PVE Sheffler

Civil Engineering
Surveying
Land Planning
Environmental
Municipal Services

October 30, 2015

Kevin Carpenter, PE
Senior Environmental Engineer
NYSDEC – Division of Environmental Remediation
Remedial Bureau C
625 Broadway, 11th Floor
Albany, NY 12233-7014

Re: Response to Comments, Periodic Review Report; Beekman Town Landfill & Town Highway Garage;
PVE Sheffler File # 560581
NYSDEC #3-14-094

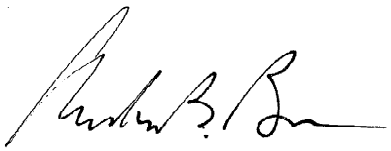
Dear Mr. Carpenter:

Enclosed is a revised Periodic Review Report for the Town of Beekman Highway Garage, NYSDEC-listed inactive hazardous waste site, #3-14-094.

If you have any questions, please do not hesitate to call.

Sincerely,

PVE SHEFFLER, LLC.



Christopher B. Brown, CPG
Principal\Director of Environmental Services

CBB/tla

48 Springside Avenue, Poughkeepsie, New York 12603
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PERIODIC REVIEW REPORT
Year 2015

BEEKMAN HIGHWAY GARAGE
4 Main Street, Hamlet of Poughquag, New York

NYSDEC Site #3-14-094

PREPARED FOR:

Kevin Carpenter, P.E.
Senior Environmental Engineer
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
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June 2015
(Revised October 2015)
#560581

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1.0 EXECUTIVE SUMMARY

This Periodic Review Report (PRR) was prepared according to the requirements of the Site Management Plan (SMP) for the Town of Beekman Highway Garage (hereinafter referred to as the "Site") located on Town property at the intersection of County Route 7 and Gardner Hollow Road in the Hamlet of Poughquag, Town of Beekman, Dutchess County, New York (Figure 1). The completed NYSDEC Institutional and Engineering Controls Certification Form is included as Appendix A.

The Town Highway Garage is listed as NYSDEC Site #3-14-094. Past operations at the Site resulted in contamination of local groundwater. Monitoring of groundwater and indoor air quality has been conducted by Conrad Geoscience and PVE Sheffler, LLC. since 2001 in accordance with the State-approved Site Management Plan (SMP).

This PRR was prepared to document the ongoing inspections and monitoring activities that have been completed during the reporting period from May 2014 to April 2015 following the remediation work documented in the Final Engineering Report (FER). These activities include:

- Annual groundwater monitoring between May 2014 and April 2015;
- Annual indoor air monitoring between May 2014 and April 2015;
- Quarterly Engineered Control, Institutional Control, and Site Management Inspections completed on a quarterly basis between 2001 and 2014.

The ongoing monitoring and inspections have shown that the engineering controls continue to perform as designed and the requirements described in the environmental easement and the SMP have been met.

2.0 SITE OVERVIEW

2.1 Location and Description

The Town of Beekman Highway Garage inactive hazardous waste disposal site is located on Town of Beekman Highway Department property at the intersection of County Route 7 and Gardner Hollow Road in the Hamlet of Poughquag, Town of Beekman, Dutchess County, New York (Figure 1). The site is situated in the north-central part of the 10-acre Town property. Selected site features are shown in Figure 2.

A list of all investigation and remediation reports is listed below in chronological order:

- Preliminary Site Assessment (PSA) – May 1996
- Order on Consent – July, 1997
- Remedial Investigation (RI) – March 1998
- Focused Feasibility Study (FFS) – March 1999
- Proposed Remedial Action Plan (PRAP) – February 1999
- Record of Decision (ROD) – November 1999
- Soil Remediation Report – April 2001
- Site Management Plan (SMP) – June 2010; Revised May 2013

A Certificate of Completion was issued by NYSDEC on May 20, 2014.

2.2 Summary of Remedial Investigation Findings

Between June and December 1997, the Town of Beekman conducted a Remedial Investigation (RI) to identify the source(s) of solvent contamination on Town premises so that appropriate remedial actions could be selected.

2.2.1 Groundwater

The RI report, dated March 1998, confirmed the presence of two overlapping plumes of dissolved volatile organic compounds (VOCs) originating from three separate source locations. The chlorinated solvent 1,1,1-trichloroethane (TCA) was originally discharged near the western end of the Highway pole barn. The chlorinated solvent perchloroethylene (PCE) was originally discharged near the northeastern corner of the pole barn. Other dissolved VOCs, including BTEX compounds (benzene, toluene, ethylbenzene & xylene), were present in groundwater at the location of previously removed underground storage tanks (USTs) near the northeastern corner of the Highway Department salt shed. From these source locations, dissolved VOCs were carried southward with the flow of groundwater.

2.2.2 Soil

Soil borings in the former gasoline and diesel UST area near the east end of the Highway salt shed revealed petroleum-contaminated soil, presumably from tank leakage prior to removal of the USTs in 1989 and 1993. According to the Focused Feasibility Study (FFS) report (1999), approximately 410 yd^3 of petroleum-contaminated soil were present in the former underground storage tank USTs in this area. The depth of contamination ranged from 3 to 14 feet below ground surface beneath an area covering approximately 1,100 ft^2. No undissolved product was observed during soil removal. No VOCs were

detected in any of the 15 sidewall post-excavation samples at concentrations exceeding recommended soil cleanup objectives. Only one of the seven floor samples contained VOCs at concentrations exceeding recommended soil cleanup objectives. The Soil Remediation Report (April, 2001) contains tables that include all post-excavation soil data. In 1992, the chlorinated solvents TCA and PCE and other VOCs were detected in residential wells down-gradient from the Site. Based on residential well sampling, the solvent plume was found to extend approximately 1,100 to 1,200 feet into the Hamlet south of the Highway garage.

2.2.3 Vapor

In March 2006, Conrad Geoscience Corp. conducted sub-slab vapor and indoor air sampling at the site. PCE and trichloroethene (TCE) were present in both sub-slab vapor and indoor air samples, indicating that a vapor intrusion condition existed on Highway Garage property. Both compounds were found in groundwater on site. The same VOCs were components of various products used in the automotive maintenance sections of the garage. According to New York State Department of Health (NYSDOH) guidance documents, mitigation of PCE and TCE vapors was required at five locations within two Highway Department buildings. In February 2007, Conrad Geoscience Corp. conducted radius-of-influence testing at selected locations in the Pole Barn and Block Garage buildings to evaluate the ability of vapors to move laterally beneath the slabs. Based on diagnostic testing in the pole barn and block garage, it was determined that installation of active sub-slab depressurization systems (SSDSs) in trenches dug in each building would effectively mitigate exposure to soil vapor intrusion. SSDSs were installed in 2007 and 2008, including a third SSDS, installed without trenching, in the Sheriff's Substation office. Details of these systems, their installation, and the influenced locations are included In the June 2010 Site Management Plan (SMP), provided in Figure 2 of this report, and summarized below:

Pole Barn System

- Highway Superintendent office (occupied during work hours by Town employees)
- former Alamo Ambulance substation (occupied periodically by Town employees)
- Pole Barn garage (occupied during work hours by Town employees)

Block Garage System

- Block Garage proper (occupied during work hours by Town employees)

Sheriff Substation System

- Sheriff Substation office (occupied during work hours by Sherriff Office employees)

2.3 Summary of Remedial Action

The site was remediated in accordance with the NYSDEC-approved Remedial Action Plan dated June 2000 and Vapor Intrusion Mitigation Work Plan dated November 2006. Following, is a summary of the Remedial Actions performed at the site:

1. In December 2000, Conrad Geoscience Corp. supervised the excavation, stockpiling, and disposal of approximately 650 yd^3 (1,011 tons) of contaminated soil from the former UST locations. Contaminated soil was transported off-site, thermally treated and recycled. The excavation measured approximately 1,500 square feet and averaged 11 feet in depth.

2. The excavation was backfilled to grade with clean soil and repaved.

3. Based on diagnostic testing in the pole barn and block garage buildings, it was determined that, installation of an active SSDS in each of the two affected Highway Department buildings affected would effectively mitigate exposure to vapor intrusion within all occupied portions of each building. SSDSs were installed in 2007 and 2008. Details of these systems and their installation are included in the June 2010 SMP, and in Section 2.2.3 of this report,

4. Remedial activities were completed at the site in June 2008.

3.0 PERFORMANCE EVALUATION

The remedial actions were designed to achieve site specific remediation objectives. These include:

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent ingestion/direct contact with contaminated soils.
- Prevent migration of contaminants that would result in groundwater or surface water impacts.
- Prevent exposure to contaminated vapors.

The engineered and institutional controls in place at the site continue to be effective in achieving the site specific remediation goals.

An institutional control in the form of an environmental deed restriction has been put in place to restrict the Site to commercial or industrial uses and restrict activities at the Site, including use of groundwater without proper treatment.

Ingestion/direct contact with contaminated soils has been prevented through the installation and maintenance of a composite cover, consisting of the on-site buildings, gravel and asphalt driveway and parking lots.

Migration of contaminated vapors from beneath the cap into indoor air is prevented by the operation of a sub-slab depressurization systems in the Block Garage, Pole Barn, and Sherriff Substation.

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4.0 Institutional Controls / Engineering Controls Compliance Report

4.1 Engineering Controls

Because some contamination remained after completion of remedial actions, Engineering Controls were incorporated into the site remedy to prevent future vapor intrusion and to monitor the natural attenuation of groundwater contaminants in order to ensure protection of public health and the environment. The following Engineering Controls were implemented as per the SMP:

1. A cover system consisting of asphalt pavement is in place covering the area of excavated soil.
2. Sub-slab depressurization systems are in place in the Sheriff's Substation, Block Garage, and Pole Barn.
3. Natural attenuation of groundwater contaminants.

4.1.1 Soil Cover System

A cover system was placed over the former UST area from which petroleum hydrocarbon soil was excavated. This cover system is comprised of approximately 1,500 square feet of asphalt pavement.

If the type of cover system changes from that which exists prior to the excavation (i.e., the current asphalt cover is replaced by a building or other structure), this will constitute a modification of the cover element of the remedy. Any changes made must be made per the requirements of the SMP, and a figure showing the modified surface included in this report and in any updates to the SMP.

4.1.2 Sub-slab Depressurization Systems

Mitigation of soil vapors (elevated PCE and TCE) are required at five locations on site: Sheriff's Substation office, Highway Superintendent's office, former Ambulance Substation, Pole Barn garage, and Block Garage proper.

The three SSDSs installed at the Sheriff's Substation, Block Garage, and Pole Barn were activated in June 2008. The objective of each SSDS is to prevent vapor contaminants from penetrating the concrete floor slab and entering the indoor airspace of each building by lowering the pressure beneath the slab.

The long-term vapor intrusion monitoring program, as described in the June 2010 SMP, includes quarterly inspections of the SSDSs and annual collection and analysis (during the heating season) of indoor air samples from two indoor locations (one from the Sheriff's Substation Office, the other from the Highway Superintendent's Office located inside the Pole Barn).

4.1.3 Natural Attenuation of Groundwater

The Record of Decision (ROD) indicates that contaminants in soil and groundwater on the Town site have resulted in a significant threat to human health and the environment. Accordingly, the ROD includes requirements for long-term groundwater monitoring of contaminant plume attenuation.

Groundwater monitoring activities to assess the natural attenuation of contaminants at the site will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic over an extended period.

The long-term groundwater monitoring program, as set forth in the SMP, includes annual collection and analysis (during the 2nd or 3rd quarter) of water samples from six on-site monitoring wells (MW-3, MW-4, MW-5, MW-8, MW-17 and MW-18S).

4.2 Institutional Controls

A series of Institutional Controls are required under the SMP to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to contaminated soil by controlling disturbances of the subsurface; (3) limit the use and development of the Site to commercial uses only. Adherence to these Institutional Controls on the Site is required by the Environmental Deed Restriction and will be implemented under the SMP. The Site is a Controlled Property subject to the Environmental Deed Restriction. The Site is also referred to in this section as the "Controlled Property". These Institutional Controls must adhere to the following conditions:

- Compliance with the Environmental Deed Restriction and the SMP must be maintained by the Grantor and the Grantor's successors and assigns.
- All Engineering Controls must be operated and maintained as specified in the SMP.
- All Engineering Controls on the Controlled Property (the Site) must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater and vapor monitoring must be performed as defined in the SMP.
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP.

Institutional Controls identified in the Environmental Deed Restriction may not be discontinued without an amendment to or extinguishment of the Environmental Deed Restriction.

The Site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Deed Restriction. Site restrictions that apply to the Controlled Property are:

- The Controlled Property may only be used for commercial and industrial use provided that the long-term Engineering and Institutional Controls included in the SMP are employed.
- The Controlled Property may not be used for a higher level of use, such as unrestricted, residential, or restricted residential use without additional remediation and amendment of the Environmental Deed Restriction, as approved by the NYSDEC.

- All future activities on the Controlled Property that will disturb remaining contaminated material must be conducted in accordance with the SMP.

- The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended use.

- Vegetable gardens and farming on the Controlled Property are prohibited.

- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

4.3 IC/EC Certification

The Institutional Control/Engineering Control certification signed by a Qualified Environmental Professional (QEP) is included in Appendix A.

5.0 MONITORING PLAN COMPLIANCE REPORT

The SMP requires the following periodic monitoring program:

Monitoring Program	Monitoring Frequency	Matrix	Analysis
Groundwater Monitoring	Annually	Groundwater	TCL VOCs
Vapor Intrusion Monitoring	Annually	Air	TCL VOCs
Site Wide Inspection/ Cover System and SSDS Monitoring	Quarterly	N/A	N/A

5.1 Groundwater Monitoring

As per the Monitoring Plan (see Section 3 of the SMP) monitoring wells MW-3, MW-4, MW-5, MW-8, MW-17 and MW-18S are to be sampled annually, in the 2nd or 3rd quarter of the year.

5.1.1 Annual Groundwater Sample Collection

Monitoring Wells MW-3, MW-4, MW-5, MW-8, MW-17, and MW-18S (see Figure 2) were sampled on September 4, 2014. Prior to sampling, PVE Sheffler purged each monitoring well following USEPA protocol for low-flow (minimal draw-down) groundwater sampling until physical parameters stabilized. Water quality parameters were monitored using an In-Situ® Troll 9500 water quality meter. Groundwater sampling logs are included in Appendix B. Water samples were collected from Monitoring Wells MW-3, MW-4, MW-5, MW-8, MW-17, and MW-18S using a peristaltic pump and dedicated polyethylene tubing and dispensed into laboratory provided containers.

Samples were submitted to Paradigm Environmental Services, Inc., a NYSDOH-certified laboratory, for analysis of VOCs via USEPA Method 524.2. A field blank was prepared in the field and analyzed for volatile organic compounds (VOCs). One trip blank was prepared at the laboratory and traveled with sample containers for analysis of VOCs upon receipt of all field samples. All samples were labeled, packed on ice, and shipped via overnight delivery.

5.1.2 Annual Depth-to-Groundwater Monitoring

Depth-to-water measurements were collected to the nearest hundredth of a foot from the top of each well casing and a groundwater contour map was prepared (Figures 3A-C). Previously, depth-to-water elevations from MW-4 and MW-8 were omitted because the top-of-casing elevation for Monitoring Well MW-4 was altered after modifying the well completion and casing several years ago. Depth-to-groundwater elevations from Monitoring Well MW-8 are historically higher than surrounding wells which, when plotted, result in a contour map which is not representative of site conditions. The top-of-casing elevations for Monitoring Wells MW-4 and MW-8 were resurveyed in an attempt to rectify issues with plotting elevation data.

Depth-to-groundwater measurements and corresponding elevations indicate groundwater flows in a southwesterly direction, and is consistent with previously collected depth-to-groundwater

measurements. A groundwater contour map depicting groundwater depth and flow direction is found in Figures 3A-3C.

5.1.4 Annual Groundwater Sample Results

One or more VOCs were present above the MDL in each of the six monitoring wells sampled in September 2014. PCE was detected in all monitoring wells sampled, three of which contained PCE at concentrations exceeding NYSDEC groundwater standards: MW-4 (17.0 µg/L), MW-8 (5.8 µg/L), and MW-18S (11.0 µg/L). A summary of results by well follows:

- MW-3: PCE (0.61 µg/L).
- MW-4: PCE (17.0 µg/L).
- MW-5: PCE (0.87 µg/L).
- MW-8: PCE (5.8 µg/L).
- MW-17: Three VOCs totaling 2.73 µg/L: trans-1,2-Dichloroethene (0.54 µg/L); PCE (1.5 µg/L); TCE (0.69 µg/L).
- MW-18S: Two VOCs totaling 11.57 µg/L: PCE (11 µg/L); TCE (0.57 µg/L).

Target compounds detected in groundwater from on-site monitoring wells are summarized in Table 1. Table 2 provides a comparison of sample results from previous years. Table 3 provides a comparison of PCE, Methyl-tert-Butyl Ether (MTBE), and Total VOCs in MW-4 since well installation. Copies of laboratory reports from the most recent sampling event are attached in Appendix C.

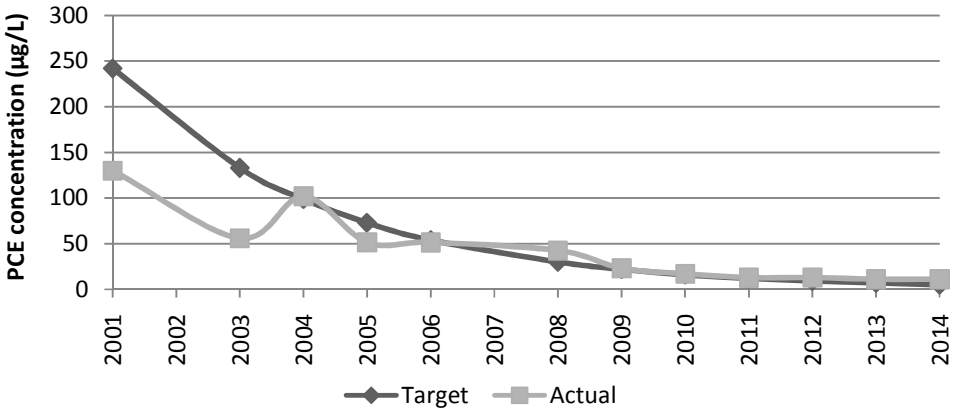
5.1.3 Groundwater - Long-Term Trend Analysis

The following table shows a set of groundwater cleanup objectives established in the SMP:

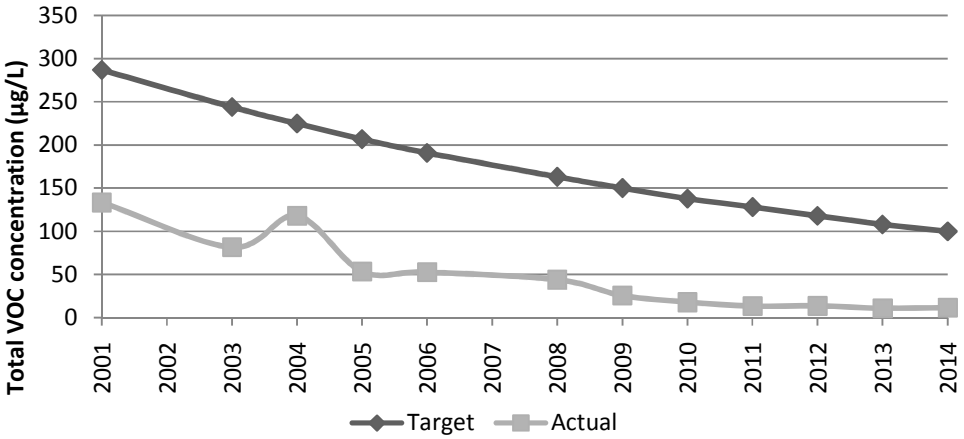
Year		*MW-18S PCE (µg/L)*	*MW-18S Total VOCs (µg/L)*	*MW-4 PCE (µg/L)*	*MW-5 Total VOCs (µg/L)*
1	2000	326	311	75	142
2	2001	242	287	62	139
3	2002	179	264	51	135
4	2003	133	244	42	132
5	2004	99	225	35	129
6	2005	73	207	29	126
7	2006	54	191	24	122
8	2007	40	176	19	119
9	2008	30	163	16	116

Year		*MW-18S PCE (µg/L)*	*MW-18S Total VOCs (µg/L)*	*MW-4 PCE (µg/L)*	*MW-5 Total VOCs (µg/L)*
10	2009	22	150	13	113
11	2010	16	138	11	110
12	2011	12	128	9	108
13	2012	9	118	7	105
14	2013	7	108	6	103
15	2014	5	100	5	100

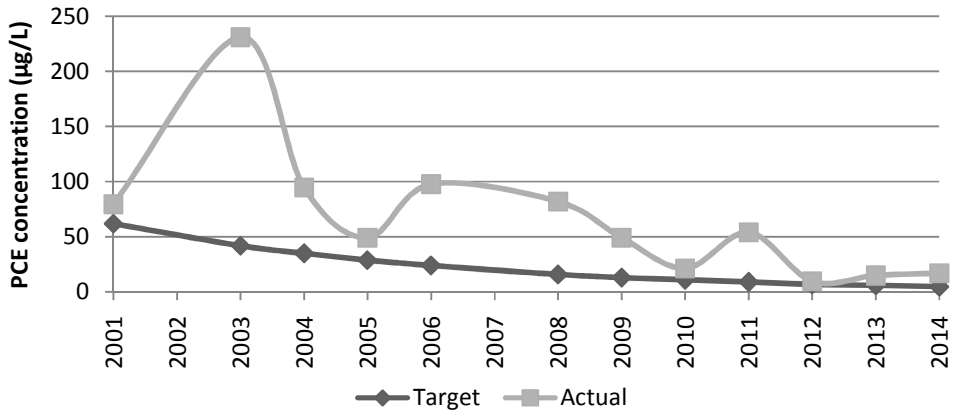
A comparison of actual sample results to these cleanup objectives is summarized in Graphs 1-4 below:



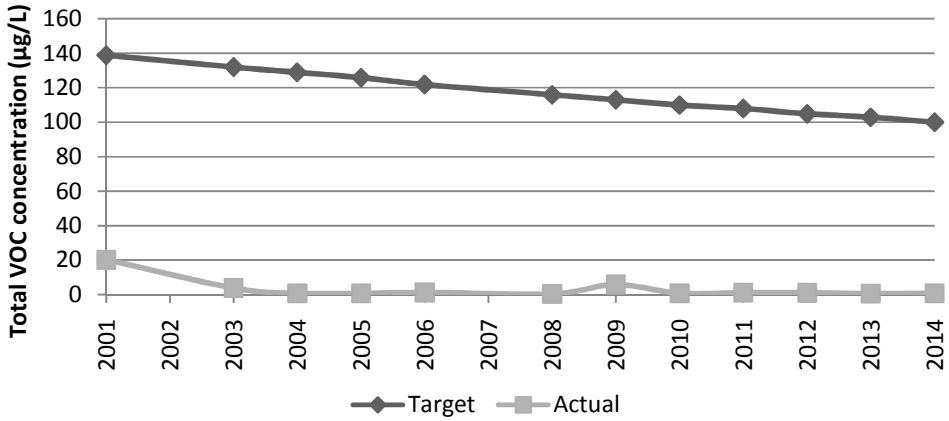
Graph 1: Perchloroethylene (PCE) Results for MW-18S Compared to Target Concentrations; 2001 – 2014.



Graph 2: Total VOC Results for MW-18S Compared to Target Concentrations; 2001 – 2014.



Graph 3: Perchloroethylene (PCE) Results for MW-4 Compared to Target Concentrations; 2001 – 2014.



Graph 4: Total VOC Results for MW-5 Compared to Target Concentrations; 2001 – 2014.

5.2 Sub-Slab Vapor and Indoor Air Quality Monitoring

As per the Monitoring Plan (see Section 3 of the SMP), the SSDSs were inspected quarterly to ensure they were functioning properly, and indoor air samples were collected annually from the Sheriff's Substation and Highway Superintendants office (see Figure 2).

5.2.1 Quarterly SSDS inspections

In May 2014, September 2014, October 2014, and February 2015, PVE Sheffler conducted inspections of the SSDSs in accordance with the NYSDEC-approved SMP. Inspections consisted of visually analyzing the piping system for structural integrity, verification of fan functionality, and taking readings from the U-tube manometers and recording them in a vapor mitigation operation and maintenance inspection form (see Appendix D).

During inspections, readings from the SSDS manometers indicated that the systems were working properly. Readings of SSDS manometers during this latest reporting period are summarized below:

Date	Sampling Location				
	Sherriff's Substation	Block Garage (North)	Block Garage (South)	Pole Barn (East)	Pole Barn (West)
5-20-14	-1.6"	-1.7"	-1.25"	-0.75"	NS
9-4-14	-1.75"	-1.7"	-1.5"	-0.75"	-1.25"
10-29-14	-1.5"	-1.6"	-1.25"	-0.75"	-1.25"
02-23-15	-1.5"	-1.75"	-1.4"	-0.75"	-1.125"

Notes:
Readings measured in inches of water column;
NS = Not Sampled;
* New U-tube manometer installed at North Block Garage with 1/10" tick marks

A table showing historic manometer readings collected from January 2009 to present is included as Table 4.

5.2.2 Annual Indoor Air Quality Monitoring

On February 23-24, 2015, PVE Sheffler collected ambient indoor air samples from the Sheriff's Substation Office and Highway Superintendent's Office in accordance with the NYSDEC-approved SMP. Samples were collected using a flow controller, set to collect the sample over a 24-hour period, connected to a 1-liter summa canister. At the completion of sample collection, summa canisters were shipped via overnight delivery to Centek Laboratories in Syracuse, New York, a NYSDOH-certified laboratory. Samples were analyzed for volatile organic compounds (VOCs) via USEPA Method TO-15. Sample numbers were as follows:

Location	**Sample ID**
Sheriff's Substation Office	IA-1
Highway Superintendent's Office	IA-2.

5.2.3 Annual Indoor Air Quality Sample Results

VOCs detected in indoor samples are within the range of commonly detected indoor air conditions according to the NYSDOH "Study of Volatile Organic Compounds in Air of Fuel Oil Heated Homes, 1997-2003" referenced as Table C.1 in the October 2006 "Guidance for Evaluating Soil Vapor Intrusion in the State of New York". Indoor air sample results are summarized as follows:

- IA-1: TCE (1.6 µg/m³).

- IA-2: PCE (1.6 µg/m³).

Indoor air sample results are summarized in Table 5. Laboratory reports are attached in Appendix E. In accordance with NYSDEC and NYSDOH requirements, and following comment by these departments, these results were posted in the Sheriff's Substation and the Highway Garage offices.

5.2.4 Indoor Air Quality - Long-Term Trend Analysis

Collection of sub-slab vapor samples is not required by NYSDEC and NYSDOH, therefore these results are compared to the Indoor Air Concentrations provided in NYSDOH guidance documents. Currently, sub-slab depressurization systems are in place in each building preventing vapors from accumulating beneath the slab. Although the Town has endeavored to reduce the use of products containing VOCs, these ingredients are commonly found in everyday-use products required for normal operation and maintenance of Highway Department vehicles and equipment. An inventory of products used is provided in Appendix F, and summarized below:

- VOC-based Automotive Clear Coat
- VOC-based Automotive Hardeners/Reducers
- VOC-based Auto Body Fillers
- VOC-based Epoxy Primer
- VOC-based Pour Point Depressant
- VOC-based Air Tool Cleaner & Lubricant
- VOC-based Protective Enamels
- VOC-based Acrylic Urethane
- VOC-based Glass Polish
- VOC-based Lubricants

The following table compares the 2015 indoor air data to the 2009-2014 indoor air data for compounds that are included in the NYSDOH guidance matrices. All sampling events occurred while sub-slab depressurization systems were operating in the Sheriff Substation, Pole Barn, and Block Garage.

Location	Date	Carbon Tetrachloride (µg/m³)	Trichloro-ethene (µg/m³)	Vinyl Chloride (µg/m³)	Tetrachloro-ethene (µg/m³)	1,1,1-Tri-chloroethane (µg/m³)	1,1-Di-chloroethene (µg/m³)	Cis-1,2-Di-chloroethene (µg/m³)
NYSDOH Background Concentrations*		<0.25-3.2	<0.25-7.4	<0.25-0.8	0.3-20	0.3-41	<0.25-6.3	<0.25-4.6
NYSDOH "Not-to-exceed" Guideline**		---	<2	---	<30	---	---	---
IA-1	2-23-15	ND<0.94	1.6	ND<0.38	ND<1.0	ND<0.82	ND<0.59	ND<0.59
	1-29-14	0.96	ND<0.22	ND<0.1	20	ND<0.83	ND<0.6	0.48 J
	4-10-13	0.51	0.60	ND<0.10	ND<1.0	ND<0.83	ND<0.60	ND<0.60
	1-11-12	0.70	3.4	ND<0.10	3.2	ND<0.83	ND<0.60	ND<0.60
	1-13-11	0.555	1.78	ND<0.259	2.37	ND<0.551	ND<0.400	ND<0.400
	2-23-10	0.628	5.09	ND<0.259	5.55	ND<0.551	ND<0.400	ND<0.400
	1-12-09	0.634	40.9	ND<0.259	0.745	ND<0.551	ND<0.400	ND<0.400

Location	Date	Carbon Tetrachloride (µg/m³)	Trichloro-ethene (µg/m³)	Vinyl Chloride (µg/m³)	Tetrachloro-ethene (µg/m³)	1,1,1-Tri-chloroethane (µg/m³)	1,1-Di-chloroethene (µg/m³)	Cis-1,2-Di-chloroethene (µg/m³)
NYSDOH Background Concentrations*		<0.25-3.2	<0.25-7.4	<0.25-0.8	0.3-20	0.3-41	<0.25-6.3	<0.25-4.6
NYSDOH "Not-to-exceed" Guideline**		---	<2	---	<30	---	---	---
IA-2	2-23-15	ND<0.94	ND<0.81	ND<0.38	1.6	ND<0.82	ND<0.59	ND<0.59
	5-27-14	ND<0.96	ND<0.82	ND<0.39	1.3	ND<0.83	ND<0.6	ND<0.6
	4-10-13	0.70	1.7	ND<0.10	2.3	ND<0.83	ND<0.60	ND<0.60
	1-11-12	0.77	0.49	ND<0.10	ND<1.0	ND<0.83	ND<0.60	ND<0.60
	1-13-11	0.529	0.596	ND<0.261	1.40	ND<0.556	ND<0.404	ND<0.404
	2-23-10	0.556	2.62	ND<0.259	5.42	ND<0.551	ND<0.400	ND<0.400
	1-12-09	0.634	1.39	ND<0.261	1.44	ND<0.556	ND<0.404	ND<0.404

* The range between median and 99th percentile background Indoor air concentrations in µg/m³ according to the NYSDOH "Study of Volatile Organic Compounds in Air of Fuel Oil Heated Homes, 1997-2003" referenced as Table C.1 in the October 2006 "Guidance for Evaluating Soil Vapor Intrusion in the State of New York.".
**Indoor air concentration in µg/m³ for which NYSDOH guidelines recommend average air levels not exceed. From "Trichloroethene (TCE) In Indoor And Outdoor Air - August 2015 Fact Sheet" and "Tetrachloroethene (PERC) In Indoor And Outdoor Air - September 2013 Fact Sheet".

VOCs in indoor samples range between median and 99th percentile concentrations established for background conditions (see Table 5), indicating that VOC concentrations are within the range of commonly detected indoor air conditions according to the NYSDOH "Study of Volatile Organic Compounds in Air of Fuel Oil Heated Homes, 1997-2003" referenced as Table C.1 in the October 2006 "Guidance for Evaluating Soil Vapor Intrusion in the State of New York.". Although the Town has endeavored to reduce the use of products containing VOCs, current activities in these buildings, including petroleum storage and truck and equipment maintenance, explain the presence of these compounds in indoor air.

5.2.5 Site-Wide Inspection/Cover System Monitoring

The SMP requires a Site-wide inspection to be performed on a regular schedule at a minimum of once a quarter. Site-wide inspections are also required after all severe weather conditions that may affect Engineering Controls or monitoring devices. The purpose of the Site-wide inspection is to assess the following:

- Compliance with all ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling; and
- Confirm that site records are up to date.

Quarterly inspections were completed on May 20, 2014, September 4, 2014, October 29, 2014, and February 23, 2015, during which site conditions were deemed to satisfy the standards listed above.

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6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Groundwater Monitoring

Based upon the results from groundwater samples collected in 2014 and comparison of sample results to groundwater cleanup objectives, the following conclusions can be drawn:

1. The concentrations of total VOCs in Monitoring Wells MW-5 and MW-18S meet the 2014 target cleanup objectives.

2. The concentration of PCE in Monitoring Well MW-4 (17 µg/L) exceeded the 2014 cleanup objective of 5 µg/L. PCE increased from 15 µg/L in the 2013 monitoring event to 17 µg/L in the 2014 monitoring event.

3. The concentration of PCE in Monitoring Well MW-18S (11.0 µg/L) exceeded the 2014 cleanup goal of 5 µg/L. Total VOC concentrations remained stable with 11 µg/L detected in both the 2013 and 2014 monitoring events.

Natural attenuation has significantly reduced both PCE and Total VOC concentrations in MW-4 and MW-18S since monitoring began. Recent groundwater sample results indicate that PCE concentrations in both wells still exceed groundwater cleanup objectives established in the SMP, but the decline is now asymptotic, indicating that any additional decline in PCE will be very gradual.

6.2 Sub-Slab Vapor and Indoor Air Quality Monitoring

Based upon the results from indoor air samples collected in 2015, the following conclusions can be drawn:

1. The concentration of TCE (1.6 µg/m³) in the Sheriff's Substation Office (IA-1) exceeded the NYSDOH median background concentration of 0.25 µg/m³, but did not exceed the 99th percentile background concentration of 7.4 µg/m³, nor the NYSDOH-recommended "not to exceed" concentration of 2 µg/m³. Although this concentration is within the range of commonly detected indoor air conditions and below the "not-to-exceed" guideline, it remains above the NYSDOH median background concentration and is therefore considered subject to the NYSDOH recommendation that reasonable and practical actions be taken to reduce exposures.

2. The concentration of PCE (1.6 µg/m³) in the Highway Superintendent's Office (IA-2) exceeded the NYSDOH median background concentration of 0.3 µg/m³, but did not exceed the 99th percentile background concentration of 20 µg/m³, nor the NYSDOH-recommended "not to exceed" concentration of <30 µg/m³. Although this concentration is within the range of commonly detected indoor air conditions and below the "not-to-exceed" guideline, it remains above the NYSDOH median background concentration and is therefore subject to the NYSDOH recommendation that reasonable and practical actions be taken to reduce exposures.

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6.3 Overall Recommendations

Based on analysis of long-term trends for VOCs in groundwater, the decline of PCE in MW-4 and MW-18S has become asymptotic, and total VOC concentrations are below target remediation objectives. Consequently we intend to request the cessation of annual groundwater monitoring at the site.

Long-term analytical data indicates impacts to the indoor air at the site are minimal, and are likely attributable to the use of VOC-based products in daily operations at the site. However, VOC detections remain above the NYSDOH median background concentrations, and are therefore subject to the NYSDOH recommendation that reasonable and practical actions be taken to reduce exposures. Consequently, we recommend that efforts continue to reduce VOC-based products on-site, in addition to continued operation and monitoring of the SSDS and indoor air quality as a precaution.

The attached certification statement attests to the accuracy and completeness of the information contained herein. If you have any questions, please do not hesitate to contact me. Please contact me with any comments or questions.

