety Data Sheet

Issue Date: 07-May-2018 **Revision Date:** 09-May-2018 **Version** 1

1. IDENTIFICATION

Product Identifier

Product Name SPLASH Original Blue Windshield Wash -20°F

Other means of identification

SDS SPLASH-001

Product Code 234526, 234422-35, 55 Gal.-234555, Tote-234620

UN/ID No UN1993

Recommended use of the chemical and restrictions on use

Recommended Use Windshield washer fluid.

Details of the supplier of the safety data sheet

Manufacturer Address

FMP
1380 Corporate Center Curve, Suite 200
Eagan, MN 55121
Phone: 888-784-0802

Emergency Telephone Number

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Blue liquid **Physical state** Liquid **Odor** Alcohol

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Specific target organ toxicity (single exposure)	Category 1
Flammable Liquids	Category 3

Signal Word

Danger

Hazard statements

Harmful if swallowed
Toxic in contact with skin
Toxic if inhaled
Causes damage to organs
Flammable liquid and vapor

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
Call a POISON CENTER or doctor if you feel unwell
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTER or doctor
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
Rinse mouth
IN CASE OF FIRE: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Methanol	67-56-1	30-32

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First Aid Measures

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a poison control center or doctor for treatment advice.

Skin Contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a poison center or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

Ingestion IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If large quantities are swallowed, get emergency medical help immediately.

Most important symptoms and effects

Symptoms Harmful if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes damage to organs. Can cause irritation to eyes and mucous membranes. Sore throat, shortness of breath, coughing and congestion. Irritation, itching, dermatitis.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Small Fire Dry chemical. Carbon dioxide (CO2). Foam.

Large Fire Water spray or fog. Foam.

Unsuitable Extinguishing Media High volume water jet.

Specific Hazards Arising from the Chemical
Flammable liquid and vapor. Vapors may travel to source of ignition and flash back. Closed containers may explode if exposed to extreme heat.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide (CO2).

Explosion Data
Sensitivity to Static Discharge Take precautionary measures against static discharge.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Ventilate area of leak or spill. Use personal protection recommended in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Remove all sources of ignition. No smoking in spill area.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Keep cool. Wear protective gloves/protective clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up.

Incompatible Materials Strong acids. Strong reducing agents. Strong oxidizing agents. Magnesium. Water-reactive materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methanol 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m^3 (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m^3 (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m^3 (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m^3 STEL: 250 ppm STEL: 325 mg/m^3

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Showers. Eyewash stations. Local exhaust ventilation recommended.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear chemical safety goggles.

Skin and Body Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection Under normal conditions, respirator is not normally required. If the exposure limit is exceeded and engineering controls are not feasible, a half face piece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full face piece particulate respirator (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If

oil particles (e.g. lubricants, cutting fluids, Glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in Oxygen-deficient atmospheres.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Blue liquid	**Odor**	Alcohol
Color	Blue	**Odor Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	8.0	
Melting point / freezing point	-28.9 °C / -20.02 °F	
Boiling Point / Boiling Range	87 °C / 188.6 °C	
Flash Point	33 °C / 91.4 °F	
Evaporation Rate	2.1	(butyl acetate = 1)
Flammability (Solid, Gas)	Liquid - Not Applicable	
Flammability Limit in Air		
Upper Flammability Limit	6%	
Lower Flammability Limit	36%	
Vapor Pressure	128 hPa	@ 20°C (68°F)
Vapor Density	1.11	(Air=1)
Relative Density	0.952	
Water Solubility	Soluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

Other Information

VOC Content	31%
Density	7.9422 lb/gal

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to Avoid
Avoid temperatures exceeding the flash point. Heat, flames and sparks.

Incompatible Materials
Strong acids. Strong reducing agents. Strong oxidizing agents. Magnesium. Water-reactive materials.

Hazardous Decomposition Products
Carbon monoxide. Carbon dioxide (CO2).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Toxic in contact with skin.

Inhalation Toxic if inhaled.

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methanol 67-56-1	= 6200 mg/kg (Rat)	= 15800 mg/kg (Rabbit) = 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h = 64000 ppm (Rat) 4 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

STOT - single exposure Causes damage to organs.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 331.68 mg/kg
ATEmix (dermal) 995.00 mg/kg
ATEmix (inhalation-dust/mist) 1.66 mg/L
ATEmix (inhalation-vapor) 9.95 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility

Chemical Name	Partition Coefficient
Methanol 67-56-1	-0.77

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methanol 67-56-1		Included in waste stream: F039		U154

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Methanol 67-56-1	Toxic Ignitable

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1993
Proper Shipping Name Flammable liquids, n.o.s. (Methanol)
Hazard Class 3
Packing Group III

IATA

UN/ID No UN1992
Proper Shipping Name Flammable liquid, toxic, n.o.s. (Methanol)
Hazard Class 3
Subsidiary Hazard Class 6.1
Packing Group III

IMDG

UN/ID No UN1992
Proper Shipping Name Flammable liquid, toxic, n.o.s. (Methanol)
Hazard Class 3
Subsidiary Hazard Class 6.1
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Methanol	X	X	X	X	X	X	X	X

Legend:

TSCA *- nited States Toxic Su stances Control Act Section nventory*

DSL/NDSL *- Canadian omestic Su stances ist/ on- omestic Su stances ist*

EINECS/ELINCS *- uropean nventory o xisting Chemical Su stances/ uropean ist o oti ied Chemical Su stances*

ENCS *- apan xisting and e Chemical Su stances*

IECSC *- China nventory o xisting Chemical Su stances*

KECL *- orean xisting and valuated Chemical Su stances*

PICCS *- hilippines nventory o Chemicals and Chemical Su stances*

AICS *- Australian nventory o Chemical Su stances*

US Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances R s	CERCLA/SARA R	Reportable uantity (R)
Methanol 67-56-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Methanol - 67-56-1	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New ersey	Massachusetts	Pennsylvania
Methanol 67-56-1	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	Not determined	Not determined	Not determined	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical hazards**	**Personal Protection**
	Not determined	Not determined	Not determined	Not determined

Issue Date: 07-May-2018
Revision Date: 09-May-2018
Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

ADDITIONAL PRODUCT INFORMATION DISCLOSURE

-20 Windshield Washer Fluic

CAS#	Raw Material	Functional Purpose	Lists Of Concern	Links to Lists of Concern
7732-18-5	Water			
67-56-1	Methanol	Reduces freeze point	CA Prop 65 US NTP Reproductive or Developmental Toxicants CA Non-Cancer Hazards	https://oehha.ca.gov/proposition-65/proposition-65-list https://ntp.niehs.nih.gov/whatwestudy/assessments/noncancer/completed/index.html https://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary https://ntp.niehs.nih.gov/ntp/ohat/methanol/methanol_monograph.pdf
3734-33-6	Denatonium Benzoate	Bittering agent		
Withheld 1116737*	Patent Blue Dye L85000	Dye/colorant		

*WERKS NUMBER

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB258

SAFETY DATA SHEET Per OSHA HCS

Date SDS Printed & Reviewed: 01/17/17
Last Formula Revision Date: 05/21/15
(SPE)

SECTION 1: IDENTIFICATION

PRODUCT IDENTIFIER:
PART #49135
WESTERN
RED ENAMEL

OTHER MEANS OF IDENTIFICATION (FOR CHEMTREC): FORMULA # 37A188N32

RECOMMENDED USE OF THE CHEMICAL: LIQUID COATING

SUPPLIER DETAILS:

MANUFACTURED BY:
Custom-Pak Products Inc.
N118 W 18981 Bunsen Drive
Germantown, WI 53022
(262) 251-6180

MANUFACTURED FOR:
WESTERN PRODUCTS
7777 NORTH 73RD STREET
MILWAUKEE, WI 53223
414-354-2310

EMERGENCY 24-HOUR TELEPHONE NUMBERS:
Call CHEMTREC: within USA dial 1-800-424-9300 or outside USA dial +1-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

HAZARD PICTOGRAMS:

GHS02 Flame, GHS07 Exclamation Mark, GHS08 Health Hazard

CLASSIFICATION OF THE SUBSTANCE OF MIXTURE:

Flammable Liquids, Category 2
Aspiration Hazard, Category 1
Acute Toxicity - Dermal, Category 4
Skin Corrosion/Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 2A
Serious Eye Damage/Eye Irritation, Category 2B
Acute Toxicity - Inhalation, Category 4
Specific Target Organ Toxicity - Single Exposure, Category 3
Specific Target Organ Toxicity - Single Exposure, Category 3
Carcinogenicity, Category 2
Specific Target Organ Toxicity - Repeated Exposure, Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 39.31%

SIGNAL WORD: DANGER

HAZARD STATEMENTS:

H225 Highly flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H320 Causes eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS:

GENERAL & PREVENTION:

P102 Keep out of reach of children.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/other ignition sources. No smoking.
P233 Keep container tightly closed when not in use.
P261-1 Avoid breathing vapor.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear eye protection.

RESPONSE:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P350 IF ON SKIN: Wash with plenty of soap and water.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

CONTINUED -->

SAFETY DATA SHEET Per OSHA HCS

PRODUCT IDENTIFIER:

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do
P312 Call a POISON CENTER/doctor if you feel unwell.
P331 Do NOT induce vomiting.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agent

STORAGE:

P403+P233 Store in a well-ventilated place. Keep container tightly closed when not in use.
P403+P235 Store in a well-ventilated place. Keep cool.

DISPOSAL:

P501 Dispose of contents/container in accordance with local/regional/national regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#	COMPONENT	CAS#	% by WT.
1	N-BUTYL ACETATE	123-86-4	25-31
2	XYLENE	1330-20-7	10-16
3	PM ACETATE	108-65-6	8-10
4	ETHYL ACETATE	141-78-6	5-8
5	*ETHYLBENZENE	100-41-4	1-3
6	*TITANIUM DIOXIDE	13463-67-7	0.1-1
7	ALIPHATIC PETROLEUM NAPHTHA	64742-48-9	0.1-1
8	(BIN 14) ALIPHATIC HYDROCARBON	8052-41-3	0.1-1

SECTION 4 - FIRST AID MEASURES

Inhalation: If inhaled: Move victim to fresh air and keep comfortable for breathing.
Skin Contact: If on skin: Wash with plenty of soap and water. Call a poison center/doctor if you feel unwell. Remove contaminated clothing and wash before reuse.
Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion: If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting unless directed to do so by medical personnel.
MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

See Section 11: Toxicological Information and effects.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT REQUIRED:

Treat symptomatically.

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: CO2 (Carbon Dioxide), dry chemical, or water fog.
Unsuitable Extinguishing Media: Water spray may be unsuitable. However if water is used fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up.
Specific Hazards Arising From the Chemical: Closed containers exposed to heat from fire may build pressure and explode. Products of combustion may include but are not limited to: oxides of carbon.
Special Protective Equipment and Precautions for Fire-Fighters: Full protective equipment including self-contained breathing apparatus should be used.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in Section 8.
Environmental Precautions: Prevent contamination of soil/ground, waterways, drains, and sewers.
Methods of Containment: Absorb spilled liquid in suitable material.
Methods for Clean-Up: Use spark-proof tools to sweep or scrape up, containerize, and dispose of properly.
Other Information: Ensure adequate ventilation.

SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling:

Vapors may ignite explosively. Prevent buildup of vapors. Keep from sparks, heat, flame or other heat sources. Do not smoke. Turn off pilot lights, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Do not puncture or incinerate/burn container. Keep container tightly closed while not in use.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in dry, well-ventilated area and in accordance with federal, state, and local regulations. Do not expose to heat or store at temperatures above 50 degrees C / 122 degrees F. If storing in cold temperatures, allow product to warm to room temperature before use. Keep container tightly closed and away from heat and sunlight when not in use.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

#	COMPONENT	ACGIH TLV-STEL	ACGIH TLV-TWA	OSHA PEL-TWA
1	N-BUTYL ACETATE	200 ppm	150 ppm	150 ppm
2	XYLENE	150 ppm	100 ppm	100 ppm
3	PM ACETATE	N/E	N/E	N/E

CONTINUED -->

SAFETY DATA SHEET Per OSHA HCS

PRODUCT IDENTIFIER:
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RED ENAMEL

4	ETHYL ACETATE	N/E	400 ppm	400 ppm
5	*ETHYLBENZENE	125 ppm	100 ppm	100 ppm
6	*TITANIUM DIOXIDE	N/E	10 mg/m3 ppm	15 mg/m3 ppm
7	ALIPHATIC PETROLEUM NAPHTHA	N/E	100 ppm	500 ppm
8	(BIN 14) ALIPHATIC HYDROCARBON	N/E	N/E	N/E

APPROPRIATE ENGINEERING CONTROLS: Provide adequate ventilation to keep air contamination below OSHA permissible exposure limits and ACGIH TLV exposure levels. Ground containers during fluid transfers.
EYE/FACE PROTECTION: Wear safety glasses with side shields. Have eye wash facilities immediately available.
SKIN PROTECTION: Wear chemical resistant gloves if contact is likely.
RESPIRATORY PROTECTION: Use NIOSH-approved air-purifying respirator with organic cartridge or canister if exposure cannot be controlled within applicable limits with ventilation.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
COLOR: See product identification
ODOR: Solvent Odor
ODOR THRESHOLD: No Data Available
pH: No Data Available
FREEZING POINT: Not established (mixture)
BOILING POINT: 75 - 186 degrees C (167 - 367 degrees F)
FLASH POINT: greater than 23 degrees C (greater than 73 degrees F), c.c.
EVAPORATION RATE: Slower than ether
UPPER FLAMMABILITY LIMIT: Not established (mixture)
LOWER FLAMMABILITY LIMIT: Not established (mixture)
VAPOR PRESSURE: Not established (mixture)
SPECIFIC GRAVITY: 0.977
SOLUBILITY (WATER): Negligible
VOC PERCENT BY WEIGHT: 59.78
HAPS PERCENT BY WEIGHT: 15.4

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions.
POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.
CONDITIONS TO AVOID: Keep away from heat, sparks, and flames.
INCOMPATIBLE MATERIALS: Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: by fire - Carbon Dioxide and Carbon Monoxide

SECTION 11: TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF ENTRY: Skin contact, Inhalation, Eye contact, Ingestion
SIGNS AND SYMPTOMS OF EXPOSURE:
Skin Contact: Signs/symptoms may include localized redness, itching, drying and cracking of skin.
Inhalation: Intentional concentration and inhalation may be harmful or fatal.
Eye Contact: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.
Ingestion: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Intentional concentration and ingestion of large amounts may be harmful or fatal.
TARGET ORGANS POTENTIALLY AFFECTED BY EXPOSURE:
Central nervous system, kidneys, lungs, liver, eyes, skin, brain, respiratory tract, urinary tract, reproductive system, cardiovascular system

TOXICOLOGICAL DATA:

#	COMPONENT	LD50 ORAL	LD50 DERMAL	LC50 INHALATION
1.	N-BUTYL ACETATE	>10,760 mg/kg (rat)	>14,112 mg/kg rabbit	>21 mg/l (rat) 4 h
2.	XYLENE	>3523 mg/kg	>4200 mg/kg	>20 mg/L
3.	PM ACETATE	>5000 mg/kg (rat)	>5000 mg/kg (rabbit)	>10.8 mg/l (rat) 6 h
4.	ETHYL ACETATE	>4934 mg/kg	>20000 mg/kg	>22.5 mg/L
5.	*ETHYLBENZENE	N/E	N/E	N/E
6.	*TITANIUM DIOXIDE	N/E	N/E	N/E
7.	ALIPHATIC PETROLEUM NAPHTHA	N/E	N/E	N/E
8.	(BIN 14) ALIPHATIC HYDROCARBON	N/E	N/E	N/E

SECTION 12: ECOLOGICAL INFORMATION

No Data Available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of container and its contents in accordance with federal, state, and local regulations.
Do not puncture, incinerate, or place container in trash compactor.

CONTINUED -->

SAFETY DATA SHEET Per OSHA HCS

PRODUCT IDENTIFIER:

PART #49135
WESTERN
RED ENAMEL

SECTION 14: TRANSPORTATION INFORMATION

GROUND (D.O.T./49 CFR)

UN I.D. Number:	**UN1263**	Proper Shipping Name:	PAINT
Transport Hazard Class:	**3**	Packing Group:	III
Hazard Label:		Limited Quantity (LTD QTY) label -- see 49 CFR 172.315	
Shipping papers format:		UN1263, PAINT, 3, III, LTD QTY	
SPECIAL NOTE:		If containers have less than 30ml (1 fl.oz.) flammable liquid, they may be exempt from 49 CFR - see 49 CFR 173.4 Small Quantity Exceptions Note that outer package needs statement "This package conforms to 49 CFR 173.4 for domestic highway or rail transport only."	

AIR (IATA)

UN I.D. Number:	**UN1263**	Proper Shipping Name:	PAINT
Transport Hazard Class:	**3**	Packing Group:	III
Hazard Label:		LTD QTY label with "Y", and Flammable Liquid label	
Packing Instruction:		Y344 (Note 10L maximum per package!)	
Shipping papers format:		UN1263, PAINT, 3, III	
SPECIAL NOTE:		If containers have less than 30ml (1 fl. oz.), they may qualify to be shipped as Excepted Quantity - see IATA 2.6 for details.	

WATER (IMDG)

UN I.D. Number:	**UN1263**	Proper Shipping Name:	PAINT
Transport Hazard Class:	**3**	Packing Instructions:	P001, LP01
Packing Group:	**III**	Hazard Label:	LTD QTY label, see IMDG 3.4.5.1
EmS:	**F-E, S-E**	Stowage and Segregation:	Category A
Shipping papers format:		UN1263, PAINT, 3, III, (23 C c.c.), LTD QTY	
SPECIAL NOTE:		If containers have less than 30ml (1 fl. oz.), they may qualify to be shipped as an Excepted Quantity, see IMDG 3.5.1 for details.	

No component of this product is a listed Marine Pollutant (49 CFR 172,101,Appendix B).

SECTION 15: REGULATORY INFORMATION

International Chemical Inventory

All components of this product are listed on or exempt from the following inventories:
TSCA (United States), CEPA/DSL (Canada), AICS (Australia), IECSC (China)

SARA Section 313 Toxic Chemicals:

XYLENE 1330-20-7, *ETHYLBENZENE 100-41-4
Chemicals listed above are subject to the SARA reporting requirements under 40 CFR 372.45(c)(5).

California Prop65 Chemicals:

*ETHYLBENZENE 100-41-4
*California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

SECTION 16: OTHER INFORMATION

REVISION DATE: 05/21/15

HMIS & NFPA Hazard Scale:

0=minimal, 1=slight, 2=moderate, 3=serious, 4=severe
HMIS(American Coatings Association's Hazardous Material Identification System):
Health = 2 Flammability = 3 Physical Hazard = 1
NFPA 704(National Fire Protection Association's Hazard Identification Ratings System):
Health = 2 Flammability = 3 Instablity = 1

This SDS is based on information believed to be reliable and accurate. Because of changing reporting requirements and other variables it is impossible to guarantee with complete accuracy all the information contained in this document. It is the responsibility of the user to determine proper personal protection based on actual condition of use and to comply with all federal, state, and local laws and regulations.

Safety Data Sheet

1. Identification

Product Information: PDL-70

Product Name: Premium Decor Waterborne Brush-On Enamel (Slate Gray)

Recommended Use: Interior Non-Flat Latex Paint

Application Method: No Information

Supplied by: GPM
201 Jandus Road
Cary, IL 60013
Telephone: (847) 639-5383

Emergency Telephone: (866)257-3981

2. Hazards Identification

EMERGENCY OVERVIEW: This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Classification
No GHS Classifications were found

Symbol(s) of Product

No GHS Symbols Exist

Signal Word
No Signal Word has been assigned

3. Composition/Information on Ingredients

Chemical Name	CAS-No.	Wt. %	GHS Symbols	GHS Statements
TITANIUM DIOXIDE	13463-67-7	2.5-10	GHS07	H312
CARBON BLACK	1333-86-4	0.1-1.0	No Information	No Information
DIPHENYL KETONE	119-61-9	0.1-1.0	GHS08	H373

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: Remove person to fresh air. If signs/symptoms continue, get medical attention.

FIRST AID - SKIN CONTACT: WASH WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND CLEAN BEFORE REUSE.

FIRST AID - EYE CONTACT: FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES. GET MEDICAL HELP IF IRRITATION PERSISTS.

FIRST AID - INGESTION: Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Have the victim drink 8 to 10 ounces (240 - 300 ml) of water to dilute the material in the stomach. If vomiting occurs naturally, have the victim lean forward to reduce the risk of aspiration. Consult a physician immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: Container may rupture on heating.

SPECIAL FIREFIGHTING PROCEDURES: Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS.

EXTINGUISHING MEDIA: None Known

6. Accidental Release Measures

ENVIRONMENTAL PRECAUTIONS: No Information

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: ISOLATE HAZARD AREA AND KEEP UNNECESSARY PEOPLE AWAY. DO NOT ALLOW THE LIQUID TO ENTER INTO ANY SEWERS, ONTO THE GROUND OR INTO ANY BODY OF WATER. FOR LARGE SPILLS, USE A DIKE AND PUMP INTO APPROPRIATE CONTAINERS. SMALL SPILLS, DILUTE WITH WATER AND RECOVER OR USE NON-COMBUSTIBLE ABSORBENT MATERIAL AND SHOVEL INTO WASTE CONTAINERS.

7. Handling and Storage

HANDLING: KEEP FROM FREEZING

STORAGE: Store in a cool dry area. KEEP OUT OF REACH OF CHILDREN.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

Chemical Name	ACGIH TLV-TWA	ACGIH-TLV STEL	OSHA PEL-TWA	OSHA PEL-CEILING
TITANIUM DIOXIDE	10 mg/m3	N.E.	15 mg/m3 (Total dust)	N.E.
CARBON BLACK	3 mg/m3	7 mg/m3	3.5 mg/m3	N.E.
DIPHENYL KETONE	N.E.	N.E.	0.5 mg/m3	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation Sk = Skin Sensitizer N.E. = Not Established

Personal Protection

RESPIRATORY PROTECTION: In order to avoid inhalation of spray-mist and sanding dust, all spraying and sanding must be done wearing adequate respirator.

SKIN PROTECTION: Sensitive individuals should wear gloves to prevent repeated contact.

EYE PROTECTION: Safety glasses with side-shields

OTHER PROTECTIVE EQUIPMENT: No Information

HYGIENIC PRACTICES: Wash hands before eating, drinking, or smoking.

9. Physical and Chemical Properties

Appearance:	Thick Liquid (Slate Gray Color)	**Physical State:**	Liquid
Odor:	Slight Ammonia Odor	**Odor Threshold:**	No Information
Density, g/cm3:	0.000	**pH:**	No Information
Freeze Point, °C:	No Information	**Viscosity:**	No Information
Solubility in Water:	Water Soluble	**Partition Coefficient, n-octanol/ water:**	No Information
Decomposition temperature, °C	No Information		
Boiling Range, °C:	98 - 104	**Explosive Limits, %:**	N/A
Combustibility:	Does not Support Combustion	**Flash Point, °C:**	Not Applicable
Evaporation Rate:	No Information	**Auto-Ignition Temperature, °C**	No Information
Vapor Density:	No Information	**Vapor Pressure, mmHg:**	No Information

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

STABILITY: THIS MATERIAL IS STABLE UNDER NORMAL STORAGE AND HANDLING CONDITIONS.

CONDITIONS TO AVOID: AVOID HIGH TEMPERATURES AND FREEZING.

INCOMPATIBILITY: No Information

HAZARDOUS DECOMPOSITION PRODUCTS: MAY GENERATE TOXIC OR IRRRITATING COMBUSTION PRODUCTS. MAY GENERATE CARBON MONOXIDE GAS.

11. Toxicological Information

Practical Experiences

EFFECT OF OVEREXPOSURE - INHALATION: Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membranes).

EFFECT OF OVEREXPOSURE - SKIN CONTACT: PROLONGED OR REPEATED CONTACT MAY CAUSE IRRITATION.

EFFECT OF OVEREXPOSURE - EYE CONTACT: MILD EYE IRRITANT.

EFFECT OF OVEREXPOSURE - INGESTION: May be harmful if swallowed. May cause gastrointestinal disturbance.

EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS: No Information

CARCINOGENICITY: IARC lists Titanium Dioxide and Carbon Black as possible human carcinogens (Group 2B)

PRIMARY ROUTE(S) OF ENTRY: No Information

Acute Toxicity Values
The acute effects of this product have not been tested. Data on individual components are tabulated below

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
13463-67-7	TITANIUM DIOXIDE	10000 mg/kg	2000 mg/kg	N.I.
1333-86-4	CARBON BLACK	>8000 mg/kg	>3000 mg/kg	N.I.

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: No Information

13. Disposal Information

Product

DISPOSAL METHOD: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. ALL DISPOSAL METHODS MUST BE IN COMPLIANCE WITH ALL FEDERAL, STATE/PROVINCIAL, AND LOCAL LAWS AND REGULATIONS.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: ISOLATE HAZARD AREA AND KEEP UNNECESSARY PEOPLE AWAY. DO NOT ALLOW THE LIQUID TO ENTER INTO ANY SEWERS, ONTO THE GROUND OR INTO ANY BODY OF WATER. FOR LARGE SPILLS, USE A DIKE AND PUMP INTO APPROPRIATE CONTAINERS. SMALL SPILLS, DILUTE WITH WATER AND RECOVER OR USE NON-COMBUSTIBLE ABSORBENT MATERIAL AND SHOVEL INTO WASTE CONTAINERS.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No Information

DOT Proper Shipping Name:	No Information	**Packing Group:**	No Information
DOT Technical Name:	No Information	**Hazard SubClass:**	No Information
DOT Hazard Class:	No Information	**Resp. Guide Page:**	No Information
DOT UN/NA Number:	No Information		

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

None Known

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA components exist in this product.

U.S. State Regulations:

NEW JERSEY RIGHT-TO-KNOW:

The following materials are non-hazardous, but are among the top five components in this product.

Chemical Name	CAS-No.
Non Hazardous Ingredients	

PENNSYLVANIA RIGHT-TO-KNOW

The following non-hazardous ingredients are present in the product at greater than 3%.

Chemical Name	CAS-No.
Non Hazardous Ingredients	

CALIFORNIA PROPOSITION 65 CARCINOGENS

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

Chemical Name	CAS-No.
TITANIUM DIOXIDE	13463-67-7

CARBON BLACK	1333-86-4
DIPHENYL KETONE	119-61-9

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

No Proposition 65 Reproductive Toxins exist in this product.

International Regulations: As follows -

CANADIAN WHMIS:

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

WHMIS Class No Information

16. Other Information

Revision Date: 6/30/2016 **Supersedes Date:** New MSDS

Reason for revision: No Information

Datasheet produced by: Regulatory Department

HMIS Ratings:

Health:	1	**Flammability:**	0	**Reactivity:**	0	**Personal Protection:**	N.I.

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H312	Harmful in contact with skin.
H373	May cause damage to organs through prolonged or repeated exposure.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS07

GHS08

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product where instructions and recommendations are not followed.

PEAK Antifreeze + Coolant 50/50 Prediluted

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 05/09/2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : PEAK Antifreeze + Coolant 50/50 Prediluted

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Antifreeze & Coolant

1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC
3100 Sanders Road
Northbrook, IL 60062 - USA
T (847) 559-2000
www.oldworldind.com

1.4. Emergency telephone number

Emergency number : 800 424 9300 (United States); 00 1 703 527 3887 (International)
Chemtrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Specific target organ toxicity — Repeated exposure, Category 2	H373	May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS07 GHS08

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H302 - Harmful if swallowed.
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe mist, spray, vapors
P264 - Wash affected areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear personal protective equipment as required.
P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P308+P313 - If exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	% by wt	GHS-US classification
ethylene glycol	(CAS-No.) 107-21-1	45 - 50	Acute Tox. 4 (Oral), H302
water	(CAS-No.) 7732-18-5	45 - 50	Not classified
diethylene glycol	(CAS-No.) 111-46-6	0.5 - 3	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
denatonium benzoate	(CAS-No.) 3734-33-6	0.0015 - 0.003 [15 - 30 ppm]	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Remove contaminated clothing. Wash with plenty of water. If skin irritation occurs: Rinse immediately with plenty of water (for at least 15 minutes), Get medical advice/attention. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.

First-aid measures after ingestion : Obtain emergency medical attention. Rinse mouth. If the person is fully conscious, make him/her drink two glasses of water. Never give an unconscious person anything to drink. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Causes damage to organs (kidneys) Oral. Suspected of damaging fertility or the unborn child.

Symptoms/effects after skin contact : Repeated or prolonged skin contact may cause irritation.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz).

4.3. Indication of any immediate medical attention and special treatment needed

A more effective intravenous antidote for physician uses is 4-methylpyrazaole, a potent inhibitor of alcohol dehydrogenases, which effectively blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occured.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry chemical. Foam. Sand. Water fog.

Unsuitable extinguishing media : Do not use a heavy water stream. May spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide. Product is not flammable or combustible but may burn under fire conditions.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Refer to section 8.2.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Store away from other materials.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use. Product may become solid at temperatures below -37 ºC (-34 ºF). Do not store near food, foodstuffs, drugs or potable water supplies. Do not cut, drill, weld, use a blowtorch on, etc. containers even when empty.

Incompatible products : Keep away from strong acids, strong bases and oxidizing agents.

Incompatible materials : Sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

denatonium benzoate (3734-33-6)		
Not applicable		

ethylene glycol (107-21-1)		
ACGIH	Local name	Ethylene glycol
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³
ACGIH	ACGIH TWA (ppm)	25 ppm (Vapor fraction)
ACGIH	ACGIH STEL (mg/m³)	10 mg/m³ (Inhalable fraction, Aerosol only)
ACGIH	ACGIH STEL (ppm)	50 ppm (Vapor fraction)
ACGIH	Remark (ACGIH)	Upper respiratory tract & eye irritant
ACGIH	Regulatory reference	ACGIH 2018

diethylene glycol (111-46-6)
Not applicable

water (7732-18-5)
Not applicable

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Gloves. Safety glasses.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

Respiratory protection not required in normal conditions. If exposed to levels above exposure limits wear appropriate respiratory protection.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Molecular mass	:	62.07 g/mol Ethylene Glycol
Color	:	Yellow
Odor	:	mild
Odor threshold	:	No data available
pH	:	8.3
Relative evaporation rate (butylacetate=1)	:	Nil
Freezing point	:	-37 °C (-34 ºF)
Boiling point	:	107 °C (224 ºF)
Flash point	:	116 °C (241 ºF) [100% Ethylene Glycol] *ASTM D56*
Auto-ignition temperature	:	400 °C (752 ºF) [100% Ethylene Glycol] *Literature*
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	< 0.1 @ 20 ºC
Relative vapor density at 20 °C	:	No data available
Specific Gravity	:	1.08
Density	:	1.08 kg/l (9.019 lbs/gal)
Solubility	:	Water: Complete
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive limits	:	Not applicable
Explosive properties	:	Not applicable.
Oxidizing properties	:	Not applicable.

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Extremely high or low temperatures. Keep away from any flames or sparking source.

10.5. Incompatible materials

Keep away from strong acids, strong bases and oxidizing agents.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Fume. Alcohols. Aldehydes. Ethers.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

denatonium benzoate (3734-33-6)	
LD50 oral rat	584 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Literature study, Dermal)
ATE US (oral)	584 mg/kg bodyweight

ethylene glycol (107-21-1)	
LD50 oral rat	7712 mg/kg bodyweight (according to BASF-internal standards, Rat, Male / female, Experimental value, Aqueous solution, Oral, 7 day(s))
LC50 inhalation rat (mg/l)	> 2.5 mg/l (6 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
ATE US (oral)	500 mg/kg bodyweight

diethylene glycol (111-46-6)	
LD50 oral rat	19600 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral)
LD50 dermal rabbit	11890 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	> 4.6 mg/l/4h (Other, 4 h, Rat, Weight of evidence)
ATE US (oral)	500 mg/kg bodyweight
ATE US (dermal)	11890 mg/kg bodyweight

Skin corrosion/irritation : Not classified
pH: 8.3

Serious eye damage/irritation : Not classified
pH: 8.3

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects	:	Causes damage to organs (kidneys) Oral. Suspected of damaging fertility or the unborn child.
Symptoms/effects after skin contact	:	Repeated or prolonged skin contact may cause irritation.
Symptoms/effects after eye contact	:	May cause eye irritation.
Symptoms/effects after ingestion	:	Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz).

SECTION 12: Ecological information

12.1. Toxicity

denatonium benzoate (3734-33-6)	
LC50 fish 1	> 1,000.00 mg/l (96 h, Salmo gairdneri, Literature study)
EC50 Daphnia 1	13.00 mg/l (48 h, Daphnia magna, Literature study)

ethylene glycol (107-21-1)	
LC50 fish 1	40,761.00 mg/l (96 h, Salmo gairdneri, Static system)
EC50 Daphnia 1	> 10,000.00 mg/l (24 h, Daphnia magna)

diethylene glycol (111-46-6)	
LC50 fish 1	> 5,000.00 ppm (24 h, Carassius auratus)
EC50 Daphnia 1	> 10,000.00 mg/l (24 h, Daphnia magna)
LC50 fish 2	75,200.00 mg/l (Other, 96 h, Pimephales promelas, Flow-through system, Experimental value)
EC50 Daphnia 2	> 10,000.00 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

denatonium benzoate (3734-33-6)	
Persistence and degradability	Biodegradability in water: no data available. No (test) data on mobility of the substance available.

ethylene glycol (107-21-1)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.47 g O_2/g substance
Chemical oxygen demand (COD)	1.24 g O_2/g substance
ThOD	1.29 g O_2/g substance
BOD (% of ThOD)	0.36

diethylene glycol (111-46-6)	
Persistence and degradability	Biodegradable in the soil. Biodegradable in water.
Biochemical oxygen demand (BOD)	0.02 g O_2/g substance
Chemical oxygen demand (COD)	1.51 g O_2/g substance
ThOD	1.51 g O_2/g substance
BOD (% of ThOD)	0.02

12.3. Bioaccumulative potential

denatonium benzoate (3734-33-6)	
Log Pow	1.78 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

ethylene glycol (107-21-1)	
BCF fish 1	10.00 (72 h, Leuciscus idus)
BCF other aquatic organisms 1	0.21 - 0.6 (Procambarus sp., Chronic)
BCF other aquatic organisms 2	190.00 (24 h, Algae)
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Not bioaccumulative.

diethylene glycol (111-46-6)	
BCF fish 1	100.00 (Other, 3 day(s), Leuciscus melanotus, Static system, Fresh water, Experimental value)
Log Pow	-1.98 (Calculated, Other)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

denatonium benzoate (3734-33-6)	
Ecology - soil	No (test)data on mobility of the substance available.

ethylene glycol (107-21-1)	
Surface tension	48.00 mN/m (20 °C)
Ecology - soil	No (test)data on mobility of the substance available.

diethylene glycol (111-46-6)	
Surface tension	0.05 N/m
Log Koc	0.00 (log Koc, SRC PCKOCWIN v1.66, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

Effect on the ozone layer : No known effect on the ozone layer

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to an approved waste disposal plant.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Non Bulk (in quantities under 5,000 lbs in any one inner package):
Not regulated by the US DOT

Bulk (in quantities 5,000 lbs or over in any one inner package):

Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s. (Ethylene Glycol), 9, III

UN-No.(DOT) : UN3082

Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s.
Ethylene Glycol

Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Packing group (DOT) : III - Minor Danger

Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Symbols : G - Identifies PSN requiring a technical name

DOT Packaging Exceptions (49 CFR 173.xxx) : 155

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No limit

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No limit

DOT Vessel Stowage Location : A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.

Other information : No supplementary information available.

Transportation of Dangerous Goods

Refer to current TDG Canada for further Canadian regulations

Transport by sea

In accordance with IMDG / IMO

Not regulated

Air transport

In accordance with IATA / ICAO

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

PEAK Antifreeze + Coolant 50/50 Prediluted	
EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed

denatonium benzoate (3734-33-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

ethylene glycol (107-21-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
CERCLA RQ	5000 lb(s)
SARA Section 311/312 Hazard Classes	Refer to Section 2 for the OSHA hazard classification Ethylene glycol is subject to Tier I and/or Tier II annual inventory reporting.
SARA Section 313 - Emission Reporting	Ethylene glycol is subject to Form R Reporting requirements.

diethylene glycol (111-46-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

water (7732-18-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

PEAK Antifreeze + Coolant 50/50 Prediluted	
WHMIS Classification	This SDS has been prepared according to the criteria of the Hazardous Products Regulations (HPR) (WHMIS 2015) and the SDS contains all of the information required by the HPR. Applicable GHS information is listed in section 2.2 of this SDS.

15.3. US State regulations

⚠ **WARNING:** This product can expose you to ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

ethylene glycol (107-21-1)					
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		(ingested) 8,700 (oral) µg/day

ethylene glycol (107-21-1)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

diethylene glycol (111-46-6)
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

Revision date : 05/09/2019

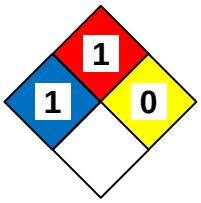
Full text of H-statements:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



SDS GHS US (GHS HazCom 2012) OWI

Old World Industries, LLC makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, LLC as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, LLC assume liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

SAFETY DATA SHEET

1. Product and Company Identification

Product identifier **Pro Still Clean Distiller Cleaner & Descaler**

Other means of identification Not available

Recommended use Water Processing Equipment Cleaner

Recommended restrictions None known.

Manufacturer information Pro Products LLC
7201 Engle Road
Fort Wayne, IN 46804-5875 US
Phone: 260-483-2519
Emergency Phone: 1-800-424-9300 (CHEMTREC)

Supplier See above.

2. Hazards Identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1

Environmental hazards Not classified.

WHMIS 2015 defined hazards Not classified

Label elements

Signal word Danger

Hazard statement May be corrosive to metals.
Causes severe skin burns and eye damage.

Precautionary statement

Prevention Keep only in original packaging. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response Absorb spillage to prevent material-damage.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Store in a corrosion resistant container with a resistant inner liner. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC) None known

WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC) None known

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Citric Acid		77-92-9	10-30*
Sulfamic acid		5329-14-6	65-85*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments	US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. *CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
Skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Specific treatment (see information on this label). Immediately call a POISON CENTER/doctor.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and chemical splash goggles. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media	Carbon dioxide. Water spray. Dry chemical powder. Foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Firefighters should wear a self-contained breathing apparatus.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self-contained breathing apparatus.
Fire-fighting equipment/instructions	In the event of fire, cool tanks with water spray. Cool containers with flooding quantities of water until well after fire is out.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Ammonia.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Absorb spillage to prevent material damage. Use water spray to reduce vapors or divert vapor cloud drift. Large Spills: Wet down with water and dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewers, basements or confined areas.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Use only with adequate ventilation. Avoid breathing dust. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Do not get in eyes, on skin or on clothing.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in corrosive resistant container with a resistant inner liner. Store in a closed container away from incompatible materials. Keep only in the original container. Store in a cool, dry place out of direct sunlight. Keep out of the reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).

Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	This material does not have established exposure limits.
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection	
Hand protection	Impervious gloves. Confirm with reputable supplier first.
Other	As required by employer code. Rubber apron recommended.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).
Thermal hazards	Not applicable.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Free-flowing Powder.
Physical state	Solid.
Form	Solid.
Color	Yellow
Odor	Odorless
Odor threshold	Not available.
pH	0.89 (10% w/w), Acid reserve 33.56g NaOH/100g
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and Reactivity

Reactivity	This product may react with reducing agents. May react with strong bases or oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Caustics. Oxidizers. Bases. Reducing agents.
Hazardous decomposition products	May include and are not limited to: Ammonia. Oxides of carbon. Oxides of nitrogen. Oxides of sulfur.

11. Toxicological Information

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Information on likely routes of exposure

Ingestion	Causes digestive tract burns.
Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity

Components	**Species**	**Test Results**
Citric Acid (CAS 77-92-9)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Not available	
Oral		
LD50	Mouse	5400 mg/kg, ECHA
		5040 mg/kg, HSDB
	Rat	11700 mg/kg, ECHA
		6730 mg/kg, HSDB
Sulfamic acid (CAS 5329-14-6)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Not available	
Oral		
LD50	Guinea pig	1050 mg/kg, SAX
	Mouse	1312 mg/kg, SAX
	Rat	> 2000 mg/kg
		3160 mg/kg, SAX
		2140 mg/kg, ECHA

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Causes serious eye damage.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classified or listed by IARC, NTP, OSHA and ACGIH.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Teratogenicity Non-hazardous by WHMIS/OSHA criteria.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological Information

Ecotoxicity See below

Ecotoxicological data

Components		Species	Test Results
Citric Acid (CAS 77-92-9)			
Acute			
Crustacea	EC50	Daphnia magna	120 mg/L, 72 hr
Aquatic			
Acute			
Fish	LC50	Bluegill (Lepomis macrochirus)	1516 mg/L, 96 hr
Sulfamic acid (CAS 5329-14-6)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	14.2 mg/L, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Mobility in general Not available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructions Review federal, state/provincial, and local government requirements prior to disposal. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

Transport of Dangerous Goods (TDG) Proof of Classification Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number UN1759

Proper shipping name	Corrosive solids, n.o.s.
Technical name	Sulfamic acid
Hazard class	8
Packing group	III
Special provisions	128, IB8, IP3, T1, TP33
Packaging exceptions	<11 lbs - Limited Quantity
Packaging non bulk	213
Packaging bulk	240

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN1759
Proper shipping name	CORROSIVE SOLID, N.O.S.
Technical name	Sulfamic acid
Hazard class	8
Packing group	III
Special provisions	16
Packaging exceptions	< 5kg - Limited Quantity

DOT

TDG

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS 2015 Exemptions Not applicable

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

US state regulations See below

US - New ersey RTK - Substances: Listed substance

Sulfamic acid (CAS 5329-14-6)

US - Texas Effects Screening Levels: Listed substance

Citric Acid (CAS 77-92-9)	Listed.
Sulfamic acid (CAS 5329-14-6)	Listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New ersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

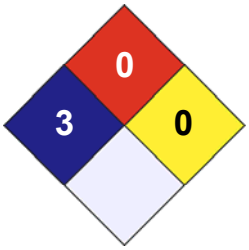
Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0



Disclaimer The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

Issue date 04-May-2018

Version 01

Effective date 04-May-2018

Prepared by Dell Tech Laboratories Ltd. Phone: (519) 858-5021

Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Redbook revision # 2, 1/6/17

Quicksilver Premium Power Trim and Steering Fluid

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Revision date: 21/09/2011 Supersedes: 26/11/2010 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Trade name : Quicksilver Premium Power Trim and Steering Fluid

Product code : 625422316; 92-881120; 92-858074Q01; 92-858075Q01

Synonyms : Power Trim & Steering Fluid

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/preparation : Marine and Watercraft Applications

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Mercury Marine
41-71 Bessemer Drive Dandenong South Vic
Australia
3175
+61 3 9791 5822

1.4. Emergency telephone number

Emergency number : Chemtrec Australia (Sydney) +(61) 290372994 (24 hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. In case of large spills the product may be hazardous to aquatic organisms due to possible formation of a film on the surface water which can diminish dissolved oxygen levels.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : Spills of this product present a serious slipping hazard.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air. Put victim at rest, cover with a blanket and keep warm. In case of breathing difficulties administer oxygen. Give artificial respiration if necessary. Seek medical advice.

First-aid measures after skin contact : Heated product causes burns. Immediately flush the contact area with plenty of low pressure water to cool the skin. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Discard contaminated leather articles. Wash contaminated clothing before reuse. Seek medical attention if ill effect or irritation develops. If material is injected under the skin, seek medical attention immediately.

First-aid measures after eye contact : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if ill effect or irritation develops.

First-aid measures after ingestion : Do not induce vomiting. Give nothing to eat or drink. Never give anything by mouth to an unconscious person. Immediately get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation.

Symptoms/injuries after skin contact : May cause slight temporary irritation. Prolonged/repetitive skin contact may cause skin defattening or dermatitis. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

Symptoms/injuries after eye contact : May cause slight temporary irritation. Symptoms can include redness, pain, and tearing.

Symptoms/injuries after ingestion : May cause gastrointestinal irritation, nausea, vomiting and diarrhoea. and laxative action.

4.3. Indication of any immediate medical attention and special treatment needed

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: : carbon dioxide (CO_2), dry chemical powder, foam. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen.

Unsuitable extinguishing media : Water spray. Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : The product is not easily ignited. When heated above the flash point, releases vapours. Exposed to ignition source, vapours can burn in open / explode if confined. Mist or spray may burn at temperature below flash point.

Explosion hazard : Exposed to ignition source, vapours can burn in open / explode if confined.

Reactivity : On combustion, forms: carbon oxides (CO and CO_2). Sulfur oxides. Nitrogen oxides (NOx). hydrocarbons. Toxic fumes may be released. Zinc. Phosphorus compounds.

5.3. Advice for firefighters

Firefighting instructions : Risk of explosion if heated under confinement. At or above flash point, vapours present may burn in open or explode if confined when mixed with air and exposed to ignition source.

Protective equipment for firefighters : In case of fire: Wear self-contained breathing apparatus. Wear proper protective equipment. Refer to section 8.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate personnel to a safe area. Keep away from sources of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing, gloves and eye/face protection. Refer to section 8.

Emergency procedures : High slip hazard because of leaking or spilled product. Do not handle until all safety precautions have been read and understood. Stop leak if safe to do so. Soak up with absorbent material (for example sand, sawdust, neutral absorbent granule, silica gel). Sweep or shovel spills into appropriate container for disposal. Do not allow the product to be released into the environment.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye/face protection. Refer to section 8.

Emergency procedures : High slip hazard because of leaking or spilled product. Stop leak if safe to do so. Take up liquid spill into inert absorbent material, e.g.: sand/earth. Collect all waste in suitable and labelled containers and dispose according to local legislation. Prevent entry to sewers and public waters.

6.2. Environmental precautions

Do not discharge into drains or the environment. Substance floats in water.

6.3. Methods and material for containment and cleaning up

For containment : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed containers for disposal. Prevent entry to sewers and public waters.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Sweep or shovel spills into appropriate container for disposal. Stop leak if safe to do so. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Minimize water use for cleaning.

Other information : Comply with local regulations for disposal.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Wear recommended personal protective equipment. Avoid all eye and skin contact and do not breathe vapour and mist.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: : Use only in well-ventilated areas.

Storage condition(s) : Keep container tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Only use containers approved for especially this product. Protect from sunlight. Protect containers against damage. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

Incompatible materials : Protect from sunlight. Oxidizing agents. Avoid high temperatures.

Storage area : Keep out of direct sunlight. Keep only in the original container in a cool, well-ventilated place.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide local exhaust or general room ventilation to minimize vapour concentrations.

Personal protective equipment : Gloves. Safety glasses. Protective clothing.

Hand protection : For prolonged contact, use nitrile or neoprene gloves or other material resistant to petroleum oils. Heat resistant gloves.

Eye protection : Chemical goggles or face shield with safety glasses. Use splash goggles when eye contact due to splashing is possible. Wear goggles and face shield when handling material at elevated temperatures.

Skin and body protection : Wear suitable protective clothing. Wear long sleeves. Wear heat resistant boots and protective clothing when handling material at elevated temperatures.

Respiratory protection : With correct and proper use, and under normal conditions, breathing protection is not required. An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits. In case of fire: Wear self-contained breathing apparatus.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	amber.
Odour	:	petroleum-like odour.
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Solidification point	:	No data available
Boiling point	:	No data available
Flash point	:	171 °C (Closed cup)
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	No data available

Explosive limits	:	No data available
Vapour pressure	:	< 0.01 kPa @ 20ºC
Relative vapour density at 20 °C	:	> 1 (air=1)
Relative density	:	0.87 g/cm³
Density	:	867.78 kg/m³
Solubility	:	Water: Negligible.
Log Pow	:	No data available
Log Kow	:	No data available
Self ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	31 cSt @ 40ºC
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available

9.2. Other information

VOC content : Negligible.

SECTION 10: Stability and reactivity

10.1. Reactivity

On combustion, forms: carbon oxides (CO and CO2). Sulfur oxides. Nitrogen oxides (NOx). hydrocarbons. Toxic fumes may be released. Zinc. Phosphorus compounds.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Keep away from: strong oxidants and strong acids. High temperature.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

On burning: release of (highly) toxic gases/vapours. carbon dioxide (CO2). Carbon monoxide. nitrogen oxides (NOx) and sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Quicksilver Premium Power Trim and Steering Fluid	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified
Potential Adverse human health effects and symptoms	:	May produce skin irritation. Repeated exposure may cause skin dryness or cracking. Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - air : Photodegradation in the air.

Ecology - water : In case of large spills the product may be hazardous to aquatic organisms due to possible formation of a film on the surface water which can diminish dissolved oxygen levels.

12.2. Persistence and degradability

Quicksilver Premium Power Trim and Steering Fluid	
Persistence and degradability	Inherently biodegradable.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Quicksilver Premium Power Trim and Steering Fluid	
Ecology - soil	Do not allow to enter into soil/subsoil.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose of this material and its container to hazardous or special waste collection point.

Waste treatment methods : Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

Waste disposal recommendations : Disposal must be done according to official regulations. Do not re-use empty containers. Empty containers can be dumped according to local legislation.

Additional information : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Not a dangerous good in sense of transport regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH candidate substance

VOC content : Negligible.

Other regulations, restrictions and prohibition regulations : Compliance with following regulations: Regulation (EC) 1907/2006 as amended. Regulation (EC) 1272/2008 as amended. Directive 67/548/EEC as amended. Directive 1999/45/EC as amended.

15.1.2. National regulations

Regional legislation : National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2011(2003)]. Adopted National Exposure Standard for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003 (1995)].

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Sources of Key data : MSDS.

Abbreviations and acronyms : ASTM - American Society for Testing and Materials . CLP - Classification, Labelling and Packaging. CSR - Chemical Safety Report. EC - European Community. EEC - European Economic Community. GHS - Globally Harmonised System. REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals. SDS - Safety Data Sheet.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SAFETY DATA SHEET

1. Identification

Product identifier **HERCULES CLEAR, PURPLE, AND UNPURPLE PRIMER**

Other means of identification

SDS number 7402E

Synonyms Part Numbers: Clear - 60453, 60458, 60460, 60465, 60470, Purple - 60403, 60413, 60415, 60420, 60425 Un-Purple - 60445, 60447

Recommended use Joining PVC Pipes

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name HCC Holdings, Inc. an Oatey Affiliate

Address 4700 West 160th Street
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Acetone	67-64-1	30-60
Cyclohexanone	108-94-1	15-40
Furan, Tetrahydro-	109-99-9	10-30
Methyl ethyl ketone	78-93-3	10-30

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms/effects, acute and delayed	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3
		1000 ppm
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3
		50 ppm
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3
		200 ppm
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3
		200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm
	TWA	20 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
	TWA	50 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m3
		25 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m3
		250 ppm
	TWA	590 mg/m3
		200 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3
		300 ppm
	TWA	590 mg/m3
		200 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	*
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Cyclohexanone (CAS 108-94-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.
Furan, Tetrahydro- (CAS 109-99-9) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Translucent.
Physical state	Liquid.
Form	Liquid.
Color	Clear. or Purple
Odor	Solvent.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	151 °F (66.11 °C)
Flash point	14.0 - 23.0 °F (-10.0 - -5.0 °C)
Evaporation rate	5.5 - 8
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	145 mm Hg @ 20 C
Vapor density	2.5
Relative density	0.82 - 0.86
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	< 100 cP
Other information	
Bulk density	7 lb/gal
VOC (Weight %)	< 550 g/l SQACMD Method 304

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.

Skin contact Causes skin irritation.

Eye contact Causes serious eye irritation.

Ingestion May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	20 ml/kg
Inhalation		
LC50	Rat	50 mg/l, 8 Hours
Oral		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
Acute		
Dermal		
LD50	Rabbit	948 mg/kg
Inhalation		
LC50	Rat	8000 ppm, 4 hours
Oral		
LD50	Rat	1540 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Cyclohexanone (CAS 108-94-1) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Acetone (CAS 67-64-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	481 - 578 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Furan, Tetrahydro- (CAS 109-99-9)	0.46
Methyl ethyl ketone (CAS 78-93-3)	0.29

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number UN1993

UN proper shipping name Flammable liquids, n.o.s. (Methyl ethyl ketone RQ = 25063 LBS, Acetone RQ = 12522 LBS)

Transport hazard class(es)

Class 3

Subsidiary risk -

Label(s) 3

Packing group II

Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP1, TP8, TP28
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1993
UN proper shipping name	Flammable liquid, n.o.s. (Methyl ethyl ketone, Acetone)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3H
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Methyl ethyl ketone, Acetone)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1)	35 %WV
Methyl ethyl ketone (CAS 78-93-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

US state regulations

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. Rhode Island RTK

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 17-December-2014

Revision date -

Version # 01

HMIS® ratings Health: 2
Flammability: 3
Physical hazard: 0

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

SAFETY DATA SHEET

1. Identification

Product identifier **HERCULES PVC Cement Clear Medium Body, Medium Set**

Other means of identification

Product code MSDS #92

Synonyms Part Numbers: 60003, 60013, 60015, 60020, 60025 Export Part Numbers: 60003E, 60013E, 60015E, 60020E, 60025E

Recommended use Joining PVC Pipes

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name HCC Holdings, Inc. an Oatey Affiliate

Address 4700 West 160th Street
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	40-60
Methyl ethyl ketone	78-93-3	10-25
Polyvinyl chloride	9002-86-2	10-20
Acetone	67-64-1	7-15
Cyclohexanone	108-94-1	5-15
Silica, amorphous, fumed	112945-52-5	1-5

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms/effects, acute and delayed	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Polyvinyl chloride (CAS 9002-86-2)	STEL	5 ppm
	TWA	1 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3 50 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3 200 ppm	
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
		200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	0.8 mg/m3
		20 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
	TWA	20 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	TWA	1 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m3
		25 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m3
		250 ppm
	TWA	590 mg/m3
		200 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3
		300 ppm
	TWA	590 mg/m3
		200 ppm
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m3

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	*
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Cyclohexanone (CAS 108-94-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.
Furan, Tetrahydro- (CAS 109-99-9) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Transparent liquid.

Color Clear.

Odor Solvent.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range 151 °F (66.11 °C)

Flash point 6.0 °F (-14.4 °C) Based on THF

Evaporation rate 7 - 11

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 1.8

Flammability limit - upper (%)	11.8
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	143 mm Hg @ 20 C
Vapor density	2 - 2.5
Relative density	0.91 +/- 0.02
Solubility(ies)	
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	80 - 500 cP
Other information	
Bulk density	7.6 lb/gal
VOC (Weight %)	< 510 g/l SCAQMD 1168/M316A

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	20 ml/kg
Inhalation		
LC50	Rat	50 mg/l, 8 Hours
Oral		
LD50	Rat	5800 mg/kg

Components	Species	Test Results
Cyclohexanone (CAS 108-94-1)		
Acute		
Dermal		
LD50	Rabbit	948 mg/kg
Inhalation		
LC50	Rat	8000 ppm, 4 hours
Oral		
LD50	Rat	1540 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Cyclohexanone (CAS 108-94-1)	3 Not classifiable as to carcinogenicity to humans.
Polyvinyl chloride (CAS 9002-86-2)	3 Not classifiable as to carcinogenicity to humans.
Silica, amorphous, fumed (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Acetone (CAS 67-64-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	481 - 578 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Furan, Tetrahydro- (CAS 109-99-9)	0.46
Methyl ethyl ketone (CAS 78-93-3)	0.29

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	T11, TP1, TP8, TP27
Packaging exceptions	150
Packaging non bulk	201
Packaging bulk	243

IATA

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1133
UN proper shipping name	ADHESIVES
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer Central nervous system Liver Blood Flammability

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1)	35 %WV
Methyl ethyl ketone (CAS 78-93-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

US state regulations

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)
Silica, amorphous, fumed (CAS 112945-52-5)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)
Polyvinyl chloride (CAS 9002-86-2)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)
Silica, amorphous, fumed (CAS 112945-52-5)

US. Rhode Island RTK

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 27-May-2015

Revision date -

Version # 01

HMIS® ratings Health: 2
Flammability: 3
Physical hazard: 0

NFPA ratings

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

SAFETY DATA SHEET

1. Identification

Product identifier **Hercules Pro Dope**

Other means of identification

Product code 7377E

Synonyms Part Numbers: 15420, 15427, 15433, 15435, 15445

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name HCC Holdings, Inc. an Oatey Affiliate

Address 4700 West 160th Street
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Sensitization, skin Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Warning

Hazard statement May cause an allergic skin reaction.

Precautionary statement

Prevention Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.

Response If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Calcium carbonate	1317-65-3	50-60
Petroleum-based Lubricating Oil	64741-88-4	20-40
Kaolin	1332-58-7	10-20
Menhaden oil	8002-50-4	1-5

Quartz	14808-60-7	<1

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation — If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Skin contact — Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact — Rinse with water. Get medical attention if irritation develops and persists.