Figure 1 – Site Location Map

SITE

BASE MAP: USGS TOPOGRAPHIC MAP, 1:24,000 SERIES
AERIAL PHOTO: NYS GIS CLEARINGHOUSE, 2009

0 1 2 4 Miles

SITE LOCATION MAP

BEEKMAN HIGHWAY GARAGE
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

FIGURE 1

DATE:	07/10/2012
SCALE:	As Indicated
PROJECT NUMBER:	160581

ALL LOCATIONS APPROXIMATE

PVE Sheffler

One Civic Center Plaza
Suite 501
Poughkeepsie, New York 12601
Phone: (845) 454-2544
Fax: (845) 454-2655

Figure 2 – Selected Site Features Map

Legend

- Monitoring Well Location
- Indoor Air Sample Location
- Sub-Slab Depressurization System
- Composite Cover Area Boundary
- Deed Restriction Boundary

SELECTED SITE FEATURES AND SAMPLE LOCATIONS

BEEKMAN HIGHWAY GARAGE
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

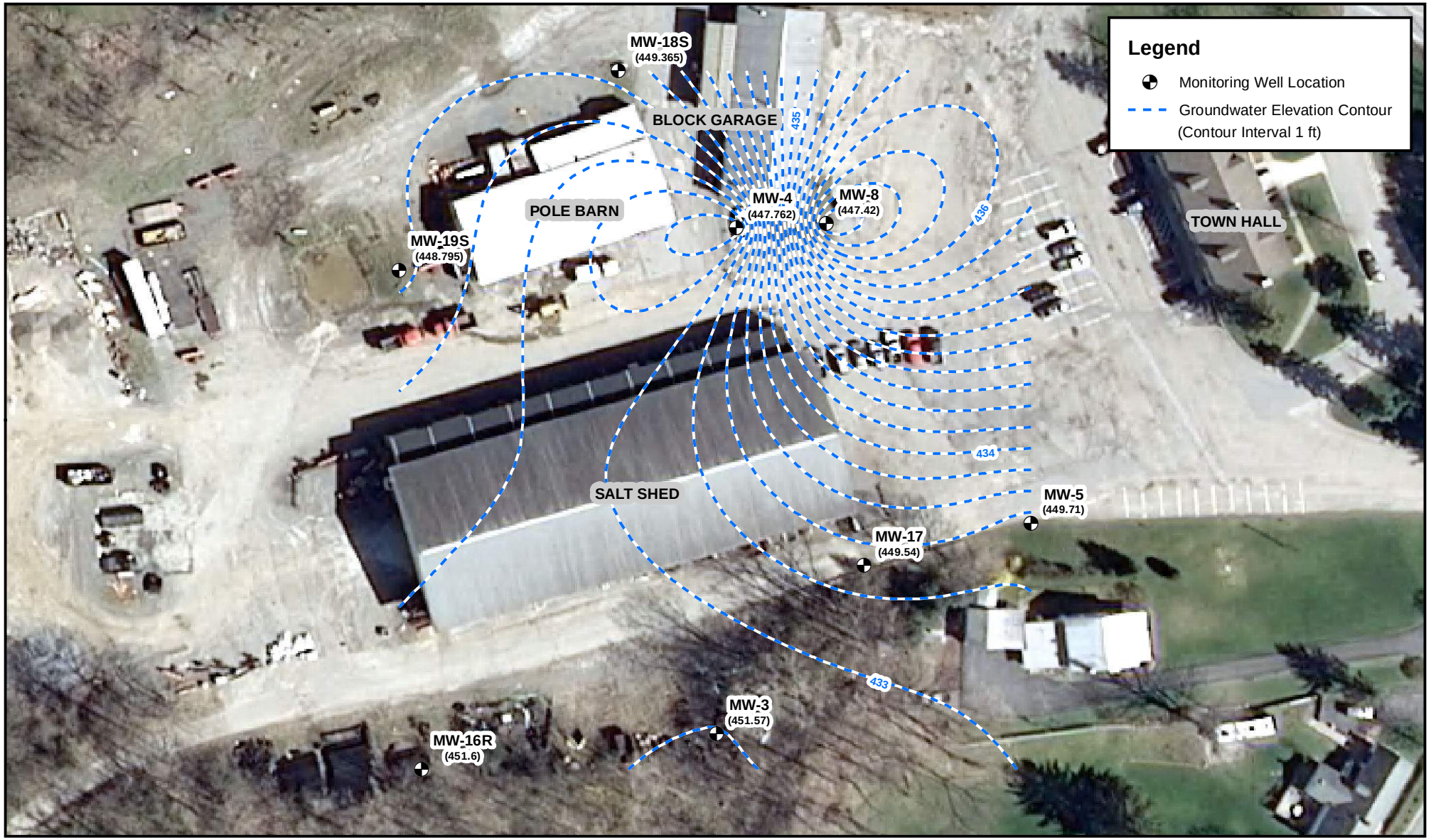
48 Springside Aveneue
Poughkeepsie, New York 12603
Phone: (845) 454-2544
Fax: (845) 454-2655

FIGURE 2

DATE:	10/30/2015
SCALE:	As Indicated
PROJECT NUMBER:	560581

ALL LOCATIONS APPROXIMATE

Figure 3A – Groundwater Contour Map – All Wells



Aerial Photo: NYS Office of Information Technology Services, 2013

0 25 50 100 Feet

GROUNDWATER CONTOUR MAP
All Wells Completed in Unconsolidated Sediment
BEEKMAN HIGHWAY GARAGE
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

PVE Sheffler
Engineering • Survey • Environmental

48 Springside Aveneue
Poughkeepsie, New York 12603
Phone: (845) 454-2544
Fax: (845) 454-2655

FIGURE 3A

DATE:	5/11/2011
SCALE:	As Indicated
PROJECT NUMBER:	560581

ALL LOCATIONS APPROXIMATE

Figure 3B – Groundwater Contour Map – Excluding MW-8

Aerial Photo: NYS Office of Information Technology Services, 2013

0 25 50 100 Feet

GROUNDWATER CONTOUR MAP
All Wells Completed in Unconsolidated Sediment, Excluding MW-8

BEEKMAN HIGHWAY GARAGE
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

PVE Sheffler
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FIGURE 3B

DATE:	5/11/2011
SCALE:	As Indicated
PROJECT NUMBER:	560581

ALL LOCATIONS APPROXIMATE

Figure 3C – Groundwater Contour Map – Excluding MW-4 and MW-8

Aerial Photo: NYS Office of Information Technology Services, 2013

GROUNDWATER CONTOUR MAP
All Wells Completed in Unconsolidated Sediment, Excluding MW-4 & MW-8

BEEKMAN HIGHWAY GARAGE
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

PVE Sheffler
Engineering • Survey • Environmental

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Poughkeepsie, New York 12603
Phone: (845) 454-2544
Fax: (845) 454-2655

FIGURE 3C

DATE:	5/11/2011
SCALE:	As Indicated
PROJECT NUMBER:	560581

ALL LOCATIONS APPROXIMATE

Table 1 – Groundwater: Analytical Data

Table 1. **Volatile Organic Compounds (VOCs) in On-Site Monitoring Well Groundwater Samples;** USEPA Method 524.2;
collected **September 4, 2014**, Beekman Highway Garage, Town of Beekman, New York
PVE Sheffler File #160581

				LOCATION	MW-17			MW-18S			MW-3			MW-4			MW-5			MW-8			TRIP BLANK			FIELD BLANK		
				SAMPLE	MW-17 20140904			MW-18S 20140904			MW-3 20140904			MW-4 20140904			MW-5 20140904			MW-8 20140904			BLANK T-536 2014			FB-1 20140904		
				SAMPLE DATE	9/4/2014			9/4/2014			9/4/2014			9/4/2014			9/4/2014			9/4/2014			9/4/2014			9/4/2014		
CHEMICAL	CASRN	**NYSDEC STANDARD**	UNIT		RESULT	UNIT	Q	RESULT	UNIT	Q	RESULT	UNIT	Q	RESULT	UNIT	Q	RESULT	UNIT	Q	RESULT	UNIT	Q	RESULT	UNIT	Q	RESULT	UNIT	Q
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,1,1-Trichloroethane	71-55-6	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,1,2-Trichloroethane	79-00-5	1	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,1-Dichloroethane	75-34-3	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,1-Dichloroethene	75-35-4	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,1-Dichloropropene	563-58-6	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,2-Dichlorobenzene	95-50-1	3	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,2-Dichloroethane	107-06-2	0.6	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,2-Dichloropropane	78-87-5	1	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,3-Dichlorobenzene	541-73-1	3	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,3-Dichloropropane	142-28-9	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
1,4-Dichlorobenzene	106-46-7	3	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
2,2-Dichloropropane	594-20-7	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
2-Chlorotoluene	95-49-8	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
4-Chlorotoluene	106-43-4	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Benzene	71-43-2	1	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Bromobenzene	108-86-1	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Bromochloromethane	74-97-5	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Bromodichloromethane	75-27-4	50	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Bromoform	75-25-2	50	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Bromomethane	74-83-9	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Carbon Tetrachloride	56-23-5	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Chlorobenzene	108-90-7	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Chloroethane	75-00-3	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Chloroform	67-66-3	7	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Chloromethane	74-87-3	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Cis-1,2-Dichloroethylene	156-59-2	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Cymene	99-87-6	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Dibromochloromethane	124-48-1	50	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Dibromomethane	74-95-3	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Dichlorodifluoromethane	75-71-8	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Ethylbenzene	100-41-4	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Hexachlorobutadiene	87-68-3	0.5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	10	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Methylene Chloride	75-09-2	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
M-P-Xylene	136777-61-2	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Naphthalene	91-20-3	10	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
N-Butylbenzene	104-51-8	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
N-Propylbenzene	103-65-1	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Sec-Butylbenzene	135-98-8	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Styrene	100-42-5	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
T-Butylbenzene	98-06-6	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Tetrachloroethylene (PCE)	127-18-4	5	ug/l		1.5	ug/l		**11**	**ug/l**		0.61	ug/l		**17**	**ug/l**		0.87	ug/l		**5.8**	**ug/l**		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Toluene	108-88-3	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l		0.54	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Trichloroethylene (TCE)	79-01-6	5	ug/l		0.69	ug/l		0.57	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Trichlorofluoromethane	75-69-4	5	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U
Vinyl Chloride	75-01-4	2	ug/l		ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U	ND < 0.5	ug/l	U

Notes:

Standards are for groundwater according to 6NYCRR Part 700-705, Class GA Groundwater Standards

ND = Not detected above the detection limit listed

Table 2 – Groundwater: Comparison to Target Concentrations

Table 2. **Groundwater Results Compared to Target Concentrations - Perchloroethylene (PCE) and Total Volatile Organic Compounds (VOCs);** USEPA Method 524.2; collected **Annually 2001 – 2014;**
Beekman Highway Garage, Town of Beekman, New York;
PVE Sheffler File #160581

Monitoring Well	Constituent	2001 Target Concentration	2001 Sampling Results	2003 Target Concentration	2003 Sampling Results	2004 Target Concentration	2004 Sampling Results
MW-4	PCE	62	**79.6**	42	**231**	35	**94.7**
MW-5	Total VOCs	139	20.27	132	3.9	129	0.8
MW-18S	PCE	242	130	133	56	99	**102**
MW-18S	Total VOCs	287	133.48	244	81.6	225	118.1

Notes:
All concentrations are in ug/L unless otherwise indicated;
Boldface type designates those compounds detected at concentrations exceeding target concentrations.

Table 2 cont'd. **Groundwater Results Compared to Target Concentrations - Perchloroethylene (PCE) and Total Volatile Organic Compounds (VOCs);** USEPA Method 524.2; collected **Annually 2001 – 2014;**
Beekman Highway Garage, Town of Beekman, New York;
PVE Sheffler File #160581

Monitoring Well	Constituent	2005 Target Concentration	2005 Sampling Results	2006 Target Concentration	2006 Sampling Results	2008 Target Concentration	2008 Sampling Results
MW-4	PCE	29	**49.3**	24	**97.8**	16	**82.1**
MW-5	Total VOCs	126	0.8	122	1.3	116	ND
MW-18S	PCE	73	51.5	54	51.3	30	**42.5**
MW-18S	Total VOCs	207	53.5	191	52.8	163	43.9

Notes:
All concentrations are in ug/L unless otherwise indicated;
Boldface type designates those compounds detected at concentrations exceeding target concentrations.

Table 2 cont'd. **Groundwater Results Compared to Target Concentrations - Perchloroethylene (PCE) and Total Volatile Organic Compounds (VOCs);** USEPA Method 524.2; collected **Annually 2001 – 2014;**
Beekman Highway Garage, Town of Beekman, New York;
PVE Sheffler File #160581

Monitoring Well	Constituent	2009 Target Concentration	2009 Sampling Results	2010 Target Concentration	2010 Sampling Results	2011 Target Concentration	2011 Sampling Results
MW-4	PCE	13	**49.3**	11	**21.4**	9	**54.0**
MW-5	Total VOCs	113	5.9	110	0.8	108	1.2
MW-18S	PCE	22	**23.0**	16	**17.1**	12	**12.8**
MW-18S	Total VOCs	150	25.6	138	17.9	128	13.3

Notes:
All concentrations are in ug/L unless otherwise indicated;
Boldface type designates those compounds detected at concentrations exceeding target concentrations.

Table 2 cont'd. **Groundwater Results Compared to Target Concentrations - Perchloroethylene (PCE) and Total Volatile Organic Compounds (VOCs);** USEPA Method 524.2; collected **Annually 2001 – 2014;**
Beekman Highway Garage, Town of Beekman, New York;
PVE Sheffler File #160581

Monitoring Well	Constituent	2012 Target Concentration	2012 Sampling Results	2013 Target Concentration	2013 Sampling Results	2014 Target Concentration	2014 Sampling Results
MW-4	PCE	7	**9.8**	6	**15**	5	**17**
MW-5	Total VOCs	105	1.1	103	0.64	100	0.87
MW-18S	PCE	9	**12.9**	7	**11**	5	**11**
MW-18S	Total VOCs	118	13.6	108	11	100	11.57

Notes:
All concentrations are in ug/L unless otherwise indicated;
Boldface type designates those compounds detected at concentrations exceeding target concentrations.

Table 3 – Groundwater: Monitoring Well MW-4 Quarterly Comparison

Table 3. **Volatile Organic Compounds (VOCs) in On-Site Monitoring Well MW-4 Groundwater Samples;**
USEPA Method 8260 and 524.2; collected **October 1997 through September 2014;**
Beekman Highway Garage, Town of Beekman, New York;
PVE Sheffler File #160581

Sample Identification	Sample Dates	Chemical Constituent		
		Tetrachloroethylene	Methyl-tert-Butyl Ether	Total VOCs
Volatile Organic Compounds				
NYSDEC Limit 1	-	5	10	NA
MW-4	10/6-8/97	**91**	NA	93
	11/28/00	**98**	NA	102.7
	10/24/01	**79.6**	NA	79.6
	11/7/02	**140**	NA	140
	3/27/03	**231.3**	**17.0**	248.3
	6/17/03	**286**	**86**	305.5
	9/11/03	**143**	3.0	147.3
	12/18/03	**251**	2.8	256.1
	3/11/04	**141**	5.3	147.6
	6/28/04	**94.7**	3.5	98.7
	9/16/04	**65.2**	3.1	68.3
	12/8/04	**101**	**17.30**	119
	3/14/05	**113**	ND<2.0	114
	6/02/05	**75.10**	7.60	**83.3**
	9/19/05	**49.3**	ND<2.0	49.3
	12/12/05	**171**	6.1	195.6
	3/23/06	**69.4**	ND<2.0	74.9
	6/27/06	**68.1**	ND<2.0	71.2
	9/27/06	**51.8**	2.4	54.2

Notes:
1 - Standards are for groundwater according to 6NYCRR Part 700-705; Class GA Groundwater Standards
All concentrations are in ug/L unless otherwise indicated;
NA = Not Applicable;
Boldface type designates those compounds detected at concentrations exceeding NYSDEC standard

Table 3 (cont.) **Volatile Organic Compounds (VOCs) in On-Site Monitoring Well MW-4 Groundwater Samples;**
USEPA Method 8260 and 524.2; collected **October 1997 through September 2014;**
Beekman Highway Garage, Town of Beekman, New York;
PVE Sheffler File #160581

Sample Identification	Sample Dates	Chemical Constituent		
		Tetrachloroethene	Methyl-tert-Butyl Ether	Total VOCs
Volatile Organic Compounds				
NYSDEC Limit 1	-	5	10	NA
MW-4	11/20/06	**97.8**	**51.6**	150.5
	3/20/07	**24.0**	3.5	27.5
	6/07/07	**93.7**	ND<2.0	94.6
	9/6/07	**65.8**	ND<2.0	65.8
	11/28/07	**35.5**	ND<2.0	35.5
	2/14/08	**82.1**	**20.40**	82.1
	5/7/09	**79.7**	ND<2.0	80.5
	8/12/08	**38.7**	ND<2.0	38.7
	11/12/08	**53.4**	2.5	55.9
	2/17/09	**71.4**	ND<2.0	72.2
	4/23/09	**49.3**	ND<4	52.5
	7/27/09	**75.5**	ND<10	75.5
	10/14/09	**37.4**	ND<2.0	44.9
	2/13/10	**42.8**	ND<2.0	42.8
	5/4/10	**51.6**	ND<2.0	52.2
	9/16/10	**21.4**	ND<2.0	21.4
	7/14/11	**54.0**	ND<0.5	54.5
	6/13/12	**9.8**	ND<0.5	10.3
	8/21/13	**15**	ND<0.5	15
	9/4/14	**17**	ND<0.5	17

Notes:
1 - Standards are for groundwater according to 6NYCRR Part 700-705; Class GA Groundwater Standards
All concentrations are in ug/L unless otherwise indicated;
NA = Not Applicable;
Boldface type designates those compounds detected at concentrations exceeding NYSDEC standard

Table 4 – Soil Vapor: SSDS Differential Pressure Readings

Table 4. **Differential Pressure Readings (U-Tube Manometer) from Sub-Slab Depressurization Systems**; collected January 2009 to present; Town of Beekman Highway Garage, Town of Beekman New York, PVE Sheffler File #160581

Date	Sampling Location				
	Sherriff's Substation	Block Garage (North)	Block Garage (South)	Pole Barn (East)	Pole Barn (West)
01-12-09	-1.75"	-2.0"	-1.7"	-0.75"	-1.0"
02-17-09	-1.75"	-2.25"	-1.5"	-0.75"	-1.0"
03-20-09	-1.75"	-1.50"	-2.75"	-1.25"	-0.75"
05-12-09	-1.75"	-2.75"	-1.5"	NS	NS
07-27-09	-1.75"	-3.0"	-1.5"	-0.75"	-1.5"
10-14-09	-1.5"	-3.0"	-1.25"	-0.5"	-0.75"
02-23-10	-1.75"	-3.0"	-1.5"	-0.75"	-1.25"
05-05-10	-0.75"	-3.0"	-1.50"	-0.75"	-1.25"
09-16-10	-1.75"	-3.0"	-1.25-1.5"	-0.75"	-1.25"
12-21-10	-2.0"	-3.0"	-1.5"	-0.75"	-1.25"
01-13-11	-2.0"	-3.0"	-1.25"	-0.75"	-1.25"
06-02-11*	-1.75	-1.6"	-1.5"	-0.75"	-1.0"
08-04-11	-1.75"	-1.5"	-1.5"	-0.75"	-1.0"
12-22-11	-1.5"	-0.3"	-1.0"	-0.75"	-1.2"
01-11-12	-1.6"	-0.2"	-1.0"	-0.75"	-1.0"
06-14-12	-1.5"	-0.3"	-1.0"	-0.75"	-1.0"
09-12-12	-1.5"	Offline	-1.0"	-0.75"	-1.0"
12-5-12	-1.5"	Offline	-1.0"	-0.6"	-1.0"
03-13-13	-1.5"	Offline	-1.0"	-0.75"	-1.0"
04-09-13	-1.75"	-1.6"	-0.5"	-0.75"	-1.0"
05-30-13	-1.6"	1.7"	-1.4"	-0.75"	-1.0"

08-21-13	-1.75”	1.6”	1.6”	-0.75”	-0.8”
12-02-13	-1.75”	-1.7”	-1.5”	-0.75”	-1.75”
01-29-14	-1.5”	-1.7”	-1.5”	-0.75”	-1.0”
5-20-14	-1.6"	-1.7"	-1.25"	-0.75"	NS
9-4-14	-1.75"	-1.7"	-1.5"	-0.75"	-1.25"
10-29-14	-1.5"	-1.6"	-1.25"	-0.75"	-1.25"
02-23-15	-1.5"	-1.75"	-1.4"	-0.75"	-1.125"

Notes:
Readings measured in inches of water column;
NS = Not Sampled;
* New U-tube manometer installed at North Block Garage with 1/10” tick marks

Table 5 – Indoor Air: Analytical Data

Table 5. **Volatile Organic Compounds (VOCs) in Ambient Indoor Air Samples**
USEPA TO-15; collected **February 23, 2015**
Beekman Highway Garage, Town of Beekman, New York
PVE Sheffler File #160581

Constituent	CAS number	NYSDOH 2003 Median Concentration (1)	NYSDOH 2003 99th Percentile Concentration (2)	Sample Identification					
				IA-1			IA-2		
				February 23, 2015			February 23, 2015		
				D.C. Sheriff's Substation Office			Highway Superintendent Office		
				Result	Detection Limit	Qualifier	Result	Detection Limit	Qualifier
1,1,1-Trichloroethane	71-55-6	0.3	41	ND<	0.82		ND<	0.82	
1,1,2,2-Tetrachloroethane	79-34-5	<0.25	0.8	ND<	1.0		ND<	1.0	
1,1,2-Trichloroethane	79-00-5	<0.25	1	ND<	0.82		ND<	0.82	
1,1-Dichloroethane	75-34-3	<0.25	0.4	ND<	0.61		ND<	0.61	
1,1-Dichloroethene	75-35-4	<0.25	6.3	ND<	0.59		ND<	0.59	
1,2,4-Trichlorobenzene	120-82-1	<0.25	26	ND<	1.1		ND<	1.1	
1,2,4-Trimethylbenzene	95-63-6	1.9	35	1.1	0.74		**5.0**	0.74	
1,2-Dibromoethane	106-93-4	<0.25	<0.25	ND<	1.2		ND<	1.2	
1,2-Dichlorobenzene	95-50-1	<0.25	2.3	ND<	0.90		ND<	0.90	
1,2-Dichloroethane	107-06-2	<0.25	0.4	ND<	0.61		ND<	0.61	
1,2-Dichloropropane	78-87-5	<0.25	9	ND<	0.69		ND<	0.69	
1,3,5-Trimethylbenzene	108-67-8	0.6	25	0.54	0.74	J	**1.4**	0.74	
1,3-butadiene	106-99-0	NA	NA	ND<	0.33		ND<	0.33	
1,3-Dichlorobenzene	541-73-1	<0.25	1.6	ND<	0.90		ND<	0.90	
1,4-Dichlorobenzene	106-46-7	<0.25	25	ND<	0.90		ND<	0.90	
1,4-Dioxane	123-91-1	NA	NA	ND<	1.1		ND<	1.1	
2,2,4-trimethylpentane	540-84-1	NA	NA	0.51	0.70	J	0.89	0.70	
4-ethyltoluene	622-96-8	2.1	120	ND<	0.74		1.3	0.74	
Acetone	67-64-1	21	200	14	7.1		**47**	28	
Allyl chloride	107-05-1	NA	NA	ND<	0.47		ND<	0.47	
Benzene	71-43-2	2.1	120	1.3	0.48		ND<	0.48	
Benzyl chloride	100-44-7	NA	NA	ND<	0.86		ND<	0.86	
Bromodichloromethane	75-27-4	NA	NA	ND<	1.0		ND<	1.0	
Bromofluorobenzene	460-00-4	NA	NA	ND<	0		ND<	0	
Bromoform	75-25-2	NA	NA	ND<	1.6		ND<	1.6	
Bromomethane	74-83-9	<0.25	3.2	ND<	0.58		ND<	0.58	
Carbon disulfide	75-15-0	NA	NA	ND<	0.47		ND<	0.47	
Carbon tetrachloride	56-23-5	<0.25	3.2	ND<	0.94		ND<	0.94	
Chlorobenzene	108-90-7	<0.25	3.2	ND<	0.69		ND<	0.69	
Chloroethane	75-00-3	<0.25	0.9	ND<	0.40		ND<	0.40	
Chloroform	67-66-3	<0.25	13	ND<	0.73		ND<	0.73	
Chloromethane	74-87-3	0.5	14	**0.99**	0.31		**1.2**	0.31	
cis-1,2-Dichloroethene	156-59-2	<0.25	4.6	ND<	0.59		ND<	0.59	
cis-1,3-Dichloropropene	10061-01-5	<0.25	2.1	ND<	0.68		ND<	0.68	
Cyclohexane	110-82-7	0.8	88	ND<	0.52		ND<	0.52	
Dibromochloromethane	124-48-1	NA	NA	ND<	1.3		ND<	1.3	
Ethyl acetate	141-78-6	NA	NA	ND<	0.90		ND<	0.90	
Ethylbenzene	100-41-4	1	26	ND<	0.65		5.5	0.65	
Freon 11	75-69-4	NA	NA	1.5	0.84		1.4	0.84	
Freon 113	76-13-1	NA	NA	ND<	1.1		ND<	1.1	
Freon 114	76-14-2	<0.25	23	ND<	1.0		ND<	1.0	
Freon 12	75-71-8	<0.25	180	**2.9**	0.74		**2.9**	0.74	
Heptane	142-82-5	2.8	72	ND<	0.61		**2.9**	0.61	
Hexachloro-1,3-butadiene	87-68-3	<0.25	29	ND<	1.6		ND<	1.6	
Hexane	110-54-3	1.6	93	ND<	0.53		1.2	0.53	
Isopropyl alcohol	67-63-0	NA	NA	2.4	0.37		6.9	3.7	
m&p-Xylene	79601-23-1	1.5	46	1.1	1.3	J	**17**	1.3	
Methyl Butyl Ketone	591-78-6	0.3	16	ND<	1.2		ND<	1.2	
Methyl Ethyl Ketone	78-93-3	3.4	79	1.6	0.88		1.9	0.88	
Methyl Isobutyl Ketone	108-10-1	0.3	16	ND<	1.2		**1.1**	1.2	J
Methyl tert-butyl ether	1634-04-4	0.8	230	ND<	0.54		ND<	0.54	
Methylene chloride	75-09-2	1.4	310	ND<	0.52		0.38	0.52	J
o-Xylene	95-47-6	1.1	32	0.43	0.65	J	4.6	0.65	
Propylene	115-07-1	NA	NA	ND<	0.26		ND<	0.26	
Styrene	100-42-5	0.3	6.2	ND<	0.64		ND<	0.64	
Tetrachloroethylene	127-18-4	0.3	20	ND<	1.0		**1.6**	1.0	
Tetrahydrofuran	109-99-9	<0.25	19	ND<	0.44		ND<	0.44	
Toluene	108-88-3	9.6	300	2.4	0.57		6.3	0.57	
trans-1,2-Dichloroethene	156-60-5	NA	NA	ND<	0.59		ND<	0.59	
trans-1,3-Dichloropropene	10061-02-6	<0.25	<0.25	ND<	0.68		ND<	0.68	
Trichloroethene	79-01-6	<0.25	7.4	**1.6**	0.81		ND<	0.81	
Vinyl acetate	108-05-4	NA	NA	ND<	0.53		ND<	0.53	
Vinyl Bromide	593-60-2	NA	NA	ND<	0.66		ND<	0.66	
Vinyl chloride	75-01-4	<0.25	0.8	ND<	0.38		ND<	0.38	

Notes:

All units are µg/m^3 unless otherwise noted

IA prefix represents ambient indoor air samples

ND = Not detected at the reporting limit

J = Analyte detected at or below quantitation limits

B =Compound found in associated method blank

E = Estimated, concentration exceeds calibration range

S = Spike recovery outside accepted recovery limits

1- NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," October 2006,
Appendix C.1 NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes, 1997-2003, Indoor Air- Median Result

2- NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," October 2006,
Appendix C.1 NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes, 1997-2003, Indoor Air- 99th Percentile Result

Boldface font indicates analyte detected above NYSDOH indoor air median result

Boldface and highlight indicates analyte detected above NYSDOH 99th percentile result

Appendix A – NYSDEC 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. 314094

Site Name Beekman Town Garage

Site Address: Beekman Poughquag Road Zip Code: 12570
City/Town: Beekman
County: Dutchess
Site Acreage: 3.4

Reporting Period: May 20, 2014 to June 06, 2015

	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. 314094 Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
p/o 6758-02-807742	Town of Beekman	Monitoring Plan Site Management Plan O&M Plan IC/EC Plan Ground Water Use Restriction Landuse Restriction

1. Compliance with the Deed Restriction by the Grantor and the Grantor's successors and assigns with all elements of the Site Management Plan (SMP)
2. All Engineering Controls must be operated and maintained as specified in the SMP
3. All Engineering Controls on the Controlled Property must be inspected and certified at a frequency and in a manner defined in the SMP.
4. Groundwater and soil vapor monitoring must be performed as defined in the SMP
5. Data and information pertinent to Site Management for the Controlled Property must be reported at the frequency and in a manner defined in the SMP.
6. On-site environmental monitoring devices, including groundwater monitoring wells and sub-slab depressurization systems, must be protected and replaced as necessary to ensure the devices function in the manner specified in the SMP

Box 4

Description of Engineering Controls

Parcel	Engineering Control
p/o 6758-02-807742	Vapor Mitigation Cover System

1. A cover system consisting of asphalt pavement is in place covering the area of excavated soil.
2. Sub-slab depressurization systems are in place in the Sheriff's Substations, Block Garage, and Pole Barn
3. Natural attenuation of groundwater contaminants

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. 314094

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 CHRISTOPHER BROWN at PVE SHEFFLER, 48 SPRINGSIDE AVE
print name print business address POUGHKEEPSIE NY 12603

am certifying as REMEDIAL PARTY (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 — Date: 5-15-15

(43)

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional 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 CHRISTOPHER BROWN (print name) at PVESHEFFLER, LLC 48 SPRINGSIDE AVE (print business address) POUGHKEEPSIE NY

am certifying as a Qualified Environmental Professional for the TOWN OF BEEKMAN (Owner or Remedial Party)

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

5-15-15
Date

Appendix B – Groundwater Sampling Logs

PVE Sheffler

Well Development & Sample Log

09/04/14

In-Situ Inc.
Low-Flow System
Troll 9500

Project Information:		**Pump Information:**	
Operator Name	Stephanie Lewison	Pump Model/Type	Peri Pump
Company Name	PVE Sheffler	Tubing Type	Silicon & Poly
Project Name	160581	Tubing Diameter	0.25 [in]
Site Name	Beekman Highway Garage	Tubing Length	24 [ft]
		Pump placement from TOC	22 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-3	Final pumping rate	300 [mL/min]
Well diameter	2 [in]	Flowcell volume	348.67 [mL]
Well total depth	24 [ft]	Calculated Sample Rate	70 [sec]
Depth to top of screen	14 [ft]	Sample rate	70 [sec]
Screen length	120 [in]	Stabilized drawdown	4 [in]

Low-Flow Sampling Stabilization Summary

	Time	Turb [NTU]	pH [pH]	RDO []	Cond [mS/cm]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1
Last 5 Readings	12:50:06 PM	9.39	7.58		1.42	33.65	18.95
	12:51:17 PM	9.25	7.58		1.42	33.85	19.11
	12:52:27 PM	9.46	7.58		1.42	33.47	19.01
	12:53:38 PM	9.83	7.58		1.42	33.79	18.40
	12:54:49 PM	9.62	7.60		1.43	35.39	13.81
Variance in last 3 readings		0.21	0.00		0.00	-0.37	-0.10
		0.36	-0.01		0.00	0.32	-0.61
		-0.21	0.03		0.00	1.60	-4.59

PVE Sheffler

Well Development & Sample Log

09/04/14

In-Situ Inc.
Low-Flow System
Troll 9500

Project Information:		**Pump Information:**	
Operator Name	Stephanie Lewison	Pump Model/Type	Peri Pump
Company Name	PVE Sheffler	Tubing Type	Silicon & Poly
Project Name	160581	Tubing Diameter	0.25 [in]
Site Name	Beekman Highway Garage	Tubing Length	26 [ft]
		Pump placement from TOC	23 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-4	Final pumping rate	375 [mL/min]
Well diameter	2 [in]	Flowcell volume	367.97 [mL]
Well total depth	23 [ft]	Calculated Sample Rate	59 [sec]
Depth to top of screen	13 [ft]	Sample rate	59 [sec]
Screen length	120 [in]	Stabilized drawdown	4 [in]

Low-Flow Sampling Stabilization Summary

	Time	Turb [NTU]	pH [pH]	RDO []	Cond [mS/cm]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1
Last 5 Readings	10:21:42 AM	7.64	15.30		1.47	2.08	66.97
	10:22:42 AM	6.69	15.29		1.47	2.04	67.27
	10:22:55 AM	8.39	15.30		1.46	2.03	67.31
	10:23:55 AM	6.15	15.30		1.46	2.00	67.69
	10:24:54 AM	6.57	15.30		1.46	1.95	67.65
Variance in last 3 readings		1.70	0.00		0.00	-0.01	0.04
		-2.24	0.00		-0.01	-0.03	0.38
		0.42	0.00		0.00	-0.05	-0.04

PVE Sheffler

Well Development & Sample Log

09/04/14

In-Situ Inc.
Low-Flow System
Troll 9500

Project Information:		**Pump Information:**	
Operator Name	Stephanie Lewison	Pump Model/Type	Peri Pump
Company Name	PVE Sheffler	Tubing Type	Silicon & Poly
Project Name	160581	Tubing Diameter	0.25 [in]
Site Name	Beekman Highway Garage	Tubing Length	28 [ft]
		Pump placement from TOC	24 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-5	Final pumping rate	300 [mL/min]
Well diameter	2 [in]	Flowcell volume	387.28 [mL]
Well total depth	25 [ft]	Calculated Sample Rate	78 [sec]
Depth to top of screen	15 [ft]	Sample rate	78 [sec]
Screen length	120 [in]	Stabilized drawdown	4 [in]

Low-Flow Sampling Stabilization Summary

	Time	Turb [NTU]	pH [pH]	RDO []	Cond [mS/cm]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1
Last 5 Readings	12:02:11 PM	22.61	7.23		2.93	37.20	41.33
	12:03:29 PM	18.66	7.24		2.94	37.86	39.52
	12:04:48 PM	20.81	7.23		2.93	38.11	39.09
	12:06:08 PM	12.98	7.24		2.93	37.81	37.55
	12:07:26 PM	12.16	7.21		2.93	37.73	38.87
Variance in last 3 readings		2.15	-0.01		-0.01	0.25	-0.43
		-7.83	0.01		0.00	-0.30	-1.55
		-0.82	-0.03		0.00	-0.08	1.32

PVE Sheffler

Well Development & Sample Log

09/04/14

In-Situ Inc.
Low-Flow System
Troll 9500

Project Information:		**Pump Information:**	
Operator Name	Stephanie Lewison	Pump Model/Type	Peri Pump
Company Name	PVE Sheffler	Tubing Type	Silicon & Poly
Project Name	160581	Tubing Diameter	0.25 [in]
Site Name	Beekman Highway Garage	Tubing Length	21 [ft]
		Pump placement from TOC	15 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-8	Final pumping rate	300 [mL/min]
Well diameter	2 [in]	Flowcell volume	319.71 [mL]
Well total depth	18 [ft]	Calculated Sample Rate	64 [sec]
Depth to top of screen	8 [ft]	Sample rate	64 [sec]
Screen length	120 [in]	Stabilized drawdown	4 [in]

Low-Flow Sampling Stabilization Summary

	Time	Turb [NTU]	pH [pH]	RDO []	Cond [mS/cm]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1
Last 5 Readings	11:29:23 AM	10.03	6.46		1.38	17.04	-7.28
	11:30:29 AM	10.40	6.46		1.37	17.42	-6.77
	11:31:34 AM	12.11	6.46		1.38	16.87	-6.12
	11:32:38 AM	9.45	6.47		1.38	17.02	-6.29
	11:33:43 AM	9.18	6.47		1.37	16.91	-5.95
Variance in last 3 readings		1.72	0.00		0.00	-0.55	0.64
		-2.67	0.01		0.00	0.15	-0.17
		-0.26	0.00		-0.01	-0.11	0.34

PVE Sheffler

Well Development & Sample Log

09/04/14

In-Situ Inc.
Low-Flow System
Troll 9500

Project Information:		**Pump Information:**	
Operator Name	Stephanie Lewison	Pump Model/Type	Peri Pump
Company Name	PVE Sheffler	Tubing Type	Silicon & Poly
Project Name	160581	Tubing Diameter	0.25 [in]
Site Name	Beekman Highway Garage	Tubing Length	22 [ft]
		Pump placement from TOC	21 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-17	Final pumping rate	200 [mL/min]
Well diameter	2 [in]	Flowcell volume	329.36 [mL]
Well total depth	23 [ft]	Calculated Sample Rate	99 [sec]
Depth to top of screen	13 [ft]	Sample rate	99 [sec]
Screen length	120 [in]	Stabilized drawdown	4 [in]

Low-Flow Sampling Stabilization Summary

	Time	Turb [NTU]	pH [pH]	RDO []	Cond [mS/cm]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1
Last 5 Readings	11:55:17 AM	9.72	11.50		1.78	0.89	105.33
	11:56:56 AM	9.59	11.54		1.79	0.85	104.26
	11:58:37 AM	8.74	11.55		1.80	0.80	103.40
	12:00:16 PM	10.14	11.60		1.79	0.79	102.59
	12:01:57 PM	9.10	11.65		1.78	0.79	101.95
Variance in last 3 readings		-0.86	0.00		0.01	-0.04	-0.86
		1.40	0.05		0.00	-0.01	-0.81
		-1.04	0.05		-0.01	-0.01	-0.64

PVE Sheffler

Well Development & Sample Log

09/04/14

In-Situ Inc.
Low-Flow System
Troll 9500

Project Information:		**Pump Information:**	
Operator Name	Stephanie Lewison	Pump Model/Type	Peri Pump
Company Name	PVE Sheffler	Tubing Type	Silicon & Poly
Project Name	160581	Tubing Diameter	0.25 [in]
Site Name	Beekman Highway Garage	Tubing Length	26 [ft]
		Pump placement from TOC	14 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-18S	Final pumping rate	375 [mL/min]
Well diameter	2 [in]	Flowcell volume	367.97 [mL]
Well total depth	19 [ft]	Calculated Sample Rate	59 [sec]
Depth to top of screen	9 [ft]	Sample rate	59 [sec]
Screen length	120 [in]	Stabilized drawdown	4 [in]

Low-Flow Sampling Stabilization Summary

	Time	Turb [NTU]	pH [pH]	RDO []	Cond [mS/cm]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1
Last 5 Readings	11:02:29 AM	4.95	12.47		1.16	9.76	123.18
	11:03:28 AM	4.67	12.45		1.17	9.77	123.78
	11:04:28 AM	4.82	12.50		1.20	9.74	124.33
	11:05:28 AM	5.07	12.61		1.23	9.75	124.93
	11:06:28 AM	11.62	12.61		1.25	9.75	125.41
Variance in last 3 readings		0.15	0.05		0.03	-0.03	0.56
		0.24	0.11		0.03	0.00	0.60
		6.56	0.00		0.02	0.00	0.47

Appendix C – Laboratory Report for Groundwater Samples

PARADIGM

Analytical Report For

PVE Sheffler

For Lab Project ID

143858

Referencing

560581-Beekman Highway Garage

Prepared

Monday, September 15, 2014

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier: MW-4 20140904
Lab Sample ID: 143858-01 **Date Sampled:** 9/4/2014
Matrix: Groundwater **Date Received:** 9/5/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	<0.50	ug/L		9/11/2014
1,1,1-Trichloroethane	<0.50	ug/L		9/11/2014
1,1,2,2-Tetrachloroethane	<0.50	ug/L		9/11/2014
1,1,2-Trichloroethane	<0.50	ug/L		9/11/2014
1,1-Dichloroethane	<0.50	ug/L		9/11/2014
1,1-Dichloroethene	<0.50	ug/L		9/11/2014
1,1-Dichloropropene	<0.50	ug/L		9/11/2014
1,2,3-Trichlorobenzene	<0.50	ug/L		9/11/2014
1,2,3-Trichloropropane	<0.50	ug/L		9/11/2014
1,2,4-Trichlorobenzene	<0.50	ug/L		9/11/2014
1,2,4-Trimethylbenzene	<0.50	ug/L		9/11/2014
1,2-Dichlorobenzene	<0.50	ug/L		9/11/2014
1,2-Dichloroethane	<0.50	ug/L		9/11/2014
1,2-Dichloropropane	<0.50	ug/L		9/11/2014
1,3,5-Trimethylbenzene	<0.50	ug/L		9/11/2014
1,3-Dichlorobenzene	<0.50	ug/L		9/11/2014
1,3-Dichloropropane	<0.50	ug/L		9/11/2014
1,4-Dichlorobenzene	<0.50	ug/L		9/11/2014
2,2-Dichloropropane	<0.50	ug/L		9/11/2014
2-Chlorotoluene	<0.50	ug/L		9/11/2014
4-Chlorotoluene	<0.50	ug/L		9/11/2014
Benzene	<0.50	ug/L		9/11/2014
Bromobenzene	<0.50	ug/L		9/11/2014
Bromochloromethane	<0.50	ug/L		9/11/2014
Bromodichloromethane	<0.50	ug/L		9/11/2014
Bromoform	<0.50	ug/L		9/11/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-4 20140904		
Lab Sample ID:	143858-01	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

Bromomethane	<0.50	ug/L			9/11/2014
Carbon Tetrachloride	<0.50	ug/L			9/11/2014
Chlorobenzene	<0.50	ug/L			9/11/2014
Chloroethane	<0.50	ug/L			9/11/2014
Chloroform	<0.50	ug/L			9/11/2014
Chloromethane	<0.50	ug/L			9/11/2014
cis-1,2-Dichloroethene	<0.50	ug/L			9/11/2014
cis-1,3-Dichloropropene	<0.50	ug/L			9/11/2014
Dibromochloromethane	<0.50	ug/L			9/11/2014
Dibromomethane	<0.50	ug/L			9/11/2014
Dichlorodifluoromethane	<0.50	ug/L		E	9/11/2014
Ethylbenzene	<0.50	ug/L			9/11/2014
Hexachlorobutadiene	<0.50	ug/L			9/11/2014
Isopropylbenzene	<0.50	ug/L			9/11/2014
m,p-Xylene	<0.50	ug/L			9/11/2014
Methyl tert-butyl Ether	<0.50	ug/L			9/11/2014
Methylene chloride	<0.50	ug/L			9/11/2014
Naphthalene	<0.50	ug/L			9/11/2014
n-Butylbenzene	<0.50	ug/L			9/11/2014
n-Propylbenzene	<0.50	ug/L			9/11/2014
o-Xylene	<0.50	ug/L			9/11/2014
p-Isopropyltoluene	<0.50	ug/L			9/11/2014
sec-Butylbenzene	<0.50	ug/L			9/11/2014
Styrene	<0.50	ug/L			9/11/2014
tert-Butylbenzene	<0.50	ug/L			9/11/2014
Tetrachloroethene	**17.0**	ug/L			9/11/2014
Toluene	<0.50	ug/L			9/11/2014
trans-1,2-Dichloroethene	<0.50	ug/L			9/11/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier: MW-4 20140904
Lab Sample ID: 143858-01 **Date Sampled:** 9/4/2014
Matrix: Groundwater **Date Received:** 9/5/2014

trans-1,3-Dichloropropene	<0.50	ug/L	9/11/2014
Trichloroethene	<0.50	ug/L	9/11/2014
Trichlorofluoromethane	<0.50	ug/L	9/11/2014
Vinyl chloride	<0.50	ug/L	9/11/2014