Ingestion — Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.

Most important symptoms/effects, acute and delayed — Upper respiratory tract irritation. Irritation of eyes and mucous membranes. Coughing. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed — Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information — Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media — Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media — Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical — During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters — Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions — Move containers from fire area if you can do so without risk.

Specific methods — Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards — No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures — Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up — Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions — Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling — Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage.

Conditions for safe storage, including any incompatibilities — Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Calcium carbonate (CAS 1317-65-3)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Kaolin (CAS 1332-58-7)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Petroleum-based Lubricating Oil (CAS 64741-88-4)	PEL	5 mg/m3	Mist.
		2000 mg/m3	
		500 ppm	

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Quartz (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable fraction.
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Calcium carbonate (CAS 1317-65-3)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
Kaolin (CAS 1332-58-7)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
Petroleum-based Lubricating Oil (CAS 64741-88-4)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Quartz (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form	Liquid. Paste.
Color	Gray.
Odor	Fish oil
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	> 212.0 °F (> 100.0 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	30000 cP
Other information	
VOC (Weight %)	11 g/l

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Acids. Fluorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of eyes and mucous membranes. Upper respiratory tract irritation. Coughing. May cause an allergic skin reaction. Dermatitis. Rash. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Information on toxicological effects

Acute toxicity	May cause an allergic skin reaction.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

IARC Monographs. Overall Evaluation of Carcinogenicity

Quartz (CAS 14808-60-7) 1 Carcinogenic to humans.

NTP Report on Carcinogens

Quartz (CAS 14808-60-7) Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
One or more components are not listed on TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Calcium carbonate (CAS 1317-65-3)
Kaolin (CAS 1332-58-7)
Petroleum-based Lubricating Oil (CAS 64741-88-4)
Quartz (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act

Calcium carbonate (CAS 1317-65-3)
Kaolin (CAS 1332-58-7)
Petroleum-based Lubricating Oil (CAS 64741-88-4)
Quartz (CAS 14808-60-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Calcium carbonate (CAS 1317-65-3)
Kaolin (CAS 1332-58-7)
Quartz (CAS 14808-60-7)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Methanol (CAS 67-56-1)
Quartz (CAS 14808-60-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-February-2015

Revision date -

Version # 01

HMIS® ratings Health: 1
Flammability: 0
Physical hazard: 0

NFPA ratings

Disclaimer HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

SAFETY DATA SHEET

1. Identification

Product identifier **Hercules Base Hit**

Other means of identification

Product code 7309E

Synonyms Part Numbers: 30213, 30230, 30313R

Recommended use Sealing leaks in a hydronic system with metal pipes

Recommended restrictions Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Manufacturer/Importer/Supplier/Distributor information

Company Name HCC Holdings, Inc. an Oatey Affiliate

Address 4700 West 160th Street
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Water	7732-18-5	70-80
Cellulose	9004-34-6	5-15
Propylene glycol	57-55-6	5-15
Crystalline silica (Quartz)	14808-60-7	0.1-1

Methyl Salicylate	119-36-8	0.1-1
Other components below reportable levels		4.05

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Powder. Alcohol resistant foam. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Avoid prolonged exposure. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Cellulose (CAS 9004-34-6)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Cellulose (CAS 9004-34-6)	TWA	10 mg/m3	
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Cellulose (CAS 9004-34-6)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
Propylene glycol (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Opaque liquid.

Color Blue green

Odor Wintergreen Oil.

Odor threshold Not available.

pH 6.4

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point > 212.0 °F (> 100.0 °C)

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.08
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
VOC (Weight %)	110 g/l (10.8% by weight)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Fluorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Propylene glycol (CAS 57-55-6)		
Acute		
Oral		
LD50	Rat	30 g/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Crystalline silica (Quartz) (CAS 14808-60-7) 1 Carcinogenic to humans.

NTP Report on Carcinogens

Crystalline silica (Quartz) (CAS 14808-60-7) Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product contains a salicylate which has been associated with increased prenatal and neonatal affects when ingested in the third trimester of pregnancy. Ingestion of this product is not an anticipated route of exposure.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Propylene glycol (CAS 57-55-6)			
Aquatic			
Crustacea	LC50	Ceriodaphnia dubia	18340 mg/l, 48 hours
Fish	LC50	Pimephales promelas	46500 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Methyl Salicylate (CAS 119-36-8)	2.55
Propylene glycol (CAS 57-55-6)	-0.92

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Cellulose (CAS 9004-34-6)
Crystalline silica (Quartz) (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act

Cellulose (CAS 9004-34-6)
Crystalline silica (Quartz) (CAS 14808-60-7)
Propylene glycol (CAS 57-55-6)

US. Pennsylvania Worker and Community Right-to-Know Law

Cellulose (CAS 9004-34-6)
Crystalline silica (Quartz) (CAS 14808-60-7)
Methyl Salicylate (CAS 119-36-8)
Propylene glycol (CAS 57-55-6)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Crystalline silica (Quartz) (CAS 14808-60-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 22-April-2015

Revision date -

Version # 01

HMIS® ratings Health: 0
Flammability: 0
Physical hazard: 0

NFPA ratings

Disclaimer HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Material Name: Haymaker Tankless Water Heater Descaler

* * * Section 1 - Product and Company Identification * * *

MSDS #1671E

Catalog Number: 35230, 35231, 35240

Manufacturer Information

HHC Holdings Inc.
An Oatey Affiliate
4700 West 160th Street
Cleveland, OH 44135

Phone: 216-267-7100

For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1- 703-527-3887.

* * * Section 2 - Hazards Identification * * *

GHS Classification:

Eye Damage/Irritation - Category 2A

GHS LABEL ELEMENTS

Symbol(s)

Signal Word

Warning

Hazard Statements

Causes serious eye irritation.

Precautionary Statements

Prevention

Wash thoroughly after handling.
Wear protective gloves/eye protection/face protection.

Response

If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component	Percent
7732-18-5	Water	40 - 60
77-92-9	Citric Acid	40 - 60

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

Rinse thoroughly with plenty of water, also under the eyelids.

First Aid: Skin

Wash off with warm water and soap.

First Aid: Ingestion

Clean mouth with water and afterwards drink plenty of water.

First Aid: Inhalation

Move to fresh air.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

Not flammable.

Hazardous Combustion Products

None known based on information supplied.

Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear.

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

Prevent further leakage or spillage if safe to do so.

Materials and Methods for Clean-Up

Neutralize with sodium bicarbonate or soda ash. Take up mechanically and collect in suitable container for disposal. After cleaning, flush away traces with water.

Emergency Measures

Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Environmental Precautions

None.

Prevention of Secondary Hazards

None.

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Handle in accordance with good industrial hygiene and safety practice.

Storage Procedures

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatibilities

Strong oxidizing agents.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

No Exposure guidelines have been established.

Engineering Measures

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Personal Protective Equipment: Respiratory

If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Personal Protective Equipment: Hands

No special protective equipment required.

Personal Protective Equipment: Eyes

If splashes are likely to occur, wear goggles.

Personal Protective Equipment: Skin and Body

No special protective equipment required.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Colorless to Yellow	**Odor:**	Slight Sugary
Physical State:	Liquid	**pH:**	2.5
Vapor Pressure:	ND	**Vapor Density:**	ND
Boiling Point:	100°C / 212°F	**Melting Point:**	ND
Solubility (H2O):	Soluble	**Specific Gravity:**	1.24
Evaporation Rate:	ND	**VOC:**	0 g/L
Viscosity:	25 cps	**Octanol/H2O Coeff.:**	ND
Flash Point:	NA	**Flash Point Method:**	NA
Upper Flammability Limit (UFL):	NA	**Lower Flammability Limit (LFL):**	NA
Burning Rate:	NA	**Auto Ignition:**	NA

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

None.

Incompatible Products

Strong oxidizing agents.

Hazardous Decomposition Products

None known based on information supplied.

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

Component Analysis - LD50/LC50

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

Citric Acid (77-92-9)

Oral LD50 Rat >3g/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

Causes skin irritation.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

Causes serious eye irritation.

Potential Health Effects: Ingestion

No known effect.

Potential Health Effects: Inhalation

No known effect.

Respiratory Organs Sensitization/Skin Sensitization

None expected.

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects.

Carcinogenicity

A: General Product Information

This product is not reported to have any carcinogenic effects.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product is not reported to have any specific target organ toxicity single exposure effects.

Specified Target Organ General Toxicity: Repeated Exposure

This product is not reported to have any specific target organ toxicity repeat exposure effects.

Aspiration Respiratory Organs Hazard

Not an aspiration hazard.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

This product is not expected to be toxic to aquatic organisms.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Citric Acid (77-92-9)

Test & Species	Conditions
24 Hr EC50 Daphnia magna	>80 mg/L
48 Hr EC50 Daphnia magna	>120 mg/L [Static]

Persistence/Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility in Soil

No information available for the product.

* * * Section 13 - Disposal Considerations * * *

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 14 - Transportation Information * * *

DOT Information

Shipping Name: Corrosive Liquid, Acidic, Organic, N.O.S (Citric Acid)
Hazard Class: 8
UN/NA Number: UN3265
Packing Group: III
Reportable Qty: N/A

(Exempt from placarding by the US DOT as per 49 CFR 173.154(d) (2)

IMDG Information

Shipping Name: Corrosive Liquid, Acidic, Organic, N.O.S (Citric Acid)
Hazard Class: 8
UN/NA Number: UN3265
Packing Group: III
Reportable Qty: N/A

* * * Section 15 - Regulatory Information * * *

Regulatory Information

US Federal Regulations

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Citric Acid	77-92-9	No	No	No	Yes	Yes	No

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Citric Acid	77-92-9	1 % item 409 (80)

Additional Regulatory Information

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Water	7732-18-5	Yes	DSL	EINECS
Citric Acid	77-92-9	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

NFPA and HMIS:
NFPA Hazard Signal: Health: 0 Flammability: 0 Reactivity: 0
HMIS Hazard Signal: Health: 0 Flammability: 0 Reactivity: 0

Disclaimer:
The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources, and expressly do not make warranties, nor assume any liability for its use.

End of Sheet

SAFETY DATA SHEET

1. Identification

Product identifier **Hercules Jel Flux**

Other means of identification

SDS number 1615E

Synonyms Part Numbers: 10810, 10815, 10825

Recommended use Flux for joining copper tubing and pipe

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name HCC Holdings, Inc. an Oatey Affiliate

Address 4700 West 160th Street
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes severe skin burns and eye damage. Causes serious eye damage.

Precautionary statement

Prevention Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Water	7732-18-5	30-70

Zinc chloride	7646-85-7	10-30
Propylene glycol	57-55-6	7-13
Ammonium chloride	12125-02-9	1-5

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation
If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Skin contact
Take off immediately all contaminated clothing. Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Alcohol resistant foam. Water spray. Water fog. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Use water spray to cool unopened containers.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling
Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Zinc chloride (CAS 7646-85-7)	PEL	1 mg/m3	Fume.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ammonium chloride (CAS 12125-02-9)	STEL	20 mg/m3	Fume.
	TWA	10 mg/m3	Fume.
Zinc chloride (CAS 7646-85-7)	STEL	2 mg/m3	Fume.
	TWA	1 mg/m3	Fume.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Ammonium chloride (CAS 12125-02-9)	STEL	20 mg/m3	Fume.
	TWA	10 mg/m3	Fume.
Zinc chloride (CAS 7646-85-7)	STEL	2 mg/m3	Fume.
	TWA	1 mg/m3	Fume.

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
Propylene glycol (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Gel. Paste.

Color Greenish yellow.

Odor Odorless

Odor threshold Not available.

pH	3
Melting point/freezing point	Not available.
Initial boiling point and boiling range	212 °F (100 °C)
Flash point	Not Applicable
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	< 1
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	10000 cP
Other information	
VOC (Weight %)	150 g/l 11.5% by weight

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Propylene glycol (CAS 57-55-6)		
Acute		
Oral		
LD50	Rat	30 g/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Propylene glycol (CAS 57-55-6)			
Aquatic			
Crustacea	LC50	Ceriodaphnia dubia	18340 mg/l, 48 hours
Fish	LC50	Pimephales promelas	46500 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Propylene glycol (CAS 57-55-6) -0.92

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ammonium chloride (CAS 12125-02-9)	LISTED
Zinc chloride (CAS 7646-85-7)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Zinc chloride	7646-85-7	10-30
Ammonium chloride	12125-02-9	1-5

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Ammonium chloride (CAS 12125-02-9)
Zinc chloride (CAS 7646-85-7)

US. New Jersey Worker and Community Right-to-Know Act

Ammonium chloride (CAS 12125-02-9)
Propylene glycol (CAS 57-55-6)
Zinc chloride (CAS 7646-85-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Ammonium chloride (CAS 12125-02-9)
Propylene glycol (CAS 57-55-6)
Zinc chloride (CAS 7646-85-7)

US. Rhode Island RTK

Ammonium chloride (CAS 12125-02-9)
Zinc chloride (CAS 7646-85-7)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 23-October-2014

Revision date 19-February-2015

Version # 03

HMIS® ratings Health: 3
Flammability: 0
Physical hazard: 0

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for use, handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name:	Gold Coat
Product Code:	81636
SDS Manufacturer Number:	81636

Other means of identification:

Synonyms:	None.

Recommended use of the chemical and restrictions on use:

Product Use/Restriction:	Waterbased Latex Coating.

Chemical manufacturer address and telephone number:

Manufacturer Name:	Sto Corp.
Address:	6175 Riverside Drive, SW Atlanta, Georgia 30331
General Phone Number:	(404) 346-3666

Emergency phone number:

Emergency Phone Number:	(800) 424-9300

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Pictograms:

Signal Word:	WARNING.
GHS Class:	Eye Irritation. Category 2. Skin Irritation. Category 2. Acute Oral Toxicity. Category 4.
Hazard Statements:	Causes serious eye irritation. Causes skin irritation. Harmful if swallowed.
Precautionary Statements:	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see ... on this label). Rinse mouth. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Collect spillage. Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Hazards not otherwise classified that have been identified during the classification process:

Route of Exposure:	Eyes. Skin. Inhalation. Ingestion.
Potential Health Effects:	
Eye:	May cause irritation.
Skin:	May cause irritation.
Inhalation:	Prolonged or excessive inhalation may cause respiratory tract irritation.
Ingestion:	Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Crystaline silica (Quartz)	14808-60-7	40 - 70 by weight	238-878-4
Titanium Oxide	13463-67-7	1 - 5 by weight	236-675-5
Acrylic polymer	Non Hazardous	10 - 30 by weight	

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed:

Other First Aid: First Responders should provide for their own safety prior to rendering assistance.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media: Use dry chemical or foam when fighting fires involving this material. Water mist may be used to cool closed containers.

Unusual Fire Hazards: Material may spatter above 100 °C/212 °F.

Special protective equipment and precautions for fire-fighters:

Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

Fire Fighting Instructions: Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.

NFPA Ratings:

NFPA Health: 1
NFPA Flammability: 1
NFPA Reactivity: 0

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.

Environmental precautions:

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Methods and materials for containment and cleaning up:

Methods for containment: Contain spills with an inert absorbent material such as soil, sand or oil dry.

Methods for cleanup: Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Clean up spills immediately observing precautions in the protective equipment section.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling:	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist.
Hygiene Practices:	Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

Storage:	Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use. Store away from direct heat or sunlight, sources of UV radiation, peroxides, or free radicals. Do not store in temperatures above 49°C (120 °F) or below 9°C (48 °F). Keep away from direct sunlight.

Specific end use(s):

Work Practices:	Handle in accordance with good industrial hygiene and safety practices.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Crystaline silica (Quartz) :

Guideline ACGIH:	TLV-TWA: 0.025 mg/m3 (R)

Titanium Oxide :

Guideline ACGIH:	TLV-TWA: 10 mg/m3

Appropriate engineering controls:

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures:

Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description:	Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.
Hand Protection Description:	Nitrile rubber or natural rubber gloves are recommended.
Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.
PPE Pictograms:	
Notes :	Only established PEL and TLV values for the ingredients are listed.

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State Appearance:	Liquid.
Odor:	Slight.
Boiling Point:	Not determined.
Melting Point:	0°C (32°F)
Specific Gravity:	> 1
Solubility:	Miscible in water.
Vapor Density:	Not determined.
Vapor Pressure:	Not determined.
Percent Volatile:	Data not available.
Evaporation Rate:	Not determined.
pH:	7.5 - 10
Flash Point:	Not determined.
Lower Flammable/Explosive Limit:	Not determined.
Upper Flammable/Explosive Limit:	Not determined.
Auto Ignition Temperature:	Not determined.

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:

Chemical Stability:	Stable under recommended handling and storage conditions.

Possibility of hazardous reactions:

Hazardous Polymerization:	Hazardous polymerization does not occur.

Conditions To Avoid:

Conditions to Avoid:	Heat, flames, ignition sources, and sparks. Incompatible materials. Freezing or temperatures below 0°C (32°F).

Incompatible Materials:

Incompatible Materials:	Water reactive materials.

Hazardous Decomposition Products:

Special Decomposition Products:	Thermal decomposition can lead to release irritant fumes and toxic gases.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Crystaline silica (Quartz) :

RTECS Number:	VV7330000
Inhalation:	Inhalation - Rat TCLo - Lowest published toxic concentration : 248 mg/m3/6H [Lungs, Thorax, or Respiration - Other changes Biochemical - Metabolism (intermediary) - Other proteins Biochemical - Metabolism (intermediary) - Effect on inflammation or mediation of inflammation] Inhalation - Rat TCLo - Lowest published toxic concentration : 248 mg/m3/6H [Lungs, Thorax, or Respiration - Changes in lung weight Immunological Including Allergic - Increase in cellular immune response Biochemical - Metabolism (intermediary) - Effect on inflammation or mediation of inflammation] Inhalation - Rat TCLo - Lowest published toxic concentration : 200 mg/kg [Lungs, Thorax, or Respiration - Fibrosis, focal (pneumoconiosis) Lungs, Thorax, or Respiration - Other changes Nutritional and Gross Metabolic - Changes in iron] Inhalation - Mouse TCLo - Lowest published toxic concentration : 40 mg/kg [Lungs, Thorax, or Respiration - Other changes] Inhalation - Mouse TCLo - Lowest published toxic concentration : 40 mg/kg [Immunological Including Allergic - Decrease in cellular immune response] Inhalation - Rat TCLo - Lowest published toxic concentration : 1 mg/kg (RTECS)
Ingestion:	Oral - Rat TDLo - Lowest published toxic dose : 120 gm/kg [Gastrointestinal - Hypermotility, diarrhea Gastrointestinal - Other changes] (RTECS)
Carcinogenicity:	Crystalline silica in the form of quartz or cristobalite dust causes cancer of the lung.. Normal application procedures for this product pose no hazard as to the release of crystalline silica dust, but grinding or sanding dried films of this product may yield some respirable crystalline silica.

Titanium Oxide :

RTECS Number:	XR2275000
Inhalation:	Inhalation - Rat TCLo - Lowest published toxic concentration : 1 mg/kg [Lungs, Thorax, or Respiration - Other changes Biochemical - Metabolism (intermediary) - Effect on inflammation or mediation of inflammation] (RTECS)
Ingestion:	Oral - Rat TDLo - Lowest published toxic dose : 60 gm/kg [Gastrointestinal - Hypermotility, diarrhea Gastrointestinal - Other changes] (RTECS)
Carcinogenicity:	(a) Although IARC has classified titanium dioxide as possible carcinogenic to human (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products which titanium dioxide is bound to other materials, such as paints.

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity:	No environmental information found for this product.
Environmental Fate:	No environmental information found for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal:	Dispose of in accordance with Local, State, Federal and Provincial regulations.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name:	Non regulated.
DOT Hazard Class:	Non regulated.
IATA Shipping Name:	Non regulated.

IMDG UN Number :	Non regulated.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

SARA:	This product does not contain any chemicals which are subject to the reporting requirements of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III (40CFR, Part 372).
California PROP 65:	La (s) siguiente (s) declaración (es) proporcionada (s) bajo la Ley de Aplicación de Agua Potable Segura y Tóxica de 1986 de California (Proposición 65): ADVERTENCIA: Este producto puede exponerlo a sustancias químicas, incluida la sílice cristalina (cuarzo), que el estado conoce de California para causar cáncer. Para obtener más información, visite www.P65Warnings.ca.gov.
Canada WHMIS:	Xi - Irritant.
EU Class:	Irritant. In accordance to Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures.
Risk Phrases:	R36/37/38 - Irritating to eyes, respiratory system and skin.
Safety Phrase:	S23 - Do not breathe gas/fumes/vapour/spray. S37 - Wear suitable gloves.

Crystaline silica (Quartz) :

TSCA Inventory Status:	Listed
Canada DSL:	Listed
EC Number:	238-878-4

Titanium Oxide :

TSCA Inventory Status:	Listed
Canada DSL:	Listed
EC Number:	236-675-5

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard:	1
HMIS Fire Hazard:	1
HMIS Reactivity:	0
HMIS Personal Protection:	X

Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	X

SDS Creation Date:	July 08, 2013
SDS Revision Date:	June 27, 2018
SDS Revision Notes:	Format Update
SDS Format:	
Disclaimer:	The information and recommendations contained herein are, to the best of Sto Corp.'s knowledge and belief, accurate and reliable as of the date issued. Sto Corp. does not warrant or guarantee their accuracy or reliability, and Sto Corp. shall not be liable for any loss or damage arising out of their use thereof. The information and recommendations are offered for the users' consideration and examination, and it is the users' responsibility to satisfy itself that they are suitable and complete for its particular use.

Section 1: IDENTIFICATION

Product Name: Simple Green® All-Purpose Cleaner
Additional Names:

Manufacturer's Part Number: **Please refer to Section 16*

Recommended Use: Cleaner & Degreaser for water tolerant surfaces.
Restrictions on Use: Do not use on non-rinseable surfaces.

Company: Sunshine Makers, Inc.
15922 Pacific Coast Highway
Huntington Beach, CA 92649 USA
Telephone: 800-228-0709 ● 562-795-6000 *Mon – Fri, 8am – 5pm PST*
Fax: 562-592-3830
Email: info@simplegreen.com
Emergency Phone: Chem-Tel 24-Hour Emergency Service: 800-255-3924

Section 2: HAZARDS IDENTIFICATION

This product is not considered hazardous under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

OSHA HCS 2012
Label Elements
Signal Word: None
Hazard Symbol(s)/Pictogram(s): None required
Hazard Statements: None
Precautionary Statements: None
Hazards Not Otherwise Classified (HNOC): None
Other Information: None Known

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Percent Range
Water	7732-18-5	> 80.698%*
C9-11 Alcohols Ethoxylated	68439-46-3	< 5.000%*
Surfactant	Proprietary	< 5.000%*
Sodium Citrate	68-04-2	< 5.000%*
Sodium Carbonate	497-19-8	< 1.000%*
Tetrasodium Glutamate Diacetate	51981-21-6	< 1.000%*
Citric Acid	77-92-9	< 1.000%*
Blend of Polyoxyalkylene Substituted Chromophores (Cyan and Yellow)	Proprietary Mixture	< 0.100%*
Fragrances	Proprietary Mixture	< 1.000%*
Anethole	104-46-1	< 0.100%*
Eucalyptol	470-82-6	< 0.100%*
Methylchloroisothiazolinone, Methylisothiazolinone	55965-84-9	< 0.002%*

**specific percentages of composition are being withheld as a trade secret*

Section 4: FIRST-AID MEASURES

Inhalation: Not expected to cause respiratory irritation. If adverse effect occurs, move to fresh air.
Skin Contact: Not expected to cause skin irritation. If adverse effect occurs, rinse skin with water.
Eye Contact: Not expected to cause eye irritation. If adverse effect occurs, flush eyes with water.
Ingestion: May cause upset stomach. Drink plenty of water to dilute. See section 11.

Most Important Symptoms/Effects, Acute and Delayed: None known.

Section 4: FIRST-AID MEASURES - continued

Indication of Immediate Medical Attention and Special Treatment Needed, if necessary: Treat symptomatically

Section 5: FIRE-FIGHTING MEASURES

Suitable & Unsuitable Extinguishing Media: Use Dry chemical, CO2, water spray or "alcohol" foam. Avoid high volume jet water.
Specific Hazards Arising from Chemical: In event of fire, fire created carbon oxides may be formed.
Special Protective Actions for Fire-Fighters: Wear positive pressure self-contained breathing apparatus; Wear full protective clothing.

This product is non-flammable. See Section 9 for Physical Properties.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: *For non-emergency and emergency personnel:* See section 8 – personal protection. Avoid eye contact. Safety goggles suggested.

Environmental Precautions: Do not allow into open waterways and ground water systems.

Methods and Materials for Containment and Clean Up: Dike or soak up with inert absorbent material. See section 13 for disposal considerations.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling: Ensure adequate ventilation. Keep out of reach of children. Keep away from heat, sparks, open flame and direct sunlight. Do not pierce any part of the container. Do not mix or contaminate with any other chemical. Do not eat, drink or smoke while using this product.

Conditions for Safe Storage including Incompatibilities: Keep container tightly closed. Keep in cool dry area. Avoid prolonged exposure to sunlight. Do not store at temperatures above 109°F (42.7°C). If separation occurs, mix the product for reconstitution.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Values: No components listed with TWA or STEL values under OSHA or ACGIH.

Appropriate Engineering Controls: Showers, eyewash stations, ventilation systems

Individual Protection Measures / Personal Protective Equipment (PPE)
Eye Contact: Use protective glasses or safety goggles if splashing or spray-back is likely.
Respiratory: Use in well ventilated areas or local exhaust ventilations when cleaning small spaces.
Skin Contact: Use protective gloves (any material) when used for prolonged periods or dermally sensitive.
General Hygiene Considerations: Wash thoroughly after handling and before eating or drinking.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Green Liquid	**Partition Coefficient: n-octanol/water:**	Not determined
Odor:	Added sassafras odor	**Autoignition Temperature:**	Non-flammable
Odor Threshold:	Not determined	**Decomposition Temperature:**	42.7°C (109°F)
pH:	8.5 – 9.2	**Viscosity:**	Like water
Freezing Point:	0-3.33°C (32-38°F)	**Specific Gravity:**	1.01 – 1.03
Boiling Point & Range:	101°C (213.8°F)	**VOCs:**	***Water & fragrance exemption in calculation*

Section 9: PHYSICAL AND CHEMICAL PROPERTIES - continued

Flash Point:	> 212°F	SCAQMD 304-91 / EPA 24:	0 g/L	0 lb/gal	0%
Evaporation Rate:	Not determined	CARB Method 310**:	< 5 g/L	<0.0417lb/gal	<0.5%
Flammability (solid, gas):	Not applicable	SCAQMD Method 313:	Not tested		
Upper/Lower Flammability or Explosive Limits:	Not applicable	**VOC Composite Partial Pressure:**	Not determined		
Vapor Pressure:	0.60 PSI @77°F, 2.05 PSI @100°F	**Relative Density:**	8.42 – 8.59 lb/gal		
Vapor Density:	Not determined	**Solubility:**	100% in water		

Section 10: STABILITY AND REACTIVITY

Reactivity: Non-reactive.
Chemical Stability: Stable under normal conditions 70°F (21°C) and 14.7 psig (760 mmHg).
Possibility of Hazardous Reactions: None known.
Conditions to Avoid: Excessive heat or cold.
Incompatible Materials: Do not mix with oxidizers, acids, bathroom cleaners, or disinfecting agents.
Hazardous Decomposition Products: Normal products of combustion - CO, CO2.

Section 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:
Inhalation - Overexposure may cause headache.
Skin Contact - Not expected to cause irritation, repeated contact may cause dry skin.
Eye Contact - Not expected to cause irritation.
Ingestion - May cause upset stomach.

Symptoms related to the physical, chemical and toxicological characteristics: no symptoms expected under typical use conditions.
Delayed and immediate effects and or chronic effects from short term exposure: no symptoms expected under typical use conditions.
Delayed and immediate effects and or chronic effects from long term exposure: headache, dry skin, or skin irritation may occur.
Interactive effects: Not known.

Numerical Measures of Toxicity
Acute Toxicity: Oral LD_{50} (rat) > 5 g/kg body weight
Dermal LD_{50} (rabbit) > 5 g/kg body weight
Calculated via OSHA HCS 2012 / Globally Harmonized System of Classification and Labelling of Chemicals

Skin Corrosion/Irritation: Non-irritant per Dermal Irritection® assay modeling. No animal testing performed.
Eye Damage/Irritation: Non-irritant per Ocular Irritection® assay modeling. No animal testing performed.
Germ Cell Mutagenicity: Mixture does not classify under this category.
Carcinogenicity: Mixture does not classify under this category.
Reproductive Toxicity: Mixture does not classify under this category.
STOT-Single Exposure: Mixture does not classify under this category.
STOT-Repeated Exposure: Mixture does not classify under this category.
Aspiration Hazard: Mixture does not classify under this category.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Volume of ingredients used does not trigger toxicity classifications under the Globally Harmonized System of Classification and Labelling of Chemicals.
Aquatic: Aquatic Toxicity - Low, based on OECD 201, 202, 203 + Microtox: EC_{50} & IC_{50} ≥100 mg/L. Volume of ingredients used does not trigger toxicity classifications under the Globally Harmonized System of Classification and Labelling of Chemicals.
Terrestrial: Not tested on finished formulation.

Section 12: ECOLOGICAL INFORMATION - continued

Persistence and Degradability: Readily Biodegradable per OCED 301D, Closed Bottle Test. Reaches 100% biodegradation within 60 days.
Bioaccumulative Potential: No data available.
Mobility in Soil: No data available.
Other Adverse Effects: No data available.

Section 13: DISPOSAL CONSIDERATIONS

Unused or Used Liquid: May be considered hazardous in your area depending on usage and tonnage of disposal – check with local, regional, and or national regulations for appropriate methods of disposal.

Empty Containers: May be offered for recycling.

Never dispose of used degreasing rinsates into lakes, streams, and open bodies of water or storm drains.

Section 14: TRANSPORT INFORMATION

U.N. Number: Not applicable
U.N. Proper Shipping Name: Cleaning Compound, Liquid NOI
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Marine Pollutant - NO
Transport in Bulk (according to Annex II of MARPOL 73/78 and IBC Code): Unknown.
Special precautions which user needs to be aware of/comply with, in connection with transport or conveyance either within or outside their premises: None known.

U.S. (DOT) / Canadian TDG: Not Regulated for shipping.
IMO / IDMG: Not classified as Hazardous
ICAO/ IATA: Not classified as Hazardous
ADR/RID: Not classified as Hazardous

Section 15: REGULATORY INFORMATION

All components are listed on: TSCA and DSL Inventory.

SARA Title III: Sections 311/312 Hazard Categories – Not applicable.
Sections 313 Superfunds Amendments and Reauthorizations Act of 1986 – Not applicable.
Sections 302 – Not applicable.

Clean Air Act (CAA): Not applicable
Clean Water Act (CWA): Not applicable

State Right To Know Lists: No ingredients listed
California Proposition 65: No ingredients listed

This product has been classified as “not classifiable as hazardous” in accordance with Consumer Product Safety Commission (16 CFR Chapter 2) and labelled and packaged accordingly.

US Consumer Product Safety Commission Regulations
This product is labeled in accordance with regulations administered by the Consumer Product Safety Commission (CPSC). However, the use pattern and exposure in the workplace are generally not consistent with those experienced by consumers. Therefore, the requirements of the Occupational Safety and Health Administration applicable to this SDS differ from the labeling requirements of the CPSC, and this SDS may contain additional health hazard information not pertinent to consumer use and not found on the product label.

Section 16: OTHER INFORMATION

Size	UPC	Size	UPC
2 fl. oz.	043318131035	67.6 fl. oz.	043318000393
4 fl. oz.	043318130014	67.6 fl. oz.w/ dilution bottle	043318005442
16 fl. oz.	043318130021	140 fl. oz.	043318001390
22 fl. oz.	043318130229	140 fl. oz. w/ dilution bottle	043318001468
24 fl. oz.	043318006241	1 gallon	043318000799
24 fl. oz.	043318130137	1 gallon	043318004957
32 fl. oz.	043318000652	1 gallon	043318130052
32 fl. oz.	043318002557	1 gallon w/ dilution bottle	043318480416
32 fl. oz.	043318130335	1 gallon w/ dilution bottle	043318480492
67.6 fl. oz.	043318130144	2.5 gallon	043318004889

USA items listed only. Not all items listed. USA items may not be valid for international sale.

NFPA:
Health – None
Flammability – Non-flammable
Stability – Stable
Special - None

Acronyms

NTP	National Toxicology Program	IARC	International Agency for Research on Cancer
OSHA	Occupational Safety and Health Administration	CPSC	Consumer Product Safety Commission
TSCA	Toxic Substances Control Act	DSL	Domestic Substances List

Prepared / Revised By: Sunshine Makers, Inc., Regulatory Department.
This SDS has been revised in the following sections: Aligned Section 3 with California Ingredient Disclosure and minor fixes.

DISCLAIMER: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Safety Data Sheet

SECTION 1: Identification

Product Identifier
Propane

Other means of identification
Commercial Propane(All); EGP; Export Grade Propane; HD5 Propane; LP-Gas; Liquefied Petroleum Gas; Odorized Propane; Propane (Unstenched);
Propane Commercial; Propane Motor Fuel; Propane for Process; Stenched Propane; Unodorized Propane

Relevant identified uses
Fuel
Chemical
Chemical feedstock

Uses advised against
Other uses are not recommended unless an assessment demonstrates potential exposures will be controlled.

24 Hour Emergency Phone Number
CHEMTREC 1-800-424-9300
CHEMTREC México 01-800-681-9531

Manufacturer/Supplier
Ferrellgas (Blue Rhino)
One Liberty Plaza
Liberty, MO 64068

SDS Information
Phone: 855-738-9178
Email: Safety-fromFG.com@ferrellgas.com
URL: www.ferrellgas.com

SECTION 2: Hazard identification

Classified Hazards

H220 - Flammable gases -- Category 1
H280 -- Gases under pressure -- Liquefied gas
Simple asphyxiant

Hazards Not Otherwise Classified (HNOC)

PHNOC: None known

HHNOC: None known

Label Elements

DANGER
Extremely flammable gas
Contains gas under pressure. May explode if heated.
May displace oxygen and cause rapid suffocation

Keep away from heat/sparks/open flames/hot surfaces. - No smoking; Take precautionary measures against static discharge; Leaking gas fire: Do not extinguish, unless leak can be stopped safely; Eliminate all ignition sources if safe to do so; Protect from sunlight. Store in a well-ventilated place

SECTION 3: Composition/information on ingredients

Chemical Name	CASRN	Concentration[1]
Propane	74-98-6	80-100
Propene	115-07-1	<20
Ethane	74-84-0	<6
Butane	106-97-8	<5
Isobutane	75-28-5	<2.5

[1] All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

HD-5 COMPOSITION: Propane >90%, Propylene <5%

Odorized products contain small quantities (<0.1%) ethyl mercaptan as an olfactory indicator.

SECTION 4: First aid measures

Eye Contact: For contact with the liquefied gas, remove contact lenses if present and easy to do, hold eyelids apart and gently flush the affected eye(s) with lukewarm water. Seek immediate medical attention.

Skin Contact: Liquefied gases may cause cryogenic burns or injury. Treat burned or frostbitten skin by flushing or immersing the affected area(s) in lukewarm water. Do not rub affected area. Do not remove clothing that adheres due to freezing. After sensation has returned to the frostbitten skin, keep skin warm, dry, and clean. If blistering occurs, apply a sterile dressing. Seek immediate medical attention.

Inhalation: If respiratory symptoms develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. If breathing is difficult, oxygen or artificial respiration should be administered by qualified personnel. If symptoms persist, seek medical attention.

Ingestion: This material is a gas under normal atmospheric conditions and ingestion is unlikely.

Most important symptoms and effects, both acute and delayed: Light hydrocarbon gases are simple asphyxiants and can cause anesthetic effects at high concentrations. Symptoms of overexposure, which are reversible if exposure is stopped, can include shortness of breath, drowsiness, headaches, confusion, decreased coordination, visual disturbances and vomiting. Continued exposure can lead to hypoxia (inadequate oxygen), rapid breathing, cyanosis (bluish discoloration of the skin), numbness of the extremities, unconsciousness and death.

Notes to Physician: Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high concentrations of hydrocarbon solvents (e.g., in enclosed spaces or with deliberate abuse). The use of other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe for the development of cardiac arrhythmias.

SECTION 5: Firefighting measures

NFPA 704 Hazard Class

Health: 2 **Flammability:** 4 **Instability:** 0

0 (Minimal)
1 (Slight)
2 (Moderate)
3 (Serious)
4 (Severe)

Extinguishing Media: Dry chemical or carbon dioxide is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Specific hazards arising from the chemical

Unusual Fire & Explosion Hazards: Extremely flammable Contents under pressure This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe) Vapors may travel considerable distances to a source of ignition where they can ignite, flash back, or explode. May create vapor/air

explosion hazard indoors, in confined spaces, outdoors, or in sewers. If container is not properly cooled, it can rupture in the heat of a fire. Drains can be plugged and valves made inoperable by the formation of ice if rapid evaporation of large quantities of the liquefied gas occurs. Do not allow run-off from fire fighting to enter drains or water courses – may cause explosion hazard in drains and may reignite.

Hazardous Combustion Products: Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

Special protective actions for fire-fighters: For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Stop spill/release if it can be done safely. If this cannot be done, allow fire to burn. Move undamaged containers from immediate hazard area if it can be done safely. Stay away from ends of container. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: Extremely flammable Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion-proof electrical equipment is recommended. Beware of accumulation of gas in low areas or contained areas, where explosive concentrations may occur. Prevent from entering drains or any place where accumulation may occur. Ventilate area and allow to evaporate. Stay upwind and away from spill/release. Avoid direct contact with material. For large spillages, notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

Environmental Precautions: Stop and contain spill/release if it can be done safely. Water spray may be useful in minimizing or dispersing vapors. If spill occurs on water notify appropriate authorities and advise shipping of any hazard.

Methods and material for containment and cleaning up: Notify relevant authorities in accordance with all applicable regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

SECTION 7: Handling and storage

Precautions for safe handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8). Extremely Flammable. Contents under pressure Gas can accumulate in confined spaces and limit oxygen available for breathing. Use only with adequate ventilation The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-70 and/or API RP 2003 for specific bonding/grounding requirements. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Cold burns may occur during filling operations. Containers and delivery lines may become cold enough to present cold burn hazard.

Propane and odorant are heavier than air and will collect and pool along the ground or floor. Odorant, therefore, may not be detectable above the location of propane storage or service (for example, odorant in propane released or leaked into the basement of a dwelling may not be detected above the basement).

WARNING - The intensity of the odorant may fade over prolonged storage or in the presence of rust, when placed initially in new or freshly-cleaned storage vessels, or when exposed to masonry.

Conditions for safe storage: Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Store only in approved containers. Post area "No Smoking or Open Flame." Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. Avoid exposing any part of a compressed-gas cylinder to temperatures above 125F(51.6C). Gas cylinders should be stored outdoors or in well ventilated storerooms at no lower than ground level and should be quickly removable in an emergency.

SECTION 8: Exposure controls/personal protection

Chemical Name	ACGIH	OSHA	Mexico	Phillips 66
Propane	---	TWA-8hr: 1000 ppm TWA-8hr: 1800 mg/m^3	---	---
Propene	TWA-8hr: 500 ppm	---	Carcinogen	---
Butane	STEL: 1000 ppm	---	TWA-8hr: 800 ppm (VLE-PPT) TWA-8hr: 1900 mg/m^3 (VLE-PPT)	---
Isobutane	STEL: 1000 ppm	---	---	---

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

Eye/Face Protection: The use of eye protection (such as splash goggles) that meets or exceeds ANSI Z.87.1 is recommended when there is potential liquid contact to the eye. Depending on conditions of use, a face shield may be necessary.

Skin/Hand Protection: Wear thermal insulating gloves and face shield or eye protection when working with materials that present thermal hazards (hot or cold).

Respiratory Protection: A NIOSH approved, self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode should be used in situations of oxygen deficiency (oxygen content less than 19.5 percent), unknown exposure concentrations, or situations that are immediately dangerous to life or health (IDLH).

A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

SECTION 9: Physical and chemical properties

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm). Data represent typical values and are not intended to be specifications.

Appearance: Colorless
Physical Form: Liquefied Gas
Odor: No distinct odor (or skunk, rotten egg or garlic if odorant added)
Odor Threshold: No data
pH: Not applicable
Vapor Density (air=1): >1
Upper Explosive Limits (vol % in air): 9.5
Lower Explosive Limits (vol % in air): 2.1
Evaporation Rate (nBuAc=1): >1
Particle Size: Not applicable
Percent Volatile: 100%
Flammability (solid, gas): Extremely Flammable

Flash Point: -156 °F / -104 °C
Test Method: Tag Closed Cup (TCC), ASTM D56
Initial Boiling Point/Range: -44 °F / -42 °C

Vapor Pressure: 208 psia (Reid VP) @ 100°F / 37.8°C
Partition Coefficient (n-octanol/water) (Kow): No data
Melting/Freezing Point: -309 °F / -189 °C
Auto-ignition Temperature: 842 °F / 450 °C
Decomposition Temperature: No data
Specific Gravity (water=1): 0.50-0.51 @ 60ºF (15.6ºC)
Bulk Density: No data
Viscosity: No data
Solubility in Water: Negligible

SECTION 10: Stability and reactivity

Reactivity: Not chemically reactive.

Chemical stability: Stable under normal ambient and anticipated conditions of use.

Possibility of hazardous reactions: Hazardous reactions not anticipated.

Conditions to avoid: Avoid all possible sources of ignition. Heat will increase pressure in the storage tank.

Incompatible materials: Avoid contact with acids, aluminum chloride, chlorine, chlorine dioxide, halogens and oxidizing agents.

Hazardous decomposition products: Not anticipated under normal conditions of use.

SECTION 11: Toxicological information

Information on Toxicological Effects

Substance / Mixture

Acute Toxicity	Hazard	Additional Information	LC50/LD50 Data
Inhalation	Unlikely to be harmful	Simple Asphyxiant. May displace oxygen and cause rapid suffocation. See section 4 for more information.	>20,000 ppm (gas, estimated)
Dermal	Skin absorption is not anticipated		Not applicable
Oral	Ingestion is not anticipated		Not applicable

Aspiration Hazard: Not applicable

Skin Corrosion/Irritation: Not expected to be irritating. Contact with the liquefied or pressurized gas may cause frostbite ("cold" burn).

Serious Eye Damage/Irritation: Not expected to be irritating. Contact with the liquefied or pressurized gas may cause momentary freezing followed by swelling and eye damage.

Skin Sensitization: Skin contact is not anticipated.

Respiratory Sensitization: Not expected to be a respiratory sensitizer.

Specific Target Organ Toxicity (Single Exposure): Not expected to cause organ effects from single exposure.

Specific Target Organ Toxicity (Repeated Exposure): Not expected to cause organ effects from repeated exposure.

Carcinogenicity: Not expected to cause cancer.

Germ Cell Mutagenicity: Not expected to cause heritable genetic effects.

Reproductive Toxicity: Not expected to cause reproductive toxicity.

Other Comments: High concentrations may reduce the amount of oxygen available for breathing, especially in confined spaces. Hypoxia (inadequate oxygen) during pregnancy may have adverse effects on the developing fetus.

The odorant, ethyl mercaptan, can be irritating to the eyes, skin and respiratory tract. At high concentrations, a person can temporarily lose the ability to smell ethyl mercaptan. In addition, some individuals may have an impaired sense of smell, which inhibits the detection of the odorant.

Information on Toxicological Effects of Components

Propane

Reproductive Toxicity: No adverse reproductive or developmental effects were observed in rats exposed to propane; no observed adverse effect level = 12,000 ppm.

Target Organ(s): No systemic or neurotoxic effects were noted in rats exposed to concentrations of propane as high as 12,000 ppm for 28 days.

Butane

Reproductive Toxicity: No adverse reproductive or developmental effects were observed in rats exposed to butane; no observed adverse effect level = 12,000 ppm.
Target Organ(s): No systemic or neurotoxic effects were noted in rats exposed to concentrations of butane as high as 9,000 ppm for 28 days.

Isobutane

Reproductive Toxicity: No adverse developmental effects were observed in rats exposed to concentrations of isobutane as high as 9000 ppm. Fertility and mating indices may have been affected at 9000 ppm but no effects were observed at 3000 ppm (NOAEL).
Target Organ(s): No systemic or neurotoxic effects were noted in rats exposed to concentrations of isobutane as high as 9,000 ppm for 28 days.

SECTION 12: Ecological information

GHS Classification:
No classified hazards

Toxicity: Petroleum gases will readily evaporate from the surface and would not be expected to have significant adverse effects in the aquatic environment.

Persistence and Degradability: The hydrocarbons in this material are expected to be inherently biodegradable. In practice, hydrocarbon gases are not likely to remain in solution long enough for biodegradation to be a significant loss process. Hydrogen sulfide, if present in refinery gas streams, will be rapidly oxidized in water and insoluble sulfides precipitated from water when metallic radicals are present.

Bioaccumulative Potential: Since the log Kow values measured for refinery gas constituents are below 3, they are not regarded as having the potential to bioaccumulate.

Mobility in Soil: Due to the extreme volatility of petroleum gases, air is the only environmental compartment in which they will be found. In air, these hydrocarbons undergo photodegradation by reaction with hydroxyl radicals with half-lives ranging from 3.2 days for n-butane to 7 days for propane.

Other adverse effects: None anticipated.

SECTION 13: Disposal considerations

This material is a gas and would not typically be managed as a waste.

SECTION 14: Transport information

U.S. Department of Transportation (DOT)
UN Number: 1978 or 1075
UN proper shipping name: Propane,
Transport hazard class(es): 2.1
Packing Group: None
Environmental Hazards: This product does not meet the DOT/UN/IMDG/IMO criteria of a marine pollutant
Special precautions for user: *For domestic transportation only, UN1075 may be substituted for the UN number shown as long as the substitution is consistent on package markings, shipping papers, and emergency response information. See 49 CFR 172.102 Special Provision 19.*
Containers of NON-ODORIZED liquefied petroleum gas must be marked either NON-ODORIZED or NOT ODORIZED as of September 30, 2006. [49 CFR 172.301(f), 326(d), 330(c) and 338(e)]
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

SECTION 15: Regulatory information

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds)
This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

CERCLA/SARA - Section 311/312 (Title III Hazard Categories)
US EPA has published a final rule aligning hazardous chemical reporting under sections 311 and 312 of the Emergency Planning and Community Right-to-Know Act (EPCRA) with OSHA HCS. See Section 2 for hazard classifications under EPCRA.

CERCLA/SARA - Section 313 and 40 CFR 372
This material contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372:

Chemical Name	Concentration[1]	de minimis
Propene	<20	1.0%

EPA (CERCLA) Reportable Quantity (in pounds)
EPA's Petroleum Exclusion applies to this material - (CERCLA 101(14)).

California Proposition 65
WARNING: Chemicals known to the State of California to cause cancer, birth defects or other reproductive harm are created by the combustion of propane. For more information go to www.P65Warnings.ca.gov.

International Inventories
All components are either listed on the US TSCA Inventory, or are not regulated under TSCA.
All components are either on the DSL, or are exempt from DSL listing requirements.

SECTION 16: Other information

Issue Date:	Previous Issue Date:
2/12/2018	03/20/2017

Revised Sections or Basis for Revision:
Intended Use (Section 1)

Guide to Abbreviations:
ACGIH = American Conference of Governmental Industrial Hygienists; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; EPA = Environmental Protection Agency; GHS = Globally Harmonized System; HPR = Hazardous Products Regulations; IARC = International Agency for Research on Cancer; INSHT = National Institute for Health and Safety at Work; IOPC = International Oil Pollution Compensation; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIH); TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

Disclaimer of Expressed and implied Warranties:
The information presented in this Safety Data Sheet is based on data believed to be accurate as of the date this Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.

ProForm®
Ready Mix Joint Compounds

SDS05002

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ProForm® Joint Treatment Products & Ready Mix Joint Compounds

IDENTIFIERS

ProForm® All Purpose Joint Compound
ProForm® All Purpose Heavy Viscosity Joint Compound
ProForm® All Purpose Machine Grade Joint Compound
ProForm® All Purpose Orange Joint Compound
ProForm® All Purpose Texture Grade Joint Compound
ProForm® Factory Built Housing Texture Grade Compound
ProForm® All Purpose with Dust-Tech® Joint Compound
ProForm® Concrete Cover Compound
ProForm® Lite Joint Compound
Advantage™ All Purpose Joint Compound
Easy Finish® Topping Compound
ProForm® Lite Blue™ Joint Compound
ProForm® Lite Blue™ with Dust-Tech® Joint Compound
ProForm® Multi-Use Joint Compound
ProForm® Taping Joint Compound
ProForm® Taping Lite Joint Compound
ProForm® Tinted Lite™ Joint Compound
ProForm® Topping Joint Compound
ProForm® Ultra Lite® All Purpose Joint Compound
ProForm® Lite with Dust-Tech®
Advantage Lite™ Joint Compound
Easy Finish® Joint Compound

OTHER MEANS OF IDENTIFICATION

Joint Compound, Taping Compound, Gypsum Board Finishing Compound

RECOMMENDED USE

All-purpose drying-type compounds used for finishing gypsum board products. Use per manufacturer's recommendations.

RESTRICTIONS ON USE

Use in well-ventilated area and avoid breathing dust. Avoid skin contact.

MANUFACTURER/SUPPLIER DETAILS

ProForm Finishing Products, LLC
2001 Rexford Road
Charlotte, NC 28211
Website: **proformfinishing.com**

EMERGENCY TELEPHONE NUMBER

Director Quality Services – National Gypsum Services Company
(704) 551-5820 - 24 Hour Emergency Response
National Gypsum Company is the exclusive service provider for products manufactured by ProForm Finishing Products, LLC.

SECTION 2: HAZARDS IDENTIFICATION

UNITED STATES (US)

According to OSHA 29CFR 1910.1200 (HCS)

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Carcinogenicity - Category 1A (H-350)
Specific target organ toxicity, repeated exposure – Category 1 (H-372)
Acute toxicity, inhalation - Category 4 (H-332)
Skin corrosion/irritation - Category 2 (H-315)

PICTOGRAM

SIGNAL WORD

Health Hazard

HAZARD STATEMENTS

H-350 May cause cancer.
H-332, 372 Harmful if inhaled. Causes damage to organs (lungs) through prolonged or repeated exposure.
H-315 Causes skin corrosion/irritation

PRECAUTIONARY STATEMENTS

ProForm® Finishing Products

PREVENTION

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust.
Use personal protective equipment as required. (See Section 8)
Use engineering controls and wet methods to minimize dust.

RESPONSE

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If on skin, wash with plenty of soap and water. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if exposed or concerned.

STORAGE

Store material in a cool, dry, ventilated area, away from excessive heat or sunlight.

DISPOSAL

Dispose of material in accordance with federal, state, and local regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	COMMON NAME/SYNONYM	IDENTIFIERS/CAS NUMBER	% (WEIGHT)	IMPURITIES
Calcium Carbonate or Calcium/Magnesium Carbonate	Limestone, Dolomite	1317-65-3 16389-88-11	>50	Crystalline silica (CAS # 14808-60-7)
And may contain one or more of the following:				
Mixture-silicates and aluminates	Mica	12001-26-2	<10	Crystalline silica (CAS # 14808-60-7)
Mixture-various metal oxides	Perlite	93763-70-3	<10	Crystalline silica (CAS # 14808-60-7)
Magnesium aluminum phyllosilicate	Attapulgite Clay	12174-11-7	<5	Crystalline silica (CAS # 14808-60-7)
Magnesium silicate	Sepiolite Clay	63800-37-3	<5	Crystalline silica (CAS # 14808-60-7)
Magnesium aluminum phyllosilicate	Smectite Clay	1302-78-9	<5	Crystalline silica (CAS # 14808-60-7)
Polyvinyl Acetate Latex		9003-20-7	<5	
Ethylene Vinyl Alcohol		24937-78-8	>5	

SECTION 4: FIRST-AID MEASURES

INHALATION

Remove exposed individual to fresh air immediately. If breathing difficulty persists, seek medical attention.

EYE CONTACT

Do not rub or scratch eyes. Immediately flush eyes with water for 15 minutes. Remove contact lenses (if applicable). Seek medical attention if irritation persists.

SKIN CONTACT

Flush and wash skin with soap and water. Utilize lotions to alleviate dryness if present. Seek medical attention if irritation persists.

INGESTION

This product is not expected to be hazardous and no harmful effects are expected upon ingestion of small amounts. Larger amounts may cause abdominal discomfort or possible obstruction of the digestive tract. Seek medical attention if problems persist.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Pre-existing upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma. Pre-existing skin diseases such as, but not limited to, rashes and dermatitis.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Dry chemical, foam, water, or extinguishing media appropriate for surrounding fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Mixture poses no fire-related hazard.

SPECIAL HAZARDS ARISING FROM THE MIXTURE
None known.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS
A SCBA is recommended to limit exposures to combustion products when fighting any fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES
No special precautions required

General recommendations:
Wear appropriate Personal Protective Equipment. (See Section 8)
Maintain proper ventilation.

ENVIRONMENTAL PRECAUTIONS
This product does not present an ecological hazard to the environment. Dispose of in accordance with applicable federal, state, and local regulations.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP
Shovel or scoop spilled material back into container for use, if possible, or disposal. Maintain proper ventilation to minimize dust. Avoid washing material down drains. This material will eventually set and can cause clogs.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING
Avoid breathing vapors when opening container. Avoid breathing dust. Minimize generation of dust. Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with eyes, skin and clothing. Wear recommended personal protective equipment when handling. (See Section 8).

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES
Store material in a cool, dry, ventilated area, away from excessive heat or sunlight. Keep from freezing to preserve usefulness. Keep containers closed when not in use. Avoid contact with strong acids.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters **Exposure Limits**

COMPONENT	OSHA PEL mg/m³	ACGIH TLV mg/m³
Calcium Carbonate or Dolomite (limestone)	15(T) 5(R)	10(T)
Mica	20 mppcf	3
Perlite	15(T) 5(R)	10(T) 3(R)
Attapulgite Clay	15(T) 5(R)	1 f/cc(R)
Sepiolite Clay	15(T) 5(R)	
Smectite Clay	15(T) 5(R)	
Crystalline Silica[1]	[(10) / (%SiO2+2)](R); [(30) / (%SiO2+2)] (T)	
Polyvinyl Acetate Latex	NE	NE
Ethylene Vinyl Acetate Latex	NE	NE

T - Total Dust R - Respirable Dust 1 - Present as an impurity in raw materials NE - None Established mppcf - million particles per cubic foot

EXPOSURE CONTROLS/APPROPRIATE ENGINEERING CONTROLS
Work/Hygiene Practices: Utilize methods to minimize dust production. Use sanders equipped with vacuum capabilities whenever possible. Utilize a light water spray when feasible.
Ventilation: Provide local and general exhaust ventilation sufficient to maintain a dust level below the PEL/TLV.

PERSONAL PROTECTIVE EQUIPMENT/RESPIRATORY PROTECTION

A NIOSH approved particulate respirator is recommended in poorly ventilated areas or if the PEL/TLV is exceeded. OSHA's 29 CFR 1910.134 (Respiratory Protection Standard) must be followed whenever work conditions require respirator use.

EYE PROTECTION

Safety glasses or goggles.

SKIN

Gloves, protective clothing and/or barrier creams may be utilized if conditions warrant.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

a. **Appearance:** A white to gray paste
b. **Odor:** Mild latex initially, Low to none after opening.
c. **Odor threshold:** Not available
d. **pH:** 7-9
e. **Melting point/freezing point:** Not Available
f. **Initial boiling point and boiling range:** Not Available
g. **Flash point:** Not available
h. **Evaporation rate:** Not available
i. **Flammability (solid, gas):** Not flammable
j. **Upper/lower flammability or explosive limits:** Not available
k. **Vapor pressure:** Not available
l. **Vapor density:** Not available
m. **Relative density:** ~1.0-1.8
n. **Solubility(ies):** slightly soluble in water
o. **Partition coefficient: n-octanol/water:** Not available
p. **Auto-ignition temperature:** Not available
q. **Decomposition temperature:** 825° C
r. **Viscosity:** Not available
s. **Volatile organic compound (VOC) content:** <2 g/l

SECTION 10: STABILITY AND REACTIVITY

a. **Reactivity:** No data available
b. **Chemical stability:** Stable in dry environments
c. **Possibility of hazardous reactions:** None known
d. **Conditions to avoid (e.g., static discharge, shock, or vibration):** None known
e. **Incompatible materials:** Strong acids
f. **Hazardous decomposition products**: None known. Above 825° C limestone ($CaCO_3$) decomposes to calcium oxide (CaO) and carbon dioxide (CO_2).

SECTION 11: TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS/INFORMATION ON LIKELY ROUTES OF EXPOSURE

INGESTION

Possible abdominal obstruction.

INHALATION

Dust may irritate respiratory system. Chronic exposure may result in lung disease. (See below)

SKIN CONTACT

May cause irritation, dry skin or dermatitis.