Method Reference(s): EPA 524 Modified
Subcontractor ELAP ID: 10478

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier: MW-8 20140904
Lab Sample ID: 143858-02 **Date Sampled:** 9/4/2014
Matrix: Groundwater **Date Received:** 9/5/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	<0.50	ug/L		9/11/2014
1,1,1-Trichloroethane	<0.50	ug/L		9/11/2014
1,1,2,2-Tetrachloroethane	<0.50	ug/L		9/11/2014
1,1,2-Trichloroethane	<0.50	ug/L		9/11/2014
1,1-Dichloroethane	<0.50	ug/L		9/11/2014
1,1-Dichloroethene	<0.50	ug/L		9/11/2014
1,1-Dichloropropene	<0.50	ug/L		9/11/2014
1,2,3-Trichlorobenzene	<0.50	ug/L		9/11/2014
1,2,3-Trichloropropane	<0.50	ug/L		9/11/2014
1,2,4-Trichlorobenzene	<0.50	ug/L		9/11/2014
1,2,4-Trimethylbenzene	<0.50	ug/L		9/11/2014
1,2-Dichlorobenzene	<0.50	ug/L		9/11/2014
1,2-Dichloroethane	<0.50	ug/L		9/11/2014
1,2-Dichloropropane	<0.50	ug/L		9/11/2014
1,3,5-Trimethylbenzene	<0.50	ug/L		9/11/2014
1,3-Dichlorobenzene	<0.50	ug/L		9/11/2014
1,3-Dichloropropane	<0.50	ug/L		9/11/2014
1,4-Dichlorobenzene	<0.50	ug/L		9/11/2014
2,2-Dichloropropane	<0.50	ug/L		9/11/2014
2-Chlorotoluene	<0.50	ug/L		9/11/2014
4-Chlorotoluene	<0.50	ug/L		9/11/2014
Benzene	<0.50	ug/L		9/11/2014
Bromobenzene	<0.50	ug/L		9/11/2014
Bromochloromethane	<0.50	ug/L		9/11/2014
Bromodichloromethane	<0.50	ug/L		9/11/2014
Bromoform	<0.50	ug/L		9/11/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-8 20140904		
Lab Sample ID:	143858-02	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

Bromomethane	<0.50	ug/L			9/11/2014
Carbon Tetrachloride	<0.50	ug/L			9/11/2014
Chlorobenzene	<0.50	ug/L			9/11/2014
Chloroethane	<0.50	ug/L			9/11/2014
Chloroform	<0.50	ug/L			9/11/2014
Chloromethane	<0.50	ug/L			9/11/2014
cis-1,2-Dichloroethene	<0.50	ug/L			9/11/2014
cis-1,3-Dichloropropene	<0.50	ug/L			9/11/2014
Dibromochloromethane	<0.50	ug/L			9/11/2014
Dibromomethane	<0.50	ug/L			9/11/2014
Dichlorodifluoromethane	<0.50	ug/L		E	9/11/2014
Ethylbenzene	<0.50	ug/L			9/11/2014
Hexachlorobutadiene	<0.50	ug/L			9/11/2014
Isopropylbenzene	<0.50	ug/L			9/11/2014
m,p-Xylene	<0.50	ug/L			9/11/2014
Methyl tert-butyl Ether	<0.50	ug/L			9/11/2014
Methylene chloride	<0.50	ug/L			9/11/2014
Naphthalene	<0.50	ug/L			9/11/2014
n-Butylbenzene	<0.50	ug/L			9/11/2014
n-Propylbenzene	<0.50	ug/L			9/11/2014
o-Xylene	<0.50	ug/L			9/11/2014
p-Isopropyltoluene	<0.50	ug/L			9/11/2014
sec-Butylbenzene	<0.50	ug/L			9/11/2014
Styrene	<0.50	ug/L			9/11/2014
tert-Butylbenzene	<0.50	ug/L			9/11/2014
Tetrachloroethene	**5.80**	ug/L			9/11/2014
Toluene	<0.50	ug/L			9/11/2014
trans-1,2-Dichloroethene	<0.50	ug/L			9/11/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-8 20140904		
Lab Sample ID:	143858-02	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

trans-1,3-Dichloropropene	<0.50	ug/L	9/11/2014
Trichloroethene	<0.50	ug/L	9/11/2014
Trichlorofluoromethane	<0.50	ug/L	9/11/2014
Vinyl chloride	<0.50	ug/L	9/11/2014

Method Reference(s): EPA 524 Modified
Subcontractor ELAP ID: 10478

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier: MW-5 20140904
Lab Sample ID: 143858-03 **Date Sampled:** 9/4/2014
Matrix: Groundwater **Date Received:** 9/5/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	<0.50	ug/L		9/11/2014
1,1,1-Trichloroethane	<0.50	ug/L		9/11/2014
1,1,2,2-Tetrachloroethane	<0.50	ug/L		9/11/2014
1,1,2-Trichloroethane	<0.50	ug/L		9/11/2014
1,1-Dichloroethane	<0.50	ug/L		9/11/2014
1,1-Dichloroethene	<0.50	ug/L		9/11/2014
1,1-Dichloropropene	<0.50	ug/L		9/11/2014
1,2,3-Trichlorobenzene	<0.50	ug/L		9/11/2014
1,2,3-Trichloropropane	<0.50	ug/L		9/11/2014
1,2,4-Trichlorobenzene	<0.50	ug/L		9/11/2014
1,2,4-Trimethylbenzene	<0.50	ug/L		9/11/2014
1,2-Dichlorobenzene	<0.50	ug/L		9/11/2014
1,2-Dichloroethane	<0.50	ug/L		9/11/2014
1,2-Dichloropropane	<0.50	ug/L		9/11/2014
1,3,5-Trimethylbenzene	<0.50	ug/L		9/11/2014
1,3-Dichlorobenzene	<0.50	ug/L		9/11/2014
1,3-Dichloropropane	<0.50	ug/L		9/11/2014
1,4-Dichlorobenzene	<0.50	ug/L		9/11/2014
2,2-Dichloropropane	<0.50	ug/L		9/11/2014
2-Chlorotoluene	<0.50	ug/L		9/11/2014
4-Chlorotoluene	<0.50	ug/L		9/11/2014
Benzene	<0.50	ug/L		9/11/2014
Bromobenzene	<0.50	ug/L		9/11/2014
Bromochloromethane	<0.50	ug/L		9/11/2014
Bromodichloromethane	<0.50	ug/L		9/11/2014
Bromoform	<0.50	ug/L		9/11/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-5 20140904		
Lab Sample ID:	143858-03	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

Bromomethane	<0.50	ug/L			9/11/2014
Carbon Tetrachloride	<0.50	ug/L			9/11/2014
Chlorobenzene	<0.50	ug/L			9/11/2014
Chloroethane	<0.50	ug/L			9/11/2014
Chloroform	<0.50	ug/L			9/11/2014
Chloromethane	<0.50	ug/L			9/11/2014
cis-1,2-Dichloroethene	<0.50	ug/L			9/11/2014
cis-1,3-Dichloropropene	<0.50	ug/L			9/11/2014
Dibromochloromethane	<0.50	ug/L			9/11/2014
Dibromomethane	<0.50	ug/L			9/11/2014
Dichlorodifluoromethane	<0.50	ug/L		E	9/11/2014
Ethylbenzene	<0.50	ug/L			9/11/2014
Hexachlorobutadiene	<0.50	ug/L			9/11/2014
Isopropylbenzene	<0.50	ug/L			9/11/2014
m,p-Xylene	<0.50	ug/L			9/11/2014
Methyl tert-butyl Ether	<0.50	ug/L			9/11/2014
Methylene chloride	<0.50	ug/L			9/11/2014
Naphthalene	<0.50	ug/L			9/11/2014
n-Butylbenzene	<0.50	ug/L			9/11/2014
n-Propylbenzene	<0.50	ug/L			9/11/2014
o-Xylene	<0.50	ug/L			9/11/2014
p-Isopropyltoluene	<0.50	ug/L			9/11/2014
sec-Butylbenzene	<0.50	ug/L			9/11/2014
Styrene	<0.50	ug/L			9/11/2014
tert-Butylbenzene	<0.50	ug/L			9/11/2014
Tetrachloroethene	**0.870**	ug/L			9/11/2014
Toluene	<0.50	ug/L			9/11/2014
trans-1,2-Dichloroethene	<0.50	ug/L			9/11/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier: MW-5 20140904
Lab Sample ID: 143858-03 **Date Sampled:** 9/4/2014
Matrix: Groundwater **Date Received:** 9/5/2014

trans-1,3-Dichloropropene	<0.50	ug/L	9/11/2014
Trichloroethene	<0.50	ug/L	9/11/2014
Trichlorofluoromethane	<0.50	ug/L	9/11/2014
Vinyl chloride	<0.50	ug/L	9/11/2014

Method Reference(s): EPA 524 Modified
Subcontractor ELAP ID: 10478

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier: MW-17 20140904
Lab Sample ID: 143858-04 **Date Sampled:** 9/4/2014
Matrix: Groundwater **Date Received:** 9/5/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,1-Trichloroethane	<0.50	ug/L		9/12/2014
1,1,2,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,2-Trichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethene	<0.50	ug/L		9/12/2014
1,1-Dichloropropene	<0.50	ug/L		9/12/2014
1,2,3-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,3-Trichloropropane	<0.50	ug/L		9/12/2014
1,2,4-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,4-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,2-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,2-Dichloroethane	<0.50	ug/L		9/12/2014
1,2-Dichloropropane	<0.50	ug/L		9/12/2014
1,3,5-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,3-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,3-Dichloropropane	<0.50	ug/L		9/12/2014
1,4-Dichlorobenzene	<0.50	ug/L		9/12/2014
2,2-Dichloropropane	<0.50	ug/L		9/12/2014
2-Chlorotoluene	<0.50	ug/L		9/12/2014
4-Chlorotoluene	<0.50	ug/L		9/12/2014
Benzene	<0.50	ug/L		9/12/2014
Bromobenzene	<0.50	ug/L		9/12/2014
Bromochloromethane	<0.50	ug/L		9/12/2014
Bromodichloromethane	<0.50	ug/L		9/12/2014
Bromoform	<0.50	ug/L		9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-17 20140904		
Lab Sample ID:	143858-04	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

Bromomethane	<0.50	ug/L			9/12/2014
Carbon Tetrachloride	<0.50	ug/L			9/12/2014
Chlorobenzene	<0.50	ug/L			9/12/2014
Chloroethane	<0.50	ug/L			9/12/2014
Chloroform	<0.50	ug/L			9/12/2014
Chloromethane	<0.50	ug/L			9/12/2014
cis-1,2-Dichloroethene	<0.50	ug/L			9/12/2014
cis-1,3-Dichloropropene	<0.50	ug/L			9/12/2014
Dibromochloromethane	<0.50	ug/L			9/12/2014
Dibromomethane	<0.50	ug/L			9/12/2014
Dichlorodifluoromethane	<0.50	ug/L		E	9/12/2014
Ethylbenzene	<0.50	ug/L			9/12/2014
Hexachlorobutadiene	<0.50	ug/L			9/12/2014
Isopropylbenzene	<0.50	ug/L			9/12/2014
m,p-Xylene	<0.50	ug/L			9/12/2014
Methyl tert-butyl Ether	<0.50	ug/L			9/12/2014
Methylene chloride	<0.50	ug/L			9/12/2014
Naphthalene	<0.50	ug/L			9/12/2014
n-Butylbenzene	<0.50	ug/L			9/12/2014
n-Propylbenzene	<0.50	ug/L			9/12/2014
o-Xylene	<0.50	ug/L			9/12/2014
p-Isopropyltoluene	<0.50	ug/L			9/12/2014
sec-Butylbenzene	<0.50	ug/L			9/12/2014
Styrene	<0.50	ug/L			9/12/2014
tert-Butylbenzene	<0.50	ug/L			9/12/2014
Tetrachloroethene	**1.50**	ug/L			9/12/2014
Toluene	<0.50	ug/L			9/12/2014
trans-1,2-Dichloroethene	**0.540**	ug/L			9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-17 20140904		
Lab Sample ID:	143858-04	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

trans-1,3-Dichloropropene	<0.50	ug/L	9/12/2014
Trichloroethene	**0.690**	ug/L	9/12/2014
Trichlorofluoromethane	<0.50	ug/L	9/12/2014
Vinyl chloride	<0.50	ug/L	9/12/2014

Method Reference(s): EPA 524 Modified
Subcontractor ELAP ID: 10478

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier: MW-3 20140904
Lab Sample ID: 143858-05 **Date Sampled:** 9/4/2014
Matrix: Groundwater **Date Received:** 9/5/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,1-Trichloroethane	<0.50	ug/L		9/12/2014
1,1,2,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,2-Trichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethene	<0.50	ug/L		9/12/2014
1,1-Dichloropropene	<0.50	ug/L		9/12/2014
1,2,3-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,3-Trichloropropane	<0.50	ug/L		9/12/2014
1,2,4-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,4-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,2-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,2-Dichloroethane	<0.50	ug/L		9/12/2014
1,2-Dichloropropane	<0.50	ug/L		9/12/2014
1,3,5-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,3-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,3-Dichloropropane	<0.50	ug/L		9/12/2014
1,4-Dichlorobenzene	<0.50	ug/L		9/12/2014
2,2-Dichloropropane	<0.50	ug/L		9/12/2014
2-Chlorotoluene	<0.50	ug/L		9/12/2014
4-Chlorotoluene	<0.50	ug/L		9/12/2014
Benzene	<0.50	ug/L		9/12/2014
Bromobenzene	<0.50	ug/L		9/12/2014
Bromochloromethane	<0.50	ug/L		9/12/2014
Bromodichloromethane	<0.50	ug/L		9/12/2014
Bromoform	<0.50	ug/L		9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-3 20140904		
Lab Sample ID:	143858-05	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

Bromomethane	<0.50	ug/L			9/12/2014
Carbon Tetrachloride	<0.50	ug/L			9/12/2014
Chlorobenzene	<0.50	ug/L			9/12/2014
Chloroethane	<0.50	ug/L			9/12/2014
Chloroform	<0.50	ug/L			9/12/2014
Chloromethane	<0.50	ug/L			9/12/2014
cis-1,2-Dichloroethene	<0.50	ug/L			9/12/2014
cis-1,3-Dichloropropene	<0.50	ug/L			9/12/2014
Dibromochloromethane	<0.50	ug/L			9/12/2014
Dibromomethane	<0.50	ug/L			9/12/2014
Dichlorodifluoromethane	<0.50	ug/L		E	9/12/2014
Ethylbenzene	<0.50	ug/L			9/12/2014
Hexachlorobutadiene	<0.50	ug/L			9/12/2014
Isopropylbenzene	<0.50	ug/L			9/12/2014
m,p-Xylene	<0.50	ug/L			9/12/2014
Methyl tert-butyl Ether	<0.50	ug/L			9/12/2014
Methylene chloride	<0.50	ug/L			9/12/2014
Naphthalene	<0.50	ug/L			9/12/2014
n-Butylbenzene	<0.50	ug/L			9/12/2014
n-Propylbenzene	<0.50	ug/L			9/12/2014
o-Xylene	<0.50	ug/L			9/12/2014
p-Isopropyltoluene	<0.50	ug/L			9/12/2014
sec-Butylbenzene	<0.50	ug/L			9/12/2014
Styrene	<0.50	ug/L			9/12/2014
tert-Butylbenzene	<0.50	ug/L			9/12/2014
Tetrachloroethene	**0.610**	ug/L			9/12/2014
Toluene	<0.50	ug/L			9/12/2014
trans-1,2-Dichloroethene	<0.50	ug/L			9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-3 20140904		
Lab Sample ID:	143858-05	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

trans-1,3-Dichloropropene	<0.50	ug/L	9/12/2014
Trichloroethene	<0.50	ug/L	9/12/2014
Trichlorofluoromethane	<0.50	ug/L	9/12/2014
Vinyl chloride	<0.50	ug/L	9/12/2014

Method Reference(s): EPA 524 Modified
Subcontractor ELAP ID: 10478

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier: FB-1 20140904
Lab Sample ID: 143858-06 **Date Sampled:** 9/4/2014
Matrix: Water **Date Received:** 9/5/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,1-Trichloroethane	<0.50	ug/L		9/12/2014
1,1,2,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,2-Trichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethene	<0.50	ug/L		9/12/2014
1,1-Dichloropropene	<0.50	ug/L		9/12/2014
1,2,3-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,3-Trichloropropane	<0.50	ug/L		9/12/2014
1,2,4-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,4-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,2-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,2-Dichloroethane	<0.50	ug/L		9/12/2014
1,2-Dichloropropane	<0.50	ug/L		9/12/2014
1,3,5-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,3-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,3-Dichloropropane	<0.50	ug/L		9/12/2014
1,4-Dichlorobenzene	<0.50	ug/L		9/12/2014
2,2-Dichloropropane	<0.50	ug/L		9/12/2014
2-Chlorotoluene	<0.50	ug/L		9/12/2014
4-Chlorotoluene	<0.50	ug/L		9/12/2014
Benzene	<0.50	ug/L		9/12/2014
Bromobenzene	<0.50	ug/L		9/12/2014
Bromochloromethane	<0.50	ug/L		9/12/2014
Bromodichloromethane	<0.50	ug/L		9/12/2014
Bromoform	<0.50	ug/L		9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	FB-1 20140904		
Lab Sample ID:	143858-06	**Date Sampled:**	9/4/2014
Matrix:	Water	**Date Received:**	9/5/2014

Bromomethane	<0.50	ug/L		9/12/2014
Carbon Tetrachloride	<0.50	ug/L		9/12/2014
Chlorobenzene	<0.50	ug/L		9/12/2014
Chloroethane	<0.50	ug/L		9/12/2014
Chloroform	<0.50	ug/L		9/12/2014
Chloromethane	<0.50	ug/L		9/12/2014
cis-1,2-Dichloroethene	<0.50	ug/L		9/12/2014
cis-1,3-Dichloropropene	<0.50	ug/L		9/12/2014
Dibromochloromethane	<0.50	ug/L		9/12/2014
Dibromomethane	<0.50	ug/L		9/12/2014
Dichlorodifluoromethane	<0.50	ug/L	E	9/12/2014
Ethylbenzene	<0.50	ug/L		9/12/2014
Hexachlorobutadiene	<0.50	ug/L		9/12/2014
Isopropylbenzene	<0.50	ug/L		9/12/2014
m,p-Xylene	<0.50	ug/L		9/12/2014
Methyl tert-butyl Ether	<0.50	ug/L		9/12/2014
Methylene chloride	<0.50	ug/L		9/12/2014
Naphthalene	<0.50	ug/L		9/12/2014
n-Butylbenzene	<0.50	ug/L		9/12/2014
n-Propylbenzene	<0.50	ug/L		9/12/2014
o-Xylene	<0.50	ug/L		9/12/2014
p-Isopropyltoluene	<0.50	ug/L		9/12/2014
sec-Butylbenzene	<0.50	ug/L		9/12/2014
Styrene	<0.50	ug/L		9/12/2014
tert-Butylbenzene	<0.50	ug/L		9/12/2014
Tetrachloroethene	<0.50	ug/L		9/12/2014
Toluene	<0.50	ug/L		9/12/2014
trans-1,2-Dichloroethene	<0.50	ug/L		9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	FB-1 20140904		
Lab Sample ID:	143858-06	**Date Sampled:**	9/4/2014
Matrix:	Water	**Date Received:**	9/5/2014

trans-1,3-Dichloropropene	<0.50	ug/L	9/12/2014
Trichloroethene	<0.50	ug/L	9/12/2014
Trichlorofluoromethane	<0.50	ug/L	9/12/2014
Vinyl chloride	<0.50	ug/L	9/12/2014

Method Reference(s): EPA 524
Subcontractor ELAP ID: 10478

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-18S 20140904		
Lab Sample ID:	143858-07	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,1-Trichloroethane	<0.50	ug/L		9/12/2014
1,1,2,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,2-Trichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethene	<0.50	ug/L		9/12/2014
1,1-Dichloropropene	<0.50	ug/L		9/12/2014
1,2,3-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,3-Trichloropropane	<0.50	ug/L		9/12/2014
1,2,4-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,4-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,2-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,2-Dichloroethane	<0.50	ug/L		9/12/2014
1,2-Dichloropropane	<0.50	ug/L		9/12/2014
1,3,5-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,3-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,3-Dichloropropane	<0.50	ug/L		9/12/2014
1,4-Dichlorobenzene	<0.50	ug/L		9/12/2014
2,2-Dichloropropane	<0.50	ug/L		9/12/2014
2-Chlorotoluene	<0.50	ug/L		9/12/2014
4-Chlorotoluene	<0.50	ug/L		9/12/2014
Benzene	<0.50	ug/L		9/12/2014
Bromobenzene	<0.50	ug/L		9/12/2014
Bromochloromethane	<0.50	ug/L		9/12/2014
Bromodichloromethane	<0.50	ug/L		9/12/2014
Bromoform	<0.50	ug/L		9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-18S 20140904		
Lab Sample ID:	143858-07	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

Bromomethane	<0.50	ug/L			9/12/2014
Carbon Tetrachloride	<0.50	ug/L			9/12/2014
Chlorobenzene	<0.50	ug/L			9/12/2014
Chloroethane	<0.50	ug/L			9/12/2014
Chloroform	<0.50	ug/L			9/12/2014
Chloromethane	<0.50	ug/L			9/12/2014
cis-1,2-Dichloroethene	<0.50	ug/L			9/12/2014
cis-1,3-Dichloropropene	<0.50	ug/L			9/12/2014
Dibromochloromethane	<0.50	ug/L			9/12/2014
Dibromomethane	<0.50	ug/L			9/12/2014
Dichlorodifluoromethane	<0.50	ug/L		E	9/12/2014
Ethylbenzene	<0.50	ug/L			9/12/2014
Hexachlorobutadiene	<0.50	ug/L			9/12/2014
Isopropylbenzene	<0.50	ug/L			9/12/2014
m,p-Xylene	<0.50	ug/L			9/12/2014
Methyl tert-butyl Ether	<0.50	ug/L			9/12/2014
Methylene chloride	<0.50	ug/L			9/12/2014
Naphthalene	<0.50	ug/L			9/12/2014
n-Butylbenzene	<0.50	ug/L			9/12/2014
n-Propylbenzene	<0.50	ug/L			9/12/2014
o-Xylene	<0.50	ug/L			9/12/2014
p-Isopropyltoluene	<0.50	ug/L			9/12/2014
sec-Butylbenzene	<0.50	ug/L			9/12/2014
Styrene	<0.50	ug/L			9/12/2014
tert-Butylbenzene	<0.50	ug/L			9/12/2014
Tetrachloroethene	**11.0**	ug/L			9/12/2014
Toluene	<0.50	ug/L			9/12/2014
trans-1,2-Dichloroethene	<0.50	ug/L			9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	MW-18S 20140904		
Lab Sample ID:	143858-07	**Date Sampled:**	9/4/2014
Matrix:	Groundwater	**Date Received:**	9/5/2014

trans-1,3-Dichloropropene	<0.50	ug/L	9/12/2014
Trichloroethene	**0.570**	ug/L	9/12/2014
Trichlorofluoromethane	<0.50	ug/L	9/12/2014
Vinyl chloride	<0.50	ug/L	9/12/2014

Method Reference(s): EPA 524 Modified
Subcontractor ELAP ID: 10478

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	Trip Blank T-536 20140904		
Lab Sample ID:	143858-08	**Date Sampled:**	9/4/2014
Matrix:	Water	**Date Received:**	9/5/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,1-Trichloroethane	<0.50	ug/L		9/12/2014
1,1,2,2-Tetrachloroethane	<0.50	ug/L		9/12/2014
1,1,2-Trichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethane	<0.50	ug/L		9/12/2014
1,1-Dichloroethene	<0.50	ug/L		9/12/2014
1,1-Dichloropropene	<0.50	ug/L		9/12/2014
1,2,3-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,3-Trichloropropane	<0.50	ug/L		9/12/2014
1,2,4-Trichlorobenzene	<0.50	ug/L		9/12/2014
1,2,4-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,2-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,2-Dichloroethane	<0.50	ug/L		9/12/2014
1,2-Dichloropropane	<0.50	ug/L		9/12/2014
1,3,5-Trimethylbenzene	<0.50	ug/L		9/12/2014
1,3-Dichlorobenzene	<0.50	ug/L		9/12/2014
1,3-Dichloropropane	<0.50	ug/L		9/12/2014
1,4-Dichlorobenzene	<0.50	ug/L		9/12/2014
2,2-Dichloropropane	<0.50	ug/L		9/12/2014
2-Chlorotoluene	<0.50	ug/L		9/12/2014
4-Chlorotoluene	<0.50	ug/L		9/12/2014
Benzene	<0.50	ug/L		9/12/2014
Bromobenzene	<0.50	ug/L		9/12/2014
Bromochloromethane	<0.50	ug/L		9/12/2014
Bromodichloromethane	<0.50	ug/L		9/12/2014
Bromoform	<0.50	ug/L		9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	Trip Blank T-536 20140904		
Lab Sample ID:	143858-08	**Date Sampled:**	9/4/2014
Matrix:	Water	**Date Received:**	9/5/2014

Bromomethane	<0.50	ug/L		9/12/2014
Carbon Tetrachloride	<0.50	ug/L		9/12/2014
Chlorobenzene	<0.50	ug/L		9/12/2014
Chloroethane	<0.50	ug/L		9/12/2014
Chloroform	<0.50	ug/L		9/12/2014
Chloromethane	<0.50	ug/L		9/12/2014
cis-1,2-Dichloroethene	<0.50	ug/L		9/12/2014
cis-1,3-Dichloropropene	<0.50	ug/L		9/12/2014
Dibromochloromethane	<0.50	ug/L		9/12/2014
Dibromomethane	<0.50	ug/L		9/12/2014
Dichlorodifluoromethane	<0.50	ug/L	E	9/12/2014
Ethylbenzene	<0.50	ug/L		9/12/2014
Hexachlorobutadiene	<0.50	ug/L		9/12/2014
Isopropylbenzene	<0.50	ug/L		9/12/2014
m,p-Xylene	<0.50	ug/L		9/12/2014
Methyl tert-butyl Ether	<0.50	ug/L		9/12/2014
Methylene chloride	<0.50	ug/L		9/12/2014
Naphthalene	<0.50	ug/L		9/12/2014
n-Butylbenzene	<0.50	ug/L		9/12/2014
n-Propylbenzene	<0.50	ug/L		9/12/2014
o-Xylene	<0.50	ug/L		9/12/2014
p-Isopropyltoluene	<0.50	ug/L		9/12/2014
sec-Butylbenzene	<0.50	ug/L		9/12/2014
Styrene	<0.50	ug/L		9/12/2014
tert-Butylbenzene	<0.50	ug/L		9/12/2014
Tetrachloroethene	<0.50	ug/L		9/12/2014
Toluene	<0.50	ug/L		9/12/2014
trans-1,2-Dichloroethene	<0.50	ug/L		9/12/2014

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 143858

Client: **PVE Sheffler**

Project Reference: 560581-Beekman Highway Garage

Sample Identifier:	Trip Blank T-536 20140904		
Lab Sample ID:	143858-08	**Date Sampled:**	9/4/2014
Matrix:	Water	**Date Received:**	9/5/2014

trans-1,3-Dichloropropene	<0.50	ug/L	9/12/2014
Trichloroethene	<0.50	ug/L	9/12/2014
Trichlorofluoromethane	<0.50	ug/L	9/12/2014
Vinyl chloride	<0.50	ug/L	9/12/2014

Method Reference(s): EPA 524
Subcontractor ELAP ID: 10478

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"Non-ELAP Certifiable" = ELAP does not offer this parameter for approval as part of their laboratory certification program.*

CHAIN OF CUSTODY

1 of 2

PARADIGM
179 Lake Avenue, Rochester, NY 14608
Office (585) 647-2530 Fax (585) 647-3311

REPORT TO:		INVOICE TO:	
CLIENT:	PVE Sheffler	CLIENT:	PVE Sheffler
ADDRESS:	One Civic Center Plaza, Suite 501	ADDRESS:	One Civic Center Plaza, Suite 501
CITY:	Poughkeepsie STATE: NY ZIP: 12601	CITY:	Poughkeepsie STATE: NY ZIP: 12601
PHONE:	845-454-2544 ATTN: Stephanie Lewison	PHONE:	845-454-2544
EMAIL:	slewison@pvesheffler.com	ATTN:	Tara Alvarado - talvarado@pvesheffler.com

LAB PROJECT ID: 143858

Quotation #:

Notes: Please return cooler.

PROJECT REFERENCE: 560581 - Beekman Highway Garage

Sample Type:
N = Normal sample
FB = Field Blank
TB = Trip Blank
MSD = Matrix spike & dup in 1 sample
FD - Field duplicate

Sampling Technique:
GB = Grab
LF = Low Flow
BA = Bailer
HA = Hand Auger
DP = Direct Push

Task Code:
SC = Site Characterization
RD = Remedial Design
RIFS = Remedial Investigation/Feasibility Study
RC = Remedial Construction
IRM = Interim Remedial Measure
OM = Operations & Maintenance Phase

Matrix Code:
WA - Water
DW - Drinking Water
WG - Groundwater
WW - Wastewater
SO - Soil
SD - Solid
SL - Sludge
OL - Oil
AR - Air
AQ - Aqueous Liquid
NQ - Non-Aqueous Liquid

SAMPLE INFORMATION / REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	Sample Type	Sample Code (sys_sample_code) (Needs to be a completely unique code from any other sample, so add the sample date at the end; ex: 20140501)	Sample Name (sample_name) (Same as sample code, excluding sample date)	Loc Code (sys_loc_code) (ID of the hole/sample point; ex: GB-1)	MATRIX CODE	NUMBER OF CONTAINERS	start depth (for MWs, this is the depth of screened interval)	end depth	depth units (ft, in, m,...)	Task Code	Sampling Technique	524.2 VOCs				REMARKS	LAB SAMPLE NUMBER
9/4/14	11:25		X	N	MW-4 20140904	MW-4	MW-4	WG	3				OM	LF	X					01
	~~11:35~~		X	N	MW-8 20140904	MW-8	MW-8													02
	12:08		X	N	MW-5 20140904	MW-5	MW-5													03
	1305		X	N	MW-17 20140904	MW-17	MW-17													04
	1255		X	N	MW-3 20140904	MW-3	MW-3													05
	1325		X	FB	FB-1 20140904	FB-1	FB-1	WA												06
	1205		X	N	MW-18S 20140904	MW-18S	MW-18S	WG												07
	Lab		X	TB	Trip Blank T-536 20140904	T-536	T-536	WA												08
																			130C used	

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	X	Batch QC		Basic EDD	
Rush 3 day		Category A		NYSDEC EDD	X
Rush 2 day		Category B		Other EDD	
Rush 1 day				please indicate:	
Other please indicate:		Other please indicate:			

Sampled By — Date/Time: 9-4-14 / 13:25

Relinquished By — Date/Time: 9-4-14 / 17:00

Received By — Date/Time:

Received @ Lab By — Date/Time: 9/5/14 1037

Total Cost:

P.I.F.

v20140822

See additional page for sample conditions.

2 of 2

Chain of Custody Supplement

Client: PVE Shedflex **Completed by:** Kayle Summers

Lab Project ID: 143553 **Date:** 9/5/14

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	☑	☐	☐
Comments			
Transferred to method-compliant container	☐	☐	☒
Headspace (<1 mL)	☒	☐	☐
Comments			
Preservation	☒	☐	☐
Comments			
Chlorine Absent (<0.10 ppm per test strip)	☐	☐	☒
Comments			
Holding Time	☒	☐	☐
Comments			
Temperature	☐	☒	☐
Comments	12°C iced.		
Sufficient Sample Quantity	☒	☐	☐
Comments			

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

H2M: ELAP ID: 10478

REPORT TO:		INVOICE TO:			
COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS:		ADDRESS:			
CITY: STATE: ZIP:		CITY: STATE: ZIP:		TURNAROUND TIME: (WORKING DAYS)	
PHONE: FAX:		PHONE: FAX:		STD	OTHER
PROJECT NAME/SITE NAME:		ATTN:	Kate Hansen	ATTN: Meridith Dillman	1 2 3 X 5
		COMMENTS:	Please email results to khansen@paradigmenv.com and jdaloia@paradigmenv.com	Date Due: 9/16/14	

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	624 VOC	REMARKS	PARADIGM LAB SAMPLE NUMBER
									1409663	
1	9/4/14	1125			143858-01	GW	3	X	-001	
2		1135			-02				2	
3		1208			-03				3	
4		1305			-04				4	
5		1255			-05				5	
6		1325			-06	WA			6	
7		1205			-07	GW			7	
8					-08	WA	1		8	
9										
10										

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature: 5.1°C	Y ☐	N ☐
Comments:		

Custody Seal ✓

Client

Sampled By — Date/Time 9/8/14 1600

Relinquished By — Date/Time 9/9/14 1000

Received By — Date/Time

Received @ Lab By — Date/Time

Total Cost:

P.I.F.

Appendix D – Vapor Mitigation Operation and Maintenance Inspection Forms

Sub-Slab Depressurization System Operation and Maintenance Inspection Form

Date	Location	U-Tube Manometer Reading	Notes/Comments
5/20/14	Sheriff Sub-Station	−1.6"	—
5/20/14	Block Garage North	−1.7"	—
5/20/14	Block Garage South	−1.25"	—
5/20/14	Pole Barn East	−0.75"	—
5/20/14	Pole Barn West	Not Sampled	manometer lost fluid → no reading possible.

Sub-Slab Depressurization System Operation and Maintenance Inspection Form

Date	Location	U-Tube Manometer Reading	Notes/Comments
9/4/14	Sheriffs Sub Station	-1.75"	—
9/4/14	Block Garage North	-1.7"	—
9/4/14	Block Garage South	-1.5"	—
9/4/14	~~Block Garage~~ Pole Barn East	-0.75"	—
9/4/14	Pole Barn West	-1.25"	—

Sub-Slab Depressurization System Operation and Maintenance Inspection Form

Date	Location	U-Tube Manometer Reading	Notes/Comments
10/29/14	Sheriff's Sub-Station	−1.5"	—
10/29/14	Block Garage North	−1.6"	—
10/29/14	Block Garage South	−1.25"	—
10/29/14	Pole Barn East	−0.75"	—
10/29/14	Pole Barn West	−1.25"	—

Sub-Slab Depressurization System Operation and Maintenance Inspection Form

Date	Location	U-Tube Manometer Reading	Notes/Comments
2/23/15	Sheriff's Sub-Station	-1.5"	—
2/23/15	Block Garage North	-1.75"	—
2/23/15	Block Garage South	-1.4"	—
2/23/15	Pole Barn East	~~-~~ 0.75"	—
2/23/15	Pole Barn West	-1.125"	—

Appendix E – Laboratory Report for Indoor Air Samples

CENTEK LABORATORIES, LLC

143 Midler Park Drive * Syracuse, NY 13206
Phone (315) 431-9730 * Emergency 24/7 (315) 416-2752
NYSDOH ELAP Certificate No. 11830

Analytical Report

Christopher Brown
PVE Sheffler
48 Springside Avenue
Poughkeepsie, NY 12603

TEL: (845) 454-2544
FAX
RE: Beekman Town Garage

Thursday, February 26, 2015
Order No.: C1502051

Dear Christopher Brown:

Centek Laboratories, LLC received 2 sample(s) on 2/25/2015 for the analyses presented in the following report.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness. Release of the data contained in this hardcopy data package and/or in the computer readable data submitted has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Centek Laboratories performs all analyses according to EPA, NIOSH or OSHA-approved analytical methods. Centek Laboratories is dedicated to providing quality analyses and exceptional customer service. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the case narrative. All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination.

We do our best to make our reporting format clear and understandable and hope you are thoroughly satisfied with our services. Please contact your client service representative at (315) 431-9730 or myself, if you would like any additional information regarding this report.

Thank you for using Centek Laboratories. This report can not be reproduced except in its entirety, without prior written authorization.

Sincerely,

William Dobbin
Lead Technical Director

Disclaimer: The test results and procedures utilized, and laboratory interpretations of the data obtained by Centek as contained in this report are believed by Centek to be accurate and reliable

for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of Centek for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages. ELAP does not offer certification for the following parameters by this method at present time, they are: 4-ethyltoluene, ethyl acetate, propylene, 4-PCH, sulfur derived and silcon series compounds.

Centek Laboratories, LLC Terms and Conditions

Sample Submission

All samples sent to Centek Laboratories should be accompanied by our Request for Analysis Form or Chain of Custody Form. A Chain of Custody will be provided with each order shipped for all sampling events, or if needed, one is available at our website www.CentekLabs.com. Samples received after 3:00pm are considered to be a part of the next day's business.

Sample Media

Samples can be collected in an canister or a Tedlar bag. Depending on your analytical needs, Centek Laboratories may receive a bulk, liquid, soil or other matrix sample for headspace analysis.

Blanks

Every sample is run with a surrogate or tracer compound at a pre-established concentration. The surrogate compound run with each sample is used as a standard to measure the performance of each run of the instrument. If required, a Minican can be provided containing nitrogen to be run as a trip blank with your samples.

Sampling Equipment

Centek Laboratories will be happy to provide the canisters to carry-out your sampling event at no charge. The necessary accessories, such as regulators, tubing or personal sampling belts, are also provided to meet your sampling needs. The customer is responsible for all shipping charges to the client's destination and return shipping to the laboratory. Client assumes all responsibility for lost, stolen and any damages of equipment.

Turn Around time (TAT)

Centek Laboratories will provide results to its clients in one business-week by 6:00pm EST after receipt of samples. For example, if samples are received on a Monday they are due on the following Monday by 6:00pm EST. Results are faxed or emailed to the requested location indicated on the Chain of Custody. Non-routine analysis may require more than the one business-week turnaround time. Please confirm non-routine sample turnaround times.

Reporting

Results are emailed or faxed at no additional charge. A hard copy of the result report is mailed within 24 hours of the faxing or emailing of your results. Cat "B" like packages are within 3-4 weeks from time of analysis. Standard Electronic Disk Deliverables (EDD) is also available at no additional charge.

Payment Terms

Payment for all purchases shall be due within 30 days from date of invoice. The client agrees to pay a finance charge of 1.5% per month on the overdue balance and cost of collection, including attorney fees, if collection proceedings are necessary. You must have a completed credit application on file to extend credit. Purchase orders or checks information must be submitted

for us to release results

Rush Turnaround Samples

Expedited turn around times is available. Please confirm rush turnaround times with Client Services before submitting samples.

Applicable Surcharges for Rush Turnaround Samples:
Same day TAT = 200%
Next business day TAT by Noon = 150%
Next business day TAT by 6:00pm = 100%
Second business day TAT by 6:00pm = 75%
Third business day TAT by 6:00pm = 50%
Fourth business day TAT by 6:00pm = 35%
Fifth business day = Standard

Statement of Confidentiality

Centek Laboratories, LLC is aware of the importance of the confidentiality of results to many of our clients. Your name and data will be held in the strictest of confidence. We will not accept business that may constitute a conflict of interest. We commonly sign Confidential Nondisclosure Agreements with clients prior to beginning work. All research, results and reports will be kept strictly confidential. Secrecy Agreements and Disclosure Statements will be signed for the client if so specified. Results will be provided only to the addressee specified on the Chain of Custody Form submitted with the samples unless law requires release. Written permission is required from the addressee to release results to any other party.

Limitation on Liability

Centek Laboratories, LLC warrants the test results to be accurate to the methodology and sample type for each sample submitted to Centek Laboratories, LLC. In no event shall Centek Laboratories, LLC be liable for direct, indirect, special, punitive, incidental, exemplary or consequential damages, or any damages whatsoever, even if Centek Laboratories, LLC has been previously advised of the possibility of such damages whether in an action under contract, negligence, or any other theory, arising out of or in connection with the use, inability to use or performance of the information, services, products and materials available from the laboratory or this site. These limitations shall apply notwithstanding any failure of essential purpose of any limited remedy. Because some jurisdictions do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of liability for consequential or incidental damages, the above limitations may not apply to you. This is a comprehensive limitation of liability that applies to all damages of any kind, including (without limitation) compensatory, direct, indirect or consequential damages, loss of data, income or profit and or loss of or damage to property and claims of third parties.

CENTEK LABORATORIES, LLC

Date: *04-Mar-15*

CLIENT: PVE Sheffler

Project: Beekman Town Garage

Lab Order: C1502051

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Compendium of Methods for the Determination of Toxic Organic Compounds, Compendium Method TO-15, January 1999 and Centek Laboratories, LLC SOP TS-80:

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the corrective action report(s). All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination.

NYSDEC ASP samples:
Canisters should be evacuated to a reading of less than or equal to 50 millitorr prior to shipment to sampling personnel. The vacuum in the canister will be field checked prior to sampling, and must read 28" of Hg (±2", vacuum, absolute) before a sample can be collected. After the sample has been collected, the pressure of the canister will be read and recorded again, and must be 5" of Hg (±1", vacuum, absolute) for the sample to be valid. Once received at the laboratory, the canister vacuum should be confirmed to be 5" of Hg,±1". Please record and report the pressure/vacuum of received canisters on the sample receipt paperwork. A pressure/vacuum reading should also be taken just prior to the withdrawal of sample from the canister, and recorded on the sample preparation log sheet. All regulators are calibrated to meet these requirements before they leave the laboratory. However, due to environmental conditions and use of the equipment Centek can not guarantee that this criteria can always be achieved.

Centek Chain of Custody

Centek Laboratories
143 Midler Park Drive
Syracuse, NY 13206
315-431-9730
www.CentekLabs.com
Vapor Intrusion & IAQ

Site Name: BEEKMAN TOWN GARAGE
Project: 560581
PO#: 160581
Quote # Q-30/
Other: /807811

Detection Limit	Report Level
☐ 5ppbv	☑ Level I
☑ 1ug/M3	☐ Level II
☐ 1ug/M3 +TCE .25	☐ Cat "B" Like
(INDOOR AIR)	

Turnaround Time:	Check One	Rush TAT Surcharge %	Due Date:
5 Business Days	☑	0%	
4 Business Days	☐	25%	
3 Business Days	☐	50%	
2 Business Days	☐	75%	
Next Day by 5pm	☐	100%	
Next Day by Noon	☐	150%	
Same Day	☐	200%	

Company: PVE SHEFFLER, LLC

Report to:
Address: 48 SPRINGSIDE AVE
City, State, Zip POUGHKEEPSIE NY 12603

Email: cbrown@pvesheffler.com
amason@pvesheffler.com
Phone: 845-454-2594

Company: *Check Here If Same:* ☑

Invoice to:
Address:
City, State, Zip

Email:

Phone:

Sample ID	Date Sampled	Canister Number	Regulator Number	Analysis Request	Comments	Vacuum Start/Stop
IA-1 20150223	2/23/15 → 2/24/15	1184	455	TO-15	2/23/15 1034 → 2/24/15 1040	27 → 9
IA-2 20150223	↓	131	993	↓	2/23/15 1038 → 2/24/15 1030	30 → 9

Chain of Custody	Print Name	Signature	Date/Time	Courier: CIRCLE ONE
Sampled by:	ALAN MASON		2/24/15 1100	FedEx UPS Pickup/Dropoff
Relinquished by:	ALAN MASON		2/24/15 1400	For LAB USE ONLY
Received at Lab by:	Jon Cole		2-25-15	Work Order # C1502057

*** By signing Centek Labs Chain of Custody, you are accepting Centek Labs Terms and Conditions listed on the reverse side.

CENTEK LABORATORIES, LLC

Sample Receipt Checklist

Client Name **PVE SHEFFLER - POUGH** Date and Time Receive **2/25/2015**

Work Order Numbe **C1502051** Received by **JDS**

Checklist completed by _____ 2-25-15 Reviewed by WD 2/25/15
Signature Date Initials Date

Matrix: Carrier name: FedEx Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☑	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

CENTEK LABORATORIES, LLC

Date: *04-Mar-15*

CLIENT: PVE Sheffler
Project: Beckman Town Garage
Lab Order: C1502051

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
C1502051-001A	IA-1 20150223	1184,455	2/23/2015	2/25/2015
C1502051-002A	IA-2 20150223	131,443	2/23/2015	2/25/2015

Centek Laboratories, LLC

04-Mar-15

Lab Order: C1502051
Client: PVE Sheffler
Project: Beekman Town Garage

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
C1502051-001A	IA-1 20150223	2/23/2015	Air	1ug/M3 by Method TO15			2/25/2015
				1ug/M3 by Method TO15			2/25/2015
C1502051-002A	IA-2 20150223			1ug/M3 by Method TO15			2/26/2015
				1ug/M3 by Method TO15			2/25/2015
				1ug/M3 by Method TO15			2/25/2015

Centek Laboratories, LLC

Date: *26-Feb-15*

CLIENT:	PVE Sheffler	**Client Sample ID:**	IA-1 20150223
Lab Order:	C1502051	**Tag Number:**	1184,455
Project:	Beekman Town Garage	**Collection Date:**	2/23/2015
Lab ID:	C1502051-001A	**Matrix:**	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-9			"Hg		2/25/2015
Lab Vacuum Out	-30			"Hg		2/25/2015
1UG/M3 BY METHOD TO15		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,1-Dichloroethene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,2,4-Trimethylbenzene	0.22	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,3,5-Trimethylbenzene	0.11	0.15	J	ppbV	1	2/25/2015 8:48:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	2/25/2015 8:48:00 PM
2,2,4-trimethylpentane	0.11	0.15	J	ppbV	1	2/25/2015 8:48:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Acetone	6.1	3.0		ppbV	10	2/25/2015 11:13:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Benzene	0.41	0.15		ppbV	1	2/25/2015 8:48:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Bromoform	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Carbon tetrachloride	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Chloroform	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Chloromethane	0.48	0.15		ppbV	1	2/25/2015 8:48:00 PM
cis-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Ethyl acetate	< 0.25	0.25		ppbV	1	2/25/2015 8:48:00 PM

Qualifiers:

**	Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Centek Laboratories, LLC

Date: *26-Feb-15*

CLIENT:	PVE Sheffler	**Client Sample ID:**	IA-1 20150223
Lab Order:	C1502051	**Tag Number:**	1184,455
Project:	Beekman Town Garage	**Collection Date:**	2/23/2015
Lab ID:	C1502051-001A	**Matrix:**	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		**TO-15**				Analyst: **RJP**
Ethylbenzene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Freon 11	0.26	0.15		ppbV	1	2/25/2015 8:48:00 PM
Freon 113	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Freon 114	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Freon 12	0.58	0.15		ppbV	1	2/25/2015 8:48:00 PM
Heptane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Hexane	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Isopropyl alcohol	0.96	0.15		ppbV	1	2/25/2015 8:48:00 PM
m&p-Xylene	0.25	0.30	J	ppbV	1	2/25/2015 8:48:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	2/25/2015 8:48:00 PM
Methyl Ethyl Ketone	0.53	0.30		ppbV	1	2/25/2015 8:48:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	2/25/2015 8:48:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Methylene chloride	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
o-Xylene	0.10	0.15	J	ppbV	1	2/25/2015 8:48:00 PM
Propylene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Styrene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Tetrachloroethylene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Toluene	0.63	0.15		ppbV	1	2/25/2015 8:48:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Trichloroethene	0.30	0.15		ppbV	1	2/25/2015 8:48:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Vinyl chloride	< 0.15	0.15		ppbV	1	2/25/2015 8:48:00 PM
Surr: Bromofluorobenzene	80.0	70-130		%REC	1	2/25/2015 8:48:00 PM

Qualifiers:

**	Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Centek Laboratories, LLC

Date: *26-Feb-15*

CLIENT:	PVE Sheffler	**Client Sample ID:**	IA-2 20150223
Lab Order:	C1502051	**Tag Number:**	131,443
Project:	Beekman Town Garage	**Collection Date:**	2/23/2015
Lab ID:	C1502051-002A	**Matrix:**	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Lab Vacuum In	-8			"Hg		2/25/2015
Lab Vacuum Out	-30			"Hg		2/25/2015
1UG/M3 BY METHOD TO15		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,1-Dichloroethene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,2,4-Trimethylbenzene	1.0	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,3,5-Trimethylbenzene	0.28	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	2/25/2015 9:27:00 PM
2,2,4-trimethylpentane	0.19	0.15		ppbV	1	2/25/2015 9:27:00 PM
4-ethyltoluene	0.27	0.15		ppbV	1	2/25/2015 9:27:00 PM
Acetone	20	12		ppbV	40	2/26/2015 12:24:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Benzene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Bromoform	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Carbon tetrachloride	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Chloroform	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Chloromethane	0.59	0.15		ppbV	1	2/25/2015 9:27:00 PM
cis-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Ethyl acetate	< 0.25	0.25		ppbV	1	2/25/2015 9:27:00 PM

Qualifiers:

**	Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Centek Laboratories, LLC

Date: *26-Feb-15*

CLIENT:	PVE Sheffler	**Client Sample ID:**	IA-2 20150223
Lab Order:	C1502051	**Tag Number:**	131,443
Project:	Beekman Town Garage	**Collection Date:**	2/23/2015
Lab ID:	C1502051-002A	**Matrix:**	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		**TO-15**				Analyst: **RJP**
Ethylbenzene	1.3	0.15		ppbV	1	2/25/2015 9:27:00 PM
Freon 11	0.25	0.15		ppbV	1	2/25/2015 9:27:00 PM
Freon 113	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Freon 114	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Freon 12	0.58	0.15		ppbV	1	2/25/2015 9:27:00 PM
Heptane	0.71	0.15		ppbV	1	2/25/2015 9:27:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Hexane	0.35	0.15		ppbV	1	2/25/2015 9:27:00 PM
Isopropyl alcohol	2.8	1.5		ppbV	10	2/25/2015 11:49:00 PM
m&p-Xylene	3.8	0.30		ppbV	1	2/25/2015 9:27:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	2/25/2015 9:27:00 PM
Methyl Ethyl Ketone	0.64	0.30		ppbV	1	2/25/2015 9:27:00 PM
Methyl Isobutyl Ketone	0.26	0.30	J	ppbV	1	2/25/2015 9:27:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Methylene chloride	0.11	0.15	J	ppbV	1	2/25/2015 9:27:00 PM
o-Xylene	1.1	0.15		ppbV	1	2/25/2015 9:27:00 PM
Propylene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Styrene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Tetrachloroethylene	0.23	0.15		ppbV	1	2/25/2015 9:27:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Toluene	1.7	0.15		ppbV	1	2/25/2015 9:27:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Trichloroethene	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Vinyl chloride	< 0.15	0.15		ppbV	1	2/25/2015 9:27:00 PM
Surr: Bromofluorobenzene	93.0	70-130		%REC	1	2/25/2015 9:27:00 PM

Qualifiers:

**	Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Centek Laboratories, LLC

Date: *26-Feb-15*

CLIENT:	PVE Sheffler	**Client Sample ID:**	IA-1 20150223
Lab Order:	C1502051	**Tag Number:**	1184,455
Project:	Beekman Town Garage	**Collection Date:**	2/23/2015
Lab ID:	C1502051-001A	**Matrix:**	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	2/25/2015 8:48:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	2/25/2015 8:48:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	2/25/2015 8:48:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	2/25/2015 8:48:00 PM
1,1-Dichloroethene	< 0.59	0.59		ug/m3	1	2/25/2015 8:48:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	2/25/2015 8:48:00 PM
1,2,4-Trimethylbenzene	1.1	0.74		ug/m3	1	2/25/2015 8:48:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	2/25/2015 8:48:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	2/25/2015 8:48:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	2/25/2015 8:48:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	2/25/2015 8:48:00 PM
1,3,5-Trimethylbenzene	0.54	0.74	J	ug/m3	1	2/25/2015 8:48:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	2/25/2015 8:48:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	2/25/2015 8:48:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	2/25/2015 8:48:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	2/25/2015 8:48:00 PM
2,2,4-trimethylpentane	0.51	0.70	J	ug/m3	1	2/25/2015 8:48:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	2/25/2015 8:48:00 PM
Acetone	14	7.1		ug/m3	10	2/25/2015 11:13:00 PM
Allyl chloride	< 0.47	0.47		ug/m3	1	2/25/2015 8:48:00 PM
Benzene	1.3	0.48		ug/m3	1	2/25/2015 8:48:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	2/25/2015 8:48:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	2/25/2015 8:48:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	2/25/2015 8:48:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	2/25/2015 8:48:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	2/25/2015 8:48:00 PM
Carbon tetrachloride	< 0.94	0.94		ug/m3	1	2/25/2015 8:48:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	2/25/2015 8:48:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	2/25/2015 8:48:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	2/25/2015 8:48:00 PM
Chloromethane	0.99	0.31		ug/m3	1	2/25/2015 8:48:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	2/25/2015 8:48:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	2/25/2015 8:48:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	2/25/2015 8:48:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	2/25/2015 8:48:00 PM
Ethyl acetate	< 0.90	0.90		ug/m3	1	2/25/2015 8:48:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	2/25/2015 8:48:00 PM
Freon 11	1.5	0.84		ug/m3	1	2/25/2015 8:48:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	2/25/2015 8:48:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	2/25/2015 8:48:00 PM

Qualifiers:

**	Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Centek Laboratories, LLC

Date: *26-Feb-15*

CLIENT:	PVE Sheffler	**Client Sample ID:**	IA-1 20150223
Lab Order:	C1502051	**Tag Number:**	1184,455
Project:	Beekman Town Garage	**Collection Date:**	2/23/2015
Lab ID:	C1502051-001A	**Matrix:**	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		**TO-15**				Analyst: **RJP**
Freon 12	2.9	0.74		ug/m3	1	2/25/2015 8:48:00 PM
Heptane	< 0.61	0.61		ug/m3	1	2/25/2015 8:48:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	2/25/2015 8:48:00 PM
Hexane	< 0.53	0.53		ug/m3	1	2/25/2015 8:48:00 PM
Isopropyl alcohol	2.4	0.37		ug/m3	1	2/25/2015 8:48:00 PM
m&p-Xylene	1.1	1.3	J	ug/m3	1	2/25/2015 8:48:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	2/25/2015 8:48:00 PM
Methyl Ethyl Ketone	1.6	0.88		ug/m3	1	2/25/2015 8:48:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	2/25/2015 8:48:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	2/25/2015 8:48:00 PM
Methylene chloride	< 0.52	0.52		ug/m3	1	2/25/2015 8:48:00 PM
o-Xylene	0.43	0.65	J	ug/m3	1	2/25/2015 8:48:00 PM
Propylene	< 0.26	0.26		ug/m3	1	2/25/2015 8:48:00 PM
Styrene	< 0.64	0.64		ug/m3	1	2/25/2015 8:48:00 PM
Tetrachloroethylene	< 1.0	1.0		ug/m3	1	2/25/2015 8:48:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	2/25/2015 8:48:00 PM
Toluene	2.4	0.57		ug/m3	1	2/25/2015 8:48:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	2/25/2015 8:48:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	2/25/2015 8:48:00 PM
Trichloroethene	1.6	0.81		ug/m3	1	2/25/2015 8:48:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	2/25/2015 8:48:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	2/25/2015 8:48:00 PM
Vinyl chloride	< 0.38	0.38		ug/m3	1	2/25/2015 8:48:00 PM

Qualifiers:

**	Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Centek Laboratories, LLC

Date: *26-Feb-15*

CLIENT:	PVE Sheffler	**Client Sample ID:**	IA-2 20150223
Lab Order:	C1502051	**Tag Number:**	131,443
Project:	Beekman Town Garage	**Collection Date:**	2/23/2015
Lab ID:	C1502051-002A	**Matrix:**	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		**TO-15**				Analyst: **RJP**
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	2/25/2015 9:27:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	2/25/2015 9:27:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	2/25/2015 9:27:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	2/25/2015 9:27:00 PM
1,1-Dichloroethene	< 0.59	0.59		ug/m3	1	2/25/2015 9:27:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	2/25/2015 9:27:00 PM
1,2,4-Trimethylbenzene	5.0	0.74		ug/m3	1	2/25/2015 9:27:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	2/25/2015 9:27:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	2/25/2015 9:27:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	2/25/2015 9:27:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	2/25/2015 9:27:00 PM
1,3,5-Trimethylbenzene	1.4	0.74		ug/m3	1	2/25/2015 9:27:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	2/25/2015 9:27:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	2/25/2015 9:27:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	2/25/2015 9:27:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	2/25/2015 9:27:00 PM
2,2,4-trimethylpentane	0.89	0.70		ug/m3	1	2/25/2015 9:27:00 PM
4-ethyltoluene	1.3	0.74		ug/m3	1	2/25/2015 9:27:00 PM
Acetone	47	28		ug/m3	40	2/26/2015 12:24:00 AM
Allyl chloride	< 0.47	0.47		ug/m3	1	2/25/2015 9:27:00 PM
Benzene	< 0.48	0.48		ug/m3	1	2/25/2015 9:27:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	2/25/2015 9:27:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	2/25/2015 9:27:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	2/25/2015 9:27:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	2/25/2015 9:27:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	2/25/2015 9:27:00 PM
Carbon tetrachloride	< 0.94	0.94		ug/m3	1	2/25/2015 9:27:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	2/25/2015 9:27:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	2/25/2015 9:27:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	2/25/2015 9:27:00 PM
Chloromethane	1.2	0.31		ug/m3	1	2/25/2015 9:27:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	2/25/2015 9:27:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	2/25/2015 9:27:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	2/25/2015 9:27:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	2/25/2015 9:27:00 PM
Ethyl acetate	< 0.90	0.90		ug/m3	1	2/25/2015 9:27:00 PM
Ethylbenzene	5.5	0.65		ug/m3	1	2/25/2015 9:27:00 PM
Freon 11	1.4	0.84		ug/m3	1	2/25/2015 9:27:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	2/25/2015 9:27:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	2/25/2015 9:27:00 PM

Qualifiers:

**	Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Centek Laboratories, LLC

Date: *26-Feb-15*

CLIENT:	PVE Sheffler	**Client Sample ID:**	IA-2 20150223
Lab Order:	C1502051	**Tag Number:**	131,443
Project:	Beekman Town Garage	**Collection Date:**	2/23/2015
Lab ID:	C1502051-002A	**Matrix:**	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		**TO-15**				Analyst: **RJP**
Freon 12	2.9	0.74		ug/m3	1	2/25/2015 9:27:00 PM
Heptane	2.9	0.61		ug/m3	1	2/25/2015 9:27:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	2/25/2015 9:27:00 PM
Hexane	1.2	0.53		ug/m3	1	2/25/2015 9:27:00 PM
Isopropyl alcohol	6.9	3.7		ug/m3	10	2/25/2015 11:49:00 PM
m&p-Xylene	17	1.3		ug/m3	1	2/25/2015 9:27:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	2/25/2015 9:27:00 PM
Methyl Ethyl Ketone	1.9	0.88		ug/m3	1	2/25/2015 9:27:00 PM
Methyl Isobutyl Ketone	1.1	1.2	J	ug/m3	1	2/25/2015 9:27:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	2/25/2015 9:27:00 PM
Methylene chloride	0.38	0.52	J	ug/m3	1	2/25/2015 9:27:00 PM
o-Xylene	4.6	0.65		ug/m3	1	2/25/2015 9:27:00 PM
Propylene	< 0.26	0.26		ug/m3	1	2/25/2015 9:27:00 PM
Styrene	< 0.64	0.64		ug/m3	1	2/25/2015 9:27:00 PM
Tetrachloroethylene	1.6	1.0		ug/m3	1	2/25/2015 9:27:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	2/25/2015 9:27:00 PM
Toluene	6.3	0.57		ug/m3	1	2/25/2015 9:27:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	2/25/2015 9:27:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	2/25/2015 9:27:00 PM
Trichloroethene	< 0.81	0.81		ug/m3	1	2/25/2015 9:27:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	2/25/2015 9:27:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	2/25/2015 9:27:00 PM
Vinyl chloride	< 0.38	0.38		ug/m3	1	2/25/2015 9:27:00 PM

Qualifiers:

**	Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Appendix F – Chemical Inventory

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: N/A

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

Location	Product Description	Size (units)	Condition*	~~Chemical Ingredients~~ Description VOC Based	Field Instrument Reading (units)	Photo ** Y / N
	Auto Reducer	2 Pint	Good	Nason 483-15	Yes	Yes
	Etch Primer	1 Gal	Fair	Nason 491-17	Yes	Yes
	Auto basecoat	1 Gal	Fair	Nason Ful-Base BC	Yes	Yes
	Epoxy Primer	16 oz	Good	CrossFire CH200	Yes	Yes
	Reducer	1 Gal	Good	CrossFire CR733	Yes	Yes
	Cleaner/disinfectant	19 oz	Fair	Share Corp. Foaming cleaner	Yes	Yes
	Lubricant	12 oz	Fair	Share DI-LUBE	Maybe	Yes
	Lubricant	16 oz	Good	Share Anti-Seize	Maybe	Yes
	Glass Cleaner/Polish	2 19 oz	Good	Share Primo! Glass cleaner	Maybe	Yes
	Waterless wash and wax	17 oz	Good	Wash & Wax	Low	Yes
	Clearcoat	.946 Liters	Good	Deltron DC3000	Yes	Yes
	Hardener	1/2 Pint	Good	Deltron DCH3085	Maybe	Yes
	Primer Catalyst	1 Quart	Good	Omni MP 175	Yes	Yes
	Epoxy Primer	1 Gallon	Fair	Omni MP 170	Yes	Yes
	Body filler	1 lb 12 oz	Fair	Bondo Body Filler	Yes	Yes
	Bodyfiller	1 Gal	Fair	USC Fiberglass Filled Filler	Yes	Yes
	Topcoat	32 oz	Fair	Rustoleum 7715	Yes	Yes
	Topcoat	32 oz	Fair	Rustoleum 7738	Yes	Yes
	Topcoat	32 oz	Fair	Rustoleum 7792	Yes	Yes

* 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.

* see MSDS's for chemical ingredients.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: N/A

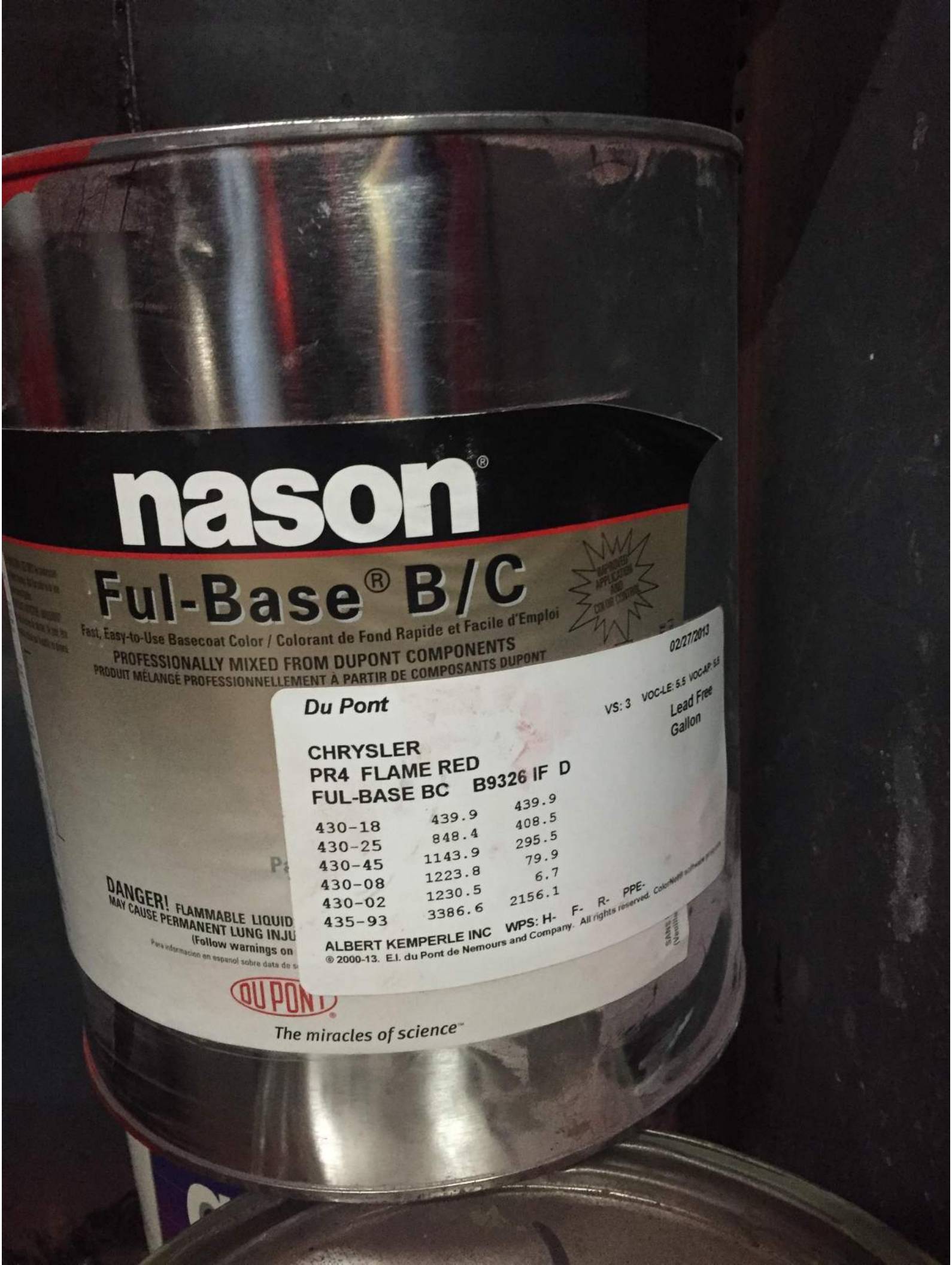
List specific products found in the residence that have the potential to affect indoor air quality.

VOC Based

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
	Protective enamel	126 Fl Oz	Good	Pitt-tech 90-306	Yes	Yes
	Acrylic Urethane	3/4 Gal 1 quart	Good	Kirker UA-70330	Yes	Yes
	Auto body filler	7.5 lbs	Good	Cargroom Light weight body filler	Yes	Yes
	Wasp Spray	12 oz	Good	The End wasp & hornet killer	NO	Yes
	Vinyl & Rubber Protectant	20.8 Fl. Oz	Good	Turtle Wax Super protectant	Yes	Yes
	Spray Car Wax	20 oz	Good	Turtle Wax Spray wax	Yes	Yes
	Urethane	1 Gal	Good	Nason Ful-thane 2k Urethane	Likely	Yes
	Ice melt rinse additive	1 Gal	Good	Share Salt Away	Maybe	Yes
	Pour Point depressant	7 qt?	Good	Parko C.F.I.	Maybe	Yes
	Acrylic Enamel	1 Gal	Fair	American Supercrylic	Yes	Yes
	Oil base enamel	1 Gal	Fair	Majic oil base enamel	Yes	Yes
	Air tool Lubricant cleaner	12 oz	Good	Share Pneuma Plus	Yes	Yes
	Urethane Enamel	1 Gal	Good	Napa Urethane Enamel	Yes	Yes
	Fuel	4 Gal	Good	Gasoline / Mixed Gas	Yes	Yes
	Oil	4 Gal	Fair	Motor oil	Yes	Yes
	Hydrailic Oil	2 Gal	fair	Hydraulic Oil	Yes	Yes
	Oil	1 Gal	fair	CJ-4 oil	Yes	Yes
	Automotive Reducer	1 Gal	Good	Nason 441-43	Yes	Yes
	Epoxy Primer	1 Gal	Fair	CrossFire CP400	Yes	Yes

* 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.

* See MSDSs for chemical ingredients


nason®
Ful-Base® B/C
Fast, Easy-to-Use Basecoat Color / Colorant de Fond Rapide et Facile d'Emploi
PROFESSIONALLY MIXED FROM DUPONT COMPONENTS
PRODUIT MÉLANGÉ PROFESSIONNELLEMENT À PARTIR DE COMPOSANTS DUPONT
IMPROVED APPLICATION AND COLOR CONTROL
02/27/2013
Du Pont
VS: 3 VOC-LE: 5.5 VOC-AP: 5.5
Lead Free
Gallon
CHRYSLER
PR4 FLAME RED
FUL-BASE BC B9326 IF D
430-18 439.9 439.9
430-25 848.4 408.5
430-45 1143.9 295.5
430-08 1223.8 79.9
430-02 1230.5 6.7
435-93 3386.6 2156.1
ALBERT KEMPERLE INC WPS: H- F- R- PPE-
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DANGER! FLAMMABLE LIQUID
MAY CAUSE PERMANENT LUNG INJU
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Para información en español sobre data de s
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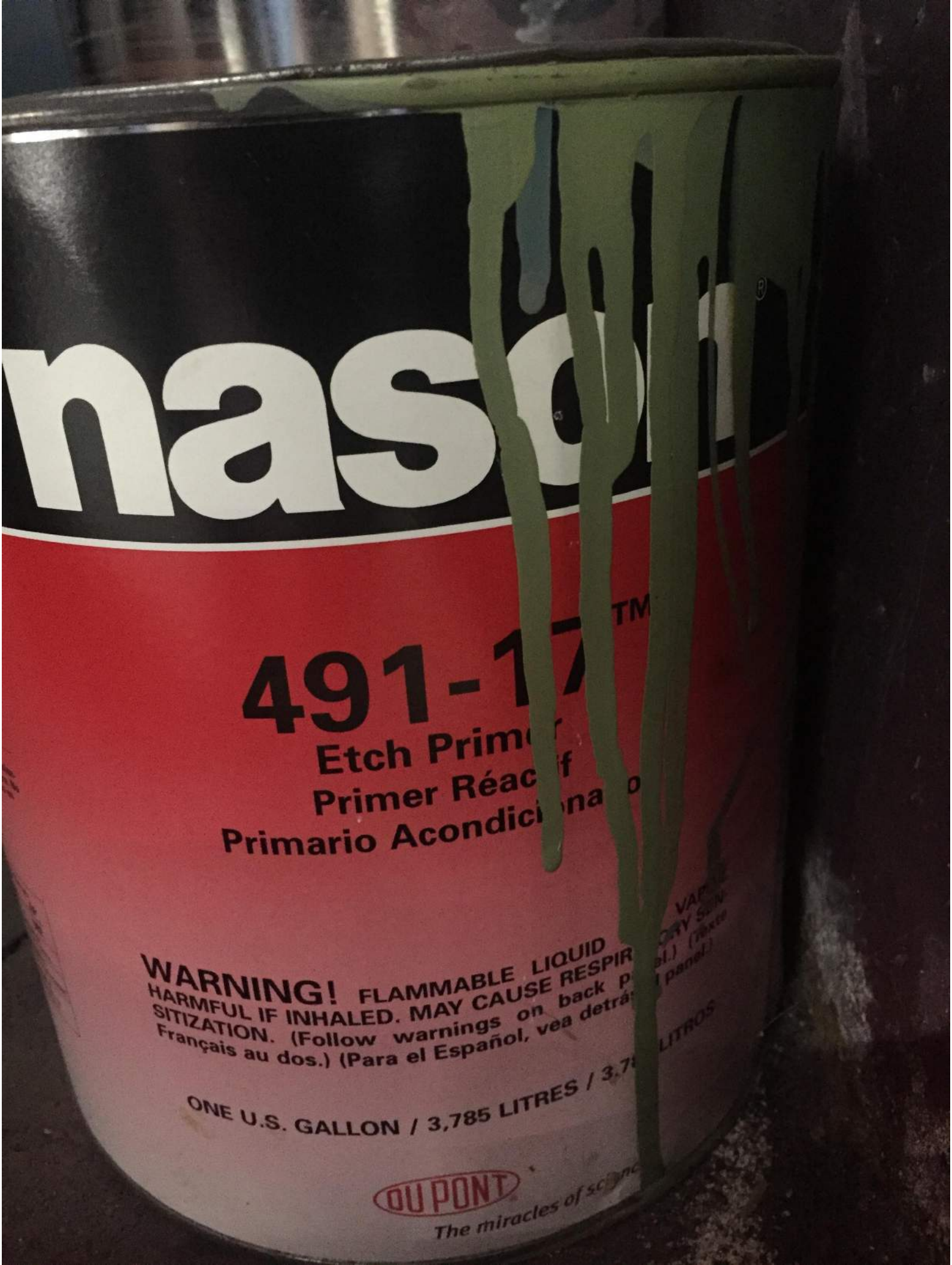
nas
491-1
Etch Prim
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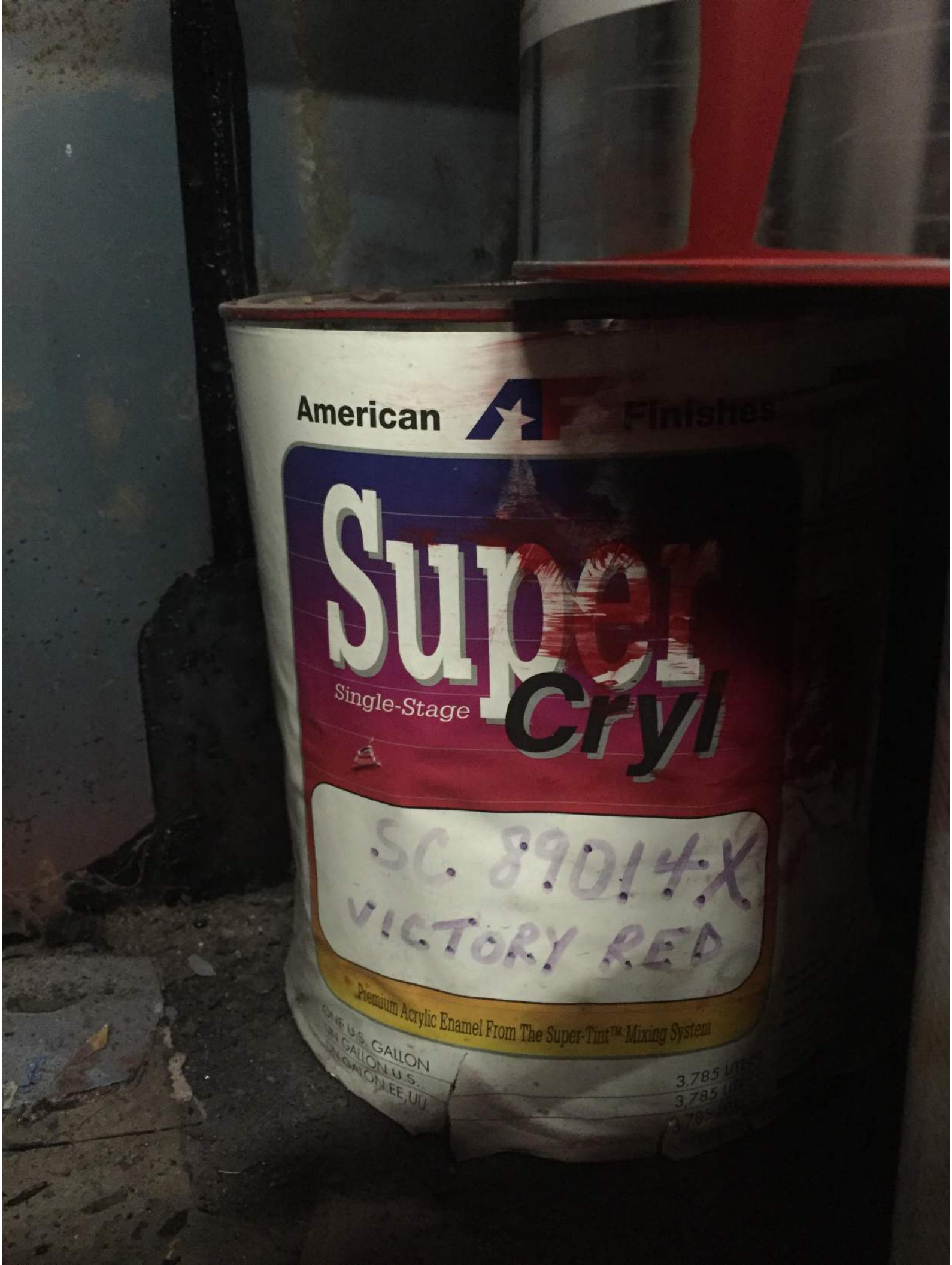
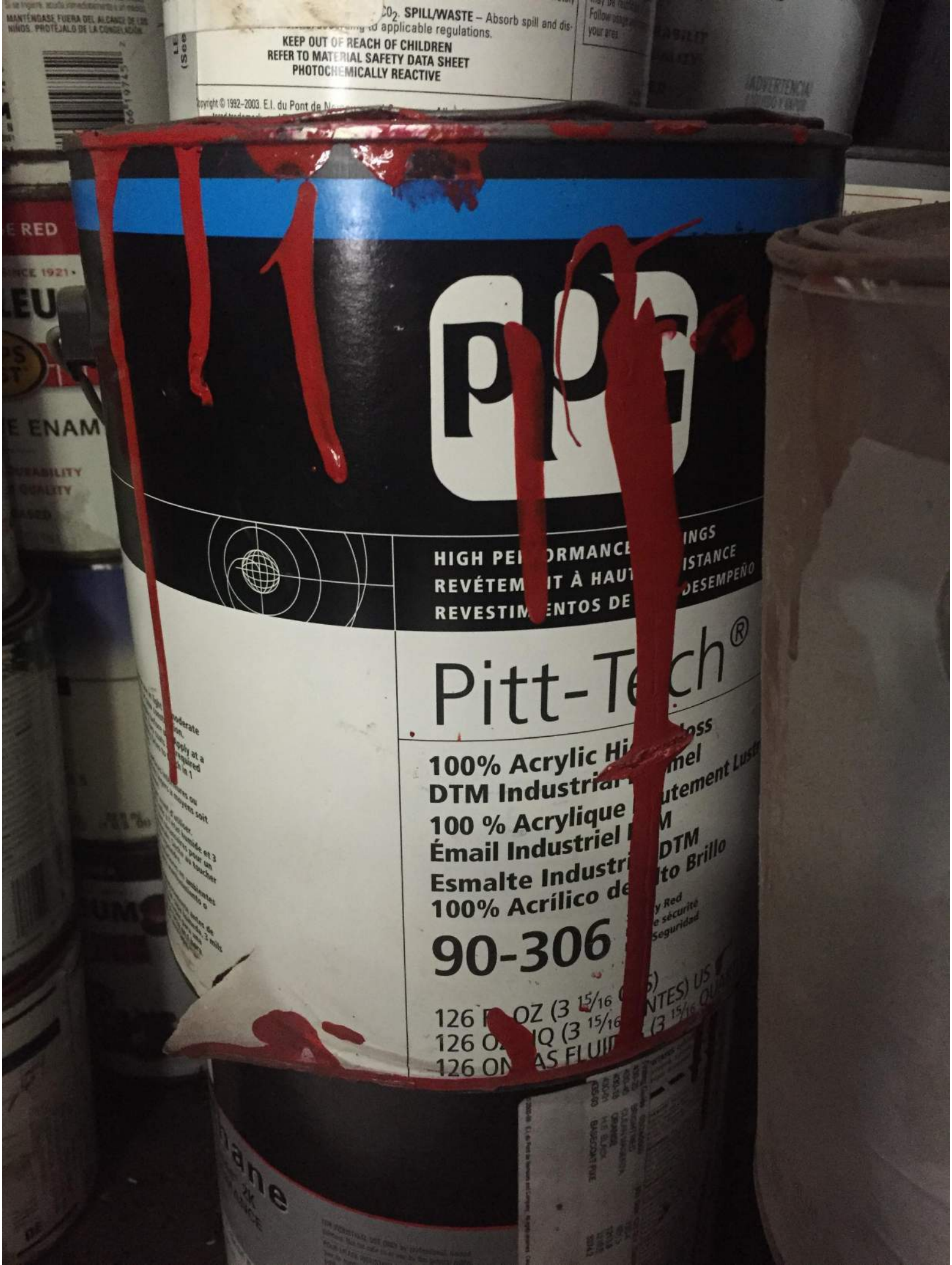
WARNING! FLAMMABLE LIQUID
HARMFUL IF INHALED. MAY CAUSE RESPIR
SITIZATION. (Follow warnings on back p
Français au dos.) (Para el Español, vea detrá
ONE U.S. GALLON / 3,785 LITRES / 3,7
DU PONT
The miracles of sc


American
Finishes
Super
Single-Stage
Cryl
SC 89014X
VICTORY RED
Premium Acrylic Enamel From The Super-Tint™ Mixing System
ONE U.S. GALLON
3.785 LITRES