EYE CONTACT

May cause mechanical irritation.

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

Acute exposure to airborne dust concentrations in excess of the PEL/TLV may result in coughing, dyspnea, wheezing, and a burning irritation of the nose, throat, and upper respiratory tract, along with possible impaired pulmonary function. Chronic exposures may result in lung disease. (Silicosis and/or lung cancer).

TOXICOLOGICAL DATA

No toxicological data is available for this product. Toxicological information for components of this product listed below:

ACUTE TOXICITY

Not available

SKIN CORROSION/IRRITATION
Not available

SERIOUS EYE DAMAGE/EYE IRRITATION
Not available

SKIN SENSITIZATION
Not available

RESPIRATORY SENSITIZATION
Not available

SENSITIZATION
Not available

MUTAGENICITY
Not available.

CARCINOGENICITY
Not available

This product contains crystalline silica (quartz) as a naturally occurring impurity in some of the raw materials. The International Agency for Research on Cancer (IARC) classifies crystalline silica inhaled in the form of quartz or cristobalite from occupational sources as carcinogenic to humans, Group 1. The National Toxicology Program (NTP) classifies respirable crystalline silica as a substance which may be reasonably anticipated to be a carcinogen. OSHA does not regulate crystalline silica as a human carcinogen.

Exposures to respirable crystalline silica are not expected during the recommended use of this product. Industrial hygiene monitoring to date has not identified any detectable respirable crystalline silica in dust sampling conducted utilizing recommended application procedures. However, actual levels must be determined by workplace hygiene testing.

REPRODUCTIVE EFFECTS Not available

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE Not available

ASPIRATION TOXICITY Not available

SECTION 12: ECOLOGICAL INFORMATION

a. **Ecotoxicity (aquatic and terrestrial, where available):** This product does not present an ecological hazard to the environment.
b. .**Persistence and degradability:** Unknown
c. **Bioaccumulative potential:** Limestone is a naturally occurring mineral. Biodegradation and/or bioaccumulation potential is not applicable.
d. **Mobility in soil:** Unknown
e. **Other adverse effects (such as hazardous to the ozone layer):** None known

SECTION 13: DISPOSAL CONSIDERATIONS

This material is not considered a hazardous waste. Dispose of according to Local, State, Federal, and Provincial Environmental Regulations.

SECTION 14: TRANSPORT INFORMATION

This product is not a DOT hazardous material.
Shipping Name: Same as product name
ICAO/IATA/IMO: Not applicable

SECTION 15: REGULATORY INFORMATION

All ingredients are included on the TSCA inventory.

FEDERAL REGULATIONS
SARA Title III: Not listed under Sections 302, 304, and 313
CERCLA: Not listed
RCRA: Not listed
OSHA: Dust and potential respirable crystalline silica generated during product use may be hazardous.
STATE REGULATIONS: California Prop 65: Respirable crystalline silica is known to the state of California to cause cancer. Industrial hygiene monitoring during recommended use of this product failed to identify any respirable crystalline silica.
CANADA WHMIS: All components of this product are included in the Canadian Domestic Substances List (DSL).
Crystalline silica: WHMIS Classification D2A.

SECTION 16: OTHER INFORMATION

SDS PREPARED BY:

ProForm Finishing Products, LLC
2001 Rexford Road
Charlotte, NC 28211
(704) 551-5820

EFFECTIVE DATE CHANGE:

January 20, 2021

KEY TO ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Services Number
CFR	Code of Federal Regulations
DOT	Department of Transportation
EPA	Environmental Protection Agency
HEPA	High Efficiency Particulate Air
HCS	Hazard Communications Standard
HMIS	Hazardous Material Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMO	International Maritime Organization
NIOSH	National Institute for Occupational Safety and Health
NFPA	National Fire Protection Association
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PPE	Personal Protective Equipment
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Materials Information System

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein. This safety data sheet was prepared to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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National Gypsum®

National Gypsum Company is the exclusive service provider for products manufactured by ProForm Finishing Products, LLC.

PROFORM® Finishing Products

ProForm Finishing Products, LLC
2001 Rexford Road
Charlotte, NC 28211
704.365.7300
proformfinishing.com

Coastline Chemical Inc.

SAFETY DATA SHEET

PRIDE 500
HD ANTIFREEZE/COOLANT
PREMIX

SECTION 1 L PRODUCT AND COMPANY IDENTIFICATION

Product Name:	PRIDE 500
Product Code:	P500
Primary Use(s):	Automotive/Truck Antifreeze & Coolant
Manufactured By:	Coastline Chemical Inc. 30470 Energy Drive New Church, VA 23415, USA www,prideantifreeze.com
Telephone (General)	757.824.3831
EMERGENCY TELEPHONE	CHEMTREC (800) 424-9300

SECTION 2 – HAZARD IDENTIFICATION

In accordance with **OSHA HCS** **29 CFR 1910-1200**

Physical State Liquid, clear green color

Odor Mild, sweet odor

Emergency Overview This product presents no specific emergency hazard

Signal Word(s) **WARNING**

Hazard Statements Causes Eye Irritation Causes Skin Irritation Harmful/Toxic If Swallowed

Hazard Symbol

(H373)May cause kidney damage)

(H302)Harmful if swallowed

GHS CLASSIFICATIONS

Acute Oral Toxicity	**4**	Acute Dermal Toxicity	**5**	Corrosion/Irritation Skin	**3**
Acute Inhalation Toxicity	**5**	Serious Eye Damage/ Eye Irritation	**2B**		

SECTION 3 – COMPOSITION/ INGREDIENT INFORMATION

NAME	CAS No	EU INVENTORY	PERCENTAGE
Ethane 1,2 - diol (monoethylene glycol)	107-21-1	203-473-3	45 – 47
2-(2 hydroxyethoxy) ethan-1-ol (diethylene glycol)	111-46-6	203-872-2	1 – 3
Water & proprietary additives	7732-18-5	231-791-2	balance

SECTION 4 – FIRST AID MEASURES

EYE CONTACT	Remove corrective lenses.Wash with cool water including under eyelid for 15 mins. See doctor if irritation persists.
SKIN CONTACT	Remove affected clothing, Wash with mild soap and water. Apply lotion for redness.
INHALATION	Remove person to fresh air.
INGESTION	Wash mouth and other contacted parts with water. Never give anything by mouth to an unconscious person. If conscious, give 1-2 glasses of water. Avoid alcohol. Cotatct doctor or poison control center.
PHYSICAL NOTES	N/A

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point	Flash Point > 200 deg. F
Combustion	Carbon Dioxide, Ash, Water
Extinguishing Media (suitable)	Water, Foam, ABC Extinguisher
(not suitable)	Unknown
Special Hazards	Unknown
Special Protective Equipment	Face Shield, Gloves, Self-contained air supply

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions	Safety Glasses and Gloves.
Environmental Precautions	Collect product or waste and offer to environmental waste disposal company
Cleanup Methods	Absorb and/or collect all spilled material put in suitable container and send to suitable hazmat collection service or landfill.

SECTION 7– HANDLING AND STORAGE

Handling	Only use suppliers approved and labelled containers
Storage	Store in clean, dry, ventilated place

SECTION 8 – EXPOSURE CONTROL AND PERSONAL PROTECTION

Preventive Measures	ONLY USE SUPPLIED COONTAINER
Engineering Controls	Provide fresh air at all times
Personal Protection (recommended)	 
EYES	Wear safety glasses when transferring product
SKIN	Wear gloves when transferring product
RESPIRATORY	Normal ventilation is sufficient
HANDS	Wear rubber gloves when transferring product

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	
Physical State	Liquid
Color	Clear Green
Odor	Characteristic
Odor Threshold	Unknown
Important Health , Safety, Environmental Information	
pH (as supplied)	9.5 – 10.5
Boiling Point	Above 200 deg. F
Pour Point/Freezing (as supplied)	Freeze Point -34F/-37C
Flash Point	260F/127C
Oxidizing Properties	None
Vapor Pressure	0.12 mm Hg @20C
Specific Gravity	1.05 -1.06
Water Solubility	Soluble
Vapor Density (air =1)	2.1

SECTION 10 – STABILITY AND REACTIVITY

Stability and Reactivity	Stable
Incompatibility with various substances	Do not mix with strong acids
Hazardous polymerization	Will not occur
Hazardous decomposition products	When heated to decomposition, may emit toxic fumes

SECTION 11 – TOXICALOGICAL

Potential Acute Health Effects (ingredient)	
monoethylene glycol	LD oral rat = 4000 mg/kg; LD50 dermal rat=9500 mg/kg
diethylene glycol	LD50 oral rat=12565 mg/kg; LD50 dermal rat=11890 mg/kg
Acute Oral Effects	Can cause irritation to mouth, throat, and stomach. Large volume ingestion may cause depression of central nervous system.
Potential Chronic Health Effects	
Chronic Effects:	None expected under normal use conditions
Carcinogenicity:	Neither product nor its ingredients are listed by IARC, NTD or OSHA
Mutagenicity:	Not mutagenic
Teratogenicity:	Not Teratogenic

SECTION 12 – ECOLOGICAL INFORMATION

Aquatic Toxicity	May be toxic to aquatic organisms

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of waste through hazardous waste contractor/recycler.

Container Cleaning and Disposal: Containers should be cleaned of residual product before disposal.

SECTION 14 – TRANSPORT INFORMATION

DOT Proper Shipping Name: Ethylene Glycol
Shipping Symbols: Environmental Hazard
Hazard Class: Environmental Hazard
UN Number: Not regulated unless shipping container holds at least 10,539 pounds.
Packing Group: Not applicable
Label: Not applicable
Special Provisions (172.102): Not applicable

Bulk Shipments
DOT Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol)
UN Number: UN 3082
Label Requirement: Class 9, UN 3082

SECTION 15 – REGULATORY INFORMATION

EPA Regulations

RCRA Hazardous Waste Number and RCRA Hazardous Waste Classification: Unused product is not classified as a hazardous waste by RCRA criteria

CERCLA Hazardous Substance and CERCLA Reportable Quantity: Does not contain any ingredients listed as a CERCLA hazardous substance.

SARA Toxic Chemical and SARA EHS: Contains following substance which is listed in Title III: Ethylene Glycol.
SARA 313 Information:
SARA Hazard Category: An immediate health hazard A delayed health hazard

OSHA Regulations:

State Regulations

Other: All components listed on both TSCA (USA) and DSL (Canada) inventory.

CANADIAN WHMIS CLASSIFICATION: Class D, Division 2, Subdivision B (A toxic material causing other chronic effects)

SECTION 16 – OTHER INFORMATION

Additional Hazard Rating Systems: HMIS(USA) Health=1, Fire=1, Reactivity=0

Disclaimer: THE INFORMATION GIVEN HEREIN IS GIVEN IN GOOD FAITH AND FROM SOURCES WE BELIEVE RELIABLE. BUT NO WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS IS MADE.

The conditions or methods of handling, storage, use and disposal of this product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not apply.

CONSULT Company listed in Section 1. FOR FURTHER INFORMATION.

Revised 2-01-2021

NATIONAL REFRIGERANTS, INC.

R-410A

Safety Data Sheet

R-410A

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: R-410A
OTHER NAME: Difluoromethane, Pentafluoroethane
USE: Refrigerant Gas

DISTRIBUTOR: National Refrigerants, Inc.
661 Kenyon Avenue
Bridgeton, New Jersey 08302

FOR MORE INFORMATION CALL:
(Monday-Friday, 8:00am-5:00pm)
1-800-262-0012

IN CASE OF EMERGENCY CALL:
CHEMTREC: 1-800-424-9300

2. HAZARDS IDENTIFICATION

CLASSIFICATION: **Gases under pressure, Liquefied Gas**
SIGNAL WORD: **WARNING**
HAZARD STATEMENT: **Contains gas under pressure, may explode if heated**
SYMBOL: **Gas Cylinder**
PRECAUTIONARY STATEMENT: **STORAGE: Protect from sunlight, store in a well ventilated place**

EMERGENCY OVERVIEW: Colorless, volatile liquid with ethereal and faint sweetish odor. Non-flammable material. Overexposure may cause dizziness and loss of concentration. At higher levels, CNS depression and cardiac arrhythmia may result from exposure. Vapors displace air and can cause asphyxiation in confined spaces. At higher temperatures, (>250°C), decomposition products may include Hydrofluoric Acid (HF) and carbonyl halides.

POTENTIAL HEALTH HAZARDS

SKIN: Irritation would result from a defatting action on tissue. Liquid contact could cause frostbite.

EYES: Liquid contact can cause severe irritation and frostbite. Mist may irritate.

INHALATION: R-410A is low in acute toxicity in animals. When oxygen levels in air are reduced to 12-14% by displacement, symptoms of asphyxiation, loss of coordination, increased pulse rate and deeper respiration will occur. At high levels, cardiac arrhythmia may occur.

INGESTION: Ingestion is unlikely because of the low boiling point of the material. Should it occur, discomfort in the gastrointestinal tract from rapid evaporation of the material and consequent evolution of gas would result. Some effects of inhalation and skin exposure would be expected.

DELAYED EFFECTS: None known.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS NUMBER	WEIGHT %
Difluoromethane	75-10-5	50
Pentafluoroethane	354-33-6	50

COMMON NAME and SYNONYMS
R-410A; HFC410A

There are no impurities or stabilizers that contribute to the classification of the material identified in Section 2

4. FIRST AID MEASURES

SKIN: Promptly flush skin with water until all chemical is removed. If there is evidence of frostbite, bathe (do not rub) with lukewarm (not hot) water. If water is not available, cover with a clean, soft cloth or similar covering. Get medical attention if symptoms persist.

EYES: Immediately flush eyes with large amounts of water for at least 15 minutes (in case of frostbite water should be lukewarm, not hot) lifting eyelids occasionally to facilitate irrigation. Get medical attention if symptoms persist.

INHALATION: Immediately remove to fresh air. If breathing has stopped, give artificial respiration. Use oxygen as required, provided a qualified operator is available. Get medical attention. Do not give epinephrine (adrenaline).

INGESTION: Ingestion is unlikely because of the physical properties and is not expected to be hazardous. Do not induce vomiting unless instructed to do so by a physician.

ADVICE TO PHYSICIAN: Because of the possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be used with special caution and only in situations of emergency life support. Treatment of overexposure should be directed at the control of symptoms and the clinical conditions.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT:	Gas, not applicable per DOT regulations
FLASH POINT METHOD:	Not applicable
AUTOIGNITION TEMPERATURE:	>750°C
UPPER FLAME LIMIT (volume % in air):	None by ASTM D-56-82
LOWER FLAME LIMIT (volume % in air):	None by ASTM E-681
FLAME PROPAGATION RATE (solids):	Not applicable
OSHA FLAMMABILITY CLASS:	Not applicable

EXTINGUISHING MEDIA:
Use any standard agent – choose the one most appropriate for type of surrounding fire (material itself is not flammable)

UNUSUAL FIRE AND EXPLOSION HAZARDS:

R-410A is not flammable at ambient temperatures and atmospheric pressure. However, this material will become combustible when mixed with air under pressure and exposed to strong ignition sources.
Contact with certain reactive metals may result in formation of explosive or exothermic reactions under specific conditions (e.g. very high temperatures and/or appropriate pressures).

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:

Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: (Always wear recommended personal protective equipment.)

Evacuate unprotected personnel. Product dissipates upon release. Protected personnel should remove ignition sources and shut off leak, if without risk, and provide ventilation. Unprotected personnel should not return to the affected area until air has been tested and determined safe, including low-lying areas.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

7. HANDLING AND STORAGE

NORMAL HANDLING: (Always wear recommended personal protective equipment.)

Avoid breathing vapors and liquid contact with eyes, skin or clothing. Do not puncture or drop cylinders, expose them to open flame or excessive heat. Use authorized cylinders only. Follow standard safety precautions for handling and use of compressed gas cylinders.

R-410A should not be mixed with air above atmospheric pressure for leak testing or any other purpose.

STORAGE RECOMMENDATIONS:

Store in a cool, well-ventilated area of low fire risk and out of direct sunlight. Protect cylinder and its fittings from physical damage. Storage in subsurface locations should be avoided. Close valve tightly after use and when empty.

INCOMPATIBILITIES:

Freshly abraded aluminum surfaces at specific temperatures and pressures may cause a strong exothermic reaction. Chemically reactive metals: potassium, calcium, powdered aluminum, magnesium, and zinc.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide local ventilation at filling zones and areas where leakage is probable. Mechanical (general) ventilation may be adequate for other operating and storage areas.

PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION:

Skin contact with refrigerant may cause frostbite. General work clothing and gloves (leather) should provide adequate protection. If prolonged contact with the liquid or gas is anticipated, insulated gloves constructed of PVA,

neoprene or butyl rubber should be used. Any contaminated clothing should be promptly removed and washed before reuse.

EYE PROTECTION:

For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear chemical safety goggles.

RESPIRATORY PROTECTION:

None generally required for adequately ventilated work situations. For accidental release or non-ventilated situations, or release into confined space, where the concentration may be above the PEL of 1,000 ppm, use a self-contained, NIOSH-approved breathing apparatus or supplied air respirator. For escape: use the former or a NIOSH-approved gas mask with organic vapor canister.

ADDITIONAL RECOMMENDATIONS:

Where contact with liquid is likely, such as in a spill or leak, impervious boots and clothing should be worn. High dose-level warning signs are recommended for areas of principle exposure. Provide eyewash stations and quick-drench shower facilities at convenient locations. For tank cleaning operations, see OSHA regulations, 29 CFR 1910.132 and 29 CFR 1910.133.

EXPOSURE GUIDELINES

INGREDIENT NAME	ACGIH TLV	OSHA PEL	OTHER LIMIT
Difluoromethane	None	None	*1000 ppm TWA (8hr)
Pentafluoroethane	None	None	*1000 ppm TWA (8hr)

* = Workplace Environmental Exposure Level (AIHA)

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:

Hydrogen Fluoride: ACGIH TLV: 2 ppm ceiling, 0.5ppm TLV-TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear, colorless liquid and vapor
PHYSICAL STATE:	Gas at ambient temperatures
MOLECULAR WEIGHT:	72.6
CHEMICAL FORMULA:	CH_2F_2, CHF_2CF_3
ODOR:	Faint ethereal odor
SPECIFIC GRAVITY (water = 1.0):	1.08 @ 21.1°C (70°F)
SOLUBILITY IN WATER (weight %):	Unknown
pH:	Neutral
BOILING POINT:	-48.5°C (-55.4°F)
FREEZING POINT:	Not determined
VAPOR PRESSURE:	215.3 psia @ 70°F 490.2 psia @ 130°F
VAPOR DENSITY (air = 1.0):	3.0
EVAPORATION RATE:	>1**COMPARED TO:** $CC1_4$ = 1
% VOLATILES:	100
ODOR THRESHHOLD:	Not established
FLAMMABILITY:	Not applicable
LEL/UEL:	None/None
RELATIVE DENSITY:	1.08 g/cm^3 at 21.1˚C
PARTITION COEFF (n-octanol/water)	Not applicable

AUTO IGNITION TEMP: >750˚C
DECOMPOSITION TEMPERATURE: >250˚C
VISCOSITY: Not applicable
FLASH POINT: Not applicable
(Flash point method and additional flammability data are found in Section 5.)

10. STABILITY AND REACTIVITY

NORMALLY STABLE? (CONDITIONS TO AVOID):
The product is stable.
Do not mix with oxygen or air above atmospheric pressure. Any source of high temperature, such as lighted cigarettes, flames, hot spots or welding may yield toxic and/or corrosive decomposition products.

INCOMPATIBILITIES:
(Under specific conditions: e.g. very high temperatures and/or appropriate pressures) – Freshly abraded aluminum surfaces (may cause strong exothermic reaction). Chemically active metals: potassium, calcium, powdered aluminum, magnesium and zinc.

HAZARDOUS DECOMPOSITION PRODUCTS:
Halogens, halogen acids and possibly carbonyl halides.

HAZARDOUS POLYMERIZATION:
Will not occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS:

Difluoromethane:	LC_{50} : Inhalation 4 hr. (rat) - $\geq$ 520,000 ppm
Pentafluoroethane:	Cardiac Sensitization threshold (dog) $\geq$ 100,000 ppm

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:
Teratology – negative
Subchronic inhalation (rat) NOEL – 50,000 ppm

REPEATED DOSE TOXICITY:
Lifetime inhalation exposure of male rats was associated with a small increase in salivary gland fibrosarcomas.

OTHER DATA:
Not active in four genetic studies

FURTHER INFORMATION:
Acute effects of rapid evaporation of the liquid may cause frostbite. Vapors are heavier than air and can displace oxygen causing difficulty breathing or suffocation. May cause cardiac arrhythmia.

POTENTIAL HEALTH HAZARDS

SKIN: Irritation would result from a defatting action on tissue. Liquid contact could cause frostbite.

EYES: Liquid contact can cause severe irritation and frostbite. Mist may irritate.

INHALATION: R-410A is low in acute toxicity in animals. When oxygen levels in air are reduced to 12-14% by displacement, symptoms of asphyxiation, loss of coordination, increased pulse rate and deeper respiration will occur. At high levels, cardiac arrhythmia may occur.

INGESTION: Ingestion is unlikely because of the low boiling point of the material. Should it occur, discomfort in the gastrointestinal tract from rapid evaporation of the material and consequent evolution of gas would result. Some effects of inhalation and skin exposure would be expected.

DELAYED EFFECTS: None known.

Ingredients found on one of the OSHA designated carcinogen lists are listed below.

INGREDIENT NAME	NTP STATUS	IARC STATUS	OSHA LIST
No ingredients listed in this section			

12. ECOLOGICAL INFORMATION

Degradability (BOD): R-410A is a gas at room temperature; therefore, it is unlikely to remain in water.
Octanol Water Partition Coefficient: Log P_{ow} = 1.48 (pentafluoroethane), 0.21 (difluoromethane)

13. DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous waste if discarded? Not a hazardous waste.
If yes, the RCRA ID number is: Not applicable.

OTHER DISPOSAL CONSIDERATIONS:

Disposal must comply with federal, state, and local disposal or discharge laws. R-410A is subject to U.S. Environmental Protection Agency Clean Air Act Regulations Section 608 in 40 CFR Part 82 regarding refrigerant recycling.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

US DOT ID NUMBER: UN3163
US DOT PROPER SHIPPING NAME: Liquefied gas, n.o.s., (Pentafluoroethane, Difluoromethane)
US DOT HAZARD CLASS: 2.2
US DOT PACKING GROUP: Not applicable

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: Components listed on the TSCA inventory

OTHER TSCA ISSUES: Subject to Section 12(b) export notification. May contain 0-10ppm Ethane, 2-chloro-1,1,1-trifluoro, CAS#75-88-7

SARA TITLE III / CERCLA

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

INGREDIENT NAME	SARA / CERCLA RQ (lb.)	SARA EHS TPQ (lb.)
No ingredients listed in this section		

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

SECTION 311 HAZARD CLASS: IMMEDIATE PRESSURE

SARA 313 TOXIC CHEMICALS:

The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are found in Section 2.

INGREDIENT NAME	COMMENT
No ingredients listed in this section	

STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

INGREDIENT NAME	WEIGHT %	COMMENT
No ingredients listed in this section		

ADDITIONAL REGULATORY INFORMATION:

R-410A is subject to U.S. Environmental Protection Agency Clean Air Act Regulations at 40 CFR Part 82.

WARNING: Do not vent to the atmosphere. To comply with provisions of the U.S. Clean Air Act, any residual must be recovered. **Contains Pentafluoroethane (HFC-125) and Difluoromethane (HFC-32),** greenhouse gases which may contribute to global warming.

CALIFORNIA PROPOSITION 65:

The ingredients in this product do not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm**.**

WHMIS CLASSIFICATION (CANADA):

This product has been evaluated in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

FOREIGN INVENTORY STATUS:

EU – EINECS # 2065578 – HFC-125

16. OTHER INFORMATION

CURRENT ISSUE DATE: April, 2018
PREVIOUS ISSUE DATE: April, 2015

OTHER INFORMATION: HMIS Classification: Health – 1, Flammability – 1, Reactivity – 0
NFPA Classification: Health – 2, Flammability – 1, Reactivity – 0

ANSI / ASHRAE 34 Safety Group – A1

Regulatory Standards:

1. OSHA regulations for compressed gases: 29 CFR 1910.101

2. DOT classification per 49 CFR 172.101

Toxicity information per PAFT Testing

DISCLAIMER:

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SAFETY DATA SHEET

Sewing Machine Oil Light

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sewing Machine Oil Light **WHMIS:** Not a Controlled Product

SUPPLIER: Commercial Oil Company
P (905) 560-3244
F (905) 560-2961
35 Burford Road
Hamilton, Ontario
L8E 3C6

Product and SDS Information: 1-800-463-1976

SECTION 2. HAZARDS IDENTIFICATION

INHALATION: Negligible hazard at normal temperatures (up to 38 deg C). Elevated temperatures or mechanical action may form vapours, mists or fumes, which may be irritating to the eyes, nose, throat and lungs. Avoid breathing vapours or mists.
EYE CONTACT: Slightly irritating but will not injure eye tissue.
SKIN CONTACT: Low Toxicity.
Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).
INGESTION: Low Toxicity
OCCUPATIONAL EXPOSURE LIMITS: For oil mists, 5 mg/m3 recommended based on the ACGIH TLV

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

A mixture of base oils and additives.

The following components are defined in accordance with sub-paragraph 13(a) (i) to (iv) or paragraph 14(a) of the Hazardous Products Act: **No regulated components**

SECTION 4. FIRST AID MEASURES

INHALATION: Vapour pressure of this material is low and as such inhalation under normal conditions is usually not a
problem. If over exposed to oil mist, remove from further exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.
EYE CONTACT: Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.
SKIN CONTACT: Flush with large amounts of water. Use soap if it is available. Remove severely contaminated clothing (including shoes) and launder before reuse. If irritation persists, seek medical attention.
INGESTION: If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention

SECTION 5. FIRE-FIGHTING MEASURES

Flashpoint and method: 169 deg C COC D92
Auto ignition : NA **Flammable Limits:** LEL NA **UEL:** NA
GENERAL HAZARDS: Low hazard; liquids may burn upon heating to temperatures at or above the flash point. Decomposes; flammable/toxic gases will form at elevated temperatures (thermal decomposition). Toxic gases will form upon combustion. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition.
FIRE FIGHTING: Use water spray to cool fire-exposed surfaces and to protect personnel. Shut off fuel to fire. Use foam, dry chemical or water spray to extinguish fire. Respiratory and eye protection required for fire fighting

personnel. Avoid spraying water directly into storage containers due to danger of boil over. A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.
HAZARDOUS COMBUSTIBLE PRODUCTS: Smoke, carbon monoxide and dioxide and traces of oxides of sulphur.

SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate Provincial and Federal authorities. In particular, immediate reporting is required for all spills that could reach any waterway, including wetlands and intermittent dry creeks.

LAND SPILL: Eliminate source of ignition. Keep public away. Prevent additional discharge of material; if possible do
so without hazard. Prevent spills from entering sewer watercourses or low areas. Contain spilled liquid with sand or earth. Recover by pumping or using a suitable absorbent. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse affects of the spill.
WATER SPILL: Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters. Consult an expert on
disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all action necessary to prevent and
remedy the adverse affects of the spill.

PERSONAL PRECAUTIONS: See Section 8

SECTION 7. HANDLING AND STORAGE

HANDLING STORAGE AND SHIPPING: Keep containers closed. Handle and open containers with care. Store in a cool, well-ventilated place away from incompatible materials. Do not handle or store near an open flame, sources of heat, or sources of ignition.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTION: The selection of personal protective equipment varies depending upon conditions of use. Where prolonged and/or repeated skin and eye contact is likely to occur, wear safety glasses with side shields, long sleeves, and chemical resistant gloves. Where eye contact is unlikely, but may occur as a result of short and/or periodic exposures, wear safety glasses with side shields. Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.
EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, an exposure limit of 5.00 mg/m3 is suggested for oil mist.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Viscosity: 22.1 cSt at 40 C
Density, kg/m3: 866 15 C
.1-2

Evaporation Rate: .1-2
Pour Point: -30 C
Appearance: Clear, pale amber liquid (ASTM)

SECTION 10. STABILITY AND REACTIVITY

STABILITY: This product is stable. Hazardous polymerization will not occur.
INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Strong oxidizing agents.
HAZARDOUS DECOMPOSITION: Fumes, smoke, carbon monoxide, sulphur oxides if incomplete combustion.