CO_2. SPILL/WASTE – Absorb spill and dis-
to applicable regulations.
KEEP OUT OF REACH OF CHILDREN
REFER TO MATERIAL SAFETY DATA SHEET
PHOTOCHEMICALLY REACTIVE
PPG
Pitt-Tech®
100% Acrylic
DTM Industrial
100 % Acrylique
Émail Industriel
Esmalte Industri
100% Acrílico
90-306


GLOSS WHITE
7792
ST-OLEUM®
STOPS RUST
ECTIVE ENAMEL
¡ADVERTENCIA!
LIQUIDO Y VAPOR
COMBUSTIBLES
PREMIUM
UST-OLEUM
OIL BASED ENAMEL
LONGER LASTING
STOPS RUST
PROTECTION
ALUMINUM 7715
RED
7762
NAMEL
Great Coverage
HITE
SEMIBRILLANTE
UNTER GREEN
7738
OLEUM
STOPS RUST
8-2990 Gloss
ENAMEL


Majic
Implement
Exterior Oil Base Enamel
8-2990 Gloss White
ADVERTENCIA:
Úsese solamente con la ventilación adecuada.
MANTÉNGASE FUERA DEL ALCANCE DE LOS NIÑOS. PROTÉJALO DE LA CONGELACIÓN
ENAMEL
RISE RED
SINCE 1921


nason
441-43™
Activator Reducer
Activeur Diluant
Catalizador Reductor
Kirker
AUTOMOTIVE FINISHES
ULTRA-GLO
ACRYLIC URETHANE
UA-70330
SUPER JET BLACK
WARNING: FLAMMABLE — LIQUID, VAPOR AND SPRAY MIST HARMFUL.
EXPOSURE MAY CAUSE LUNG DAMAGE, ALLERGIC REACTION
OR RESPIRATORY REACTION. MAY BE HARMFUL OR FATAL
IF SWALLOWED. MAY CAUSE EYE, SKIN, NOSE AND THROAT
IRRITATION. PHOTOCHEMICALLY REACTIVE.
CAUTION: This material will not dry without activator.
Read all cautions and instructions on this label, as well as
on the labels of products to be mixed with this material.
3/4 U.S. GALLON (2.84 LITERS)

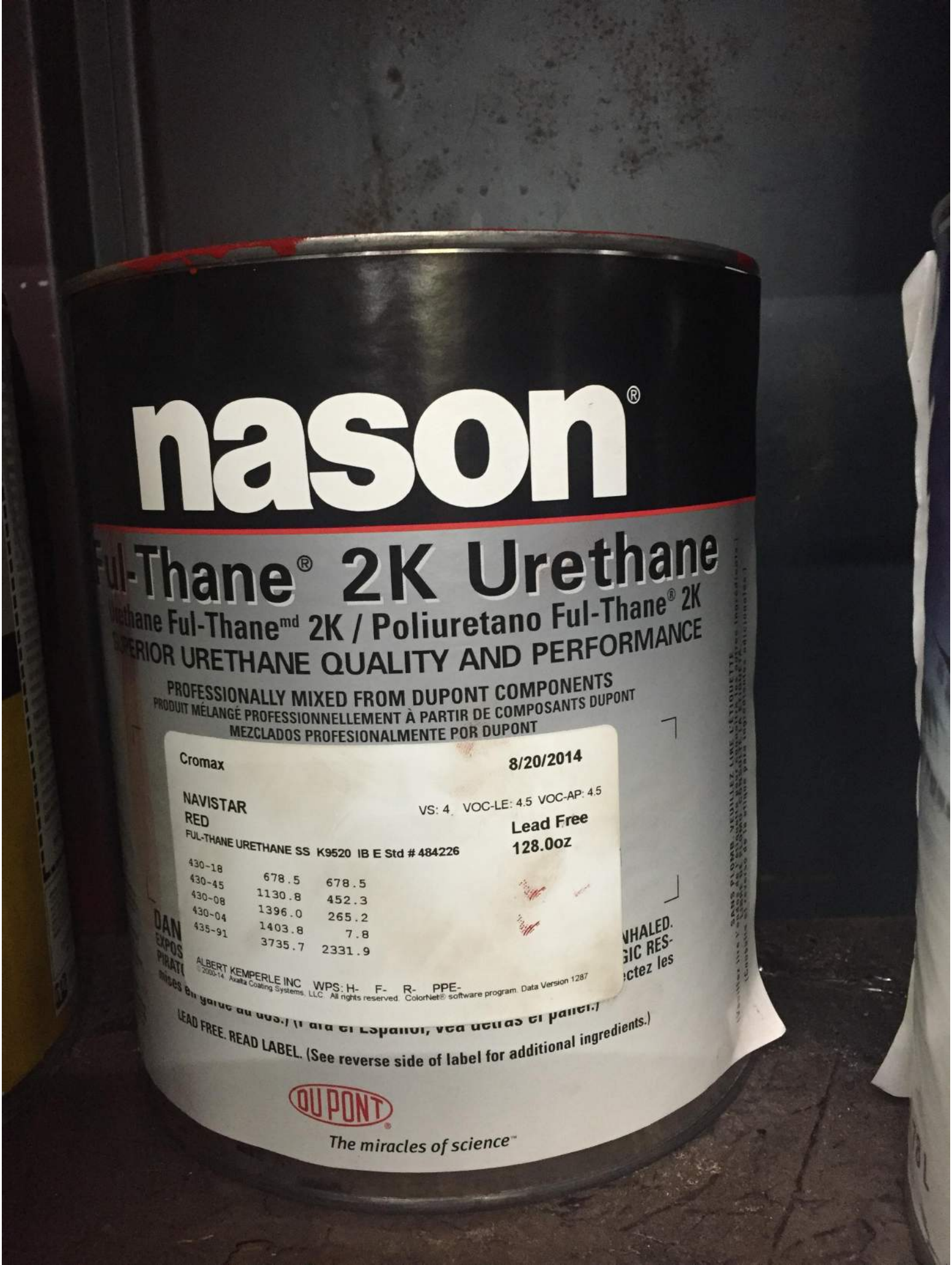

nason
441-43™
Activator Reducer
Activeur Diluant
Catalizador Reductor
DIRECTIONS FOR USE
MIXING AND THINNING: Mix equal parts (1 to 1) of 491-17™ Etch Primer and 441-43™ Activator Reducer and stir thoroughly.
For 491-30™: Mix equal parts (1 to 1) 491-30™ Etch Primer.
For 491-30™ use with aluminum substrates: Mix 2:1:1. Mix 2 parts 491-30™ with 1 part 441-43™ and 1 part 481-06™ Thinner. Mix well.
APPLICATION: Spray one medium wet coat at 30-40 psi. Allow 30 minutes to dry before applying primer-surfacer.
NOTE: Should only be applied to steel, aluminum and featheredged old paint.
FOR VOC REGULATED AREAS: These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing and usage recommendations in the VOC Compliant Products Chart for your area.
0 12500 02128 7
2N-A00454626-016W-0
PROFESSIONAL USE ONLY
ACRY
UA-7
SUPER
WARNING: FLAMM
EXPOSURE


MP170
Epoxy Primer - Gray
Apprêt époxy - gris
Primer epóxico - gris
ONE U.S.QUART
UN QUART DE GALLON U.S.
UN CUARTO DE GALON
483-78
2K


OMNI
MP175
Epoxy Primer Catalyst
Catalyseur pour couche d'appr
époxy
Catalizador para primer epoxi
PPG
Read cautions and emergency instructions elsewhere on this label.
Lire les mises en garde et les instructions en cas d'urgence ailleurs sur cette étiquette.
Lea las precauciones y las instrucciones de emergencia que aparecen en otro lugar de esta etiqueta.
ONE U.S.QUART
UN QUART DE GALLON U.S.
UN CUARTO DE GALON EE.UU.

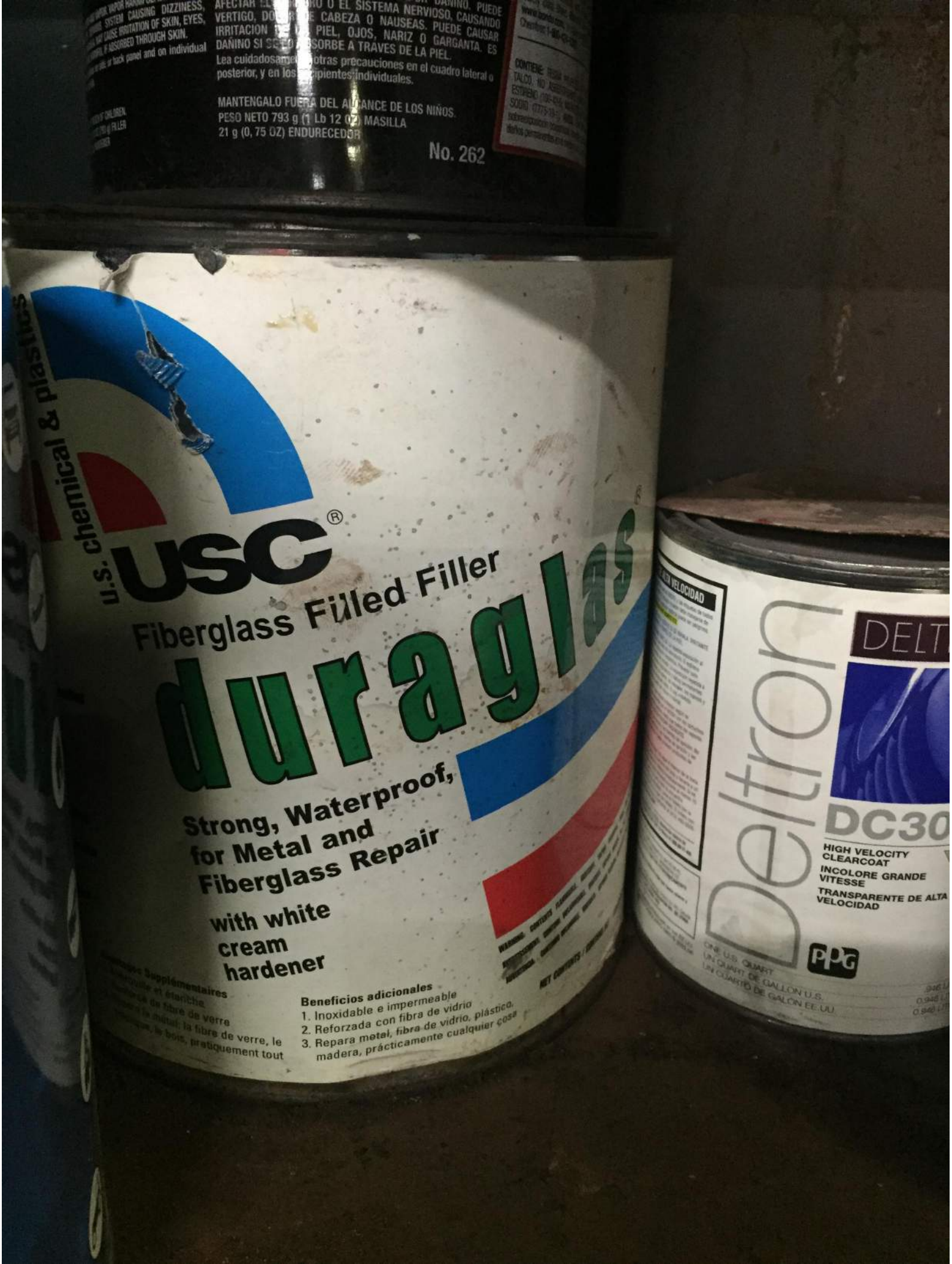

CROSS/FIRE®
OVERALL REFINISH SYSTEM
MODERATE REDUCER
REDUCTOR MODERADO
GALCR733

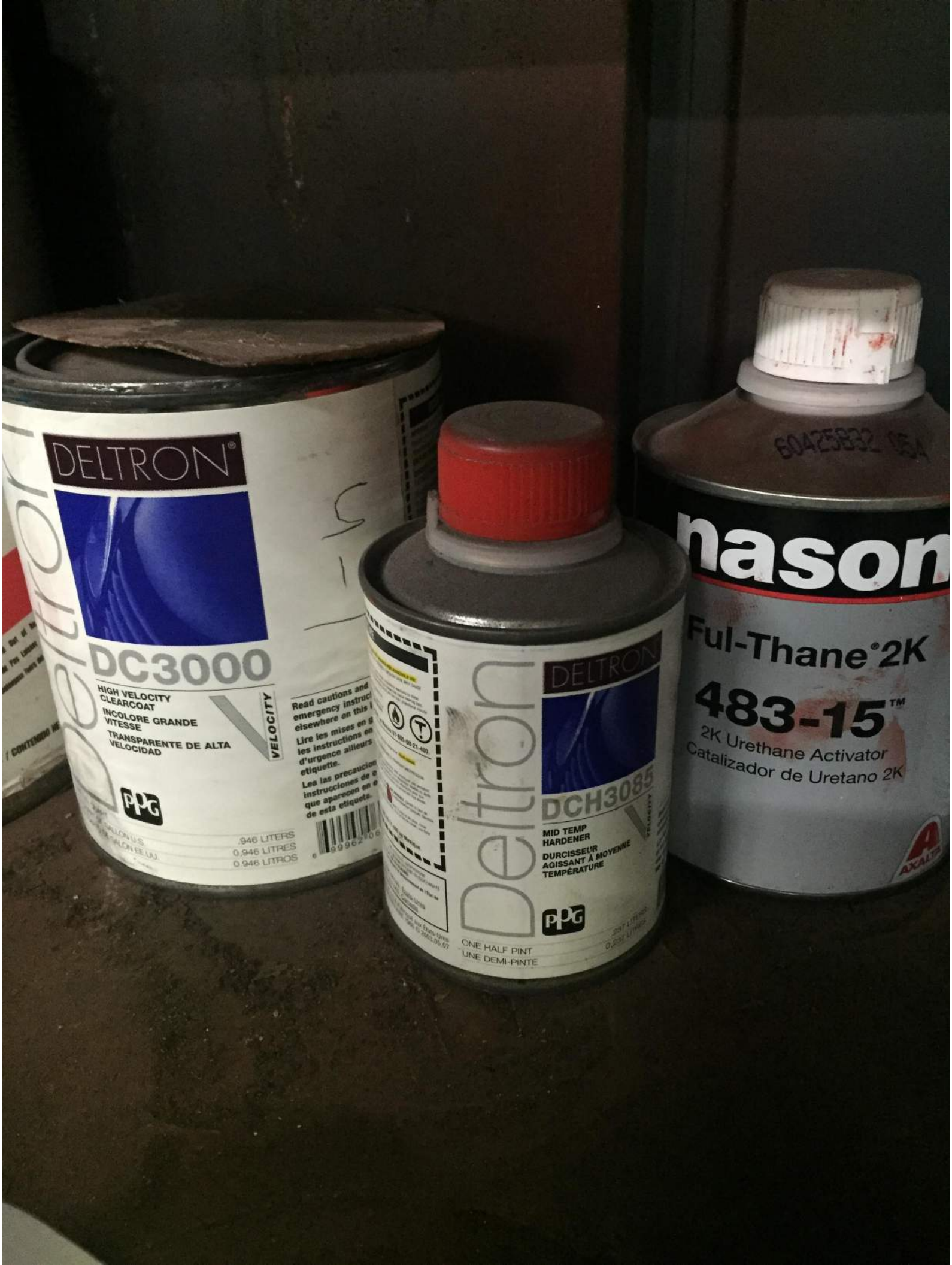

NAPA
MARTIN SENOUR PAINTS
Cross/FIRE
CH200
PTCH200
Epoxy Primer Hardener
Durcisseur pour Apprêt Époxydique
Endurecedor Primario Epóxico
IMPORTANT. FORMULATED FOR APPLICATION BY TRAINED PROFESSIONALS USING PROPER EQUIPMENT UNDER CONTROLLED USE CONDITIONS. NOT INTENDED FOR THE RETAIL TRADE.
Before using, carefully read CAUTIONS elsewhere on label.
MARTIN SENOUR PAINTS
CP400
GALCP400
Gris Primaire
Gris Primario

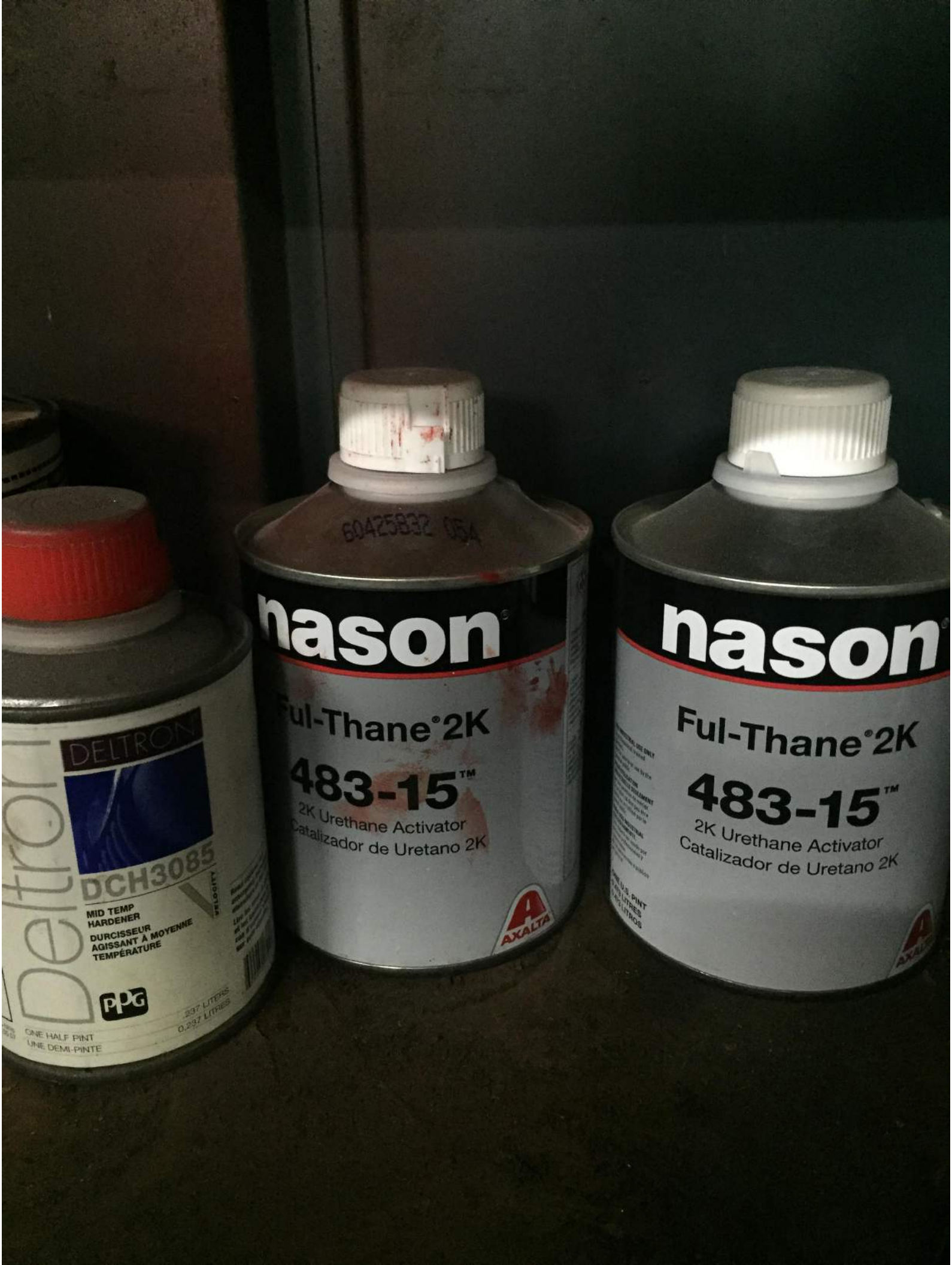

nason®
Ful-Thane® 2K Urethane
Urethane Ful-Thane[md] 2K / Poliuretano Ful-Thane® 2K
SUPERIOR URETHANE QUALITY AND PERFORMANCE
PROFESSIONALLY MIXED FROM DUPONT COMPONENTS
PRODUIT MÉLANGÉ PROFESSIONNELLEMENT À PARTIR DE COMPOSANTS DUPONT
MEZCLADOS PROFESIONALMENTE POR DUPONT
Cromax
8/20/2014
NAVISTAR
RED
VS: 4 VOC-LE: 4.5 VOC-AP: 4.5
Lead Free
128.0oz
FUL-THANE URETHANE SS K9520 IB E Std # 484226
430-18
430-45 678.5 678.5
430-08 1130.8 452.3
430-04 1396.0 265.2
435-91 1403.8 7.8
3735.7 2331.9
ALBERT KEMPERLE INC WPS: H- F- R- PPE-
© 2000-14 Axalta Coating Systems, LLC. All rights reserved. ColorNet® software program. Data Version 1287
LEAD FREE. READ LABEL. (See reverse side of label for additional ingredients.)
DUPONT
The miracles of science™

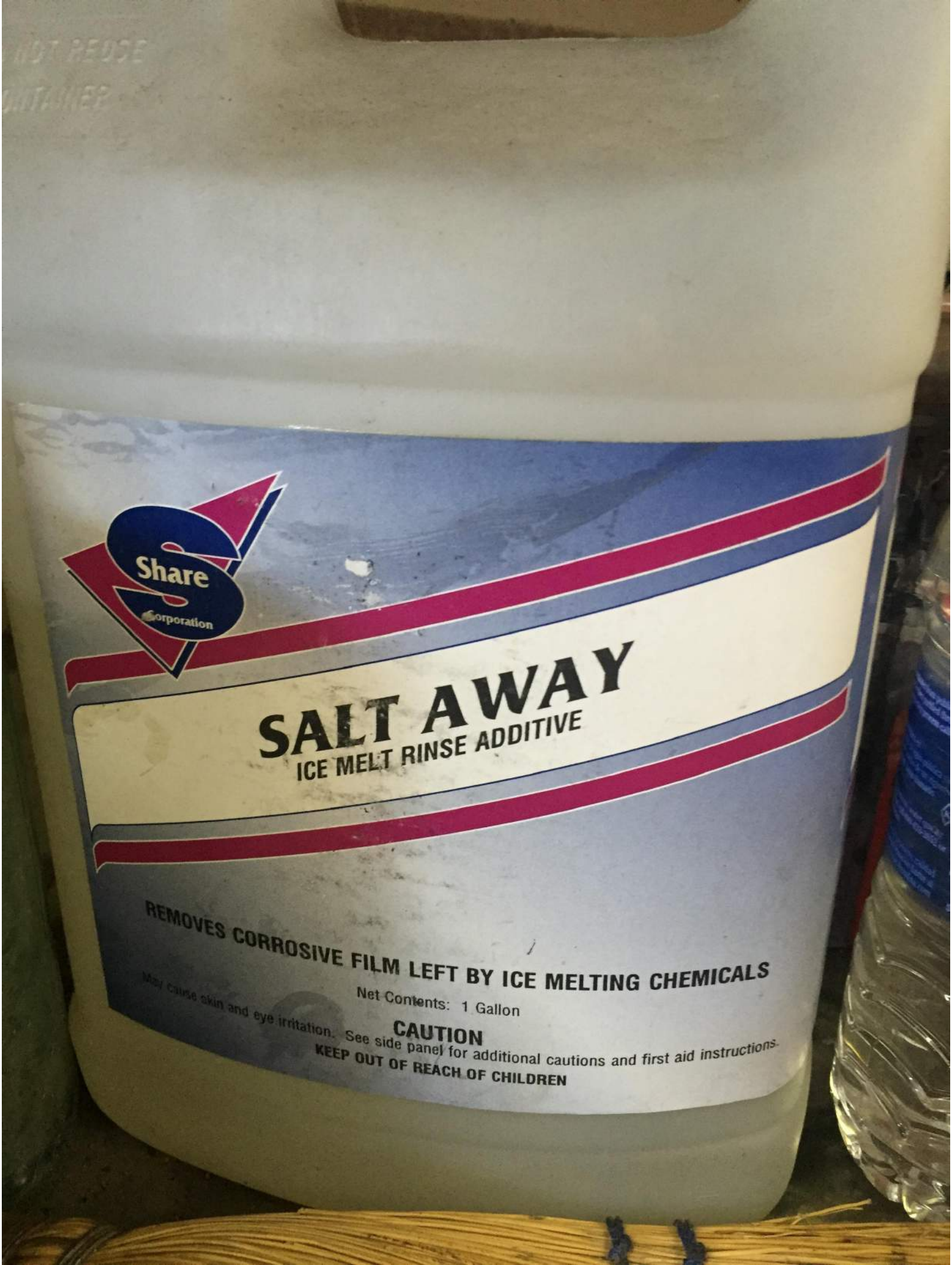

bondo
BODY FILLER
RELLENADOR PARA CARROCERIA
Original formula for fast, easy repair and restoration of your vehicle
Fórmula original para una rápida y fácil reparación y restauración de su vehículo
¡ADVERTENCIA!
LIQUIDO Y VAPOR INFLAMABLES. VAPOR DAÑINO. PUEDE AFECTAR EL CEREBRO O EL SISTEMA NERVIOSO, CAUSANDO VERTIGO, DOLOR DE CABEZA O NAUSEAS. PUEDE CAUSAR IRRITACION DE LA PIEL, OJOS, NARIZ O GARGANTA. ES DAÑINO SI SE LO ABSORBE A TRAVES DE LA PIEL.
Lea cuidadosamente otras precauciones en el cuadro lateral o posterior, y en los recipientes individuales.
MANTENGALO FUERA DEL ALCANCE DE LOS NIÑOS.
PESO NETO 793 g (1 Lb 12 OZ) MASILLA
21 g (0, 75 OZ) ENDURECEDOR
No. 262


CARGROOM
Light Weight
BODY FILLER
Ligero LLENADOR DEL CUERPO
For Dents, Stone Chips and Holes
Para abolladuras, picaduras de piedra y agujeros
CAUTION: CONTENTS FLAMMABLE. VAPOR HARMFUL HARMFUL IF SWALLOWED. IRRITANT TO SKIN AND EYES.
See precautions on back panel.
PRECAUCIÓN: CONTENIDO INFLAMABLE. EL VAPOR ES NOCIVO. NOCIVO SI SE INGIERE. PRODUCE IRRITACIÓN EN LA PIEL Y EN LOS OJOS.
Lea las precauciones en el reverso.
CONTAINS: NET WT 7.5 LBS / 3.40kg FILLER
NET WT 2.75 OZ / 77.9g HARDENER
CONTIENE: PESO NETO 7.5 LBS/3.40 KG DE RELLENADOR
PESO NETO 2.75 OZ/77.9 G DE ENDURECEDOR
Fiberglas
Strong,
for Metal
Fiberglas
with white
cream
hardener


u.s. chemical & plastics
USC®
Fiberglass Filled Filler
duraglas®
Strong, Waterproof, for Metal and Fiberglass Repair
with white cream hardener
Beneficios adicionales
1. Inoxidable e impermeable
2. Reforzada con fibra de vidrio
3. Repara metal, fibra de vidrio, plástico, madera, prácticamente cualquier cosa
No. 262
Deltron
DC30
HIGH VELOCITY CLEARCOAT
INCOLORE GRANDE VITESSE
TRANSPARENTE DE ALTA VELOCIDAD
PPG


DELTRON
DC3000
HIGH VELOCITY CLEARCOAT
INCOLORE GRANDE VITESSE
TRANSPARENTE DE ALTA VELOCIDAD
VELOCITY
PPG
.946 LITERS
0.946 LITRES
0.946 LITROS
Deltron
DELTRON
DCH3085
MID TEMP HARDENER
DURCISSEUR AGISSANT À MOYENNE TEMPÉRATURE
PPG
ONE HALF PINT
UNE DEMI-PINTE
nason
Ful-Thane 2K
483-15™
2K Urethane Activator
Catalizador de Uretano 2K


DELTRON
DCH3085
MID TEMP
HARDENER
DURCISSEUR
AGISSANT À MOYENNE
TEMPÉRATURE
PPG
ONE HALF PINT
UNE DEMI-PINTE
nason
Ful-Thane®2K
483-15™
2K Urethane Activator
Catalizador de Uretano 2K
AXALTA
nason
Ful-Thane®2K
483-15™
2K Urethane Activator
Catalizador de Uretano 2K


Share
Corporation
SALT AWAY
ICE MELT RINSE ADDITIVE
REMOVES CORROSIVE FILM LEFT BY ICE MELTING CHEMICALS
Net Contents: 1 Gallon
CAUTION
May cause skin and eye irritation. See side panel for additional cautions and first aid instructions.
KEEP OUT OF REACH OF CHILDREN

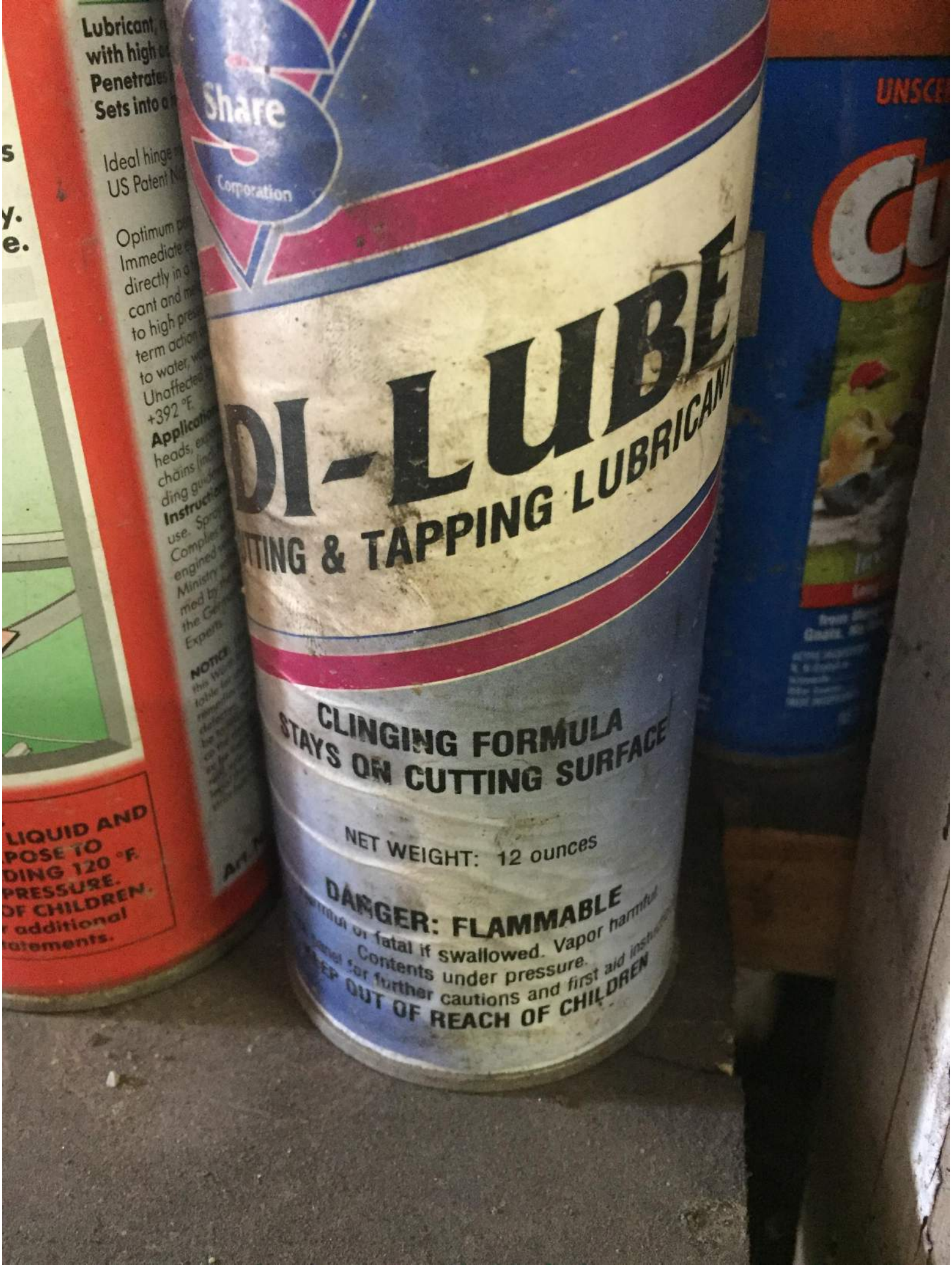

NAPA
MARTIN SENOUR PAINTS
AUTOMOTIVE FINISHES
PROPER BOX MUST BE MARKED.
LEAD FREE FORMULA
LEAD CONTAINING FORMULA
CAS No.
Ingredient
Acrylic Polymer
Xylene
Acetone
n-Butyl Acetate
2-Ethyl-1,3-Hexanediol
Methyl n-Amyl Ketone
1,2,4-Trimethylbenzene
Ethylbenzene
1,3,5-Trimethylbenzene
Toluene
Light Aromatic Hydrocarbons
Molybdate Orange
Lead Chromate
Titanium Dioxide
Nickel Antimony Titanate
Carbon Black
Coated Mica
ALL FORMULA INFORMATION FOUND ON MICROFICHE.
NATIONAL RULE COMPLIANT
URETHANE ENAMEL
CrossFIRE
COLOR NUMBER 55A-8800
MAKE & YEAR
COLOR CODE
COLOR NAME Black
REDUCTION:
AIR PRESSURE:
APPLICATION:
FLASH TIME:
DRY:
DANGER! FLAMMABLE
CAUSING DIZZINESS, UNCONSCIOUSNESS
WHEN LEAD IS PRESENT
¡PELIGRO!
One Gallon


FOAMING
CLEANER
• CLEANER
• DEODORIZER
• FUNGICIDE (against pathogenic fungi)
• MILDEWSTAT (on hard, inanimate surfaces)
• DISINFECTANT
• *VIRUCIDE
Limpiador desinfectante con espuma
KEEP OUT OF REACH OF CHILDREN
WARNING
EPA EST. NO. 9143-TX-1
Net Wt.: 19 oz. (539g)
ICE
PREMIUM CARE
WAX


Unbeaten Durability
ICE
Premium Care
Spray Wax
Produces incredible shine
Hides minor scratches & swirl marks
Synthetic formula repels dirt & prevents water spots
Turtle Wax
F21
Super Protectant
Fórmula para la nueva era provee brillo y protección a los materiales modernos actuales
• Contains SUN-STOP for UVA/UVB Protection
• New Age Formula for Modern Materials
• Non-Greasy, Dry-Touch Shine™
U.V. Protection
CAUTION: EYE IRRITANT. SEE BACK 20.8 FL. OZ. (1PT. 4.8 FL OZ.) 615mL
Primo!
Premium Glass Polish
High-Quality Polish For A Superior Shine
Leaves No Film
• Just Spray & Wipe Clean
• Easy to Use
• Non-Streaking
• Film-Free
• Foaming Spray
• Clean, Fresh Scent
Net Weight 19 oz. (1 lb. 3 oz.)
CAUTION
CONTENTS UNDER PRESSURE
KEEP OUT OF REACH OF CHILDREN

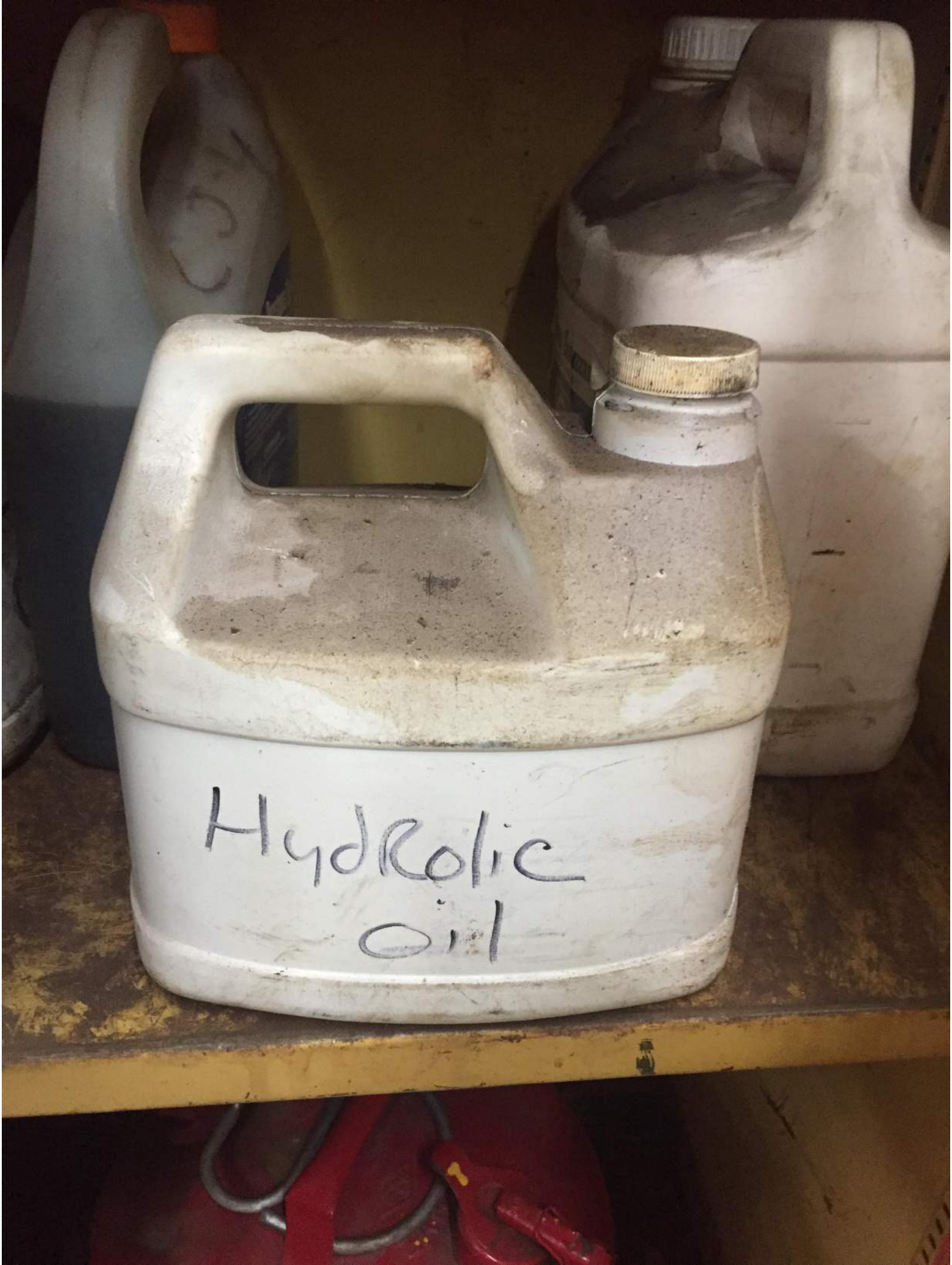

THE End.
Wasp & Hornet
KILLER
Instant Knockdown • Sprays up to 20 ft.
Dielectric breakdown voltage of 40,700 volts
KEEP OUT OF REACH OF CHILDREN
CAUTION
See Side Panel for Additional Precautions
NET WT 12 oz (340 g)

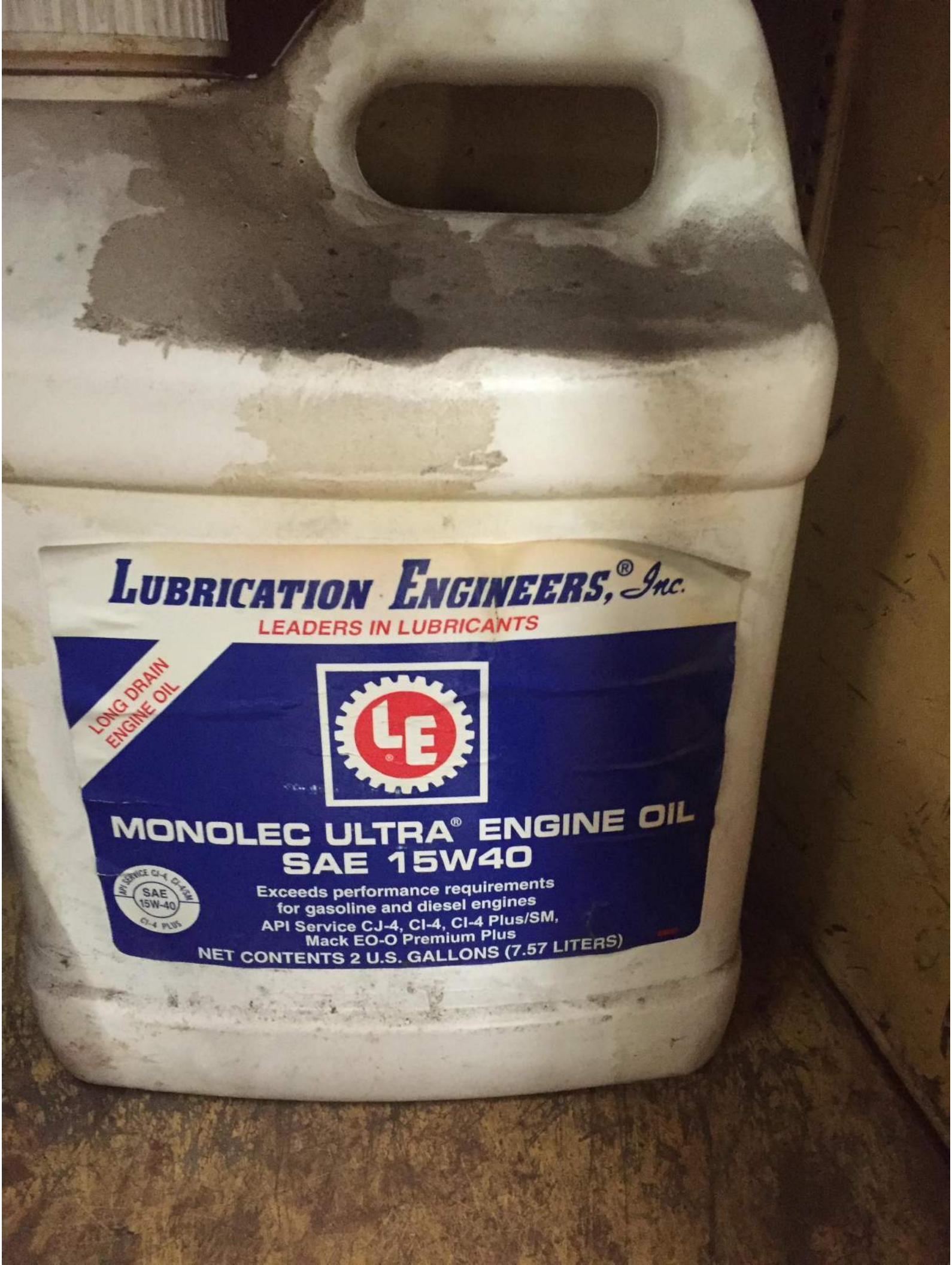

PlastiKote
THE PERFECT FINISH™
LACQUER
PAINT
Metal/Wood
Non-Fading
Share
ANTI-SEIZE
HIGH-PRESSURE AND
HIGH-TEMPERATURE LUBRICANT
PROTECTS AGAINST
GALLING • CORROSION
GALVANIC PITTING • RUST
OF ALL THREADED PARTS
Net Weight: 16 ounces
WARNING: FLAMMABLE
CONTENTS UNDER PRESSURE
KEEP OUT OF REACH OF CHILDREN
WÜRTH
saBesto
HHS 2000
Lubricant, resistant to high pressures
and with high adhesive strength,
penetrates into tightest areas easily,
sets into a high temperature grease.
DANGER:
KEEP OUT OF REACH OF CHILDREN
Share
DI-LUB
CUTTING & TAPPING LUBR
CLINGING FORMULA
NET WEIGHT: 12 ounces
DANGER: FLAMMABLE
Contents under pressure.