SECTION 11. TOXICOLOGICAL DATA

ORAL TOXICITY
Low Toxicity
DERMAL TOXICITY
Low Toxicity
Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).
INHALATION TOXICITY
Negligible hazard at normal temperatures (up to 38 deg C). Elevated temperatures or mechanical action may form vapours, mists or fumes, which may be irritating to the eyes, nose, throat and lungs. Avoid breathing vapours or mists.
EYE IRRITATION
Slightly irritating but will not injure eye tissue
SKIN IRRITATION
Practically non-irritating. (Primary Irritation index: greater than 0.5 but less than 3). Based on testing of similar products and/or the components.

SECTION 12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: The product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

SECTION 14. TRANSPORT INFORMATION

PRODUCT LABEL ... Sewing Machine Oil Light
SHIPPING NAME.....Not Regulated by DOT

SECTION 15. REGULATORY INFORMATION

No information available.

SECTION 16. PREPARATION

USE: Lubricant

COMMERCIAL OIL COMPANY
Hamilton, Ontario

Date: Feb. 18, 2016
Prepared by: Operations

MATERIAL SAFETY DATA SHEET

Review Date: 08/29/2005

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: SHELLZONE® ALL-SEASON Antifreeze/Coolant

MSDS NUMBER: 80070L - 16
PRODUCT CODE(S): 94010, 9401000001, 9401000055, 9401006021, 9401012031

MANUFACTURER
SOPUS Products
P.O. Box 4427
Houston, TX. 77210-4427

TELEPHONE NUMBERS
Spill Information: (877) 242-7400
Health Information: (877) 504-9351
MSDS Assistance Number: (877) 276-7285

SECTION 2 PRODUCT/INGREDIENTS

INGREDIENTS	CAS#	CONCENTRATION
Antifreeze/Coolant		
Ethylene Glycol	107-21-1	90 - 98 %weight
Deionized Water	7732-18-5	1 - 3 %weight
Phosphoric acid	7664-38-2	1 - 3 %weight

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Appearance & Odor: Fluorescent green liquid. Mild odor.
Health Hazards: May be harmful or fatal if swallowed. May cause acidosis, cardiopulmonary and kidney effects. May cause CNS depression.
NFPA Rating (Health, Fire, Reactivity): 2, 1, 0
Hazard Rating: Least - 0 Slight - 1 Moderate - 2 High - 3 Extreme - 4

Inhalation:
In applications where vapors (caused by high temperature) or mists (caused by mixing or spraying) are created, breathing may cause a mild burning sensation in the nose, throat and lungs.

Eye Irritation:
If irritation occurs, a temporary burning sensation, minor redness, swelling, and/or blurred vision may result.

Skin Contact:
May cause slight irritation of the skin. If irritation occurs, a temporary burning sensation and minor redness and/or swelling may result. Other adverse effects not expected from brief skin contact.

Ingestion:

May be harmful or fatal if swallowed. Contains ethylene glycol and/or diethylene glycol which are toxic when swallowed. A lethal dose for an adult is 1 ml per kilogram or about 4 ounces (1/2 cup). Severe kidney damage can occur as a result of ingestion. Ingestion may result in nausea, vomiting and abdominal cramps. Metabolic acidosis and cardiopulmonary effects can occur following ingestion. May cause Central Nervous System (CNS) depression.

Other Health Effects:
Refer to Section 11, Toxicological Information, for specific information on the following effects:
Developmental Toxicity

Primary Target Organs:
The following organs and/or organ systems may be damaged by overexposure to this material and/or its components:
Cardiovascular System, Kidney, Liver, Lungs

Signs and Symptoms:
May cause cardiopulmonary effects including rapid respiration and heartbeat, cyanosis and in severe cases, pulmonary edema and pneumonia. Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness and nausea. In extreme cases, unconsciousness and death may occur. Kidney damage may be indicated by changes in urine output or appearance, pain upon urination or in the lower back or general edema (swelling from fluid retention). Liver damage may be indicated by loss of appetite, jaundice (yellowish skin and eye color), fatigue and sometimes pain and swelling in the upper right abdomen.

Aggravated Medical Conditions:
Pre-existing eye, skin, respiratory, liver and kidney disorders and may be aggravated by exposure to this product.

For additional health information, refer to section 11.

SECTION 4 FIRST AID MEASURES

Inhalation:
Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

Skin:
Flush exposed area with water and follow by washing with soap if available. If skin irritation persists after washing, get medical advice.

Eye:
Flush eyes with plenty of water while holding eyelids open. Rest eyes for 30 minutes. If eye irritation persists, seek medical advice.

Ingestion:
DO NOT take internally. If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Note to Physician:
IMMEDIATE TREATMENT IS EXTREMELY IMPORTANT! Ethylene Glycol (EG) and Diethylene Glycol (DEG) intoxication may initially produce behavioral changes, drowsiness, vomiting, diarrhea, thirst, and convulsions. EG and DEG are nephrotoxic. End stages of poisoning may include renal damage or failure with acidosis. Supportive measures, supplemented with hemodialysis if indicated, may limit the progression and severity of toxic effects. May cause cardiopulmonary effects. For ETHYLENE GLYCOL POISONING, intravenous ethanol is a recognized antidotal treatment; other antidotal treatments also exist for ethylene glycol poisoning.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point [Method]: 260 ºF/126.67 ºC [Pensky-Martens Closed Cup]

Extinguishing Media:
Prevent run off from fire control or dilution from entering streams, sewers or drinking water supply. Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

Fire Fighting Instructions:
Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures:
May burn although not readily ignitable.

Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8.

Spill Management:
Shut off source of leak if safe to do so. Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Reporting:
U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity to the National Response Center at (800)424-8802.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures:
Do not ingest. Avoid prolonged or repeated contact with eyes, skin or clothing. Avoid breathing of vapors, fumes or mists. Use with adequate ventilation. Wash thoroughly after handling.

Storage:
Do not store in open or unlabeled containers. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

Container Warnings:
Keep containers closed when not in use. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical	Limit	TWA	STEL	Ceiling	Notation
Ethylene Glycol	ACGIH TLV			100 mg/m3	

Ethylene Glycol	OSHA PEL - 1989(revoked)			50 ppmv	
Phosphoric acid	ACGIH TLV	1 mg/m3			
Phosphoric acid	OSHA PEL - 1989(revoked)	1 mg/m3	3 mg/m3		

Exposure Controls

Provide adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Eye washes and showers for emergency use.

Personal Protection

Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below.

Eye Protection:
Chemical Goggles - If liquid contact is likely., or Safety glasses with side shields

Skin Protection:
Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by:
Neoprene, or Nitrile Rubber

Respiratory Protection:
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:
For Mist: Air Purifying, R or P style NIOSH approved respirator.
For Vapors: Air Purifying, R or P style prefilter & organic cartridge, NIOSH approved respirator. Self-contained breathing apparatus for use in environments with unknown concentrations or emergency situations.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: Fluorescent green liquid. Mild odor.
Substance Chemical Family: Ethylene Glycols

Boiling Point	226 ºF	**Flash Point**	260 ºF [Pensky-Martens Closed Cup]
Freezing Point	-34 ºF	**Odor**	Mild odor.
Specific Gravity	1.12 - 1.14	**Stability**	Stable

NOTE: The freezing and boiling point values reflect a 50% solution in water at atmospheric pressure.

SECTION 10 REACTIVITY AND STABILITY

Stability:
Material is stable under normal conditions.

Hazardous Decomposition Products:

Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when this material undergoes pyrolysis or combustion. Acids, Aldehydes, Carbon Monoxide, Carbon Dioxide, Ketonesand other unidentified organic compounds may be formed upon combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity

TEST	Result	OSHA Classification	Material Tested
Dermal LD50	> 2 g/kg(Rabbit)	Non-Toxic	Based on components(s)

Carcinogenicity Classification

Chemical Name	NTP	IARC	ACGIH	OSHA
Antifreeze/Coolant	No	Not Reviewed	No	No

Cardiovascular System	Ingestion of large doses can cause metabolic acidosis that results in cardiopulmonary effects.
Developmental Toxicity	Oral exposure of pregnant rats and mice to ethylene glycol has produced birth defects in the offspring.
Kidney	Ingestion of ethylene glycol can cause bladder stones and kidney damage which can be fatal.
Liver	Prolonged and repeated ingestion of ethylene glycol has produced liver damage in rats.
Lungs	Ingestion of large doses can cause metabolic acidosis that results in cardiopulmonary effects.
Whole Animal	Orally, humans are more sensitive to ethylene glycol than rodents. The reported lethal dose range for an adult human is 1 -2 ml/kg, or 1/4 to 1/2 cup. Ingestion can result in metabolic acidosis.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Fate:

The toxicity of this material to aquatic organisms has not been fully evaluated. This material must not be discharged or allowed to come into contact with sewage and drainage systems and any surface water body.

SECTION 13 DISPOSAL CONSIDERATIONS

RCRA Information:

Under RCRA, it is the responsibility of the user of the material to determine, at the time of the disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal. Follow all applicable laws and regulations. Used antifreeze recycling is recommended. Do not drain on the ground or into storm drainage systems. Do not dispose in sanitary sewer systems except where permitted by law.

SECTION 14 TRANSPORT INFORMATION

US Department of Transportation Classification
This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less. If shipped in a container of over 119 gallon capacity then the DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as Environmentally Hazardous (solid/liquid) N.O.S., Class 9, Packing group III unless the product qualifies for the petroleum exemption (49 CFR 171.8).

Hazardous Substance/Material RQ: Ethylene glycol / 5209.3481 lbs

International Air Transport Association

Hazard Class/Division:	9 (Miscellaneous)
Identification Number:	UN3082
Packing Group:	III
Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S.
Technical Name(s):	Ethylene Glycol

International Maritime Organization Classification

Hazard Class/Division:	9 (Miscellaneous)
Identification Number:	UN3082
Packing Group:	III
Proper Shipping Name:	Environmentally Hazardous Substances, Liquid, N.O.S.
Technical Name(s):	Ethylene Glycol

SECTION 15 REGULATORY INFORMATION

Federal Regulatory Status

OSHA Classification:
Product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Comprehensive Environmental Release, Compensation & Liability Act (CERCLA):

Ethylene Glycol	RQ 5000 lbs	Reportable Spill => 5209.348071 lbs or 624.85 gal
Potassium hydroxide	RQ 1000 lbs	Reportable Spill => 139664.804469

lbs or 16752.41 gal

Ozone Depleting Substances (40 CFR 82 Clean Air Act):
This material does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

Superfund Amendment & Reauthorization Act (SARA) Title III:
There are no components in this product on the SARA 302 list.

SARA Hazard Categories (311/312):

Immediate Health	Delayed Health	Fire	Pressure	Reactivity
YES	YES	NO	NO	NO

SARA Toxic Release Inventory (TRI) (313):
, Ethylene Glycol

Toxic Substances Control Act (TSCA) Status:
All component(s) of this material is(are) listed on the EPA/TSCA Inventory of Chemical Substances.

Other Chemical Inventories:
Component(s) of this material is (are) listed on the Australian AICS, Canadian DSL, Chinese Inventory, European EINECS, Korean Inventory, Philippines PICCS,

State Regulation

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

New Jersey Right-To-Know Chemical List:

Ethylene Glycol (0878)	90 - 98 %weight	Special Hazard
Phosphoric acid	1 - 3 %weight	Environmental Hazard

Pennsylvania Right-To-Know Chemical List:

1,2-Ethanediol (107-21-1)	90 - 98 %weight	Environmental Hazard
Phosphoric acid	1 - 3 %weight	Environmental Hazard

SECTION 16 OTHER INFORMATION

Revision#: 16
Review Date: 08/29/2005
Revision Date: 09/30/2004
Revisions since last change (discussion): This Material Safety Data Sheet (MSDS) has been reviewed to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-2003). We encourage you to take the opportunity to read the MSDS and review the information contained therein.

SECTION 17 LABEL INFORMATION

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

PRODUCT CODE(S): 94010, 9401000001, 9401000055, 9401006021, 9401012031

SHELLZONE® ALL-SEASON Antifreeze/Coolant

WARNING!

MAYBE HARMFUL OR FATAL IF SWALLOWED. MAY CAUSE ACIDOSIS, CARDIOPULMONARY AND KIDNEY EFFECTS. MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. The following organs and/or organ systems may be damaged by overexposure to this material and/or its components.

MAY CAUSE DAMAGE TO: Cardiovascular System, Kidney, Liver, Lungs

Refer to Section 11, Toxicological Information, for specific information on the following effects: Developmental Toxicity

Precautionary Measures:
Avoid prolonged or repeated contact with eyes, skin and clothing. Avoid breathing of vapors, fumes, or mist. Use only with adequate ventilation. Keep container closed when not in use. Wash thoroughly after handling.

FIRST AID

Inhalation: Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.
Skin Contact: Flush exposed area with water and follow by washing with soap if available. If skin irritation persists after washing, get medical advice.
Eye Contact: Flush eyes with plenty of water while holding eyelids open. Rest eyes for 30 minutes. If eye irritation persists, seek medical advice.
Ingestion: DO NOT take internally. If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

FIRE

In case of fire, Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

SPILL OR LEAK

Dike and contain spill.
FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

CONTAINS: Ethylene Glycol, 107-21-1; Deionized Water, 7732-18-5; Phosphoric acid, 7664-38-2

NFPA Rating (Health, Fire, Reactivity): 2, 1, 0

TRANSPORTATION

US Department of Transportation Classification
This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less. If shipped in a container of over 119 gallon capacity then the DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as Environmentally Hazardous (solid/liquid) N.O.S., Class 9, Packing group III unless the product qualifies for the petroleum exemption (49 CFR 171.8).

Hazardous Substance/Material RQ: Ethylene glycol / 5209.3481 lbs

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flames or heat. Keep container closed and drum bungs in place.

Name and Address

SOPUS Products
P.O. Box 4427
Houston, TX 77210-4427

ADMINISTRATIVE INFORMATION	
MANUFACTURER ADDRESS:	SOPUS Products, P.O. Box 4427, Houston, TX. 77210-4427

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT : IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA, IS THE PROPERTY OF SOPUS PRODUCTS AND IS NOT TO BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF SOPUS PRODUCTS.

43716-11566-100R-08/22/2005

SILCO INCORPORATED

SAFETY DATA SHEET

Print Date: 5/31/2015

PRODUCT NAME: SIL-BOND RTV 4500 **COLOR: CLEAR**	**REVISION DATE: May 31st 2015**

1. PRODUCT AND COMPANY IDENTIFICATION

Commercial Product Name: SIL-BOND RTV 4500
Product Classification: Silicone Sealant
Manufacturer:
Silco Inc.
7635 St. Clair Avenue
Mentor, OH 44060
PHONE: 440-975-8886 FAX: 440-975-8887

General Description: Silicone elastomer
Physical Form: Paste
Color: Clear
Odor: Acetic acid odor

NFPA PROFILE: Health – 1 Flammability – 1 Instability/Reactivity - 0

Note: NFPA = National Fire Protection Association

2. HAZARDS IDENTIFICATION

Physical Hazards: Not classified
Health Hazards: Reproductive toxicity (fertility) Category 2
Environmental Hazards: Not classified
OSHA Defined Hazards: Not classified

- Hazards not stated here are "Not Classified", "Not Applicable" or "Classification not possible".

GHS Label Elements

Signal Word: **Warning**

Hazard Statement: Suspected of damaging fertility. May cause eye/lung/skin irritation.

Precautionary Statement: Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves / protective clothing / eye protection / face protection. Wash well after handling. Contaminated work clothing should not be allowed out of work place.

Response:	**SKIN:** Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention / advice. Get medical attention / advice if you feel unwell. **EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritant persists get medical attention / advice. **If exposed or concerned:** get medical attention or advice. Take off contaminated clothing and wash it before reuse.
Storage:	Store locked up.
Disposal:	Disposal of contents / container in accordance with local / regional /state / federal and international regulations.
Hazard(S) not Otherwise classified (HNOC):	None known.
Supplemental Information:	None known.
Substance(s) formed under the conditions of use:	This product reacts with water, moisture or humid air to evolve following compounds: Acetic acid The following material is embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards. Titanium oxide.
HMIS (Ratings):	**Health: 1** **Flammability: 1** **Physical hazard: 0**

3. COMPOSITION/ INGREDIENTS

Mixtures

Hazardous Ingredients

Chemical Name	**CAS Number**	**%**
Ethyltriacetoxysilane	17689-77-9	1 – 5
Methylacetoxysilane	4253-34-3	1 – 5
Titanium oxide	13463-67-7	< 1
Distillates (petroleum), hydrotreated middle	64742-46-7	1 – 7
Octamethylcyclotetrasiloxane (impurity)	556-67-2	< 1

4. FIRST AID MEASURES

Inhalation:	Remove to fresh air. Call a physician if symptoms develop or persist.
Skin Contact:	Wash off with soap and plenty of water. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation or rash occurs: get medical attention / advice. Take off contaminated clothing and wash before use.
Eyes Contact:	Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation developed or persists.
Ingestion:	Wash out mouth. Get medical attention immediately.
Most Important symptoms / effects, acute and delayed:	Direct contact with eyes may cause temporary irritation.
Indication of immediate Medical attention and Special treatment Needed:	Treat Symptomatically.
General Information:	If exposed or concerned: Get medical advice / attention. Ensure that medical personnel are aware materials involved and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2
Unsuitable extinguishing media:	None known.
Specific hazards arising from the chemical:	By heating and fire, harmful vapors / gases may be formed.
Specific protective equipment and precautions for firefighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet, gloves, rubber boots and self-contained breathing apparatus.
Fire Fighting equipment / Instructions:	Move containers from fire area if you can do so without risk.
General fire hazards:	No unusual fire or explosion hazards noted.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch or walk through spilled material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Methods and materials for containment and cleaning up:	Eliminate sources of ignition. **Large Spills:** Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up product and place into a container for later disposal. **Small Spills:** Wipe up with absorbent material (e.g. cloth). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for reuse.
Environmental precautions:	Prevent further leakage or spillage if safe to do so.

7. HANDLING AND STORAGE

Precaution for safe handling:	Provide adequate ventilation. Use care in handling/storage. Obtain special instructions before use. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Pregnant and breastfeeding women must not handle this product. Do not breathe mist or vapor. Avoid contact with eyes. Avoid contact with skin. Avoid long term exposure.
Conditions for safe storage, Including any incompatibilities	Stored locked up. Keep container tightly closed. Keep out of reach of children. Store in a cool dry place out of direct sunlight. Keep in original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	CAS #	Type	Value
Titanium oxide	13463-67-7	PEL	15 mg/m3
Decomposition			
Distillates (petroleum) hydrotreated middle	64742-46-7	TWA (Mist)	5 mg/m3
Acetic acid	64-19-7	PEL	25 mg/m3 10 ppm

US. ACGIH Threshold Limit Values			
Components			
Titanium dioxide	13463-67-7	TWA	10 mg/m3
Decomposition			
Acetic acid	64-19-7	STEL	15 ppm
		TWA	10 ppm
US. NIOSH: Pocket Guide to Chemical Hazards			
Decomposition			
Acetic acid	64-19-7	STEL	37 mg/m3 15 ppm
		TWA	25 mg/m3 10 ppm
Distillates (petroleum) hydrotreated middle	64742-46-7	TWA (Mist) ST (Mist)	5mg/m3 10mg/m3
Biological limit values:	No biological exposure limits for the ingredient(s).		

Appropriate engineering controls:	Provide adequate general and local exhaust. Provide eyewash station. Pay attention to ventilation such as local exhaust, mechanical and or / door open for at least 24 hours after applications.
Individual protection measures such as personal protective equipment.	
Eye / Face protection:	Tightly sealed safety glasses according to EN 166.
Skin / Hand protection:	Wear protective gloves.
Other:	Wear suitable protective clothing.
Respiratory protection:	If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.
Thermal hazards:	Wear appropriate thermal protective clothing, when necessary.
General Hygiene Considerations:	Avoid contact with eyes. Avoid contact with skin. When using, do not eat, drink or smoke. Keep away from food or drink. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the work place. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance	
Form:	Paste
Color:	Clear
Odor:	Acetic acid odor

Odor Threshold:	Not available
pH:	Not available
Melting point / freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash Point:	141.8 ^{o}F (> 96 ^{0} C) Closed cup
Evaporative rate:	< 1 (Butyl Acetate = 1)
Flammability (solid, gas):	Not applicable
Upper / Lower flammability or explosive limits:	
Flammability limit – lower (%):	No data
Flammability limit – upper (%):	No data
Explosive limit – Lower (%):	Not available
Explosive limit – Upper (%):	Not available
Vapor pressure:	Negligible (25^{0} C)
Vapor density:	> 1 (air=1)
Relative density:	1.04 (25 ^{0} C)
Solubility (water):	Not soluble
VOC Content:	30 grams per liter
Partition coefficient: (n-octanol / water)	Not applicable
Auto-ignition temperature:	No data
Decomposition temperature:	Not available
Viscosity:	Not applicable
Molecular weight:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity	No hazardous reaction known under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous Reactions	Hazardous polymerization does not occur.
Conditions to avoid	None known.
Incompatible materials	Strong oxidizing agents. Water and moisture.
Hazardous decomposition products:	This product reacts with water, moisture, or humid air to evolve following compounds. Acetic acid. Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition product: Carbon dioxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion: Expected to be a low ingestion hazard.

Inhalation: Prolonged inhalation may be harmful.

Skin contact: No adverse effects due to skin contact are expected.

Eye contact: Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical, and toxicological characteristics: Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Toxicological data

Decomposition

	CAS #	Species	Test Results
Acetic acid	64-19-7		
Acute			
Dermal			
LD50		Rabbit	1060 mg/kg
Inhalation			
LC 50		Guinea Pig	5000 ppm, 1 hours
		Mouse	5620 ppm, 1 hours
		Rat	11.4 mg/l, 4hours
Oral			
LD50		Mouse	4960 mg/kg
		Rabbit	1200 mg/kg
		Rat	3.31 g/kg
Distillates (petroleum) hydrotreated middle			
Oral		Rat	> 5,000 mg/kg
Inhalation			
LC 50		Rat	1.78 mg/l, 4 hours
Dermal			
		Rat	> 2,000 mg/kg

Skin corrosion / irritation: Causes severe skin burns and eye damage. (Acetic acid)
Skin-Rabbit: 500 mg/24hr.MILD (Octamethylcyclotetrasiloxane)

Serious eye damage/eye irritation: Causes serious eye damage. (Acetic acid)
Eye – Rabbit: MILD (Octamethylcycotetrasiloxane)

Respiratory Sensitization: Not available.

Skin Sensitization:	No evidence of sensitization (Octamethylcycotetrasiloxane)
Germ Cell Mutagenicity:	Negative (Bacteria) (Octamethylcycotetrasiloxane)
Carcinogenicity:	The following material is embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards. Titanium oxide.
IARC Monographs, Overall Evaluation of Carcinogenicity.	Titanium oxide (CAS 13463-67-7) 2B Possibly carcinogenic to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):	Not listed
Reproductive Toxicity:	Octamethylcyclotetrasiloxane administered to rats by whole body inhalation at concentrations of 500 and 700 ppm for 70 days prior to mating, through mating, gestation and lactation resulted in decreases in live litter size. Additionally, increases in the incidence of deliveries of offspring extending over an unusually long time period (dystocia) were observed at these concentrations. Statistically significant alterations in these parameters were not observed in the lower concentrations evaluated (300 and 70 ppm). In a previous range-finding study, rats exposed to vapor concentrations of 700 ppm had decreases in the number of implantation sites and live litter size. The significance of these findings to humans is not known. (Octamethylcyclotetrasiloxane)
Specific target organ toxicity – single exposure:	Not available
Specific target organ toxicity – repeated exposure:	Repeated inhalation or oral exposure of mice and rats to Octamethylcycotetrasiloxane produced an increase in liver size. No gross histopathological or significant clinical chemistry effects were observed. An increase in liver metabolizing enzymes, as well as a transient increase in the number of normal cells (hyperplasia) followed by an increase in cell size (hypertrophy) were determined to be the underlying causes of the liver enlargement. The biochemical mechanisms producing these effects are highly sensitive in rodents, while similar mechanisms in humans are insensitive. A two year combined chronic and carcinogenicity assay was conducted on Octamethylcyclotetrasiloxane. Rats were exposed by whole-body vapor inhalation 6hrs /day, 5 days a week for up to 104 weeks to 0, 10, 30, 150 or 700 ppm of Octamethylcyclotetrasiloxane. The increase in incidence of (uterine) endometrial cell hyperplasia and uterine adenomas

	(benign tumors) were observed in female rats at 700 ppm. Since these effects only occurred at 700 ppm, a level that greatly exceeds typical workplace or consumer exposure, it is unlikely that industrial, commercial or consumer uses of products containing Octamethylcyclotetrasiloxane would result in a significant risk to humans. (Octamethylcyclotetrasiloxane)
Aspiration hazard:	The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard. Distillates (petroleum), hydrotreated middle
Chronic effects:	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
Further Information:	This product reacts with water, moisture or humid air to evolve following compounds: Acetic acid.

12. ECOLOGICAL CONSIDERATIONS

Ecotoxicity

- Octamethylcyclotetrasiloxane: May cause long lasting harmful effects to aquatic life.

Components		Species	Test Results
Titanium oxide (CAS 13463-67-7)			
Aquatic			
Crustacea	EC50	Water Flea (Daphnia magna)	> 1000 mg/l, 48 hours
Fish	LC50	Mummichog (Fundulus Heteroclitus)	> 1000 mg/l, 96 hours
Decomposition			
Acetic acid (CAS 64-19-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia Magna)	65 mg/l, 48 hours
Fish	LC50	Bluegill (Leponis Macrochirus)	75mg/l, 96 hours

Persistence and degradability: Not available.
Bioaccumulative potential: Bio concentration Factor (BCF) / (Flathead minnow): 12400 Octamethylcyclotetrasiloxane.
Mobility in Soil: Not available.
Other adverse effects: Not available

13. DISPOSAL CONSIDERATIONS

Can be land-filled for cured product or burned in a chemical incinerator equipped with an afterburner and scrubber. Do not dispose the emptied container unlawfully. Observe all federal, state & local laws.

14. TRANSPORT INFORMATION

DOT: Not regulated as dangerous good.

IATA: Not regulated as dangerous good.

IMDG: Not regulated as dangerous good.

Transport in bulk according to Annex II of MARPDL 73/78 and The IBC Code: This product is not intended to be transported in bulk.

15. REGULATORY INFORMATION

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA)

SARA 313 (TRI reporting)

US State Regulations

- **Massachusetts: Substance List:**
  Titanium oxide (CAS 13463-67-7)
- **New Jersey Worker and Community Right to Know Act:**
  Titanium oxide (CAS 13463-67-7)
- **Pennsylvania Worker and Community Right to Know Act:**
  Titanium oxide (CAS 13463-67-7)
- **Rhode Island RTK:** Not regulated.
- **California Proposition 65:** The following material is embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards.
- **US California Proposition 65 – CRT: Listed date / Carcinogenic substance**
  Titanium oxide (CAS 13463-67-7) Listed: September 2, 2011

International Inventories

Country(s) or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non Domestic Substances (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemicals	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances	Yes
Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
United States	Toxic Substances Control Act (TSCA) Inventory	Yes

16. 0THER INFORMATION

Prepared by: Silco Inc.

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

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SILCO INCORPORATED

SAFETY DATA SHEET

Print Date: 5/31/2015

PRODUCT NAME: SIL-BOND RTV 6500 **COLOR: RED**	**REVISION DATE: May 31st 2015**

1. PRODUCT AND COMPANY IDENTIFICATION

Commercial Product Name: SIL-BOND RTV 6500
Product Classification: Silicone Sealant
Manufacturer:
Silco Inc.
7635 St. Clair Avenue
Mentor, OH 44060
PHONE: 440-975-8886 FAX: 440-975-8887

General Description: Silicone elastomer
Physical Form: Paste
Color: Red
Odor: Acetic acid odor

NFPA PROFILE: Health – 1 Flammability – 1 Instability/Reactivity - 0

Note: NFPA = National Fire Protection Association

2. HAZARDS IDENTIFICATION

Physical Hazards: Not classified
Health Hazards: Reproductive toxicity (fertility) Category 2
Environmental Hazards: Not classified
OSHA Defined Hazards: Not classified

- Hazards not stated here are "Not Classified", "Not Applicable" or "Classification not possible".

GHS Label Elements

Signal Word: **Warning**

Hazard Statement: Suspected of damaging fertility. May cause eye/lung/skin irritation.

Precautionary Statement: Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves / protective clothing / eye protection / face protection. Wash well after handling. Contaminated work clothing should not be allowed out of work place.

Response:	**SKIN:** Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention / advice. Get medical attention / advice if you feel unwell. **EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritant persists get medical attention / advice. **If exposed or concerned:** get medical attention or advice. Take off contaminated clothing and wash it before reuse.
Storage:	Store locked up.
Disposal:	Disposal of contents / container in accordance with local / regional /state / federal and international regulations.
Hazard(S) not Otherwise classified (HNOC):	None known.
Supplemental Information:	None known.
Substance(s) formed under the conditions of use:	This product reacts with water, moisture or humid air to evolve following compounds: Acetic acid The following material is embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards. Titanium oxide.
HMIS (Ratings):	**Health: 1** **Flammability: 1** **Physical hazard: 0**

3. COMPOSITION/ INGREDIENTS

Mixtures

Hazardous Ingredients

Chemical Name	**CAS Number**	**%**
Ethyltriacetoxysilane	17689-77-9	1 – 5
Methylacetoxysilane	4253-34-3	1 – 5
Titanium oxide	13463-67-7	< 1
Distillates (petroleum), hydrotreated middle	64742-46-7	1 – 7
Octamethylcyclotetrasiloxane (impurity)	556-67-2	< 1

4. FIRST AID MEASURES

Inhalation:	Remove to fresh air. Call a physician if symptoms develop or persist.
Skin Contact:	Wash off with soap and plenty of water. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation or rash occurs: get medical attention / advice. Take off contaminated clothing and wash before use.
Eyes Contact:	Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation developed or persists.
Ingestion:	Wash out mouth. Get medical attention immediately.
Most Important symptoms / effects, acute and delayed:	Direct contact with eyes may cause temporary irritation.
Indication of immediate Medical attention and Special treatment Needed:	Treat Symptomatically.
General Information:	If exposed or concerned: Get medical advice / attention. Ensure that medical personnel are aware materials involved and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2
Unsuitable extinguishing media:	None known.
Specific hazards arising from the chemical:	By heating and fire, harmful vapors / gases may be formed.
Specific protective equipment and precautions for firefighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet, gloves, rubber boots and self-contained breathing apparatus.
Fire Fighting equipment / Instructions:	Move containers from fire area if you can do so without risk.
General fire hazards:	No unusual fire or explosion hazards noted.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch or walk through spilled material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Methods and materials for containment and cleaning up:	Eliminate sources of ignition. **Large Spills:** Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up product and place into a container for later disposal. **Small Spills:** Wipe up with absorbent material (e.g. cloth). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for reuse.
Environmental precautions:	Prevent further leakage or spillage if safe to do so.

7. HANDLING AND STORAGE

Precaution for safe handling:	Provide adequate ventilation. Use care in handling/storage. Obtain special instructions before use. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Pregnant and breastfeeding women must not handle this product. Do not breathe mist or vapor. Avoid contact with eyes. Avoid contact with skin. Avoid long term exposure.
Conditions for safe storage, Including any incompatibilities	Stored locked up. Keep container tightly closed. Keep out of reach of children. Store in a cool dry place out of direct sunlight. Keep in original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	CAS #	Type	Value
Titanium oxide	13463-67-7	PEL	15 mg/m3
Decomposition			
Distillates (petroleum) hydrotreated middle	64742-46-7	TWA (Mist)	5 mg/m3
Acetic acid	64-19-7	PEL	25 mg/m3 10 ppm

US. ACGIH Threshold Limit Values			
Components			
Titanium dioxide	13463-67-7	TWA	10 mg/m3
Decomposition			
Acetic acid	64-19-7	STEL	15 ppm
		TWA	10 ppm
US. NIOSH: Pocket Guide to Chemical Hazards			
Decomposition			
Acetic acid	64-19-7	STEL	37 mg/m3
			15 ppm
		TWA	25 mg/m3
			10 ppm
Distillates (petroleum)	64742-46-7	TWA (Mist)	5mg/m3
hydrotreated middle		ST (Mist)	10mg/m3
Biological limit values:	No biological exposure limits for the ingredient(s).		

Appropriate engineering controls:	Provide adequate general and local exhaust. Provide eyewash station. Pay attention to ventilation such as local exhaust, mechanical and or / door open for at least 24 hours after applications.
Individual protection measures such as personal protective equipment.	
Eye / Face protection:	Tightly sealed safety glasses according to EN 166.
Skin / Hand protection:	Wear protective gloves.
Other:	Wear suitable protective clothing.
Respiratory protection:	If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.
Thermal hazards:	Wear appropriate thermal protective clothing, when necessary.
General Hygiene Considerations:	Avoid contact with eyes. Avoid contact with skin. When using, do not eat, drink or smoke. Keep away from food or drink. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the work place. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance	
Form:	Paste
Color:	Red
Odor:	Acetic acid odor

Odor Threshold:	Not available
pH:	Not available
Melting point / freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash Point:	141.8 ^{o}F (> 96 ^{0} C) Closed cup
Evaporative rate:	< 1 (Butyl Acetate = 1)
Flammability (solid, gas):	Not applicable
Upper / Lower flammability or explosive limits:	
Flammability limit – lower (%):	No data
Flammability limit – upper (%):	No data
Explosive limit – Lower (%):	Not available
Explosive limit – Upper (%):	Not available
Vapor pressure:	Negligible (25^{0} C)
Vapor density:	> 1 (air=1)
Relative density:	1.04 (25 ^{0} C)
Solubility (water):	Not soluble
VOC Content:	30 grams per liter
Partition coefficient: (n-octanol / water)	Not applicable
Auto-ignition temperature:	No data
Decomposition temperature:	Not available
Viscosity:	Not applicable
Molecular weight:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity	No hazardous reaction known under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous Reactions	Hazardous polymerization does not occur.
Conditions to avoid	None known.
Incompatible materials	Strong oxidizing agents. Water and moisture.
Hazardous decomposition products:	This product reacts with water, moisture, or humid air to evolve following compounds. Acetic acid. Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition product: Carbon dioxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion: Expected to be a low ingestion hazard.

Inhalation: Prolonged inhalation may be harmful.

Skin contact: No adverse effects due to skin contact are expected.

Eye contact: Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical, and toxicological characteristics: Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Toxicological data

Decomposition

	CAS #	Species	Test Results
Acetic acid	64-19-7		
Acute			
Dermal			
LD50		Rabbit	1060 mg/kg
Inhalation			
LC 50		Guinea Pig	5000 ppm, 1 hours
		Mouse	5620 ppm, 1 hours
		Rat	11.4 mg/l, 4hours
Oral			
LD50		Mouse	4960 mg/kg
		Rabbit	1200 mg/kg
		Rat	3.31 g/kg
Distillates (petroleum) hydrotreated middle			
Oral		Rat	> 5,000 mg/kg
Inhalation			
LC 50		Rat	1.78 mg/l, 4 hours
Dermal			
		Rat	> 2,000 mg/kg

Skin corrosion / irritation: Causes severe skin burns and eye damage. (Acetic acid)
Skin-Rabbit: 500 mg/24hr.MILD (Octamethylcyclotetrasiloxane)

Serious eye damage/eye irritation: Causes serious eye damage. (Acetic acid)
Eye – Rabbit: MILD (Octamethylcycotetrasiloxane)

Respiratory Sensitization: Not available.

Skin Sensitization:	No evidence of sensitization (Octamethylcycotetrasiloxane)
Germ Cell Mutagenicity:	Negative (Bacteria) (Octamethylcycotetrasiloxane)
Carcinogenicity:	The following material is embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards. Titanium oxide.
IARC Monographs, Overall Evaluation of Carcinogenicity.	Titanium oxide (CAS 13463-67-7) 2B Possibly carcinogenic to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):	Not listed
Reproductive Toxicity:	Octamethylcyclotetrasiloxane administered to rats by whole body inhalation at concentrations of 500 and 700 ppm for 70 days prior to mating, through mating, gestation and lactation resulted in decreases in live litter size. Additionally, increases in the incidence of deliveries of offspring extending over an unusually long time period (dystocia) were observed at these concentrations. Statistically significant alterations in these parameters were not observed in the lower concentrations evaluated (300 and 70 ppm). In a previous range-finding study, rats exposed to vapor concentrations of 700 ppm had decreases in the number of implantation sites and live litter size. The significance of these findings to humans is not known. (Octamethylcyclotetrasiloxane)
Specific target organ toxicity – single exposure:	Not available
Specific target organ toxicity – repeated exposure:	Repeated inhalation or oral exposure of mice and rats to Octamethylcycotetrasiloxane produced an increase in liver size. No gross histopathological or significant clinical chemistry effects were observed. An increase in liver metabolizing enzymes, as well as a transient increase in the number of normal cells (hyperplasia) followed by an increase in cell size (hypertrophy) were determined to be the underlying causes of the liver enlargement. The biochemical mechanisms producing these effects are highly sensitive in rodents, while similar mechanisms in humans are insensitive. A two year combined chronic and carcinogenicity assay was conducted on Octamethylcyclotetrasiloxane. Rats were exposed by whole-body vapor inhalation 6hrs /day, 5 days a week for up to 104 weeks to 0, 10, 30, 150 or 700 ppm of Octamethylcyclotetrasiloxane. The increase in incidence of (uterine) endometrial cell hyperplasia and uterine adenomas

	(benign tumors) were observed in female rats at 700 ppm. Since these effects only occurred at 700 ppm, a level that greatly exceeds typical workplace or consumer exposure, it is unlikely that industrial, commercial or consumer uses of products containing Octamethylcyclotetrasiloxane would result in a significant risk to humans. (Octamethylcyclotetrasiloxane)
Aspiration hazard:	The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard. Distillates (petroleum), hydrotreated middle
Chronic effects:	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
Further Information:	This product reacts with water, moisture or humid air to evolve following compounds: Acetic acid.

12. ECOLOGICAL CONSIDERATIONS

Ecotoxicity

- Octamethylcyclotetrasiloxane: May cause long lasting harmful effects to aquatic life.

Components		Species	Test Results
Titanium oxide (CAS 13463-67-7)			
Aquatic			
Crustacea	EC50	Water Flea (Daphnia magna)	> 1000 mg/l, 48 hours
Fish	LC50	Mummichog (Fundulus Heteroclitus)	> 1000 mg/l, 96 hours
Decomposition			
Acetic acid (CAS 64-19-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia Magna)	65 mg/l, 48 hours
Fish	LC50	Bluegill (Leponis Macrochirus)	75mg/l, 96 hours

Persistence and degradability: Not available.
Bioaccumulative potential: Bio concentration Factor (BCF) / (Flathead minnow): 12400 Octamethylcyclotetrasiloxane.
Mobility in Soil: Not available.
Other adverse effects: Not available

13. DISPOSAL CONSIDERATIONS

Can be land-filled for cured product or burned in a chemical incinerator equipped with an afterburner and scrubber. Do not dispose the emptied container unlawfully. Observe all federal, state & local laws.

14. TRANSPORT INFORMATION

DOT: Not regulated as dangerous good.

IATA: Not regulated as dangerous good.

IMDG: Not regulated as dangerous good.

Transport in bulk according to Annex II of MARPDL 73/78 and The IBC Code: This product is not intended to be transported in bulk.

15. REGULATORY INFORMATION

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA)

SARA 313 (TRI reporting)

US State Regulations

- **Massachusetts: Substance List:**
  Titanium oxide (CAS 13463-67-7)
- **New Jersey Worker and Community Right to Know Act:**
  Titanium oxide (CAS 13463-67-7)
- **Pennsylvania Worker and Community Right to Know Act:**
  Titanium oxide (CAS 13463-67-7)
- **Rhode Island RTK:** Not regulated.
- **California Proposition 65:** The following material is embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards.
- **US California Proposition 65 – CRT: Listed date / Carcinogenic substance**
  Titanium oxide (CAS 13463-67-7) Listed: September 2, 2011

International Inventories

Country(s) or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non Domestic Substances (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemicals	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances	Yes
Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
United States	Toxic Substances Control Act (TSCA) Inventory	Yes

16. 0THER INFORMATION

Prepared by: Silco Inc.

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

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SAFETY DATA SHEET

1. Identification

Product identifier **Diamond Crystal® Solar Naturals™ Salt Crystals**

Other means of identification

SDS number ND19

Synonyms Sodium Chloride (Salt).

Recommended use Salt may be intended for food or animal feed (agricultural) as well as several industrial applications including deicing and water conditioning.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Cargill Incorporated

Address Minneapolis, MN 55440

Telephone 1-888-385-7258

Website www.cargillsalt.com

Emergency telephone number CHEMTREC (800) 424-9300

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Sodium Chloride	7647-14-5	100

GRAS Substance (Generally Recognized As Safe).

4. First-aid measures

Inhalation If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Give one or two glasses of water if patient is alert and able to swallow. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	This product is not flammable or combustible.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Avoid inhalation of dust from the spilled material. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Collect dust using a vacuum cleaner equipped with HEPA filter. Minimize dust generation and accumulation. Avoid release to the environment. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Provide appropriate exhaust ventilation at places where dust is formed. Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with eyes. Avoid contact with water and moisture. Keep away from strong acids. Practice good housekeeping.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Becomes hygroscopic at 70-75% relative humidity. Avoid humid or wet conditions as product will cake and become hard.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.

Individual protection measures, such as personal protective equipment

Eye/face protection	Unvented, tight fitting goggles should be worn in dusty areas.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing.
Respiratory protection	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	White crystalline solid
Physical state	Solid.
Form	Crystalline solid.
Color	White to opaque
Odor	Halogen odor when heated
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	1473.8 °F (801 °C)
Initial boiling point and boiling range	2669 °F (1465 °C) (760 mmHg)
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	2.4 mm Hg (1376.6 °F (747 °C))
Vapor density	Not available.
Relative density	2.16 (H_2O = 1)
Solubility(ies)	
Solubility (water)	26.4 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	35 - 83 lb/ft³
Molecular formula	NaCl
Molecular weight	58.44
pH in aqueous solution	6 - 9

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Incompatible materials	Avoid contact with strong acids. Becomes corrosive to metals when wet.
Hazardous decomposition products	May evolve chlorine gas when in contact with strong acids.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Inhalation of dusts may cause respiratory irritation.

Skin contact Prolonged or repeated skin contact may cause irritation.

Eye contact Dust in the eyes will cause irritation.

Symptoms related to the physical, chemical and toxicological characteristics Eye and skin contact: Exposure may cause temporary irritation, redness, or discomfort. For ingestion, consuming less than a few grams would not be harmful. The following effects were observed after ingesting an excessive quantity: nausea and vomiting, diarrhea, cramps, restlessness, irritability, dehydration, water retention, nose bleed, gastrointestinal tract damage, fever, sweating, sunken eyes, high blood pressure, muscle weakness, dry mouth and nose, shock, cerebral edema (fluid on brain), pulmonary edema (fluid in lungs), blood cell shrinkage, and brain damage (due to dehydration of brain cells). Death is generally due to cardiovascular collapse or CNS damage.

Information on toxicological effects

Acute toxicity In some cases of confirmed hypertension, ingestion may result in elevated blood pressure.

Components	Species	Test Results
Sodium Chloride (CAS 7647-14-5)		
Acute		
Oral		
LD50	Mouse	4000 mg/kg
	Rat	3000 mg/kg
Other		
LD50	Mouse	2602 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Dust in the eyes will cause irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Due to the physical form of the product it is not an aspiration hazard.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Sodium Chloride (CAS 7647-14-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	340.7 - 469.2 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4747 - 7824 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

15. Regulatory information

US federal regulations

All components are on the U.S. EPA TSCA Inventory List.
This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 12-August-2014

Revision date -

Version # 01

HMIS® ratings Health: 1
Flammability: 0
Physical hazard: 0
Personal protection: A

Disclaimer All statements, technical information and recommendations contained herein are, the best of our knowledge, reliable and accurate; however no warranty, either expressed or implied is made with respect thereto, nor will any liability be assumed for damages resultant from the use of the material described.

It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. It is also the responsibility of the user to maintain a safe workplace. The user should consider the health hazards and safety information provided herein as a guide and should take the necessary steps to instruct employees and to develop work practice procedures to ensure a safe work environment.

This information is not intended as a license to operate under, or a recommendation to practice or infringe upon any patent of this Company or others covering any process, composition of matter or use.

SAFETY DATA SHEET

SP5251

Section 1. Identification

Product name : VHT® Plate Finish
Bright Chrome

Product code : SP5251

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Manufacturer : VHT PRODUCTS CO.
101 Prospect Ave.
Cleveland, OH 44115

Emergency telephone number of the company : (216) 566-2917

Product Information Telephone Number : (800) 247-3270

Regulatory Information Telephone Number : (216) 566-2902

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
ACUTE TOXICITY (oral) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation and Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 37.9%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Harmful if swallowed.
Causes serious eye irritation.
Causes skin irritation.
Suspected of damaging the unborn child.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness and dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Pressurized container: Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Toluene	33.7	108-88-3
Hydrocarbon Polymer	17.2	68240-01-7
Propane	16.3	74-98-6
Butane	15.7	106-97-8
Acetone	10.0	67-64-1
Xylene	2.1	1330-20-7
Med. Aliphatic Hydrocarbon Solvent	1.3	64742-88-7
Ethylbenzene	0.4	100-41-4

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Harmful if swallowed. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Section 4. First aid measures

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Toluene	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2013).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 4/2014).** TWA: 20 ppm 8 hours.
Propane	**NIOSH REL (United States, 10/2013).** TWA: 1000 ppm 10 hours. TWA: 1800 mg/m³ 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours.
Butane	**NIOSH REL (United States, 10/2013).** TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **ACGIH TLV (United States, 4/2014).** STEL: 1000 ppm 15 minutes.
Acetone	**ACGIH TLV (United States, 4/2014).** TWA: 500 ppm 8 hours. TWA: 1188 mg/m³ 8 hours. STEL: 750 ppm 15 minutes. STEL: 1782 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
Xylene	**ACGIH TLV (United States, 4/2014).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Med. Aliphatic Hydrocarbon Solvent	**OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.
Ethylbenzene	**ACGIH TLV (United States, 4/2014).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours.

Section 8. Exposure controls/personal protection

	STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : 7

Section 9. Physical and chemical properties

Melting point : Not available.

Boiling point : Not available.

Flash point : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1%
Upper: 12.8%

Vapor pressure : 13.5 kPa (101.325 mm Hg) [at 20°C]

Vapor density : 1.55 [Air = 1]

Relative density : 0.75

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (room temperature): <0.205 cm^2/s (<20.5 cSt)
Kinematic (40°C (104°F)): <0.205 cm^2/s (<20.5 cSt)

Aerosol product

Type of aerosol : Spray

Heat of combustion : 0.00002755 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation Vapor	Rat	49 g/m^3	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m^3	4 hours
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
Acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
Xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Xylene	-	3	-
Ethylbenzene	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Propane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Butane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Acetone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Xylene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Med. Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	Not determined	Not determined
Propane	Category 2	Not determined	Not determined
Butane	Category 2	Not determined	Not determined
Acetone	Category 2	Not determined	Not determined
Xylene	Category 2	Not determined	Not determined
Med. Aliphatic Hydrocarbon Solvent	Category 2	Not determined	Not determined
Ethylbenzene	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
Hydrocarbon Polymer	ASPIRATION HAZARD - Category 1
Propane	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Xylene	ASPIRATION HAZARD - Category 1
Med. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Harmful if swallowed. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1161.1 mg/kg
Inhalation (gases)	146246.3 ppm

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Toluene	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Acetone	Acute EC50 20.565 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
Xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6530 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Toluene	-	-	Readily
Acetone	-	-	Readily
Xylene	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Toluene	-	90	low
Xylene	-	8.1 to 25.9	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	**Special provisions** LIMITED QUANTITY	**Special provisions** LIMITED QUANTITY	**Special provisions** (ERG#126)	**Special provisions** LIMITED QUANTITY	**Emergency schedules (EmS)** LIMITED QUANTITY, F-D, S-U

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

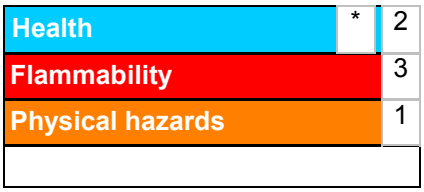
State regulations

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

Safety Data Sheet
acc. to HCS and GHS

Printing date 06/20/2014 Reviewed on 06/20/2014

1 Identification

· **Product identifier**

· **Trade name: Thrift Drain Cleaner**
· **CAS Number:**
1310-73-2
· **EC number:**
215-185-5
· **Index number:**
011-002-00-6

· **Application of the substance / the mixture** Industrial uses.

· **Details of the supplier of the Safety Data Sheet**
· **Manufacturer/Supplier:**
JR2D, Inc.
3435 St. Hwy 146 S.
Livingston, TX 77351
Phone: (936) 327-5723

· **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

· **Classification of the substance or mixture**


GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

· **Label elements**
· **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**


GHS05

· **Signal word** Danger

· **Hazard-determining components of labeling:**
sodium hydroxide
· **Hazard statements**
H314 Causes severe skin burns and eye damage.
· **Precautionary statements**
P280 Wear protective gloves / eye protection.
P264 Wash thoroughly after handling.
P260 Do not breathe dust.

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Trade name: Thrift Drain Cleaner

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P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazard description:**
· **WHMIS-symbols:**
E - Corrosive material

· **Classification system:**
· **NFPA ratings (scale 0 - 4)**

Health = 3
Fire = 0
Reactivity = 1

· **HMIS-ratings (scale 0 - 4)**

Health = 3
Fire = 0
Reactivity = 1

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**
· **CAS No. Description**
1310-73-2 sodium hydroxide
· **Identification number(s)**
· **EC number:** 215-185-5
· **Index number:** 011-002-00-6

4 First-aid measures

· **Description of first aid measures**
· **General information:** Immediately remove any clothing soiled by the product.
· **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.

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Trade name: Thrift Drain Cleaner

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In case of irregular breathing or respiratory arrest provide artificial respiration.
· **After skin contact:**
Brush off loose particles from skin.
Immediately remove any clothing soiled by the product.
Immediately rinse with water.
If skin irritation continues, consult a doctor.
Seek immediate medical help for blistering or open wounds.
· **After eye contact:**
Protect unharmed eye.
Rinse opened eye for several minutes under running water. Then consult a doctor.
Do not remove contact lenses if worn.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
· **Most important symptoms and effects, both acute and delayed**
Strong caustic effect on skin and mucous membranes.
Gastric or intestinal disorders
Coughing
· **Danger**
Danger of gastric perforation.
Danger of severe eye injury.
· **Indication of any immediate medical attention and special treatment needed**
If necessary oxygen respiration treatment.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
· **For safety reasons unsuitable extinguishing agents:** None.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
· **Additional information** No further relevant information available.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Avoid formation of dust.
Product forms slippery surface when combined with water.
Ensure adequate ventilation.
· **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.

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Trade name: Thrift Drain Cleaner

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· **Methods and material for containment and cleaning up:**
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
Clean the affected area carefully; suitable cleaners are:
Warm water
Dispose contaminated material as waste according to item 13.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Precautions for safe handling**
Prevent formation of dust.
Any deposit of dust which cannot be avoided must be regularly removed.
Use only in well ventilated areas.
· **Information about protection against explosions and fires:** The product is not flammable.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Protect from humidity and water.
Avoid storage near extreme heat, ignition sources or open flame.
Unsuitable material for receptacle: steel.
Unsuitable material for receptacle: glass or ceramic.
Unsuitable material for receptacle: aluminium.
· **Information about storage in one common storage facility:**
Store away from foodstuffs.
Do not store together with acids.
· **Further information about storage conditions:**
This product is hygroscopic.
Keep receptacle tightly sealed.
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
1310-73-2 sodium hydroxide	
PEL (USA)	Long-term value: 2 mg/m³
REL (USA)	Ceiling limit value: 2 mg/m³
TLV (USA)	Ceiling limit value: 2 mg/m³
EL (Canada)	Short-term value: C 2 mg/m³

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LMPE (Mexico)	Short-term value: 2 mg/m³ P

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale dust / smoke / mist.
Avoid contact with the eyes and skin.
· **Breathing equipment:**
Not required under normal conditions of use.
Use suitable respiratory protective device in case of insufficient ventilation.
For spills, respiratory protection may be advisable.
· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **For the permanent contact gloves made of the following materials are suitable:**
Butyl rubber, BR
Nitrile rubber, NBR
PVC gloves
Natural rubber, NR
· **Not suitable are gloves made of the following materials:** PVA gloves
· **Eye protection:**
Contact lenses should not be worn.

Safety glasses

Face protection
· **Body protection:** Alkaline resistant protective clothing
· **Limitation and supervision of exposure into the environment**
No further relevant information available.

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Trade name: Thrift Drain Cleaner

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**
Form: Flakes
Color: White
· **Odor:** Odorless
· **Odor threshold:** Not determined.

· **pH-value:** 13.8

· **Change in condition**
Melting point/Melting range: 606 °F / 319 °C (1123 °F / 606 °F)
Boiling point/Boiling range: 2534 °F /1390 °C (4593 °F /2534 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**
Lower: Not determined.
Upper: Not determined.

· **Vapor pressure at 739 °C (1362 °F):** 0.1333 KPa

· **Density at 25 °C (77 °F):** 2.13 g/cm³ (17.775 lbs/gal)
· **Relative density** Not determined.
· **Vapour density** Not applicable.
· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**
Water: Soluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**
Dynamic: Not applicable.
Kinematic: Not applicable.
· **Other information** No further relevant information available.

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Trade name: Thrift Drain Cleaner

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10 Stability and reactivity

· **Reactivity**
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Stable at ambient temperature.
· **Possibility of hazardous reactions**
Corrosive action on metals.
Diluting or dissolving in water always causes rapid heating.
Strong exothermic reaction with acids.
Reacts with fats and oils.
Reacts with humid air.
Reacts with carbon dioxide.
Attacks materials containing glass and silicate.
· **Conditions to avoid** Moisture.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** Possible in traces.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
1310-73-2 sodium hydroxide		
Oral	LD50	2000 mg/kg (rat)

· **Primary irritant effect:**
· **on the skin:** Strong caustic effect on skin and mucous membranes.
· **on the eye:** Strong caustic effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive

· **Carcinogenic categories**

· **NTP (National Toxicology Program)**
Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**
Substance is not listed.

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Trade name: Thrift Drain Cleaner

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12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability**
Inorganic product, is not eliminable from water by means of biological cleaning processes.
· **Bioaccumulative potential** Does not accumulate in organisms
· **Mobility in soil** No further relevant information available.
· **Ecotoxical effects:**
· **Remark:** After neutralization toxicitity cannot be recognized anylonger.
· **Additional ecological information:**
· **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**
· **DOT, ADR, IMDG, IATA** UN1823

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Trade name: Thrift Drain Cleaner

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· **UN proper shipping name**

Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1.0 kg (2.2 lb).

· **DOT**	Sodium hydroxide, solid
· **ADR**	1823 SODIUM HYDROXIDE, SOLID
· **IMDG, IATA**	SODIUM HYDROXIDE, SOLID

· **Transport hazard class(es)**

· **DOT**

· **Class**	8 Corrosive substances.
· **Label**	8

· **ADR**

· **Class**	8 (C6) Corrosive substances
· **Label**	8

· **IMDG, IATA**

· **Class**	8 Corrosive substances.
· **Label**	8
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	II
· **Environmental hazards:**	
· **Marine pollutant:**	No
· **Special precautions for user**	Warning: Corrosive substances
· **Danger code (Kemler):**	80
· **EMS Number:**	F-A,S-B
· **Segregation groups**	Alkalis
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	UN1823, Sodium hydroxide, solid, 8, II

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Trade name: Thrift Drain Cleaner

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15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **SARA**

· **Section 355 (extremely hazardous substances):**
Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**
Substance is not listed.

· **TSCA (Toxic Substances Control Act):**
Substance is listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**
Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**
Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**
Substance is not listed.

· **Chemicals known to cause developmental toxicity:**
Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**
Substance is not listed.

· **IARC (International Agency for Research on Cancer)**
Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**
Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
Substance is not listed.

· **State Right to Know Listings**
Substance is not listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**
Substance is listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**
Substance is not listed.

· **Canadian Ingredient Disclosure list (limit 1%)**
Substance is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 06/20/2014 / -

· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

· **Sources**
SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com

® Safety Data Sheet	The Armor All/STP Products Company 44 Old Ridgebury Road Suite 300 Danbury, CT 06810 Tel. 1-203-205-2900

1. Product And Company Identification

Product Name: TUFF STUFF® Multi-Purpose Foam Cleaner

Responsible Party: The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

Information Phone Number: +1 203-205-2900
Emergency Phone Number:
For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for Outside US and Canada (call collect)
SDS Date Of Preparation: 07/09/2015
Product Use and Uses Advised Against: Automotive maintenance product – For consumer and professional use

2. Hazards Identification

Note: This product is a consumer product and is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will not contain the OSHA label elements shown below on this SDS.