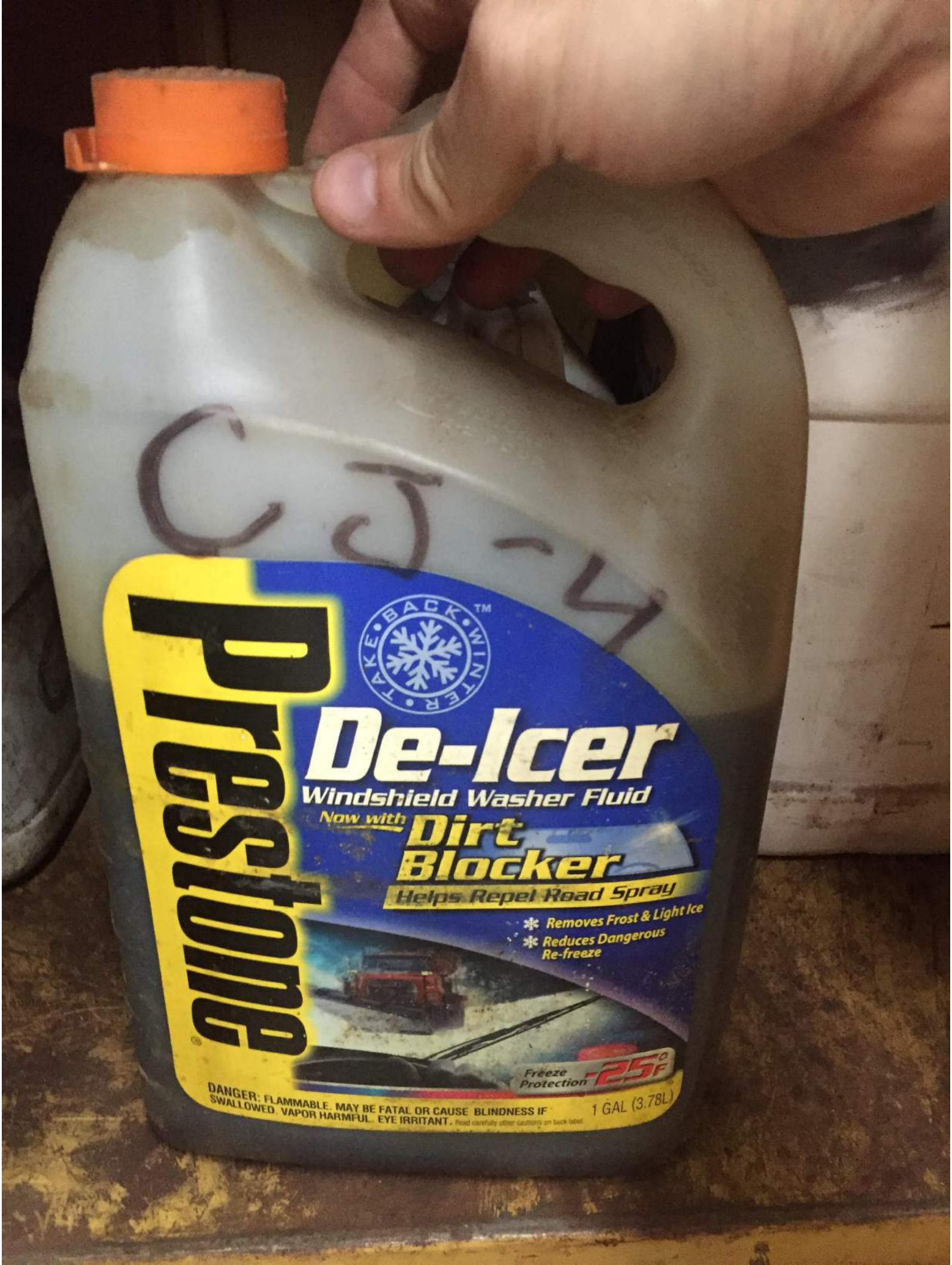

Share
Corporation
DI-LUBE
TTING & TAPPING LUBRICANT
CLINGING FORMULA
STAYS ON CUTTING SURFACE
NET WEIGHT: 12 ounces
DANGER: FLAMMABLE
fatal if swallowed. Vapor harmful
Contents under pressure.
cautions and first aid instructions
KEEP OUT OF REACH OF CHILDREN

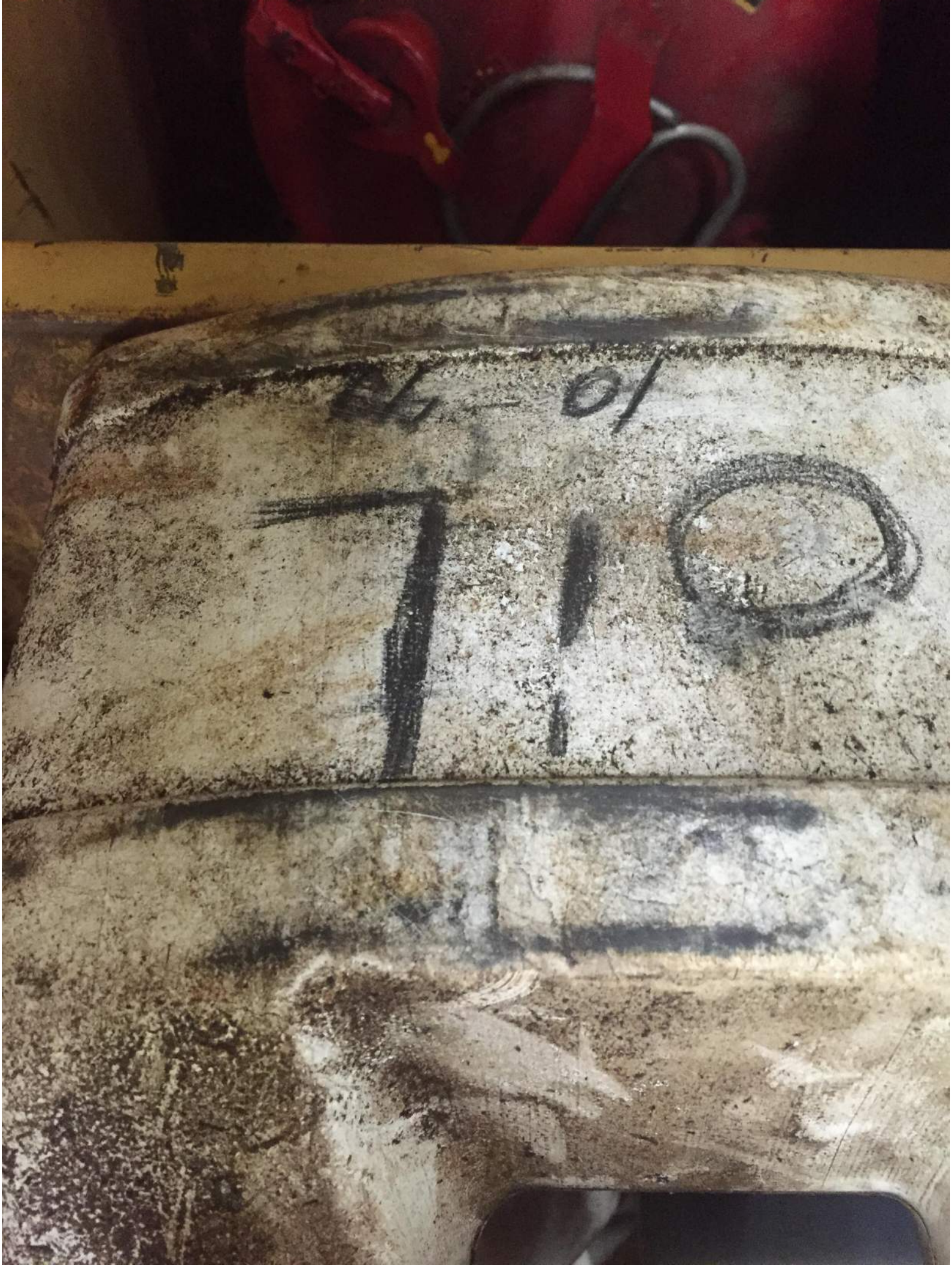

CLEAN & SHINE
WATERLESS WASH & WAX
PRIMO!
Premium Glass Polish
High-Quality Polish For A Superior Shine
Leaves No Film
CAUTION
RUST-OLEUM
HIGH PERFORMANCE
Enamel
Esmalte
Émail
ANTI-SEIZE
HIGH-PRESSURE AND HIGH-TEMPERATURE LUBRICANT
WARNING: FLAMMABLE
KEEP OUT OF REACH OF CHILDREN


Parko
PARKO C.F.I.
A Pour Point Depressant
For Distillate Fuels
• LOWERS THE POUR POINT OF DISTILLATE FUELS.
• PREVENTS NO HEAT SERVICE CALLS IN ABOVE GROUND OIL TANK SYSTEMS DURING SUB-FREEZING WEATHER CONDITIONS.
• IMPROVES DIESEL EQUIP-MENT STARTING DURING SUB-FREEZING AMBIENT TEMPERATURES.
• INCREASES CETANE RATINGS OF DISTILLATE FUELS.
PARKER-HILL CHEMICAL CORP.
MOUNT VERNON, N.Y.


HydRolic
oil


LUBRICATION ENGINEERS, Inc.
LEADERS IN LUBRICANTS
LONG DRAIN ENGINE OIL
LE
MONOLEC ULTRA® ENGINE OIL
SAE 15W40
SAE 15W-40
Exceeds performance requirements
for gasoline and diesel engines
API Service CJ-4, CI-4, CI-4 Plus/SM,
Mack EO-O Premium Plus
NET CONTENTS 2 U.S. GALLONS (7.57 LITERS)


CJ-4
Prestone
BACK • WINTER • TAKE
De-Icer
Windshield Washer Fluid
Now with Dirt Blocker
Helps Repel Road Spray
Removes Frost & Light Ice
Reduces Dangerous Re-freeze
Freeze Protection -25°F
DANGER: FLAMMABLE. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. VAPOR HARMFUL. EYE IRRITANT.
1 GAL (3.78L)




GAS
GASOLINE
RÉCIPIENT DE SÛRETÉ
DANGER
EXTRÊMEMENT INFLAMMABLE - LES VAPEURS PEUVENT EXPLOSER
NOCIF OU MORTEL SI AVALÉ
TENIR LOIN DE LA PORTÉE DES ENFANTS


MIX
GAS


GASOLINE
EAGLE
MANUFACTURING COMPANY
TYPE II
U2-51 S
Write Eagle for replacement parts


Share
Corporation
PNEUMAPLUS+
AIR TOOL CLEANER & LUBRICANT
REDUCES DOWNTIME & REPAIRS
CLEANS, LUBRICATES, RECONDITIONS
EXTENDS USABLE LIFE OF AIR TOOLS
NET WEIGHT: 12 ounces (340 grams)
DANGER: EXTREMELY FLAMMABLE
ARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL
CONTENTS UNDER PRESSURE.
KEEP OUT OF REACH OF CHILDREN
SEE OTHER CAUTIONS ON BACK PANEL.


Share
FIRMO
Premium Glass Polish
High-Quality Polish
For A Superior Shine
Leaves No Film
• Just Spray & Wipe Clean
• Easy to Use
• Non-Streaking
• Film-Free
• Foaming Spray
• Clean, Fresh Scent
Weight: 19 oz. (1 lb. 3 oz.) 539 grams
CAUTION
CONTENTS UNDER PRESSURE
for additional precautions and first aid instructions
KEEP OUT OF REACH OF CHILDREN

Safety Data Sheet

Document Group:	24-2445-5	**Version Number:**	3.00
Issue Date:	09/01/15	**Supercedes Date:**	08/07/14

Product identifier
3M™ Bondo® Lightweight Body Filler 240, 260, 261, 261ES, 261M, 261C, 262, 262ES, 262M, 262C, 262ES, 262T, 262W, 265, 265C, 265ES, 265L, 265W, 267, 267C

ID Number(s):

60-4550-5494-4, 60-4550-5651-9, 60-4550-5652-7, 60-4550-5653-5, 60-4550-5654-3, 60-4550-5655-0, 60-4550-5812-7, 60-4550-5824-2, 60-4550-6588-2, 60-4550-6589-0, 60-4550-6590-8

Recommended use
Automotive

Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

29-5993-0, 24-2444-8

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M

3M USA SDSs are available at www.3M.com

Safety Data Sheet

Document Group:	24-2444-8	**Version Number:**	8.00
Issue Date:	03/19/15	**Supercedes Date:**	03/05/15

SECTION 1: Identification

1.1. Product identifier
3M™ Bondo® Lightweight Body Filler 260, 261, 261C, 261E, 262, 262C, 262ES, 262L, 262T, 262W, 263, 264, 264S, 265, 265C, 265ES, 265T, 265W, 267, 267C

Product Identification Numbers
41-0003-6562-1, 41-0003-6642-1, 41-0003-6715-5, 41-3701-1570-5

1.2. Recommended use and restrictions on use

Recommended use
Automotive, Body Repair

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Flammable Liquid: Category 3.
Serious Eye Damage/Irritation: Category 2B.
Carcinogenicity: Category 2.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements
Signal word
Danger

Symbols

Flame | Health Hazard |

Pictograms

Hazard Statements
Flammable liquid and vapor.

Causes eye irritation.
Suspected of causing cancer.

Causes damage to organs:
liver |
sensory organs |

Causes damage to organs through prolonged or repeated exposure:
respiratory system |
sensory organs |

May cause damage to organs through prolonged or repeated exposure:
liver |

Precautionary Statements
General:
Keep out of reach of children.

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.
Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Keep container tightly closed.
Use explosion-proof electrical/ventilating/lighting equipment.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
Get medical advice/attention if you feel unwell.
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:
Store in a well-ventilated place. Keep cool.

Store locked up.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Hazards not otherwise classified
None.

2% of the mixture consists of ingredients of unknown acute oral toxicity.
50% of the mixture consists of ingredients of unknown acute dermal toxicity.
36% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Polyester Resin	Trade Secret*	15 - 40 Trade Secret *
Styrene Monomer	100-42-5	10 - 30 Trade Secret *
Talc	14807-96-6	10 - 30 Trade Secret *
Magnesium Carbonate	546-93-0	7 - 15 Trade Secret *
Inert Filler	Trade Secret*	5 - 10 Trade Secret *
Thickening Agent	Trade Secret*	< 3 Trade Secret *
Titanium Dioxide	13463-67-7	0.1 - 1 Trade Secret *

Any remaining components do not contribute to the hazards of this material.

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Styrene Monomer	100-42-5	ACGIH	TWA:20 ppm;STEL:40 ppm	A4: Not class. as human carcin
Styrene Monomer	100-42-5	OSHA	TWA:100 ppm;CEIL:200 ppm	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	CMRG	TWA(as respirable dust):5 mg/m3	
Titanium Dioxide	13463-67-7	OSHA	TWA(as total dust):15 mg/m3	
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m3	A4: Not class. as human carcin
Talc	14807-96-6	CMRG	TWA(as respirable dust):0.5 mg/m3	
Talc	14807-96-6	OSHA	TWA concentration(as total dust):0.3 mg/m3;TWA concentration(respirable):0.1 mg/m3(2.4 millions of particles/cu. ft.);TWA:20 millions of particles/cu. ft.	
Magnesium Carbonate	546-93-0	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Inert Filler	Trade Secret	Manufacturer determined	TWA(as dust):10 mg/m3	
Inert Filler	Trade Secret	ACGIH	TWA(as fiber):0.2 fiber/cc	A2: Suspected human carcin.

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Fluoroelastomer

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid
Specific Physical Form:	Paste
Odor, Color, Grade:	Pungent styrene odor colored paste.
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point	*No Data Available*
Boiling Point	293.00 ºF [*Details:* CONDITIONS: (Styrene)]
Flash Point	80 ºF - 82 ºF [*Test Method:* Closed Cup]
Evaporation rate	0.1 - 0.5
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	0.9 %
Flammable Limits(UEL)	6.8 %
Vapor Pressure	5.2 mmHg [*Details:* CONDITIONS: at 20 C]
Vapor Density	3.6
Density	9.5126 lb/gal
Density	1.14 g/ml
Specific Gravity	1.14 [*Ref Std:* WATER=1]
Solubility in Water	Negligible
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Hazardous Air Pollutants	0.372 lb HAPS/lb solids [*Test Method:* Calculated]
Volatile Organic Compounds	203 g/l [*Test Method:* calculated SCAQMD rule 443.1]
Volatile Organic Compounds	17.8 % weight [*Test Method:* calculated per CARB title 2]
Percent volatile	18.2 % weight
VOC Less H2O & Exempt Solvents	204 g/l [*Test Method:* calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable. Stable under normal conditions. May become unstable at elevated temperatures and/or pressures.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat
Sparks and/or flames

10.5. Incompatible materials
Strong acids
Strong bases
Strong oxidizing agents
Alkali and alkaline earth metals

10.6. Hazardous decomposition products

Substance	Condition
Hydrocarbons	Not Specified
Styrene Oxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
May be harmful if inhaled.
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:
Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion:

May be harmful if swallowed.
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:
Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Prolonged or repeated exposure may cause target organ effects:
Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
Inert Filler	Trade Secret	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Inert Filler	Trade Secret	Anticipated human carcinogen	National Toxicology Program Carcinogens
Inert Filler	Trade Secret	Anticipated human carcinogen	National Toxicology Program Carcinogens
Styrene Monomer	100-42-5	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Styrene Monomer	100-42-5	Anticipated human carcinogen	National Toxicology Program Carcinogens
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE > 5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE 20 - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
Polyester Resin	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Talc	Dermal		LD50 Not available
Talc	Ingestion		LD50 Not available
Styrene Monomer	Dermal	Rat	LD50 > 2,000 mg/kg
Styrene Monomer	Inhalation-Vapor (4 hours)	Rat	LC50 8.3 mg/l
Styrene Monomer	Ingestion	Rat	LD50 5,000 mg/kg
Magnesium Carbonate	Ingestion	Mouse	LD50 > 5,000 mg/kg
Inert Filler	Dermal		LD50 estimated to be > 5,000 mg/kg
Inert Filler	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Thickening Agent	Dermal		LD50 estimated to be > 5,000 mg/kg
Thickening Agent	Inhalation-	Rat	LC50 > 12.6 mg/l

	Dust/Mist (4 hours)		
Thickening Agent	Ingestion	Rat	LD50 > 5,000 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Talc	Rabbit	No significant irritation
Styrene Monomer	official classification	Mild irritant
Magnesium Carbonate	In vitro data	Minimal irritation
Inert Filler	Professional judgement	No significant irritation
Thickening Agent	Rat	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Talc	Rabbit	No significant irritation
Styrene Monomer	official classification	Moderate irritant
Magnesium Carbonate	Rabbit	Mild irritant
Inert Filler	Professional judgement	No significant irritation
Thickening Agent	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Styrene Monomer	Guinea pig	Not sensitizing
Titanium Dioxide	Human and animal	Not sensitizing

Respiratory Sensitization

Name	Species	Value
Talc	Human	Not sensitizing

Germ Cell Mutagenicity

Name	Route	Value
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Styrene Monomer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Styrene Monomer	In vivo	Some positive data exist, but the data are not sufficient for classification
Inert Filler	In Vitro	Some positive data exist, but the data are not

		sufficient for classification
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Styrene Monomer	Ingestion	Mouse	Carcinogenic
Styrene Monomer	Inhalation	Human and animal	Carcinogenic
Inert Filler	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Talc	Ingestion	Not toxic to development	Rat	NOAEL 1,600 mg/kg	during organogenesis
Styrene Monomer	Ingestion	Not toxic to female reproduction	Rat	NOAEL 21 mg/kg/day	3 generation
Styrene Monomer	Inhalation	Not toxic to female reproduction	Rat	NOAEL 2.1 mg/l	2 generation
Styrene Monomer	Inhalation	Not toxic to male reproduction	Rat	NOAEL 2.1 mg/l	2 generation
Styrene Monomer	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 400 mg/kg/day	60 days
Styrene Monomer	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 400 mg/kg/day	during gestation
Styrene Monomer	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 2.1 mg/l	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Styrene Monomer	Inhalation	auditory system	Causes damage to organs	Multiple animal species	LOAEL 4.3 mg/l	not available
Styrene Monomer	Inhalation	liver	Causes damage to organs	Mouse	LOAEL 2.1 mg/l	not available
Styrene Monomer	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Styrene Monomer	Inhalation	endocrine system	All data are negative	Rat	NOAEL Not available	not available
Styrene Monomer	Inhalation	kidney and/or bladder	All data are negative	Multiple animal species	NOAEL 2.1 mg/l	not available

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis | respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 18 mg/m3	113 weeks
Styrene Monomer	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Multiple animal species	NOAEL 1.3 mg/l	not available
Styrene Monomer	Inhalation	liver	May cause damage to organs though prolonged or repeated exposure	Mouse	LOAEL 0.85 mg/l	13 weeks
Styrene Monomer	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 1.1 mg/l	not available
Styrene Monomer	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.85 mg/l	7 days
Styrene Monomer	Inhalation	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.6 mg/l	10 days
Styrene Monomer	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 0.09 mg/l	not available
Styrene Monomer	Inhalation	heart | bone, teeth, nails, and/or hair | muscles | kidney and/or bladder	All data are negative	Multiple animal species	NOAEL 4.3 mg/l	2 years
Styrene Monomer	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 500 mg/kg/day	8 weeks
Styrene Monomer	Ingestion	immune system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	not available
Styrene Monomer	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 677 mg/kg/day	6 months
Styrene Monomer	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 600 mg/kg/day	470 days
Styrene Monomer	Ingestion	heart | respiratory system	All data are negative	Rat	NOAEL 35 mg/kg/day	105 weeks
Inert Filler	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL not available	occupational exposure
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.010 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit **http://3M.com/Transportinfo** or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations
Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Styrene Monomer	100-42-5	10 - 30

15.2. State Regulations
Contact 3M for more information.

California Proposition 65

Ingredient	C.A.S. No.	Classification
Titanium Dioxide	13463-67-7	Carcinogen

WARNING: This product contains a chemical known to the State of California to cause cancer.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 3 **Instability:** 1 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Document Group:	24-2444-8	**Version Number:**	8.00
Issue Date:	03/19/15	**Supercedes Date:**	03/05/15

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Safety Data Sheet

Document Group:	29-5993-0	**Version Number:**	3.02
Issue Date:	02/21/14	**Supercedes Date:**	10/02/12

SECTION 1: Identification

1.1. Product identifier
Cream Hardener (Red, White & Blue)

Product Identification Numbers
LB-K100-0965-7, LB-K100-0965-8, LB-K100-0965-9, LB-K100-0966-0, LB-K100-0966-1, LB-K100-0966-2, LB-K100-0966-3, LB-K100-1035-6, LB-K100-1045-4, LB-K100-1286-7, 41-0003-7987-9, 60-4550-6614-6, 60-4550-6617-9, 60-4550-6830-8, 60-4550-6981-9, 60-4550-6982-7, 60-4550-8123-6

1.2. Recommended use and restrictions on use

Recommended use
Automotive

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Organic Peroxide: Type E.
Serious Eye Damage/Irritation: Category 2A.
Skin Sensitizer: Category 1.

2.2. Label elements
Signal word
Warning

Symbols
Flame | Exclamation mark |

Pictograms

Hazard Statements
Heating may cause a fire.

Causes serious eye irritation.
May cause an allergic skin reaction.

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep away from clothing and other combustible materials.
Keep only in original container.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

Response:
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 ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

Storage:
Protect from sunlight.
Store at temperatures not exceeding 32C/90F. Keep cool.
Store away from other materials.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:
Not applicable

2.3. Hazards not otherwise classified
None.

6% of the mixture consists of ingredients of unknown acute dermal toxicity.
14% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt

Benzoyl Peroxide	94-36-0	30 - 60 Trade Secret *
Water	7732-18-5	10 - 30 Trade Secret *
Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30 Trade Secret *
Zinc Stearate	557-05-1	3 - 7 Trade Secret *
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	1 - 5 Trade Secret *
Calcium Sulfate	7778-18-9	1 - 5 Trade Secret *
Iron Oxide (FE2O3)	1309-37-1	1 - 5 Trade Secret *
Ferric Ferrocyanide	14038-43-8	0 - 1 Trade Secret *
Ferric Ammonium Ferrocyanide	25869-00-5	0 - 1 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

5.3. Special protective actions for fire-fighters
No unusual fire or explosion hazards are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces,

provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities
Keep container tightly closed. Protect from sunlight. Store away from heat. Store at temperatures not exceeding 32C/90F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Iron Oxide (FE2O3)	1309-37-1	Amer Conf of Gov. Indust. Hyg.	TWA(respirable fraction):5 mg/m3	
Iron Oxide (FE2O3)	1309-37-1	US Dept of Labor - OSHA	TWA(as fume):10 mg/m3	
CYANIDES	14038-43-8	US Dept of Labor - OSHA	TWA(as CN):5 mg/m3	Skin Notation
Zinc Stearate	557-05-1	US Dept of Labor - OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Calcium Sulfate	7778-18-9	Amer Conf of Gov. Indust. Hyg.	TWA(inhalable fraction):10 mg/m3	
Calcium Sulfate	7778-18-9	US Dept of Labor - OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	

Benzoyl Peroxide	94-36-0	Amer Conf of Gov. Indust. Hyg.	TWA:5 mg/m3	
Benzoyl Peroxide	94-36-0	US Dept of Labor - OSHA	TWA:5 mg/m3	

Amer Conf of Gov. Indust. Hyg. : American Conference of Governmental Industrial Hygienists
American Indust. Hygiene Assoc : American Industrial Hygiene Association
Chemical Manufacturer Rec Guid : Chemical Manufacturer's Recommended Guidelines
US Dept of Labor - OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Nitrile Rubber

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Nitrile

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Solid
Specific Physical Form:	Viscous
Odor, Color, Grade:	Red paste with slight ester odor
Odor threshold	*No Data Available*

pH	*No Data Available*
Melting point	*No Data Available*
Boiling Point	*No Data Available*
Flash Point	111 ºC [*Test Method:* Estimated]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Organic Peroxide: Type E.
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*Not Applicable*
Vapor Density	*Not Applicable*
Density	1.2 g/cm3
Specific Gravity	1.2 [@ 25 ºC] [*Ref Std:* WATER=1]
Solubility in Water	Negligible
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Hazardous Air Pollutants	0 % weight [*Test Method:* Calculated]
Volatile Organic Compounds	0 lb/gal [*Test Method:* calculated SCAQMD rule 443.1]
Volatile Organic Compounds	0 g/l [*Test Method:* calculated SCAQMD rule 443.1]
Volatile Organic Compounds	0 % weight [*Test Method:* calculated per CARB title 2]
Percent volatile	20 % [*Details:* Water is the volatile component]
VOC Less H2O & Exempt Solvents	0 g/l [*Test Method:* calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable. Stable unless exposed to heat, flames and drying conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat

10.5. Incompatible materials
Accelerators

10.6. Hazardous decomposition products

Substance	Condition
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be

present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
May be harmful if inhaled. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:
May be harmful in contact with skin.
Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE 4,339.3 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE 10.7 mg/l
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Benzoyl Peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Benzoyl Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Benzoyl Peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 2 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Stearate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zinc Stearate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Calcium Sulfate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	LD50 4,240 mg/kg
Iron Oxide (FE2O3)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg
Ferric Ammonium Ferrocyanide	Ingestion	Rat	LD50 > 5,110 mg/kg
Ferric Ferrocyanide	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	Minimal irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	No significant irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Benzoyl Peroxide	Human and animal	Sensitizing
Iron Oxide (FE2O3)	Human	Some positive data exist, but the data are not sufficient for classification

Respiratory Sensitization

Name	Species	Value

Germ Cell Mutagenicity

Name	Route	Value
Benzoyl Peroxide	In Vitro	Not mutagenic
Benzoyl Peroxide	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Benzoyl Peroxide	Ingestion	Multiple animal species	Not carcinogenic
Benzoyl Peroxide	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Benzoyl Peroxide	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Benzoyl Peroxide	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Benzoyl Peroxide	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Not toxic to female reproduction	Rat	NOAEL 3,770 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Not toxic to male reproduction	Rat	NOAEL 3,770 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane,	Inhalation	Some positive male reproductive data	Rat	NOAEL 1	2 weeks

Monobutyl Ether		exist, but the data are not sufficient for classification		mg/l	

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	endocrine system | hematopoietic system | liver | nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL .005 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL .001 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	heart	All data are negative	Rat	NOAEL .5 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	hematopoietic system	All data are negative	Rat	NOAEL 500 mg/kg/day	2 years
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	heart | endocrine system | respiratory system	All data are negative	Rat	NOAEL 3,770 mg/kg/day	90 days
Iron Oxide (FE2O3)	Inhalation	pulmonary fibrosis | pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

Name	Value

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit **http://3M.com/Transportinfo** or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - Yes Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Zinc Stearate (ZINC COMPOUNDS)	557-05-1	3 - 7
Benzoyl Peroxide	94-36-0	30 - 60
Ferric Ferrocyanide (CYANIDES)	14038-43-8	0 - 1

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 2 **Instability:** 1 **Special Hazards:** Oxidizer

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification
Health: 2 **Flammability:** 1 **Physical Hazard:** 1 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® III) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER	DATE OF PREPARATION	HMIS CODES	
		Health	3*
CH200	13-AUG-08	Flammability	3
		Reactivity	0

PRODUCT NAME
CROSSFIRE® Epoxy Primer Hardener (Part B)

MANUFACTURER'S NAME
MARTIN SENOUR PAINTS
4440 Warrensville Center Road
Warrensville Hts., OH 44128-2837

TELEPHONE NUMBERS and WEBSITES
Regulatory Information
(216) 566-2902
Medical Emergency
(216) 566-2917
Transportation Emergency
(800) 424-9300
for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT			UNITS	VAPOR PRESSURE
16	108-88-3	Toluene				
			ACGIH TLV	20	ppm	22 mm
			OSHA PEL	100	ppm (Skin)	
			OSHA PEL	150	ppm (Skin) STEL	
14	67-63-0	2-Propanol				
			ACGIH TLV	200	ppm	33 mm
			ACGIH TLV	400	ppm STEL	
			OSHA PEL	400	ppm	
14	100-51-6	Phenylmethanol				
			ACGIH TLV	Not Available		0.15 mm
			OSHA PEL	Not Available		
3	112-24-3	Triethylene Tetramine				
			ACGIH TLV	Not Available		
			OSHA PEL	Not Available		
53	Proprietary	Polyamine				
			ACGIH TLV	Not Available		
			OSHA PEL	Not Available		

Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

Continued on page 2

EFFECTS OF OVEREXPOSURE

EYES: Causes burns.
SKIN: Causes burns.
INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, cardiovascular, nervous and reproductive systems.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

May cause allergic skin reaction in susceptible persons or skin sensitization.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention IMMEDIATELY.

SKIN: Wash affected area thoroughly with soap and water. If irritation persists or occurs later, get medical attention. Remove contaminated clothing and launder before re-use.

INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

INGESTION: Do not induce vomiting. Get medical attention immediately.

Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL
76 F PMCC	1.0	12.7

FLAMMABILITY CLASSIFICATION

RED LABEL -- Flammable, Flash below 100 F (38 C)

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Continued on page 3

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

Section 7 -- HANDLING AND STORAGE

STORAGE CATEGORY

DOL Storage Class IC

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are FLAMMABLE. Keep away from heat, sparks, and open flame.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Do not get in eyes or on skin. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

To prevent skin contact, wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

To prevent eye contact, wear safety spectacles with unperforated sideshields.

OTHER PROTECTIVE EQUIPMENT

Use barrier cream on exposed skin.

Continued on page 4

OTHER PRECAUTIONS

This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	7.86 lb/gal	942 g/l
SPECIFIC GRAVITY	0.95	
BOILING POINT	178 - 405 F	81 - 207 C
MELTING POINT	Not Available	
VOLATILE VOLUME	47 %	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

3.49 lb/gal	419 g/l	Less Water and Federally Exempt Solvents
3.49 lb/gal	419 g/l	Emitted VOC

Section 10 -- STABILITY AND REACTIVITY

STABILITY -- Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, possibility of Hydrogen Cyanide

HAZARDOUS POLYMERIZATION

Will not occur

Section 11 -- TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TOXICOLOGY DATA

Continued on page 5

CAS No.	Ingredient Name					
108-88-3	Toluene					
		LC50	RAT	4HR	4000	ppm
		LD50	RAT		5000	mg/kg
67-63-0	2-Propanol					
		LC50	RAT	4HR	Not Available	
		LD50	RAT		5045	mg/kg
100-51-6	Phenylmethanol					
		LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	
112-24-3	Triethylene Tetramine					
		LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	
Proprietary	Polyamine					
		LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	

Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

Continued on page 6

Section 14 -- TRANSPORT INFORMATION

US Ground (DOT)
1 Gallon and Less may be Classed as CONSUMER COMMODITY, ORM-D
Larger Containers are Regulated as:
UN1263, PAINT RELATED MATERIAL, 3, PG III, (ERG#128)

DOT (Dept of Transportation) Hazardous Substances & Reportable Quantities
Toluene 1000 lb RQ

Bulk Containers may be Shipped as (check reportable quantities):
UN1263, PAINT RELATED MATERIAL, 3, PG III, (ERG#128)

Canada (TDG)
UN1263, PAINT RELATED MATERIAL, CLASS 3, PG III, LIMITED QUANTITY, (ERG#128)

IMO
UN1263, PAINT RELATED MATERIAL, CLASS 3, PG III, (24 C c.c.), EmS F-E, S-E

Section 15 -- REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
108-88-3	Toluene	16	

CALIFORNIA PROPOSITION 65
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION
All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

Section 16 -- OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

Chemical Name: CR733 Reducer

Manufacturer: Napa

Container size: 32oz.

Location: VLA

Disposal: Place empty container in trash.