GHS Classification:

Physical:	Health:
Flammable Aerosol Category 1 Gases Under Pressure: Compressed Gas	Eye Irritant Category 2A Skin Irritant Category 2

GHS Label Elements:

Danger!

Statements of Hazard	Precautionary Phrases
Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. Causes skin irritation.	**Prevention** Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Pressurized Container. Do not pierce or burn, even after use. Wash exposed skin thoroughly after handling. Wear protective gloves, and eye protection.

Response	Storage
IF ON SKIN: Wash with plenty of water and soap. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.	Protect from sunlight. Do not exposure to temperatures exceeding 50°C / 122°F.

Hazards not otherwise specified: None

Percentage of unknown toxicity: N/A

3. Composition/Information On Ingredients

Component	CAS No.	Amount
Isobutane (Propellant)	75-28-5	3-7%
Ethylene glycol monobutyl ether	111-76-2	1-3 %
Sodium metasilicate pentahydrate	6834-92-0	<1.0%
C12-15 Alcohol Ethoxylate	68131-39-5	<1.0%

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

Inhalation: If symptoms of exposure develop, remove to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Wash exposed skin with plenty of soap and water. Remove contaminated clothing, and launder before reuse. If skin irritation or redness develops, seek medical attention.

Eye Contact: Flush eyes with large amounts of water for 15 minutes. If irritation or other symptoms persist, seek medical attention.

Ingestion: If the victim is fully conscious, have them drink a glass of water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

Most Important Symptoms: Eye contact causes serious irritation. Causes skin irritation.

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention should not be required.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use dry chemical, carbon dioxide, foam, or water spray.

Specific Hazards Arising from the Chemical: Contents under pressure. Keep away from ignition source and open flames. Exposure of containers to heat and flames can cause them to rupture, often with violent force.

Thermal decomposition will generate oxides of carbon.

Special Fire Fighting Procedures: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting cans.

6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Eliminate all sources of ignition. Ventilate area with explosion proof equipment. Wear appropriate protective clothing and equipment.

Methods and Materials for Containment and Clean-Up: Place leaking can in a pail in a well-ventilated area away from ignition sources until pressure has dissipated. Collect liquid using inert material and place into a suitable container for disposal. Rinse area with water.

Environmental Precautions: Prevent entry into storm sewers and waterways. Report spill as required by local and national regulations.

7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture or incinerate containers.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well-ventilated area, away from incompatible materials. Do not store in direct sunlight or above 120°F. **U.F.C. (NFPA 30B) Level 1 Aerosol.**

8. Exposure Controls / Personal Protection

Exposure Guidelines:

CHEMICAL	EXPOSURE LIMIT
Isobutane	1000 ppm TWA ACGIH TLV
Ethylene glycol monobutyl ether	50 ppm TWA OSHA PEL (Skin) 20 ppm TWA ACGIH TLV
Sodium metasilicate pentahydrate	None established
C12-15 Alcohol Ethoxylate	None established

Appropriate Engineering Controls: General ventilation should be adequate for normal use.

Personal Protective Equipment

Respiratory Protection: None under normal use conditions.

Gloves: None normally required. Protective gloves recommended to avoid skin contact.

Eye Protection: None required for normal use. Eye protection recommended to avoid eye contact.

Other Protective Equipment/Clothing: None required under normal use conditions.

9. Physical and Chemical Properties

Appearance And Odor: White foam in an aerosol can with a citrus odor

Physical State: Liquid-based aerosol	**Odor Threshold:** Not determined
pH: 12 – 13 (0.34 g NaOH alkali reserve)	**Vapor Pressure:** Not determined
Initial Boiling Point/Range: Not determined	**Vapor Density:** Not determined
Melting/Freezing Point: Not determined	**Percent Volatile:** 98%
Solubility In Water: 100%	**Evaporation Rate:** <1
Viscosity: Not determined	**VOC Content:** Not determined
Specific Gravity: ~1	**Autoignition Temp:** Not determined
Coefficient Of Water/Oil Distribution: Not determined	**Flammability (solid, gas):** Propellant is a flammable gas.
Flash Point: No Flash (Liquid component);	**Decomposition Temperature:** Not available
Flammability Limits: LEL: Not determined	UEL: Not determined

10. Stability and Reactivity

Reactivity: Not normally reactive.
Chemical Stability: Stable under normal storage and handling conditions.
Conditions to Avoid: Avoid heat and direct sunlight. Containers may rupture at temperatures > 120°F (48.8°C).
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Thermal decomposition will generate oxides of carbon.

11. Toxicological Information

Potential Health Effects:

Acute Hazards:

Inhalation: No adverse effects expected from the normal use of this product.

Skin Contact: Causes skin irritation.

Eye Contact: Contact causes eye irritation with redness and tearing.

Ingestion: Ingestion is an unlikely route exposure for aerosol products. Swallowing may cause gastrointestinal disturbances.

Chronic Effects: None known for mixture.
Ethylene glycol monobutyl ether: In animals, effects have been reported on the following organs: blood (hemolysis) and secondary effects on the kidney and liver. Human red blood cells have been shown to be significantly less sensitive to hemolysis than those of rodents and rabbits.

Carcinogenicity Listing: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:

Calculated ATE for Product: ATE Oral: >5,000 mg/kg
ATE Skin: >2,000 mg/kg

ATE Inhalation: > 5 mg/l

Isobutane: LC50 Rat inhalation 570,000 ppm / 15 min
Ethylene glycol monobutyl ether: LD50 Rat oral 1,746 mg/kg; LD50 Rabbit dermal >2000 mg/kg
LC50 Rat inhalation 2.2 mg/L/ 4 hr.
Sodium metasilicate pentahydrate: LD50 Oral Rat: 1,153 mg/kg; LD50 Rat dermal >5,000 mg/kg.
Alcohols C12-15 Ethoxylated: LD50 Oral Rat: >5,000 mg/kg; LD50 Rat dermal >2,000 mg/kg.

12. Ecological Information

Ecotoxicity: No ecotoxicity data is currently available for product.
Ethylene glycol monobutyl ether:
LC50 Lepomis macrochirus (Bluegill) 1,490 mg/L/96 hr.
LC50 Daphnia magna (Water flea) 1,720 mg/L/24 hr.
Sodium metasilicate pentahydrate:
LC50: Brachydanio rerio 210 mg/L/96 hr.
Alcohols C12-15 Ethoxylated:
LC50 Oncorhynchus mykiss (Rainbow trout) 1.3 -1.7 mg/L/96 hr.

Persistence and Degradability: No data available for product.

Bio accumulative Potential: No data available for product.

Mobility in Soil: No data available for product.

Other Adverse Effects: No data available

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description: UN1950, Aerosols, 2.1, Ltd Qty

IMDG Dangerous Goods Description: UN1950, Aerosols, 2.1, Ltd Qty

IATA International Air Transport Association: UN1950, Aerosols flammable, 2.1, Ltd Qty

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: This product has no RQ. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Fire Hazard, Sudden Release of Pressure, Acute Health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements

The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

Under SARA Title III, Section 313 (40 CFR 372):

Ethylene glycol monobutyl ether (As Glycol Ethers) CAS# 111-76-2 at 3%

Canada:

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian DSL.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

16. Other Information

NFPA Rating (NFPA 704):	Health: 2	Fire: 4	Instability: 0
HMIS Rating:	Health: 2	Fire: 2	Physical Hazard: 0

DATE OF CURRENT REVISION: 07/09/2015

REVISION SUMMARY: Update to OSHA Hazcom 2012 GHS format.

DATE OF PREVIOUS REVISION: 10/03/2013

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH

Safety Data Sheet
California CARB Compliant

1 - Identification

Product Name: WD-40 Multi-Use Product Aerosol **Product Use: Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion** **Restrictions on Use: None identified** **SDS Date Of Preparation: March 5, 2019**	**Manufacturer: WD-40 Company** **Address: 9715 Businesspark Avenue San Diego, California, USA 92131** **Telephone:** **Emergency: 1-888-324-7596** **Information: 1-888-324-7596** **Chemical Spills: 1-800-424-9300 (Chemtrec)** **1-703-527-3887 (International Calls)**

2 – Hazards Identification

Hazcom 2012/GHS Classification:
Flammable Aerosol Category 1
Gas Under Pressure: Compressed Gas
Aspiration Toxicity Category 1
Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:

DANGER!
Extremely Flammable Aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.

Prevention
Keep away from heat, sparks, open flames, hot surfaces. – No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Avoid breathing vapors or mists.
Use only outdoors or in a well-ventilated area.

Response
IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

Storage
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

Disposal
Dispose of contents and container in accordance with local and national regulations.

3 - Composition/Information on Ingredients

Ingredient	CAS	Weight Percent	US Hazcom 2012/ GHS Classification
LVP Aliphatic Hydrocarbon	64742-47-8	45-50%	Aspiration Toxicity Category 1
Petroleum Base Oil	64742-56-9 64742-65-0 64742-53-6 64742-54-7 64742-71-8	<35%	Not Hazardous
Aliphatic Hydrocarbon	64742-47-8	<25%	Flammable Liquid Category 3 Aspiration Toxicity Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)
Carbon Dioxide	124-38-9	2-3%	Simple Asphyxiant Gas Under Pressure, Compressed Gas

Note: The specific chemical identity and exact percentages are a trade secret.

4 – First Aid Measures

Ingestion (Swallowed): Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.
Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.
Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.
Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.
Signs and Symptoms of Exposure: Harmful or fatal if swallowed. Aspiration of liquid into the lungs during swallowing or vomiting may cause lung damage. May cause eye and respiratory irritation. Inhalation of mists or vapors may cause drowsiness, dizziness and other nervous system effects. Skin contact may cause drying of the skin.
Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is needed for ingestion.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.
Specific Hazards Arising from the Chemical: Extremely flammable aerosol. Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Combustion will produce oxides of carbon and hydrocarbons.
Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.
Methods and Materials for Containment/Cleanup: Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

Conditions for Safe Storage: Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
LVP Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m3 TWA (Inhalable) ACGIH TLV (as Mineral oil) 5 mg/m3 TWA OSHA PEL (as Oil mist, mineral)
Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)
Carbon Dioxide	5000 ppm TWA, 30,000 ppm STEL ACGIH TLV 5000 ppm TWA OSHA PEL

The Following Controls are Recommended for Normal Consumer Use of this Product

Appropriate Engineering Controls: Use in a well-ventilated area.

Personal Protection:

Eye Protection: Avoid eye contact. Always spray away from your face.

Skin Protection: Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

Appropriate Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

Personal Protection:

Eye Protection: Safety goggles recommended where eye contact is possible.

Skin Protection: Wear chemical resistant gloves.

Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

Appearance:	Light amber liquid	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8%
Odor:	Mild petroleum odor	Vapor Pressure:	95-115 PSI @ 70°F
Odor Threshold:	Not established	Vapor Density:	Greater than 1 (air=1)
pH:	Not Applicable	Relative Density:	0.8 – 0.82 @ 60°F
Melting/Freezing Point:	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	361 - 369°F (183 - 187°C)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	138°F (59°C) Tag Closed Cup (liquid)	Autoignition Temperature:	Not established

Evaporation Rate:	Not established	Decomposition Temperature:	Not established
Flammability (solid, gas):	Flammable Aerosol	Viscosity:	2.79-2.96 cSt @ 100°F
VOC:	24.1% MIR=0.43gO3/gVOC	Pour Point:	-63°C (-81.4°F) ASTM D-97

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions
Chemical Stability: Stable
Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.
Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.

11 – Toxicological Information

Symptoms of Overexposure:
Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.
Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.
Eye Contact: Contact may be irritating to eyes. May cause redness and tearing.
Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.
Chronic Effects: None expected.
Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.
Reproductive Toxicity: None of the components is considered a reproductive hazard.
Numerical Measures of Toxicity:
Acute Toxicity Estimates: Oral > 5,000 mg/kg; Dermal >2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.

12 – Ecological Information

Ecotoxicity: No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms
Persistence and Degradability: Components are readily biodegradable.
Bioaccumulative Potential: Bioaccumulation is not expected based on an assessment of the ingredients.
Mobility in Soil: No data available
Other Adverse Effects: None known

13 - Disposal Considerations

If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Do not puncture or incinerate containers, even empty. Dispose in accordance with federal, state, and local regulations.

14 – Transportation Information

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty
(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)
IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY
ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

U.S. Federal Regulations:
CERCLA 103 Reportable uantity: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.
SARA TITLE III:
Hazard Category For Section 311/312: Acute Health, Fire Hazard, Sudden Release of Pressure
Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None
Section 302 Extremely Hazardous Substances (TP): None
EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.
VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.
Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification

16 – Other Information

HMIS Hazard Rating:
Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: March 5, 2019 Supersedes: July 19, 2018

Revision Summary: Section 9 update VOC data

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed by: I. Kowalski Regulatory Affairs Dept.

1012200/No.0084704

Anti Wear Hydraulic Fluid

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations Version: HYDFLD.001

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: CAM2, Promax, Promax Premium, All Season AW Hydraulic Fluid

Product Grades: ISO 22, ISO 32, ISO 46, ISO 68, ISO 100, 5W-20

Synonyms: Hydraulic Fluid

1.2. Intended Use of the Product

Hydraulic Fluid

1.3. Name, Address, and Telephone of the Responsible Party

Company

CAM2 International, LLC
683 Haining Road
Vicksburg, MS 39183
(800) 338-2262
www.CAM2.com

1.4. Emergency Telephone Number

Emergency Number : 1-800-633-8253

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Not Classified

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) : None Required

Signal Word (GHS-US) : Not Hazardous

Hazard Statements (GHS-US) : None Required

Precautionary Statements (GHS-US) : P273 - Avoid release to the environment.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards

The mixture consists of substances capable of producing an aspiration hazard. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure, and even death.

2.4. Unknown Acute Toxicity (GHS-US)

9.73 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Petroleum distillates, solvent dewaxed	(CAS No) 64742-65-0	75.75 – 95, 64 - 85	Not Classified
heavy paraffinic, Distillates, petroleum, hydrotreated heavy paraffinic	(CAS No) 64742-54-7	0 – 11, 10 - 17	Not Classified
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	(CAS No) 68649-42-3	0.7 - 2.7	Aquatic Chronic 3, H402

*The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

*More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water or soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: No known significant effects or critical hazards.

Inhalation: Overexposure may be irritating to the respiratory system.

Skin Contact: Repeated or prolonged skin contact may cause irritation.

Eye Contact: Direct contact with the eyes is likely irritating.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: No known significant effects or critical hazards.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable but will support combustion.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Under fire conditions, may produce fumes, smoke, oxides of carbon and hydrocarbons.

Other Information: Refer to Section 9 for flammability properties.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Hydraulic Fluid.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

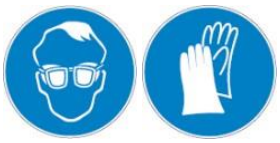
8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

8.2. Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Gloves.



Materials for Protective Clothing: Chemically resistant materials and fabrics.
Hand Protection: Wear chemically resistant protective gloves.
Eye Protection: Chemical goggles or safety glasses.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.
Environmental Exposure Controls: Do not allow the product to be released into the environment.
Consumer Exposure Controls: Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	:	Liquid
Appearance	:	Amber
Odor	:	Slight Hydrocarbon
Odor Threshold	:	Not available
pH	:	Not available
Evaporation Rate	:	Not available
Melting Point	:	Not available
Boiling Point	:	Not available
Flash Point	:	204C / 400C
Auto-ignition Temperature	:	Not available
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	Not available
Upper Flammable Limit	:	Not available
Vapor Pressure	:	Not available
Relative Vapor Density at 20 °C	:	Not available
Relative Density	:	Not available
Specific Gravity	:	0.85
Solubility	:	Negligible
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	Not available
Viscosity, Kinematic	:	Not available
Explosive Properties	:	Product is not explosive
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	:	Not expected to present an explosion hazard due to static discharge

SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity:** Hazardous reactions will not occur under normal conditions.
10.2. **Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials: Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products: No decomposition expected under normal use and storage conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Overexposure may be irritating to the respiratory system.

Symptoms/Injuries After Skin Contact: Repeated or prolonged skin contact may cause irritation.

Symptoms/Injuries After Eye Contact: Direct contact with the eyes is likely irritating.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse gastrointestinal effects.

Chronic Symptoms: Not Classified

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Heavy paraffinic, Distillates, petroleum, hydrotreated heavy paraffinic (64742-54-7)	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	> 2 g/kg
Petroleum distillates, solvent dewaxed (64742-65-0)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 5 g/kg

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Toxic to aquatic life.

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
LC50 Fish 1	1.0 - 5.0 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	1 - 1.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	10.0 - 35.0 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])
Petroleum distillates, solvent dewaxed (64742-65-0)	
EC50 Daphina 1	> 1000 mg/L (Exposure time: 48 h – Species: Daphnia magna)
LC50 Fish 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
Distillates, petroleum, hydrotreated heavy paraffinic (64742-54-7)	
LC50 Fish 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and Degradability

Not available

12.3. Bioaccumulative Potential
Not available

12.4. Mobility in Soil
Not available

12.5. Other Adverse Effects
Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Sewage Disposal Recommendations: Do not empty into drains; dispose of this material and its container in a safe way. Do not empty into drains. Do not dispose of waste into sewer.
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT Not regulated for transport
14.2. In Accordance with IMDG Not regulated for transport
14.3. In Accordance with IATA Not regulated for transport
14.4. In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

SARA Section 311/312 Hazard Classes	Not Classified

15.2. US State Regulations
None noted

15.3. Canadian Regulations

WHMIS Classification	Not Classified
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Petroleum distillates, solvent dewaxed (64742-65-0)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Distillates, petroleum, hydrotreated heavy paraffinic (64742-54-7)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 05/16/2015
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

P273	Avoid release into the environment
P501	Dispose of contents/container in accordance with local, regional, national, and international regulations.

Party Responsible for the Preparation of This Document

CAM2 International, LLC

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2

SAFETY DATA SHEET

Zinsser BIN® Primer-Sealer Stain-Killer

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : Zinsser BIN® Primer-Sealer Stain-Killer

Product description : Paint. Primer

Product type : Liquid.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Industrial uses Consumer uses Professional uses

Uses advised against	Reason
None identified.	-

1.3 Details of the supplier of the safety data sheet

Rust-Oleum Europe - Martin Mathys NV, Kolenbergstraat 23, B-3545 Zelem, Belgium
Telephone no.: +32 (0) 13 460 200
Fax no.: +32 (0) 13 460 201

e-mail address of person responsible for this SDS : rpmeurohas@ro-m.com

1.4 Emergency telephone number

Supplier

Telephone number : +44 (0) 207 858 1228

Hours of operation : 24 / 7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225
Eye Dam. 1, H318
Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :

Signal word : Danger

SECTION 2: Hazards identification

Hazard statements : Highly flammable liquid and vapour.
Causes serious eye damage.
May cause an allergic skin reaction.

Precautionary statements

General : P102 - Keep out of reach of children.
P103 - Read label before use.
P101 - If medical advice is needed, have product container or label at hand.

Prevention : P210 - Keep away from heat, sparks and hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P280 - Wear protective gloves and eye/face protection:
- Butyl rubber gloves. safety glasses with side-shields.

Response : P310 - Immediately call a POISON CENTER or doctor/physician.
P305 - IF IN EYES:
P351 - Rinse cautiously with water for several minutes.
P338 - Remove contact lenses, if present and easy to do. Continue rinsing.
P370 - In case of fire:
P378 - Use water spray, dry chemical powder or carbon dioxide for extinction.

Storage : P403 - Store in a well-ventilated place.
P235 - Keep cool.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : Resin acids and Rosin acids, fumarated, esters with glycerol

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Yes, applicable.

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
ethanol	EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≥25 - ≤50	Flam. Liq. 2, H225	[2]
Resin acids and Rosin acids, fumarated, esters with glycerol	EC: 307-051-0 CAS: 97489-11-7	≤10	Eye Dam. 1, H318 Skin Sens. 1, H317 **See Section 16 for the full text of the H statements declared above.**	[1]

SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.
Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage.
Ingestion may cause nausea, diarrhea and vomiting.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Resin acids and Rosin acids, fumarated, esters with glycerol. May produce an allergic reaction.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

SECTION 4: First aid measures

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO_2, powders, water spray.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Highly flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon oxides
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Not available.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Additional information : Take precautionary measures against electrostatic discharges.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.
In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.
Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.
Operators should wear antistatic footwear and clothing and floors should be of the conducting type.
Keep away from heat, sparks and flame. No sparking tools should be used.
Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Put on appropriate personal protective equipment (see Section 8).
Never use pressure to empty. Container is not a pressure vessel.
Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.
Do not allow to enter drains or watercourses.
Information on fire and explosion protection
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 7: Handling and storage

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Do not store above the following temperature: 30°C (86°F). Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	5000	50000

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
ethanol	**EH40/2005 WELs (United Kingdom (UK), 12/2011).** TWA: 1920 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

SECTION 8: Exposure controls/personal protection

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: safety glasses with side-shields .

Skin protection

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: butyl rubber (0.6 mm) , fluor rubber foil or PTFE (EN 374).

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

EN 374-3 : 2003

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Recommended: Wear overalls or long sleeved shirt. (EN 1149-1)

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour filter (Type AX) (EN 140) .

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	Liquid. [Viscous liquid.]
Colour	:	White.
Odour	:	Alcohol-like.
Odour threshold	:	Not available.
pH	:	4,5
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	78°C
Flash point	:	Closed cup: 17°C [Setaflash.]
Evaporation rate	:	<1 (Butyl acetate. = 1)
Flammability (solid, gas)	:	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. Flammable in the presence of the following materials or conditions: heat. Vapour may travel a considerable distance to source of ignition and flash back. Emits toxic fumes when heated to decomposition.
Upper/lower flammability or explosive limits	:	Lower: 3% Upper: 19%
Vapour pressure	:	10 kPa [room temperature]
Vapour density	:	>1 [Air = 1]
Relative density	:	1,22 to 1,24
Solubility(ies)	:	Easily soluble in the following materials: methanol. Partially soluble in the following materials: acetone. Very slightly soluble in the following materials: cold water and hot water. Insoluble in the following materials: diethyl ether and n-octanol.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	180°C
Decomposition temperature	:	>200°C
Viscosity	:	Dynamic (room temperature): >500 mPa·s Kinematic (room temperature): >4,03 cm^2/s
Explosive properties	:	Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. Slightly explosive in the presence of the following materials or conditions: heat. Take precautionary measures against electrostatic discharges.
Oxidising properties	:	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	Stable under recommended storage and handling conditions (see Section 7).
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	When exposed to high temperatures may produce hazardous decomposition products.

SECTION 10: Stability and reactivity

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire, toxic gases including CO, CO2 and smoke can be generated.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Conclusion/Summary : Not available.

Acute toxicity estimates

Not available.

Irritation/Corrosion

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Eyes : Causes serious eye damage.

Respiratory : Based on available data, the classification criteria are not met.

Sensitisation

Conclusion/Summary

Skin : May cause an allergic skin reaction.

Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

SECTION 11: Toxicological information

Not available.

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is not classified as hazardous to the environment.

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Volatile.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

SECTION 13: Disposal considerations

Disposal considerations : Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.
If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.
For further information, contact your local waste authority.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.
Empty containers must be scrapped or reconditioned.
Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	1263	1263	1263	1263
14.2 UN proper shipping name	Paint.	Paint.	Paint.	Paint.
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	**Remarks:** (≤ 5L:) Limited Quantity - ADR/IMDG 3.4 ADR Tunnel code: (D/E)	-	**Emergency schedules (EmS):** F-E + S-E **Marine pollutant:** NO **Remarks:** (≤ 5L:) Limited Quantity - ADR/IMDG 3.4.6	**Passenger and Cargo Aircraft** Quantity limitation: 5 L Packaging instructions: 353 **Cargo Aircraft Only** Quantity limitation: 60 L Packaging instructions: 364 **Limited Quantities - Passenger Aircraft**

SECTION 14: Transport information

				Quantity limitation: 1 L Packaging instructions: Y 341

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

VOC for Ready-for-Use Mixture : IIA/i. One-pack performance coatings. EU limit value for this product : 500g/l (2010.) This product contains a maximum of 500 g/l VOC.

Europe inventory : All components are listed or exempted.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

References : EH40/2005 Workplace exposure limits
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

SECTION 15: Regulatory information

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

CN code : 3208 90 99

UFI Code : 5GTS-H8KV-1XEC-890H

International lists

National inventory

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined.

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : Not determined.

Turkey : Not determined.

United States : Not determined.

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 2, H225	Expert judgment
Eye Dam. 1, H318	Expert judgment
Skin Sens. 1, H317	Expert judgment

Full text of H-phrases referred to in sections 2 and 3

Full text of abbreviated H statements :

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

SECTION 16: Other information

Full text of classifications [CLP/GHS]	:	Eye Dam. 1, H318 Flam. Liq. 2, H225 Skin Sens. 1, H317	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 FLAMMABLE LIQUIDS - Category 2 SKIN SENSITISATION - Category 1
Date of printing	:	4/01/2018	
Date of issue/ Date of revision	:	6/12/2017	
Date of previous issue	:	6/12/2017	
Version	:	3	

Notice to reader

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.

APPENDIX F

NYSDEC Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Form

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. V00220

Site Name Bayville Village Cleaners

Site Address: 290 Bayville Ave Zip Code: 11709
City/Town: Bayville
County: Nassau
Site Acreage: 0.250

Reporting Period: June 25, 2020 — June 25, 2021

	YES	NO
1. Is the information above correct?	✓	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		✓
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		✓
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		✓
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		✓

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	✓	
7. Are all ICs/ECs in place and functioning as designed?	✓	

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. V00220 Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
	Thomas Ryan	Soil Management Plan O&M Plan

- Declaration of Covenants and Restrictions - Current and Future Use of the Site: Permitted future uses (commercial and industrial) must comply with 6 NYCRR 375-1.8(g)(2)(iii) for commercial uses; and 6 NYCRR 375-1.8(g)(2)(iv) for industrial uses A copy of the Declaration of Covenants and Restrictions (DCR) and its recording page was recorded with the Nassau County Clerk's office on March 17, 2017;The property may be used for: commercial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

- All ECs must be operated and maintained as specified in this SMP;

- All ECs must be inspected at a frequency and in a manner defined in the SMP;

- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Nassau County Department of Health to render it safe for use as drinking water or for commercial purposes, and the user must first notify and obtain written approval to do so from the Department;

- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;

- Data and information pertinent to Site management must be reported at the frequency and in a manner as defined in this SMP;

- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;

- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;

- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;

- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Declaration of Covenants and Restrictions;

- The potential for vapor intrusion must be evaluated for any buildings developed on the Site, specifically within the IC boundaries; and any potential impacts that are identified must be monitored or mitigated. The IC boundaries for this Site encompasses the entire subject lot as depicted on the site map provided; and

- Vegetable gardens and farming on the Site are prohibited.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
	Vapor Mitigation Cover System Groundwater Containment Monitoring Wells

1. Vapor Mitigation System: The SSD System was installed with the following components:
a. A RadonAway fan (Model RP265c) was installed to induce negative pressure to the sub-slab region beneath the one-story building.
b. The extraction point for PCE vapors was installed in the center of the building, beneath the building slab, to capture all vapors.
c. Interconnecting piping consisting of three and four-inch diameter schedule 40 PVC was utilized to install the SSD System. Four-inch PVC piping was installed from the sub-slab extraction point, extending to above the suspended ceiling, and then connected to the fan utilizing flexible couplings. The four-inch piping was then extended from the fan to the southern exterior wall. The piping then penetrates the wall whereby a reducer fitting extends three-inch PVC piping into a 55-gallon drum containing granular activated carbon (GAC). The GAC Vessel is located outside the building along the south side. The purpose of the GAC Vessel is to treat the effluent gas prior to discharge to the atmosphere through a three-inch exterior mounted stack pipe. Sampling/monitoring ports were installed on the extraction piping (influent side) and after the GAC vessel (effluent side) for monitoring vacuum, flow and contaminant concentrations.

2. Other Engineering Controls: Sealing of the concrete floor - The concrete floor was evaluated to eliminate any other sub-slab transport pathway (i.e. cracks in the building floor). All possible routes were sealed off to prevent the entrance of soil gas and to enhance the sub-slab negative pressure field of the SSD System.

3. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the declaration of covenants and restrictions (DCR), which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;

4. Periodic certification of the institutional and engineering controls listed above.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00220

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Francis Cashin, III P.E at 1200 Veterans memorial Hwy,
print name print business address Hauppauge, NY 11788

am certifying as Designated Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

June, 25, 2021
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Francis Cashin III, P.E. at 1200 Veterans Memorial Hwy,
print name print business address Hauppauge, NY 11788

am certifying as a Professional Engineer for the Owner (Mr. Thomas Ryan)
(Owner or Remedial Party)

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

June 25, 2021
Date