MATERIAL SAFETY DATA SHEET

CR733
06 00

DATE OF PREPARATION
Apr 5, 2012

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
CR733

PRODUCT NAME
CROSSFIRE® PLUS Reducer, Moderate

MANUFACTURER'S NAME
MARTIN SENOUR PAINTS
4440 Warrensville Center Road
Warrensville Hts., OH 44128-2837

Telephone Numbers and Websites

Product Information	(800) 526-6704 www.martinsenour-autopaint.com
Regulatory Information	(216) 566-2902
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
**for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)*	

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
5	108-88-3	**Toluene**		
		ACGIH TLV	20 PPM	22 mm
		OSHA PEL	100 ppm (Skin)	
		OSHA PEL	150 ppm (Skin) STEL	
1	100-41-4	**Ethylbenzene**		
		ACGIH TLV	20 PPM	7.1 mm
		OSHA PEL	100 PPM	
		OSHA PEL	125 PPM STEL	
6	1330-20-7	**Xylene**		
		ACGIH TLV	100 PPM	5.9 mm
		ACGIH TLV	150 PPM STEL	
		OSHA PEL	100 PPM	
		OSHA PEL	150 PPM STEL	
12	67-64-1	**Acetone**		
		ACGIH TLV	500 PPM	180 mm
		ACGIH TLV	750 PPM STEL	
		OSHA PEL	1000 PPM	
11	78-93-3	**Methyl Ethyl Ketone**		
		ACGIH TLV	200 PPM	70 mm
		ACGIH TLV	300 PPM STEL	
		OSHA PEL	200 PPM	
		OSHA PEL	300 PPM STEL	
3	108-10-1	**Methyl Isobutyl Ketone**		
		ACGIH TLV	50 PPM	16 mm
		ACGIH TLV	75 PPM STEL	
		OSHA PEL	50 PPM	
		OSHA PEL	75 PPM STEL	
9	763-69-9	**Ethyl 3-Ethoxypropionate**		
		ACGIH TLV	Not Available	1.11 mm
		OSHA PEL	Not Available	
36	123-86-4	**n-Butyl Acetate**		
		ACGIH TLV	150 PPM	10 mm
		ACGIH TLV	200 PPM STEL	
		OSHA PEL	150 PPM	
		OSHA PEL	200 PPM STEL	
2	112-07-2	**2-Butoxyethyl Acetate**		
		ACGIH TLV	Not Available	1 mm
		OSHA PEL	Not Available	
14	97-85-8	**Isobutyl Isobutyrate**		
		ACGIH TLV	Not Available	3.2 mm
		OSHA PEL	Not Available	

SECTION 3 — HAZARDS IDENTIFICATION

HMIS Codes

Health	2*
Flammability	3
Reactivity	0

ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE

EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.
INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:

- the liver
- the urinary system
- the hematopoietic (blood-forming) system
- the cardiovascular system
- the reproductive system

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
SKIN: Wash affected area thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.
INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
20 °F PMCC	0.5	12.8	RED LABEL -- Extremely Flammable, Flash below 21 °F (-6 °C)

EXTINGUISHING MEDIA
Carbon Dioxide, Dry Chemical, Foam
UNUSUAL FIRE AND EXPLOSION HAZARDS
Closed containers may explode when exposed to extreme heat.
Application to hot surfaces requires special precautions.
During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.
SPECIAL FIRE FIGHTING PROCEDURES
Full protective equipment including self-contained breathing apparatus should be used.
Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Remove all sources of ignition. Ventilate the area.
Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE

STORAGE CATEGORY
DOL Storage Class IB
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Contents are EXTREMELY FLAMMABLE. Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.
During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.
Consult NFPA Code. Use approved Bonding and Grounding procedures.
Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE
Use only with adequate ventilation.
Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.
Wash hands after using.
VENTILATION
Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.
RESPIRATORY PROTECTION
If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.
PROTECTIVE GLOVES
Wear gloves which are recommended by glove supplier for protection against materials in Section 2.
EYE PROTECTION
Wear safety spectacles with unperforated sideshields.
OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	7.14 lb/gal	854 g/l
SPECIFIC GRAVITY	0.86	
BOILING POINT	132 - 384 °F	55 - 195 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	99%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

7.21 lb/gal	864 g/l	Less Water and Federally Exempt Solvents
6.27 lb/gal	752 g/l	Emitted VOC

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

Methyl Ethyl Ketone may increase the nervous system effects of other solvents.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

TOXICOLOGY DATA

CAS No.	Ingredient Name			
108-88-3	**Toluene**			
		LC50 RAT	4HR	4000 ppm
		LD50 RAT		5000 mg/kg
100-41-4	**Ethylbenzene**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		3500 mg/kg
1330-20-7	**Xylene**			
		LC50 RAT	4HR	5000 ppm
		LD50 RAT		4300 mg/kg
67-64-1	**Acetone**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		5800 mg/kg
78-93-3	**Methyl Ethyl Ketone**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		2740 mg/kg
108-10-1	**Methyl Isobutyl Ketone**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		2080 mg/kg
763-69-9	**Ethyl 3-Ethoxypropionate**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		5000 mg/kg
123-86-4	**n-Butyl Acetate**			
		LC50 RAT	4HR	2000 ppm
		LD50 RAT		13100 mg/kg
112-07-2	**2-Butoxyethyl Acetate**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		2400 mg/kg
97-85-8	**Isobutyl Isobutyrate**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.
Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.
Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION

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 (ocean, 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.

US Ground (DOT)

5 Liters (1.3 Gallons) and Less may be Classed as LTD. QTY. OR ORM-D
Larger Containers are Regulated as:
UN1263, PAINT RELATED MATERIAL, 3, PG II, (ERG#128)

DOT (Dept of Transportation) Hazardous Substances & Reportable Quantities

n-Butyl acetate 5000 lb RQ
Toluene 1000 lb RQ
Xylenes (isomers and mixture) 100 lb RQ

Bulk Containers may be Shipped as (check reportable quantities):

RQ, UN1263, PAINT RELATED MATERIAL, 3, PG II, (XYLENES (ISOMERS AND MIXTURE)), (ERG#128)

Canada (TDG)

UN1263, PAINT RELATED MATERIAL, CLASS 3, PG II, (ERG#128)

IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.
UN1263, PAINT RELATED MATERIAL, CLASS 3, PG II, (-7 C c.c.), EmS F-E, S-E, ADR (D/E)

IATA/ICAO

UN1263, PAINT RELATED MATERIAL, 3, PG II

SECTION 15 — REGULATORY INFORMATION

SARA 313 *(40 CFR 372.65C)* SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
108-88-3	Toluene	5	
100-41-4	Ethylbenzene	1	
1330-20-7	Xylene	6	
108-10-1	Methyl Isobutyl Ketone	3	
	Glycol Ethers	2	

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (440) 572-2800

PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

Product ID: DC3000 (0808)
PRODUCT NAME: HIGH VELOCITY CLEARCOAT
SYNONYMS: None
ISSUE DATE: 05/19/2008
EDITION NO.: 5
CHEMICAL FAMILY: Acrylic

EMERGENCY OVERVIEW:

Extremely flammable. Vapors may cause flash fires. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous	
XYLENES 1330-20-7	10 - 30	X	
ACETONE 67-64-1	10 - 30	X	
AROMATIC NAPHTHA 64742-95-6	1 - 5	X	
ETHYL BENZENE 100-41-4	1 - 5	X	
V.M. AND P. NAPHTHA 8032-32-4	1 - 5	X	
TOLUENE 108-88-3	1 - 5	X	
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	X	
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	X	
STYRENE MONOMER 100-42-5	0.1-1.0	X	
[As Rubber solvent (Naphtha)] 8032-32-4	*	X	See Sections 8 and 15 for information.

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
Skin absorption not expected to occur.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat.

INGESTION:
Harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. This product contains toluene. Toluene inhalation in animals (greater than 1500 ppm) and intentional inhalation of toluene-containing products by humans (e.g. glue) has caused adverse fetal development effects. It has been reported in occupational studies that inhalation exposures to toluene are associated with reproductive effects including spontaneous abortion. However, the methodology and reliability of the results for the studies are questionable. Several other occupational studies indicated that toluene exposure has been associated with impaired color vision. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

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 Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 2 Degrees F (-17 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 2.3
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material 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. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.
STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.
SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.
RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
XYLENES 1330-20-7	10 - 30	100 ppm	150 PPM	100 ppm	150 ppm
ACETONE 67-64-1	10 - 30	500 ppm	750 ppm	750 ppm	1000 ppm
ETHYL BENZENE 100-41-4	1 - 5	100 ppm	125 ppm	100 ppm	125 ppm
V.M. AND P. NAPHTHA 8032-32-4	1 - 5	300 ppm	Not established	300 ppm	400 ppm
TOLUENE 108-88-3	1 - 5	20 PPM	Not established	100 ppm	150 ppm
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	50 ppm	Not established	100 ppm	Not established
STYRENE MONOMER 100-42-5	0.1-1.0	20 PPM	40 PPM	50 ppm	100 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
XYLENES 1330-20-7	10 - 30	100 ppm	150 ppm	Not established	Not established
ACETONE 67-64-1	10 - 30	500 PPM	750 PPM	Not established	Not established
ETHYL BENZENE 100-41-4	1 - 5	100 PPM	125 PPM	Not established	Not established
V.M. AND P. NAPHTHA 8032-32-4	1 - 5	1350 MG/m^3	Not established	Not established	Not established
TOLUENE 108-88-3	1 - 5	50 PPM	Not established	Not established	Not established
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	25 ppm	Not established	Not established	Not established
STYRENE MONOMER 100-42-5	0.1-1.0	50 ppm	100 PPM	Not established	Not established
[As Rubber solvent (Naphtha)] 8032-32-4	*	400 PPM	Not established	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit (1989 Vacated values); IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Absorption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY: .920
PHYSICAL STATE: Liquid
Percent Solids: 37.86
Percent Volatile by Volume: 68.260
pH: Not available.
ODOR THRESHOLD: Not available.
Vapour Pressure: 81.1 mmHg
ODOR/APPEARANCE: Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY: HEAVIER THAN AIR
Evaporation Rate: 373
BOILING POINT OR RANGE: 133 - 410Degrees F
Freezing Point or Range: Not Applicable.
Melting Point or Range(°C): Not Applicable.
Partition coefficient (n-octanol/water): Not Applicable.
WEIGHT PER GALLON: 7.67 (U.S.) / 9.2 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
XYLENES 1330-20-7	10 - 30	4.30 g/kg	1.70 g/kg	21.88 mg/l 4 hr
ACETONE 67-64-1	10 - 30	1.80 g/kg	20.00 g/kg	76.00 mg/l 4 hr
AROMATIC NAPHTHA 64742-95-6	1 - 5	8.40 g/kg	3.48 g/kg	5.20 mg/l 4 hr
ETHYL BENZENE 100-41-4	1 - 5	3.50 g/kg	17.80 g/kg	Not Available
TOLUENE 108-88-3	1 - 5	.64 g/kg	8.39 g/kg	12.50 mg/l 4 hr
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	1.60 g/kg	10.21 g/kg	Not Available
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	Not Available	Not Available	18.00 mg/l 4 hr
STYRENE MONOMER 100-42-5	0.1-1.0	1.00 g/kg	Not Available	11.80 mg/l 4 hr

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Kidney - Liver - Carcinogen - Teratogen - Embryotoxin - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
ETHYL BENZENE 100-41-4	1 - 5	Ethylbenzene has been reported by NTP to cause cancer in laboratory animals following a chronic (2 year) inhalation exposure. Dose levels of 75, 250 and 750 ppm were used, with evidence of carcinogenicity found in the kidneys of rats and the lung and liver of mice at 750 ppm. The No Observed Effect Level (NOEL) was 75 ppm. The relevance of these findings to humans is uncertain, but appropriate safeguards should be employed to reduce or eliminate inhalation exposure to ethylbenzene.
STYRENE MONOMER 100-42-5	0.1-1.0	This product contains styrene, which has been classified as a Class 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC). In the body, styrene is metabolized to styrene-7,8-oxide, which has been classified as a Group 2A carcinogen (probably carcinogenic to humans). Styrene has been shown to cause probable hearing loss in rats exposed for at least six hours per day for three to thirteen weeks to 800 ppm of styrene in the air. No effects were observed in rats exposed to styrene at 200 ppm for thirteen weeks. Based on animal studies and human experience, no significant risk of hearing loss is expected in occupationally exposed people. Repeated exposures to styrene vapor have been found to cause liver toxicity in mice at levels above 100 ppm. In addition, styrene has shown mutagenic effects in in-vitro tests which included metabolic activation.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE

Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.

Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: NOT AVAILABLE
NOS Technical Name: NOT AVAILABLE
Hazard Class: N.A.
Subsidiary Class(es): N.A.
UN Number: N.A.
Packing Group: N.A.

USA - RQ Hazardous Substances: NOT AVAILABLE
USA-RQ Hazardous Substance NOT AVAILABLE
Threshold Ship Weight:
Marine Pollutant Name: NOT AVAILABLE

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.

FEDERAL REGULATIONS

US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
XYLENES 1330-20-7	10 - 30	100 lbs	Not Listed	Listed
ACETONE 67-64-1	10 - 30	5000 lbs	Not Listed	Not Listed
AROMATIC NAPHTHA 64742-95-6	1 - 5	Not Listed	Not Listed	Not Listed
ETHYL BENZENE 100-41-4	1 - 5	1000 lbs	Not Listed	Listed
V.M. AND P. NAPHTHA 8032-32-4	1 - 5	Not Listed	Not Listed	Not Listed
TOLUENE 108-88-3	1 - 5	1000 lbs	Not Listed	Listed
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	Not Listed	Not Listed	Not Listed
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	Not Listed	Not Listed	Listed
STYRENE MONOMER 100-42-5	0.1-1.0	1000 lbs	Not Listed	Listed

SARA 311/312

Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No

WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A

STATE/PROVINCIAL REGULATIONS

CALIFORNIA PROP. 65: WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Additional Information

Material/ CAS Number	Percent	IARC Group 1(Known Human Carc.)	IARC Group 2A (Probable Carc.)	IARC 2B (Suspected Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
ETHYL BENZENE 100-41-4	1 - 5	N	N	Y	N	N	Y
STYRENE MONOMER 100-42-5	0.1-1.0	N	N	Y	N	N	Y

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DC3000 000001 (00262712.001)(05/24/03)
030513, 000, 0808

*** END OF MSDS ***

Material Safety Data Sheet

Date of issue 27 August 2015
Version 14

1 . Product and company identification

Product name : MID TEMP HARDENER
Code : DCH3085
Supplier : PPG Industries, Inc.
One PPG Place,
Pittsburgh, PA 15272
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
Technical Phone Number : 1-800-647-6050

2 . Hazards identification

Emergency overview : DANGER!

FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTION. SKIN CONTACT TO ISOCYANATE MONOMER MAY LEAD TO ALLERGIC LUNG REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. ASPIRATION HAZARD. CAN ENTER LUNGS AND CAUSE DAMAGE. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Keep away from flames, such as a pilot light, and any object that sparks, such as an electric motor. Keep away from heat. Do not smoke. Do not breathe vapor or mist. Do not swallow. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Potential acute health effects

Inhalation : Harmful if inhaled. Severely irritating to the respiratory system. Can irritate eyes, nose, mouth and throat. May cause sensitization by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion : May be harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Skin : Harmful in contact with skin. Irritating to skin. May cause an allergic skin reaction.

Eyes : Irritating to eyes.

Over-exposure signs/symptoms

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.

2 . Hazards identification

Medical conditions aggravated by over-exposure : Pre-existing respiratory and skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS).

See toxicological information (Section 11)

3 . Composition/information on ingredients

Name	CAS number	% (w/w)
Hexamethylene diisocyanate, oligomers	28182-81-2	40 - 70
heptan-2-one	110-43-0	10 - 30
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	53880-05-0	7 - 13
xylene	1330-20-7	3 - 7
n-butyl acetate	123-86-4	3 - 7
ethylbenzene	100-41-4	0.5 - 1.5
hexamethylene-di-isocyanate	822-06-0	0.1 - 1

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.

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 Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

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.

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.

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.

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

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.

5 . Fire-fighting measures

Flammability of the product : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors 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.

Extinguishing media

Suitable : Use dry chemical, CO_2, water spray (fog) or foam.

Not suitable : Do not use water jet.

Special exposure hazards : 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.

5 . Fire-fighting measures

Hazardous combustion products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
Hydrogen cyanide (HCN).
Cyanate and isocyanate.

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.

6 . Accidental release measures

Personal precautions : 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 (see Section 8).

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).

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Use spark-proof tools and explosion-proof equipment. 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.

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 or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Special provisions : 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). Place in a suitable container. The contaminated area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is reached, close container and dispose of according to local regulations (see section 13). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

7 . Handling and storage

Handling : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not breathe vapor or mist. Do not swallow. Do not get in eyes or on skin or clothing. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. Vapors are heavier than

7 . Handling and storage

air and may spread along floors. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. If this material is part of a multiple component system, read the Material 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.

Storage : 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. Precautions should be taken to minimize exposure to atmospheric humidity or water. CO_2 will be formed, which, in closed containers, could result in pressurization. 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. Do not store above the following temperature: 120°F / 49°C.

8 . Exposure controls/personal protection

Name	Result	ACGIH	Ontario	Mexico	PPG
Hexamethylene diisocyanate, oligomers	TWA	Not established	Not established	Not established	0.5 mg/m³
	STEL	Not established	Not established	Not established	1 mg/m³
heptan-2-one	TWA	50 ppm	25 ppm	50 ppm	Not established
	STEL	Not established	Not established	100 ppm	Not established
3-Isocyanatomethyl-3,5, 5-trimethylcyclohexyl isocyanate, oligomers	TWA	Not established	Not established	Not established	0.5 mg/m³
	STEL	Not established	Not established	Not established	1 mg/m³
xylene	TWA	100 ppm	100 ppm	100 ppm	Not established
	STEL	150 ppm	150 ppm	150 ppm	Not established
n-butyl acetate	TWA	150 ppm	150 ppm	150 ppm	Not established
	STEL	200 ppm	200 ppm	200 ppm	Not established
ethylbenzene	TWA	20 ppm	20 ppm	100 ppm	Not established
	STEL	Not established	Not established	125 ppm	Not established
hexamethylene-di-isocyanate	TWA	0.005 ppm	0.01 ppm	5 mg/m³ (as Cn)	Not established

Key to abbreviations

A	=	Acceptable Maximum Peak	SR	=	Respiratory sensitization
ACGIH	=	American Conference of Governmental Industrial Hygienists.	SS	=	Skin sensitization
C	=	Ceiling Limit	STEL	=	Short term Exposure limit values
F	=	Fume	TD	=	Total dust
IPEL	=	Internal Permissible Exposure Limit	TLV	=	Threshold Limit Value
R	=	Respirable	TWA	=	Time Weighted Average
S	=	Potential skin absorption			

Consult local authorities for acceptable exposure limits.

8 . Exposure controls/personal protection

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.

Engineering measures : 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.

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.

Personal protection

Eyes : Safety glasses with side shields.

Hands : 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.

Gloves : butyl rubber

Respiratory : By spraying: air-fed respirator. By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask. 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.

Skin : 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.

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.

Restrictions on use : Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

9 . Physical and chemical properties

Physical state : Liquid.

Flash point : Closed cup: 33.33°C (92°F)

Explosion limits : Lower: 1.1%

Material supports combustion. : Yes.

Color : Not available.

Odor : Not available.

pH : Not available.

Boiling/condensation point : >37.78°C (>100°F)

9 . Physical and chemical properties

Melting/freezing point : Not available.
Specific gravity : 1.05
Density (lbs / gal) : 8.76
Vapor pressure : 0.71 kPa (5.3 mm Hg) [room temperature]
Vapor density : Not available.
Volatility : 33% (v/v), 26.27% (w/w)
Evaporation rate : 0.59 (butyl acetate = 1)
Solubility : Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water : Not available.
% Solid. (w/w) : 73.73

10 . Stability and reactivity

Stability : The product may not be stable under certain conditions of storage or use.
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. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts slowly with water, resulting in the production of carbon dioxide. In closed containers, pressure buildup could result in distortion, expansion and, in extreme cases, bursting of the container. Avoid increased storage temperature. Pressure hazard
Materials to avoid : Reactive or incompatible with the following materials:,oxidizing materials,strong acids, strong alkalis
Hazardous decomposition products : Cyanate and isocyanate.
Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Hexamethylene diisocyanate, oligomers	LD50 Oral	Rat - Female	>2500 mg/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0.39 mg/l	4 hours
	LC50 Inhalation	Rat	18500 mg/m3	1 hours
heptan-2-one	LD50 Oral	Rat	1.6 g/kg	-
	LD50 Dermal	Rabbit	10.206 g/kg	-
xylene	LD50 Oral	Rat	4.3 g/kg	-
	LD50 Dermal	Rabbit	>1.7 g/kg	-
	LC50 Inhalation Vapor	Rat	5000 ppm	4 hours
n-butyl acetate	LD50 Oral	Rat	10.768 g/kg	-
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LC50 Inhalation	Rat	>21.1 mg/l	4 hours
ethylbenzene	LD50 Oral	Rat	3.5 g/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LC50 Inhalation Vapor	Rat	4000 ppm	4 hours
hexamethylene-di-isocyanate	LD50 Oral	Rat	0.71 g/kg	-
	LD50 Dermal	Rabbit	0.57 g/kg	-
	LC50 Inhalation Vapor	Rat	151 mg/m³	4 hours

11 . Toxicological information

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Defatting irritant : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Target organs : Contains material which causes damage to the following organs: brain.
Contains material which may cause damage to the following organs: kidneys, lungs, the nervous system, liver, peripheral nervous system, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), ears, eye, lens or cornea.

Carcinogenicity

Carcinogenicity : Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.

Classification

Product/ingredient name	ACGIH	IARC	NTP
xylene	A4	3	-
ethylbenzene	A3	2B	-

Carcinogen Classification code:
ACGIH: A1, A2, A3, A4, A5
IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
Not listed or regulated as a carcinogen: -

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Hexamethylene diisocyanate, oligomers	Acute EC50 >100 mg/l	Daphnia - daphnia magna	48 hours
	Acute EC50 >1000 mg/l	Algae - scenedesmus subspicatus	72 hours
ethylbenzene	Acute LC50 150 to 200 mg/L Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours

13 . Disposal considerations

Waste disposal : 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.

13 . Disposal considerations

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

	TDG	Mexico	IMDG
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

TDG : None identified.

Mexico : None identified.

IMDG : 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.

15 . Regulatory information

Canada inventory (DSL) : All components are listed or exempted.

Canada

WHMIS (Canada) : Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).

Mexico

Classification

Flammability : 3 **Health** : 3 **Reactivity** : 1

16 . Other information

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

Health : 3 * **Flammability** : 3 **Physical hazards** : 1

(*) - Chronic effects

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 are not required on MSDSs 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.

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

Health : 3 **Flammability** : 3 **Instability** : 1

Date of previous issue : **2/9/2015**

Organization that prepared the MSDS : EHS

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.

SelectPrime™
491-17™ 2K Etch Primer (Gray)

GENERAL

DESCRIPTION
A 6.2 lb/gal (740 g/l) VOC compliant, non-sanding, etch primer that provides exceptional adhesion and corrosion resistance over bare metal. It eliminates the need to chemically pretreat metal surfaces before priming.

The products referenced herein may not be sold in your market. Please consult your distributor for product availability.

MIXING

MIX RATO

Component	Volume
SelectPrime™ 491-17™ 2K Etch Primer	1
SelectPrime™ 441-43™ Activator/Reducer	1

INDUCTION TIME
Not required

POT LIFE
8 hours at 70°F (21°C)

APPLICATION

SUBSTRATES
Bare metal, steel, aluminum, galvanized, and featheredged old paint.

TOPCOATS
Etch-primer may be used under any Nason® primer-surfacer or sealer for improved corrosion performance. SelectPrime™ 491-17™ 2K Etch Primer must be followed with a primer-surfacer or sealer prior to topcoating with any Nason® topcoat.

SURFACE PREPARATION
Before sanding, wash with mild detergent and water and remove wax and grease with Nason® 441-05™ Wax and Grease Remover or 481-75™ Surface Cleaner. In regulated areas use locally permitted cleaners.

SPRAY PRESSURE

Conventional	
Siphon Feed:	30-45 PSI
Gravity Feed:	25-40 PSI
HVLP:	6-8 PSI

GUN SETUP

Conventional	
Siphon Feed:	1.4-1.6 mm
Gravity Feed:	1.3-1.6 mm

HVLP

Siphon Feed:	1.6-1.8 mm
Gravity Feed:	1.3-1.6 mm

APPLICATION

Spray one medium wet coat.

CLEANING OF PAINT EQUIPMENT

Use Cromax® 105™ Gun Cleaner, Cromax® 107™ Low VOC Gun & Equipment Cleaning Solvent, or any other equipment cleaner as permitted by local regulations.

IMPORTANT NOTES:

SelectPrime™ 491-17™ 2K Etch Primer must be followed with a Primer-Surfacer or Sealer prior to topcoating with any Nason® topcoat.

DRY TIMES

Allow primer to tack (15 to 30 minutes) before applying Primer-Surfacer or Sealer. Must apply Primer-Surfacer or Sealer within 8 hours.

PHYSICAL PROPERTIES

All Values Ready To Spray

Max. VOC (LE):	6.2 lbs./gal (745 g/L)
Max. VOC (AP):	6.2 lbs./gal (739 g/L)
Avg. Gal. Wt.:	7.34 lbs./gal (880 g/L)
Avg. Wt.% Volatiles:	84.9%
Avg. Wt.% Exempt Solvent:	0.0%
Avg. Wt.% Water:	0.9%
Avg. Vol.% Exempt Solvent:	0.0%
Avg. Vol.% Water:	.8%
Recommended Dry Film Thickness:	0.5 mil
Flash Point:	See SDS/MSDS
Theoretical Coverage, RTS:	116 ft^2 (10.8 m^2) at 1 mil

VOC REGULATED AREAS

These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing usage and recommendations in the VOC Compliant Products Chart for your area.

SAFETY AND HANDLING

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and SDS/MSDS precautions. If mixed with other components, mixture will have hazards of all components.

Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.

Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

Revised: May 2014

In the United States:
1.855.6.AXALTA
nasonfinishes.com

In Canada:
1.800.668.6945
nasonfinishes.ca

Ful-Base® Basecoat (IF Quality)

GENERAL

DESCRIPTION

A 6.2 lb/gal (740 g/l) VOC compliant, solventborne basecoat designed for overall repairs to OEM basecoat/clearcoat finishes.

The products referenced herein may not be sold in your market. Please consult your distributor for product availability.

MIXING

COMPONENTS

Ful-Base® Basecoat IF Quality
Ful-Base® 430-XX Tints
Ful-Base® 435-93™ Basecoat Binder
Ful-Base® 483-30™ Basecoat Activator
Ful-Base® 441-2X™ Reducers

MIX RATIO

Combine the components by volume (8:½:4). Mix thoroughly prior to activation.

Component	Volume
Ful-Base® Basecoat IF Quality Color	8
Ful-Base® 483-30™ Basecoat Activator	½
Ful-Base® 441-2X™ Reducers	4

POT LIFE

4 hours at 70°F (21°C)

SPRAY VISCOSITY

20-21 seconds in a Zahn #2

APPLICATION

SURFACE PREPARATION

Before sanding, remove all traces of oil, wax and grease with Nason® 441-05™ Silicone and Wax Remover or Nason® 481-75™ Surface Cleaner using clean rags. In regulated areas use locally permitted Silicone and Wax remover or Surface Cleaner.

Prepare all surfaces to be repainted using the recommended undercoat systems, following recommended procedures. Finish sand with P400 grit paper or finer (dry or wet).

COMPATIBLE PRODUCTS

All Nason® primers, primer-surfacers and sealers as locally permitted.

SPRAY PRESSURE

Conventional	
Gravity Feed:	25-45 PSI at the gun
Siphon Feed:	30-45 PSI at the gun
HVLP	8-10 PSI at the air cap

GUN SETUP

Conventional

Siphon Feed:	1.4-1.6 mm
Gravity Feed:	1.4-1.6 mm

HVLP

Siphon Feed:	1.4-1.6 mm
Gravity Feed:	1.3-1.6 mm

APPLICATION

Apply two medium wet coats or to hiding. Flash each coat to dull/dry. For metallic colors, use a mist coat in conjunction with the final coat for best flake control. Do not apply if less than 50°F (10°C).

CLEARCOAT

Ful-Base® Basecoat IF Quality must be clear coated. Compatible with all Nason® clearcoats as locally permitted; (except 419-00 & 401-20 will not be compliant below 5.0 lbs./gal).

CLEANING OF PAINT EQUIPMENT

Clean spray equipment as soon as possible with lacquer thinner or low VOC cleaner in VOC regulated markets.

DRY TIMES

Allow basecoat to set up for 15 minutes prior to clear coating. Longer dry time may be required depending on shop conditions and the number of coats applied.

RECOATING

Anytime

PHYSICAL PROPERTIES

All Values Ready To Spray

Max VOC (LE):	4.9 lbs./gal (591 g/L)
Max VOC (AP):	4.1 lbs./gal (496 g/L)
Avg. Gal. Wt.:	8.17 lbs./gal (979 g/L)
Avg. Wt.% Volatiles:	61.4%
Avg. Wt.% Exempt Solvent:	23.2%
Avg. Wt.% Water:	0.0%
Avg. Vol.% Exempt Solvent:	24.6%
Avg. Vol.% Water:	0.0%
Recommended Dry Film Thickness:	0.5-2.0 mil
Flash Point:	See SDS/MSDS
Theoretical Coverage:	222 ft^2 (20.62 m^2) at 1 mil

VOC REGULATED AREAS

These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing usage and recommendations in the VOC Compliant Products Chart for your area.

SAFETY AND HANDLING

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and SDS/MSDS precautions. If mixed with other components, mixture will have hazards of all components.

Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.

Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

Revised: July 2015

In the United States:
1.855.6.AXALTA
nasonfinishes.com

In Canada:
1.800.668.6945
nasonfinishes.ca

PRODUCT INFORMATION

MP Series Epoxy Primers

Background

MP Series Primers are two component, non-chrome epoxies designed to provide superior corrosion protection and adhesion when applied over properly cleaned and sanded bare metal, fiberglass and painted surfaces. They are available in gray, black or white.

MP170 Epoxy Primer

Primer

MP170 (gray), MP171 (white), MP172 (black)

Catalyst

MP175 Epoxy Primer Catalyst

Compatibility

MP Series Epoxy Primers may be applied over:	MP Series Epoxy Primers may be over coated with:	
MP176	MAE	MP281
MP178	MBC	MP282
MP181	MBP	MP292
MP182	MTV	MX241/245
MP282	MTK	
MP292	MP181	
MX241/245	MP182	

Preparation

Surface cleaning

MX190 Cleaner

Sanding

120 - 180 grit on bare metal

220 - 320 grit on old finishes, body filler

Mixing

Ratios

MP Series		MP175
2	:	1

Note: Allow a 15 minute induction period before applying.

Pot life is 8 hours at 70ºF (21ºC)

Additives

Acetone may be added up to 10% to RTS MP Series Epoxy Primer.

Application

Coats

1 or 2 coats

Air pressure

HVLP	8 - 10 psi at the air cap
Conventional	45 - 50 psi at the gun

Gun setup

1.3 - 1.6 mm or equivalent

Dry Times

Air dry

1 coat	15 minutes at 70ºF (21ºC)
2 coats	30 minutes at 70ºF (21ºC)

MP Series Epoxy Primers **must** be scuffed and reapplied if allowed to sit more than 3 days (72 hours).

Clean Up

Clean spray guns, gun cups, storage pots, etc., thoroughly with MR Reducer, MS General Purpose Solvents or other appropriate clean up solvent after each use.

Follow EPA guidelines for proper storage and disposal of solvent-borne waste paint.

Properties

VOC

Package	MP170	4.3 lb./gal.
	MP171	4.2 lb./gal
	MP172	4.2 lb./gal
Applied (2:1)	MP170	4.6 lb./gal.
	MP171	4.5 lb./gal
	MP172	4.5 lb./gal
Applied (2:1+10% acetone) max.		4.6 lb./gal.

Film build per coat

Applied (2:1) 1.0 mil

Square foot coverage at 1.0 mil

Applied (2:1) 563 sq. ft. / gal., no loss

Limitations

Omni™ MP Series Primers should not be combined with other products except where prescribed.

Important

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Spray equipment must be handled with due care and in accordance with manufacturer's recommendations. Follow label directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

See Material Safety Data Sheet and Labels for additional safety information and handling instructions.
EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION (304) 843-1300; IN CANADA (514) 645-1320.

PPG High Performance Coatings

PITT-TECH®

90-374 Series

HPC/Industrial Maintenance

PITT-TECH® Int/Ext High Gloss DTM Industrial Enamels

Generic Type

100% Acrylic Formula

General Description

Pitt-Tech® High Gloss Industrial Enamels are a full line of 100% Acrylic water borne enamels designed for direct-to-metal application. These products provide corrosion protection, chemical and solvent resistance, and are fast drying with low odor. Recommended for use on properly prepared interior or exterior metal, masonry, plaster, and drywall surfaces.

Recommended Uses

Aluminum
Drywall
Ferrous Metal
Galvanized Steel
Concrete, Stucco, Plaster, Masonry
CMU

Features / Benefits

Excellent adhesion for true DTM performance in Pastel Base and Ready Mix Colors
Improved color, and gloss retention versus most alkyds and two component coatings.
High hiding
Flash rust resistant
Easy to apply, low odor
Soap & water clean up
Performance Offset to Federal Standard TT-E-2784

Limitations of Use

Apply only when air and surface temperatures are above 50°F(10°C) and surface temperature is at least 5°F (3°C) above the dew point. Avoid exterior painting late in the day when dew or condensation are likely to form or if rain is threatening. Two coats are required for maximum protection. Protect from freezing. Do not use on large wood structures or for immersion service. Excessive thinning or insufficient film thickness may cause rust staining. If rust staining occurs, apply an additional coat.

Tinting and Base Information

Use PITTSBURGH® Paints Custom Colorants and refer to THE VOICE OF COLOR® electronic CD or formula book for tinting instructions.

90-306	Safety Red
90-310	Safety Blue
90-311	Safety Green
90-313	Safety Orange
90-330	Safety Yellow
90-353	Black
90-374	White and Pastel Base
90-375	Midtone Base
90-376	Deeptone Base
90-377	Deep Rustic Base

Product Data

Gloss: Gloss: 80 to 100 (60° Gloss Meter)
VOC*: 1.59 lbs/gal 191.00 g/L
Coverage: 193 to 292 sq ft/gal (18 to 27 sq. m/3.78L)
Note: Does not include loss due to varying application method, surface porosity, or mixing.
DFT: 2.0 minimum to 3.0 maximum
Weight/Gallon*: 10.0 lbs. (4.5 kg) +/- 0.2 lbs. (91 g)
Volume Solids*: 37% +/- 2%
Weight Solids*: 47.7% +/- 2%
Mix Ratio: One Component
Clean-up: Soap and Water

Results will vary by color, thinning and other additives.
*Product data calculated on 90-374

Drying Time:

To Touch:	1 hour
To Handle:	4 hours
To Recoat:	4 hours

Dry Time @77°F (25°C); 50% relative humidity

Pot Life: Not Applicable

Flash Point: Over 200°F, (93°C)

Series 90-374 PITT-TECH®

HPC/Industrial Maintenance **PITT-TECH® Int/Ext High Gloss DTM Industrial Enamels**

General Surface Preparation

The surface to be coated must be dimensionally stable, dry, clean, and free of oil, grease, release agents, curing compounds, and other foreign materials. The service life of the coating is directly related to the surface preparation. Where appropriate bare areas should be primed with a suitable primer. Pitt-Tech® Industrial Enamel Primers, 90-712 or 90-709, must be used on all bare metal substrates when using colors made from Midtone, Deeptone, and Deep Rustic bases. Remove and inhibit regrowth of mildew on exterior surfaces by using Mildew Check® Multi-Purpose Wash, 18-1. Before use, be sure to read and follow the instructions and warnings on the label.

WARNING: Removal of old paint by sanding, scraping or other means may generate dust or fumes which contain lead. EXPOSURE TO LEAD DUST OR FUMES MAY CAUSE ADVERSE HEALTH EFFECTS, ESPECIALLY IN CHILDREN OR PREGNANT WOMEN. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as properly fitted and approved (e.g. NIOSH-approved) respirator and proper containment and cleanup. For additional information, contact the USEPA/Lead Information Hotline at 1-800-424-LEAD or the regional Health Canada office.

ALUMINUM: Solvent Clean per SSPC-SP1 to remove grease and oils.

FERROUS METAL: The recommended surface preparation is Commercial Blast Clean per SSPC-SP6. The minimum surface preparation is Hand Tool or Power Tool Clean per SSPC-SP2 or SP3.

GALVANIZED STEEL: Solvent Clean per SSPC-SP1 to remove grease and oils. If any oxidation (white rust) has formed, sand and remove all forms of contamination. If the galvanized has been passivated or stabilized, the surface must be abraded, i.e. Brush-Off Blast Clean per SSPC-SP7 or chemically treated.

HPC Systems in Detail Brochure (H10788)COATING SYSTEMS: 477-HD, 478-HD, 479-HD, 480-HD.

Recommended Primers

Concrete Masonry Units	6-12, 16-90
Drywall	6-2
Concrete,Stucco,Plaster,Masonry other than CM Unit	6-603, 6-808
Aluminum	Self priming, 6-204, 90-709, 90-712
Ferrous Metal	Self priming, 6-208, 7-852
Galvanized Steel	Self priming, 6-209, 90-709, 90-712

Directions for Use

Mix thoroughly before and during use. Read all label and Material Safety Data Sheet (MSDS) information prior to use. MSDS are available through our website or by calling 1-800-441-9695.

Permissible temperatures during application:

Material:	60 to 90°F	16 to 32°C
Ambient:	50 to 100°F	10 to 38°C
Substrate:	50 to 130°F	10 to 54°C

Application Information

Recommended Spread Rates:

Wet Mils :	5.5	minimum to	8.3	maximum
Wet Microns:	140.0	minimum to	210.0	maximum
Dry Mils :	2.0	minimum to	3.0	maximum
Dry Microns:	50.8	minimum to	76.2	maximum

Application Equipment: Changes in application equipment, pressures and/or tip sizes may be required depending on ambient temperatures and application conditions.

Conventional Spray: Fluid Nozzle: DeVilbiss gun, with 704 or 777 air cap with E tip and needle, or comparable equipment. Atomization Pressure: 55-75 Fluid Pressure: Cannot specify; dependant on numerous factors.

Airless Spray: Pressure: 2000 - 2600 psi; tip 0.015 - 0.023" Hose d

Brush: High Quality Polyester/Nylon Brush

Roller: 1" or 1 1/2" nap roller cover

Thinning:

Apply as received. If necessary, thin with a small amount of clean water. For additional open time and better flow and leveling during times of extremely low humidity and/or high temperatures up to 8 ounces of 90-740 Pitt-Tech Conditioner may be added per gallon of Pitt-Tech.

Packaging: 1-Gallon (3.78L) 5-Gallon (18.9L)

Not all products are available in all sizes. All containers are not full-filled.

PPG High Performance Coatings

PPG Architectural Finishes, Inc.
One PPG Place
Pittsburgh, PA 15272

www.pittsburghpaints.com

Technical Services:
1-800-441-9695
Architect/Specifier:
1-888-774-7732
International Sales:
(412) 434-2049

PPG Architectural Coatings -Canada
4 Kenview Blvd.
Brampton, Ontario L6T 5E4
(905) 790-5336
1-877-238-6441

SDS

SECTION 1 – Chemical Product and Company Identification

For Chemical Emergency:
CHEMTREC: 1-800-424-9300

US Chemical & Plastics
QUEST AUTOMOTIVE PRODUCTS
600 Nova Drive SE
Massillon, OH 44646
PH 330-830-6000 - FAX 330-830-6005

PRODUCT NAME:	**Retail Lightweight Body Filler – Part A**
PRODUCT CODE:	**(15003), 77000, 77001, 77001P, 77002, 77003, 77003B, 77003P, 77020, 77021-Kit/77022-Repair System**
SYNONYM/CROSS REFERENCE:	**Polyester Paste**
SCHEDULE B NUMBER:	**3214.10.0090**

SECTION 2 – Hazard Identification

OVEREXPOSURE EFFECTS:
ACUTE EFFECTS:
EYES: Contact with eyes can cause irritation, redness, tearing, blurred vision, and/or swelling.
SKIN: Contact with skin can cause irritation, (minor itching, burning and/or redness), Dermatitis, defatting may be readily absorbed through the skin.
INHALATION: Inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and/or asphyxiation. Aspiration of material into lungs may result in chemical pneumonitis which can be fatal.
INGESTION: Ingestion can cause gastrointestinal irritation, nausea, vomiting, diarrhea.

PRIMARY ROUTES OF EXPOSURE: skin, inhalation, eyes

SECTION 3 – Composition, Information or Ingredients

INGREDIENTS	WGT%	CAS #
Styrene	15-20%	100-42-5
Non-Fibrous Talc	10-20%	14807-96-6
Calcium Carbonate	30-40%	1317-65-3, 471-34-1
Glass Beads	1-10%	1344-09-8, 7775-19-1
Amorphous Silica	1-3%	7631-86-9

SECTION 4 – First Aid Measures

INHALATION: If inhaled, remove victim from exposure to a well-ventilated area. Make them comfortably warm, but not hot. Use oxygen or artificial respiration as required. Consult a physician.
SKIN: For skin contact, wash promptly with soap and excess water.
EYES: For eye contact, flush promptly with excess water for at least fifteen minutes. Consult a physician.
INGESTION: If ingested, do not induce vomiting. Give victim a glass of water. Call a physician immediately.

SECTION 5 – Fire-Fighting Measures

FIRE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam
SPECIAL FIRE FIGHTING PROCEDURES: Fight like a fuel oil fire. Cool fire exposed containers with water spray. Firefighter should wear OSHA/NIOSH approved self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARD: Closed containers exposed to high temperatures, such as fire conditions may rupture.

SECTION 6 – Accidental Release Measures

SPILLS, LEAK OR RELEASE: Ventilate area. Remove all possible sources of ignition. Avoid prolonged breathing of vapor. Contain spill with inert absorbent.

SECTION 7 – Handling and Storage

STORAGE AND HANDLING: Use with adequate ventilation. Avoid contact with eyes and skin. Avoid breathing vapors. Do not store the product above 100°F/38°C. Do not flame, cut, braze weld or melt empty containers. Keep the product away from heat, open flame, and other sources of ignition. Avoid contact with strong acids, alkalis, and oxidizers.

SECTION 8 – Exposure Controls and Personal Protection

RESPIRATORY PROTECTION: If component TLV limits are exceeded, use NIOSH/MSHA approved respirator to remove vapors. Use an air-supplied respirator if necessary.
VENTILATION: Use adequate ventilation in volume and pattern to keep TLV/PEL below recommended levels. Explosion-proof ventilation may be necessary.
PROTECTIVE GLOVES: To prevent prolonged exposure use rubber gloves; solvents may be absorbed through the skin.
EYE PROTECTION: Safety Glasses or goggles with splash guards or side shields.
OTHER PROTECTIVE EQUIPMENT: Wear protective clothing as required to prevent skin contact.

INGREDIENTS	CAS #	TLV/PEL
Styrene	100-42-5	ACGIH TLV 20 ppm STEL 40 ppm OSHA PEL 100 ppm CPEL 200 ppm
Non-Fibrous Talc	14807-96-6	ACGIH TWA 2 mg/m^3 OSHA TLV 20 mppcf
Calcium Carbonate	1317-65-3 471-34-1	ACGIH TWA 10 mg/m^3
Glass Beads	1344-09-8 7775-19-1	ACGIH TWA 10 mg/m^3
Amorphous Silica	112926-00-8	OSHA TLV 20 mppcf

SECTION 9 – Physical and Chemical Properties

APPEARANCE: Off-white, smooth paste
SPECIFIC GRAVITY: 1.16
FLASH POINT: 89°F/31.7°C Seta Flash Closed cup
LOWER FLAMMABLE LIMIT %: N/E
UPPER FLAMMABLE LIMIT %: N/E
VAPOR PRESSURE (mmHG): Heavier than air
BOILING POINT: N/Av
VAPOR DENSITY: Heavier than air
EVAPORATION RATE (Ethyl Ether = 1): Slower than Ethyl Ether
VOLATILES BY WEIGHT: 15-20%
SOLUBILITY IN WATER: None
VOC: Grams/Litre = less exempts 215
loss upon curing 0.8 g/l

SECTION 10 – Stability and Reactivity

STABILITY: Stable
CONDITIONS TO AVOID: Open flames, sparks, heat, electrical and static discharge.
INCOMPATIBILITY MATERIALS TO AVOID: Strong acids, alkalis, oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide, Carbon Monoxide, and Carbon.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 – Toxicological Information

CHRONIC EFFECTS:
Overexposure to this material has apparently been known to cause the following effects in lab animals: Eye, skin, lung, and central nervous system damage.

CARCINOGEN: YES __ NO X
TERATOGEN: YES __ NO X
MUTAGEN: YES __ NO X

STYRENE CARCINOGENICITY
Styrene is listed by IARC to be a possible carcinogen. Styrene studies have shown that Styrene causes cancer in certain laboratory animals. However, there is insufficient evidence to conclude that Styrene is a human carcinogen.

SECTION 12 – Ecological Information

N/E

SECTION 13 – Disposal Considerations

WASTE DISPOSAL: Dispose of in accordance with local, state, and federal regulations.

SECTION 14 – Transport Information

For Ground Transport: In USA
Consumer Commodity ORM-D or Limited Quantity

For Air Transport:
Must be re-boxed to UN specified packaging in quantities of no more than 5 kg per fiberboard box
UN3269, Polyester Resin Kit, 3, PGIII
Packing Instruction 370

For Ocean Transport:
UN3269, Polyester Resin Kit, 3, PGIII, F/P 31.7°C
EMS # F-E, S-D, In limited quantity

SECTION 15 – Regulatory Information

CALIFORNIA PROPOSITION 65:
Trace amounts of some chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm may be present in this product.

SECTION 313 SUPPLIER NOTIFICATION:
This product contains the following toxic chemicals subject to the reporting requirements of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

CHEMICAL NAME	CAS	% BY WGT
Styrene	100-42-5	15-20%

This information must be included in all MSDS that are copied and distributed for this chemical.

SECTION 16 – Other Information

HMIS RATING:	Health	2	4 = Extreme
	Fire	3	3 = High
	Reactivity	1	2 = Moderate
			1 = Slight
			0 = Insignificant
	Personal Protection - See Section VIII		

SDS

ABBREVIATIONS

IARC = International Agency for Research on Cancer
ACGIH = American Conference of Governmental Industrial Hygienists
NIOSH = National Institute of Occupational Safety and Health
TLV = Threshold Limit Value
PEL = Permissible Emission Level
DOT = Department of Transportation
NTP = National Toxicology Program
N/AV = Not Available
N/AP = Not Applicable
N/E = Not Established
N/D = Not Determined

PREPARED BY: U S CHEMICAL & PLASTICS
QUEST AUTOMOTIVE PRODUCTS
600 NOVA DRIVE SE
MASSILLON, OH 44646

TELEPHONE NBR: 330-830-6000
FAX NBR: 330-830-6005

DATE REVIEWED: January 18, 2011
DATE REVISED: May 26, 2011
REVISION: Section 14

The information in the Material Safety Data Sheet has been compiled from our experience and from data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of the safety precautions as may be necessary. We reserve the right to revise Material Safety Data Sheets from time to time as new technical information becomes available. The user has the responsibility to contact the Company to make sure that the MSDS is the latest one issued.

RUST-OLEUM CORP -- 7715 RUST-OLEUM PROFESSIONAL COATINGS -- 8010-00F016137

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MSDS Safety Information

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FSC: 8010
MSDS Date: 09/11/1992
MSDS Num: BZGGD
LIIN: 00F016137
Tech Review: 05/10/1996
Product ID: 7715 RUST-OLEUM PROFESSIONAL COATINGS
Responsible Party
Cage: 08882
Name: RUST-OLEUM CORP
Address: 11 HAWTHORNE PKWY
City: VERNON HILLS IL 60061-1583 US
Info Phone Number: 312-367-7700/312-864-8200
Emergency Phone Number: 312-367-7700/312-864-8200

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Preparer Co. when other than Responsible Party Co.

==========

Cage: 08882
Assigned Ind: N
Name: RUST-OLEUM CORP
Address: 11 HAWTHORN PARKWAY
City: VERNON HILLS IL 60061-1583

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Contractor Summary

==========

Cage: 08882
Name: RUST-OLEUM CORP
Address: 11 HAWTHORN PARKWAY
City: VERNON HILLS IL 60061-1583 US
Phone: 847-367-7700

==========

Ingredients

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Cas: 8052-41-3
RTECS #: WJ8925000
Name: STODDARD SOLVENT (PETROLEUM DISTILLATE), MINERAL SPIRITS
% by Wt: 40-55
Other REC Limits: 525 MG/CUM
OSHA PEL: 100 PPM
ACGIH TLV: 100 PPM
Ozone Depleting Chemical: N

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Health Hazards Data

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Route Of Entry Inds - Inhalation: YES
Skin: NO
Ingestion: YES
Carcinogenicity Inds - NTP: NO
IARC: NO
OSHA: NO
Effects of Exposure: INHALATION: HARMFUL, MAY AFFECT THE BRAIN/NERVOUS SYSTEM. MAY CAUSE NOSE & THROAT IRRITATION. EYES/SKIN: CAUSES IRRITATION

LEADING TO DERMATITIS W/REPEATED OVEREXPOSURES. INGESTION: GI IRRITANT.
REPEA TED/PROLONGED OVEREXPOSURE TO SOLVENTS MAY CAUSE PERMANENT BRAIN &
NERVOUS SYSTEM DAMAGE. LIVER/CARDIAC ABNORMALITIES.
Explanation Of Carcinogenicity: NONE
Signs And Symptions Of Overexposure: DIZZINESS, HEADACHE, NAUSEA,
STAGGERING GAIT, CONFUSION, UNCONSCIOUSNESS, COMA, IRRITATION, VOMITING,
DIARRHEA
First Aid: INHALATION: REMOVE FROM EXPOSURE, RESTORE BREATHING. EYES:
FLUSH IMMEDIATELY W/LARGE AMOUNTS OF WATER FOR 15 MINS. SKIN: WASH
W/SOAP & WATER. INGESTION: ASPIRATION HAZARD. DON'T INDUCE VOMITING.
KEEP WARM & QUIET. OBTAIN MEDICAL ATTENTION IN ALL CASES.

Handling and Disposal

Spill Release Procedures: REMOVE ALL SOURCES OF IGNITION, VENTILATE AREA &
REMOVE INERT ABSORBENT & NON-SPARKING TOOLS.
Waste Disposal Methods: DISPOSE OF IN ACCORDANCE W/LOCAL, STATE & FEDERAL
REGULATIONS.
Handling And Storage Precautions: DON'T STORE >120F. STORE LARGE
QUANTITIES IN BUILDINGS DESIGNED & PROTECTED FOR STORAGE OF NFPA CLASS
II COMBUSTIBLE LIQUIDS.
Other Precautions: EMPTY CONTAINERS MAY BE HAZARDOUS. DON'T TAKE
INTERNALLY.

Fire and Explosion Hazard Information

Flash Point Method: TCC
Flash Point Text: 104F
Lower Limits: 1
Extinguishing Media: CO2, DRY CHEMICAL/FOAM
Fire Fighting Procedures: WEAR FULL PROTECTIVE EQUIPMENT W/SCBA. WATER
SPRAY MAY BE INEFFECTIVE. WATER MAY BE USED TO COOL CLOSED CONTAINERS.
IF WATER IS USED, FOG NOZZLES ARE PREFERRED.
Unusual Fire/Explosion Hazard: CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED
TO EXTREME HEAT.

Control Measures

Respiratory Protection: USE NIOSH APPROVED CHEMICAL CARTRIDGE RESPIRATOR
(TC23C) TO REMOVE SOLID AIRBORNE PARTICLES OF OVERSPRAY & ORGANIC VAPORS
DURING SPRAY APPLICATION. IN CONFINED AREAS: USE NIOSH APPROVED
SUPPLIED-AIR R ESPIRATORS/HOODS (TC19C).
Ventilation: GENERAL DILUTION/LOCAL EXHAUST IN VOLUME & PATTERN TO KEEP
TLV BELOW ACCEPTABLE LIMITS.
Protective Gloves: IMPERVIOUS
Eye Protection: SAFETY EYEWEAR W/SPLASH GUARDS

Other Protective Equipment: IMPERVIOUS CLOTHING TO PREVENT SKIN CONTACT.

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Physical/Chemical Properties

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B.P. Text: 307-389F
Vapor Density: >1
Evaporation Rate & Reference: SLOWER THAN ETHER
Percent Volatiles by Volume: (SUPP)

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Reactivity Data

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Stability Indicator: YES
Stability Condition To Avoid: HEAT, SPARKS, OPEN FLAME, HOT SURFACES, ELECTRICAL EQUIPMENT & OTHER IGNITION SOURCES
Materials To Avoid: STRONG OXIDIZING AGENTS
Hazardous Decomposition Products: BY OPEN FLAME: CO, CO2
Hazardous Polymerization Indicator: NO

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Toxicological Information

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Ecological Information

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MSDS Transport Information

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Regulatory Information

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Other Information

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HAZCOM Label

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Product ID: 7715 RUST-OLEUM PROFESSIONAL COATINGS
Cage: 08882
Company Name: RUST-OLEUM CORP
Street: 11 HAWTHORN PARKWAY
City: VERNON HILLS IL
Zipcode: 60061-1583 US
Health Emergency Phone: 312-367-7700/312-864-8200
Date Of Label Review: 12/16/1998
Label Date: 12/16/1998
Hazard And Precautions: INHALATION: HARMFUL, MAY AFFECT THE BRAIN/NERVOUS SYSTEM. MAY CAUSE NOSE & THROAT IRRITATION. EYES/SKIN: CAUSES IRRITATION LEADING TO DERMATITIS W/REPEATED OVEREXPOSURES. INGESTION: GI IRRITANT. REPEA TED/PROLONGED OVEREXPOSURE TO SOLVENTS MAY CAUSE PERMANENT BRAIN & NERVOUS SYSTEM DAMAGE. LIVER/CARDIAC ABNORMALITIES. DIZZINESS, HEADACHE, NAUSEA, STAGGERING GAIT, CONFUSION, UNCONSCIOUSNESS, COMA, IRRITATION, VOMITING, DIARRHEA

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GLOSS WHITE, 7792: RUST-OLEUM CORPORATION

========== 1.Product Identification ==========

Product ID:GLOSS WHITE, 7792
MSDS Date:01/01/1987
Tech Review:06/19/1987
FSC:8010
NIIN:LIIN:00N009228
Submitter:N EN
MFN:01
=== Responsible Party ===
Company Name:RUST-OLEUM CORPORATION
Address:11 HAWTHORNE PKWY
City:VERNON HILLS
State:IL
ZIP:60061-1583
Country:US
Review Ind:Y
Published:Y
CAGE:DO883
=== Contractor Identification ===
Company Name:RUST-OLEUM CORP
Address:11 HAWTHORN PARKWAY
Box:City:VERNON HILLS
State:IL
ZIP:60061-1583
Country:US
Phone:847-367-7700
CAGE:08882
Company Name:RUST-OLEUM CORPORATION
Address:11 HAWTHORNE PARKWAY
City:VERNON HILLS
State:IL
ZIP:60061-1583
Country:US
CAGE:DO883
=== Item Description Information ===
Type of Container:

========== 2.Composition/Information on Ingredients ==========

Ingred Name:MINERAL SPIRITS
Fraction by Wt: 45%
ACGIH TLV:500 PPM MFR
Ozone Depleting Chemical:

========== 3.Hazards Identification ==========

=Routes of Entry=
=Reports of Carcinogenicity=
Effects of Overexposure:INHAL:ANESTHETIC,RESP TRACT IRRIT/ACUTE NERVOUS
SYSTEM DEPRESS,SYMP INCLUDE:HDACHE, (SEE OTHR PRECAU

========== 4.First Aid Measures ==========

First Aid:EYES:FLUS IMMED W/COPIOUS AMTS OF H*2O FOR @ LEAST 15 MIN.CALL PHYSICIAN. INHAL:REMOVE FROM EXPOSRE,RESTORE BREATHING & CALL PHYSICIAN. SKIN:WASH AFFECTED AREA W/SOAP & H*2O.REMOVE CONTAMINATED CLOTHI NG.

========== 5.Fire Fighting Measures ==========

Flash Point:Flash Point Text:104F (40C), TCC
Lower Limits:0.7
Extinguishing Media:NFPA CLASS B EXTINGUISHER-CO*2,DRY CHEMICAL/FOAM
Fire Fighting Procedures:USE NIOSH/MSHA APPRVD SCBA,FULL PROT EQUIP. (SEE SUPP DATA)
Unusual Fire/Explosion Hazard:KEEP CNTNR CLSD TIGHT.ISOLATE FROM HEAT,ELEC EQUIP,SPARKS,OPEN FLM.CLSD CNTNR MAY EXPLO(SEE SUPP DAT

========== 6.Accidental Release Measures ==========

Spill Release Procedures:REMOVE ALL SOURCES OF IGNITION,VENTILATE AREA.REMOVE WITH INERT ABSORBENT & NON-SPARKING TOOLS.

========== 7.Handling and Storage ==========

Handling and Storage Precautions:DONT STORE ABOVE 120F.GROUND CONTAINER
WHEN POURING.DONT INGEST.EMPTY CONTAINER MAY BE HAZARDOUS.
Other Precautions:OVEREXP

EFTS:DIZZY,STAGGERING,CONFUSION,UNCONSCIOUSNESS/COMA.SKIN/EYE:PRIMA RY IRRIT. VAP PRESS & LEL VALUES ARE FOR MINERAL SPIRITS.

========== 8.Exposure Controls/Personal Protection ==========

Respiratory Protection:NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN.
Ventilation:GENERAL DILUTION/LOCAL EXHAUST VENT TO KEEP BELOW TLV.
Protective Gloves:PVNT PRLNG CONT
Eye Protection:CHEMICAL WORKERS GOGGLES
Supplemental Safety and Health
SPECIAL FIRE PROC:H*20 POSS INEFFECTIVE.USE H*20 W/FOG NOZZLE TO COOL CLOSED CNTNR,PVNT PRESS. UNUSUAL FIRE HAZ:IF EXPOSE TO EXTREME HEAT.DONT APPLY TO HOT SURF. DATE OF PREP:3-14-84

========== 9.Physical/Chemical Properties ==========

NRC/State Lic Num:N/R
Boiling Pt:B.P. Text:313-386F
Vapor Pres:2.0
Vapor Density:> 1
Spec Gravity:1.0697
Evaporation Rate & Reference:SLOWER THAN ETHER
Percent Volatiles by Volume:59

========== 10. Stability and Reactivity Data ==========

Stability Indicator/Materials to Avoid:YES
WITH STRONG OXIDIZING AGENTS.

Hazardous Decomposition Products:BY OPEN FLAME:CO & CO*2.
Hazardous Polymerization Indicator:NO

========== 11. Toxicological Information ==========

========== 12. Ecological Information ==========

========== 13. Disposal Considerations ==========

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH,LOCAL,STATE & FEDERAL REGULATIONS.INCINERATE IN APPROVED FACILITY.DO NOT INCINERATE CLOSED CONTAINERS.

========== 14. MSDS Transport Information ==========

========== 15. Regulatory Information ==========

========== 16. Other Information ==========

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Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: PRO 1-GL 2PK GLOSS HUNTER GREEN

Revision Date: 5/15/2015

Product Identifier: 7738402

Supercedes Date: New SDS

Product Use/Class: Topcoat/Alkyd

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

EMERGENCY OVERVIEW: Harmful if swallowed. Causes eye irritation. Vapors irritating to eyes and respiratory tract. Combustible liquid and vapor. Harmful if inhaled. May affect the brain or nervous system causing dizziness, headache or nausea. May cause eye, skin, or respiratory tract irritation. KEEP OUT OF REACH OF CHILDREN. Harmful if inhaled. Flammable liquid and vapor. Use ventilation necessary to keep exposures below recommended exposure limits, if any. Vapor Harmful. Causes Eye, Skin, Nose, and Throat Irritation.

Classification

Symbol(s) of Product

Signal Word
Danger

GHS HAZARD STATEMENTS

Flammable Liquid, category 2	H225	Highly flammable liquid and vapor.
Acute Toxicity, Oral, category 5	H303	May be harmful if swallowed.
Acute Toxicity, Dermal, category 5	H313	May be harmful in contact with skin.
Skin Irritation, category 2	H315	Causes skin irritation.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Organic Peroxide, categories C, D	H242	Heating may cause a fire.
Aspiration Hazard, category 2	H305	May be harmful if swallowed and enters airways.
Eye Irritation, category 2B	H320	Causes eye irritation.
Germ Cell Mutagenicity, category 1B	H340	May cause genetic defects. Classified as mutagenic Category 1 if one ingredient is present at or above 0.1%. Applies to liquids, solids (w/w units) and gases (v/v). The substance may also have its own exposure limit. Routes of exposure are dependent on ingredient form.

Carcinogenicity, category 1B	H350	May cause cancer. Classified as carcinogenic Category 1 on the basis of epidemiological and/or animal data. Mixtures are classified as carcinogenic when at least 1 ingredient has been classified as carcinogenic and is present at 0.1% or above Routes of exposure are dependant on ingredient form.
STOT, repeated exposure, category 1	H372	Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

GHS LABEL PRECAUTIONARY STATEMENTS

P102	Keep out of reach of children.
P103	Read label before use.
P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash … thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P374	Fight fire with normal precautions from a reasonable distance.
P402	Store in a dry place.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P403+P235	Store in a well-ventilated place. Keep cool.
P362	Take off contaminated clothing and wash before reuse.
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.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P201	Obtain special instructions before use.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P350	Gently wash with plenty of soap and water.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Stoddard Solvent	8052-41-3	10-25	GHS02-GHS08	H224-340-350-372
Hydrotreated Light Distillate	64742-47-8	10-25	GHS06	H331
Mineral Spirits	64742-88-7	10-25	GHS06-GHS08	H331-372
Organoclay	68911-87-5	1.0-2.5		
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07	H225-332
Titanium Dioxide	13463-67-7	0.1-1.0		

The text for GHS Hazard Statements shown above (if any) is given in the "16. Other Information" section.

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: Keep containers tightly closed. No unusual fire or explosion hazards noted. Closed containers may explode when exposed to extreme heat due to buildup of steam. Isolate from heat, electrical equipment, sparks and open flame.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

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. 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. 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. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Keep away from heat, sparks, flame and sources of ignition. Keep container closed when not in use. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Avoid excess heat. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class II combustible liquids.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Stoddard Solvent	8052-41-3	20.0	100 ppm	N.E.	500 ppm	N.E.
Hydrotreated Light Distillate	64742-47-8	20.0	100 ppm	N.E.	500 ppm	N.E.
Mineral Spirits	64742-88-7	15.0	100 ppm	N.E.	100 ppm	N.E.
Organoclay	68911-87-5	5.0	N.E.	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	125 ppm	100 ppm	N.E.
Titanium Dioxide	13463-67-7	1.0	10 mg/m3 (Total Dust)	N.E.	15 mg/m3 [Total Dust]	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. A NIOSH/MSHA 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 in any other circumstances where air purifying respirators may not provide adequate protection.

SKIN PROTECTION: Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection. Use gloves to prevent prolonged skin contact.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application. 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.

9. Physical and Chemical Properties

Appearance:	Liquid	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.931	**pH:**	N.D.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/water:**	No Information
Decompostion Temp., °C:	No Information		
Boiling Range, °C:	277 - 415	**Explosive Limits, vol%:**	0.7 - 8.9
Flammability:	Does not Support Combustion	**Flash Point, °C:**	>93
Evaporation Rate:	Slower than Ether	**Auto-ignition Temp., °C:**	No Information
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid all possible sources of ignition. Avoid temperatures above 120 ° F. Avoid contact with strong acid and strong bases.

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: May cause skin irritation. Causes skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. May cause headaches and dizziness. High vapor concentrations are irritating to the eyes, nose, throat and lungs. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Aspiration hazard if swallowed; can enter lungs and cause damage. Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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)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
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5.2 mg/L Rat
64742-88-7	Mineral Spirits	>5000 mg/kg Rat	3000 mg/kg Rabbit	>5.28 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15354 mg/kg Rabbit	17.2 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	N.I.	N.I.

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: 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, >5L No	Yes, >5L No	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:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

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.
Ethylbenzene	100-41-4

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.

CALIFORNIA PROPOSITION 65:

WARNING: This product contains a substance known to the State of California to cause cancer.

Chemical Name	CAS-No.
Ethylbenzene	100-41-4
Titanium Dioxide	13463-67-7
Carbon Black	1333-86-4
Crystalline Silica / Quartz	14808-60-7
Cristobalite	14464-46-1

Benzene	71-43-2
hexachlorobenzene	118-74-1
Cadmium Compounds	7440-43-9
Lead Compounds	7439-92-1
Arsenic Compounds	7440-38-2

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS

WARNING: This product contains a substance known to the State of California to cause birth defects or other reproductive harm.

Chemical Name	CAS-No.
Toluene	108-88-3
Benzene	71-43-2
hexachlorobenzene	118-74-1
Mercury Compounds (Inorganic)	7439-97-6
Cadmium Compounds	7440-43-9
Lead Compounds	7439-92-1

International Regulations:

CANADIAN WHMIS:

This SDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

16. Other Information

HMIS RATINGS

Health: 2* **Flammability:** 3 **Physical Hazard:** 0 **Personal Protection:** X

CANADIAN WHMIS CLASS: B3 D2A D2B

NFPA RATINGS

Health: 2 **Flammability:** 3 **Instability** 0

VOLATILE ORGANIC COMPOUNDS, g/L: 452

MSDS REVISION DATE: 5/15/2015

REASON FOR REVISION: No Information

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H340	May cause genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H350	May cause cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H372	Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS02

GHS06

GHS07

GHS08

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.

Section 1. Product and Company Identification

Product Identifier **F15 - Wash & Wax**

Product Use Description: Anionic Detergent Blend - Used as automobile shampoo cleaning concentrate, Amber viscous liquid with a Fruity fragrance

Manufacturer or suppliers' details

P & S Sales, Inc
20943 Cabot Blvd.
Hayward CA 94545

Emergency Number: 800-255-3924
Customer Service: 510-732-2628
Business Fax: 510-732-2632

Section 2. Hazards Identification

GHS Classification

Skin Irritation : Category 2
Eye Irritation : Category 2A
Carcinogenicity : Category 2

GHS Label Elements

Hazard pictograms

Hazard Word **Warning**

Hazard Statements

Causes mild skin irritation
Causes eye irritation
Harmful if swallowed
Suspected of causing cancer

Precautionary Statements

Wash skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
IF ON SKIN:
Wash skin thoroughly after handling
IF IN EYES:
Rinse cautiously with water for several minutes
Remove contact lenses if present and easy to do. continue rinsing
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Store away from other materials
Avoid release to the environment
Dispose of contents/container to an approved waste disposal plant.

3. Composition Information on Ingredients

CAS Number	Wt %	Component Name
25155-30-0	10-15%	Linear Dodecyl Benzene Sulfonate
68955-55-5	3-7%	Cocamine Oxide
141-43-5	1-4%	Monoethanolamine
68439-57-6	1-3%	Alpha Olefin Sulfonate

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

4. First Aid Measures

Eye: Immediately and gently flush with water for 15 minutes. Consult physician.

Skin: Rinse thoroughly if irritation occurs. Consult Doctor if it persists

Inhalation: Move to fresh air. No first aid should be needed from exposure due to mist. Consult physician if symptoms such as difficulty breathing occur. If aspiration occurs consult physician immediately.

Oral: Rinse mouth. Seek medical attention if symptoms occur.

Comments: Treat symptomatically.

5. Fire Fighting Measures

Extinguishing Media:
On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO2), dry chemical or water spray. Water can be used to cool fire exposed containers.

Fire Fighting Measures:
Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

Unusual Fire Hazards:
None.
Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Metal oxides.

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. 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. 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 product from entering drains. 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 release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and Storage

Use with adequate ventilation. Avoid eye contact.

Use reasonable care and store away from oxidizing materials.

8. Exposure Controls and Personal Protection

25155-30-0	Linear Dodecyl Benzene Sulfonate	not established
68955-55-5	Cocamine Oxide	not established
141-43-5	Monoethanolamine	TWA 3 ppm OSHA PEL STEL 15 mg/m3 NIOSH
68439-57-6	Alpha Olefin Sulfonate	not established

Engineering Controls

Local Ventilation: None should be needed.
General Ventilation: Recommended.

Personal Protective Equipment for Routine Handling

Eyes: Use proper protection - safety glasses as a minimum.
Skin: Washing at mealtime and end of shift is adequate.
Suitable Gloves: No special protection needed.
Inhalation: No respiratory protection should be needed.
Suitable Respirator: None should be needed.

Precautionary Measures: Avoid eye contact. Use reasonable care.

Comments: When heated to temperatures above 150 degrees C in the presence of air, product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant to the eyes, nose, throat, skin, and digestive system.
Safe handling conditions may be maintained by keeping vapor OSHA Permissible Exposure Limit for formaldehyde.

9. Physical and Chemical Properties

Flash Point	>213.8 °F	**Upper Flamability Limit**	Not Determined
Auto Ignition	Not Determined	**Lower Flamability Limit**	Not Determined
Physical State	Liquid	**Color**	Amber
Vapor Press	Not Determined		
pH	8-9	**Specific Gravity**	.99
Viscosity	500 cst		
Vapor Density (Air=1)	Not Determined	**Melting Point °F**	25°F
Odor	Fruity		
Water Solubility	complete	**VOC Content**	.05 lb/gal

10. Stability and Reactivity

Stability Stable

Hazardous Polymerization Not Expected to Occur

Conditions to Avoid Oxidizing materials can cause a reaction

Hazardous Decomposition Products When heated to temperatures above 150 degrees C in the presence of air, product can form formaldehyde vapors.
Safe handling conditions may be maintained by keeping vapor OSHA Permissible Exposure Limit for formaldehyde.

11. Toxicological Information

Routes of Entry: Dermal Contact, Eye Contact, Inhalation, Ingestion

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.

Sulfonic Acids, C14-16-alkane Hydroxy And C14-16-alkene, Sodium Salts (CAS 68439-57-6)

Acute toxicity

Dermal

LD50 Rabbit 6300 - 160000 mg/kg

Inhalation

LD50 Rat 52 - 206 mg/l

Oral

LD50 Rat 2079 - 2340 mg/kg

* Estimates for product may be based on additional component data not shown.

Causes skin irritation.
Causes serious eye damage. irritation
Not a respiratory sensitizer.
This product is not expected to cause skin sensitization.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

12. Ecological Information

Sulfonic Acids, C14-16-alkane Hydroxy And C14-16-alkene, Sodium Salts (CAS 68439-57-6)

Aquatic toxicity

Acute

Algae	EC50	Algae	3.2 - 5.2 mg/l, 72 h
Crustacea	EC50	Daphnia	4.53 mg/l, 48 h
Fish	LC50	Danio rerio	3.5 - 5 mg/l, 96 h
Chronic			
Crustacea	NOEC	Daphnia	6.3 mg/l, 21 d

* Estimates for product may be based on additional component data not shown.

Persistence and degradability This product is expected to be readily biodegradable.

13. Disposal Considerations

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste? No

State or local laws may impose additional regulatory requirements regarding disposal.

14. Transportation Information

Not subject to DOT. Not regulated

Not subject to IMDG code.

Not subject to IATA regulations

15. Regulatory Information

OSHA Hazards : Hazardous Chemical

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity - This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65 : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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 -
Not Regulated

16. Other Information

Revision Date 8/3/2015

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.

Key or legend to abbreviations and acronyms used in the safety data sheet
ACGIH American Conference of Government Industrial Hygienists
LD50 Lethal Dose 50%
AICS Australia, Inventory of Chemical Substances
LOAEL Lowest Observed Adverse Effect Level
DSL Canada, Domestic Sub- stances List
NFPA National Fire Protection Agency
NDSL Canada, Non-Domestic Sub- stances List
NIOSH National Institute for Occupational Safety & Health
CNS Central Nervous System
NTP National Toxicology Program
CAS Chemical Abstract Service
NZIoC New Zealand Inventory of Chemicals
EC50 Effective Concentration

NOAEL No Observable Adverse Effect Level
EC50 Effective Concentration 50%
NOEC No Observed Effect Concentration
EGEST EOSCA Generic Exposure Scenario Tool
OSHA Occupational Safety & Health Administration
EOSCA European Oilfield Specialty Chemicals Association
PEL Permissible Exposure Limit
EINECS European Inventory of Exist- ing Chemical Substances
PICCS Philipines Inventory of Commercial Chemical Substances
MAK Germany Maximum Concentration Values
PRNT Presumed Not Toxic
GHS Globally Harmonized System
RCRA Resource Conservation Recovery Act
>= Greater Than or Equal To
STEL Short-term Exposure Limit
IC50 Inhibition Concentration 50%
SARA Superfund Amendments and Reauthorization Act.
IARC International Agency for Re- search on Cancer
TLV Threshold Limit Value
IECSC Inventory of Existing Chemical Substances in China
TWA Time Weighted Average
ENCS Japan, Inventory of Existing and New Chemical Sub- stances
TSCA Toxic Substance Control Act
KECI Korea, Existing Chemical Inventory
UVCB Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<= Less Than or Equal To
WHMIS Workplace Hazardous Materials In- formation System
LC50 Lethal Concentration 50%

Anti-Seize
Safety Data Sheet

SECTION 1: Product and company identification

Product name	:	Anti-Seize
Use of the substance/mixture	:	Aerosol Lubricant
Product code	:	822101
Company	:	Share Corporation P.O. Box 245013 Milwaukee, WI 53224 - USA T (414) 355-4000
Emergency number	:	Chemtrec: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flam. Gas 1 H220
Flam. Aerosol 1 H222
Eye Irrit. 2A H319
Asp. Tox. 1 H304

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS02 GHS07 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
Extremely flammable gas
Extremely flammable aerosol
May be fatal if swallowed and enters airways
Causes serious eye irritation

Precautionary statements (GHS-US) :
Keep away from heat, hot surfaces, open flames, sparks. - No smoking
Do not spray on an open flame or other ignition source
Pressurized container: Do not pierce or burn, even after use
Wash thoroughly after handling
Wear eye protection, face protection
If swallowed: Immediately call a doctor, a POISON CENTER
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Do NOT induce vomiting
If eye irritation persists: Get medical advice/attention
Leaking gas fire: Do not extinguish, unless leak can be stopped safely
Eliminate all ignition sources if safe to do so
Store in a well-ventilated place
Store locked up
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
Dispose of contents/container to comply with local/regional/national/international regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
butane	(CAS No) 106-97-8	10 - 20	Flam. Gas 1, H220 Compressed gas, H280

Name	Product identifier	%	Classification (GHS-US)
Naphtha (petroleum), light alkylate, Low boiling point modified naphtha, [A complex combination of hydrocarbons produced by distillation of the reaction products of isobutane with monoolefinic hydrocarbons usually ranging in carbon numbers from C3 through C5. It consists of predominantly branched chain saturated hydrocarbons having carbon numbers predominantly in the range of C7 through C10 and boiling in the range of approximately 90°C to 160°C (194°F to 320°F).]	(CAS No) 64741-66-8	10 - 20	Not classified
acetone, propan-2-one, propanone	(CAS No) 67-64-1	10 - 20	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Copper	(CAS No) 7440-50-8	10 - 20	Not classified
propane	(CAS No) 74-98-6	10 - 20	Flam. Gas 1, H220 Compressed gas, H280
triethanolamine	(CAS No) 102-71-6	2.5 - 10	Not classified
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	(CAS No) 64742-47-8	2.5 - 10	Flam. Liq. 4, H227 Asp. Tox. 1, H304
Aluminum Chips	(CAS No) 7429-90-5	0.1 - 1	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : 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).

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Get immediate medical advice/attention.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. For minor skin contact, avoid spreading material on unaffected skin.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth with water. Immediately call a poison center or doctor/physician. Do not induce vomiting without medical advice.

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

Symptoms/injuries : Causes serious eye irritation. irritation of mucous membranes.

Symptoms/injuries after inhalation : Irritation of the nasal mucous membranes.

Symptoms/injuries after skin contact : Contact during a long period may cause light irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam. Water. Sand. Carbon dioxide. Dry powder.

Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Under fire conditions closed containers may rupture or explode. Extremely flammable aerosol.

Explosion hazard : Bursting aerosol containers may be propelled from a fire at high speed. Contains gas under pressure; may explode if heated.

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Move containers away from the fire area if this can be done without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Exercise caution when fighting any chemical fire. In case of fire and/or explosion do not breathe fumes. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate from fire, if possible, without unnecessary risk.

6.1.1. For non-emergency personnel

Protective equipment : Do not enter without an appropriate protective equipment. DO NOT touch spilled material. Ventilate the area thoroughly, especially low lying areas (basements, work pits etc.).

Emergency procedures : Keep upwind. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area. Stop release. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment. Advice local authorities if considered necessary. Stop leak if safe to do so. Do not contaminate water with the product or its container. Avoid discharge to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Eliminate every possible source of ignition. Prevent the product from entering drains or confined areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if safe to do so. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Collect spillage.

Methods for cleaning up : Clean thoroughly. Following product recovery, flush area with water. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not puncture, incinerate or crush. In use, may form flammable vapor-air mixture. Keep away from heat, sparks and flame.

Precautions for safe handling : Do not re-use empty containers. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Do not breathe gas/vapor/aerosol. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. . Do not discharge the waste into the drain. Do not get in eyes, on skin, or on clothing. Do not smoke while handling product. Do not spray on a naked flame or any incandescent material. Ensure good ventilation of the work station. Ground/bond container and receiving equipment. Intentional misuse by deliberately concentrating and inhaling may be harmful or fatal. Keep out of reach of children. Prevent the build-up of electrostatic charge. Use only outdoors or in a well-ventilated area.

Hygiene measures : Wash thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations. Do not puncture, incinerate or crush. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Pressurized container. Provide local exhaust or general room ventilation.

Storage conditions : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage area : Aerosol 2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

triethanolamine (102-71-6)		
ACGIH	ACGIH TWA (mg/m³)	5 mg/m³
ACGIH	Remark (ACGIH)	Eye & skin irr

butane (106-97-8)		
ACGIH	ACGIH TWA (ppm)	1000 ppm
ACGIH	ACGIH STEL (ppm)	1000 ppm

acetone, propan-2-one, propanone (67-64-1)		
ACGIH	ACGIH TWA (ppm)	250 ppm
ACGIH	ACGIH STEL (ppm)	500 ppm
ACGIH	Remark (ACGIH)	eye irr; CNS impair; BEI

Aluminum Chips (7429-90-5)		
ACGIH	ACGIH TWA (mg/m³)	1 mg/m³
ACGIH	Remark (ACGIH)	Pneumoconiosis; LRT irr

propane (74-98-6)		
ACGIH	ACGIH TWA (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station. 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. . Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Gloves. Protective clothing. Safety glasses. Use appropriate personal protective equipment when risk assessment indicates this is necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Aerosol. purple.
Odor	: characteristic
Odor threshold	: No data available
pH	: 6 - 7
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: -156 °F Propellant estimated
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 0.955 g/ml
Solubility	: No data available
Log Pow	: 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

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Risk of ignition. Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Exposure to air. Heat. Sparks. Open flame.

10.5. Incompatible materials

Strong oxidizing agents. Peroxides. oxygen. Fluorine. Chlorine. phenols and halogenated phenols. Nitrates.

10.6. Hazardous decomposition products

Nitrogen oxides. Phosphorous oxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

triethanolamine (102-71-6)	
LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 6400 mg/kg bodyweight; Rat)
LD50 dermal rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit)

hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-47-8)	
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit; Literature)

Skin corrosion/irritation : Not classified
pH: 6 - 7

Serious eye damage/irritation : Causes serious eye irritation.
pH: 6 - 7

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

triethanolamine (102-71-6)	
IARC group	3 - Not Classifiable

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified.

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : May be fatal if swallowed and enters airways.

Symptoms/injuries after inhalation : Irritation of the nasal mucous membranes.

Symptoms/injuries after skin contact : Contact during a long period may cause light irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

Likely routes of exposure : Skin and eyes contact.;Inhalation;Ingestion.

SECTION 12: Ecological information

12.1. Toxicity

triethanolamine (102-71-6)	
LC50 fish 1	> 10000 mg/l (48 h; Leuciscus idus)
EC50 Daphnia 1	2038 mg/l (24 h; Daphnia magna; Locomotor effect)
LC50 fish 2	450 - 1000 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	609.88 mg/l (48 h; Ceriodaphnia dubia)
TLM fish 1	100 - 1000,Pisces
TLM other aquatic organisms 1	100 - 1000
Threshold limit algae 1	1.8 - 715,168 h; Scenedesmus quadricauda
Threshold limit algae 2	19 - 47,168 h; Microcystis aeruginosa

hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-47-8)	
LC50 fish 1	> 100 mg/l (Pisces)
EC50 Daphnia 1	> 100 mg/l (Invertebrata)
Threshold limit algae 1	> 100 mg/l (Algae)

Aluminum Chips (7429-90-5)	
LC50 fish 1	0.12 mg/l Oncorhynchus mykiss (rainbow trout)

12.2. Persistence and degradability

triethanolamine (102-71-6)	
Persistence and degradability	Readily biodegradable in water. Highly mobile in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.02 g O_2 /g substance
Chemical oxygen demand (COD)	1.50 g O_2 /g substance
ThOD	2.04 g O_2 /g substance
BOD (% of ThOD)	0.02 % ThOD

hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-47-8)	
Persistence and degradability	Readily biodegradable in water. Adsorbs into the soil.

12.3. Bioaccumulative potential

triethanolamine (102-71-6)	
BCF fish 1	< <0.4-<3.9,42 days; Cyprinus carpio
Log Pow	-2.3 - 1.34 (Weight of evidence approach; -1; QSAR)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-47-8)	
Log Pow	6 - 8.2
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

Transport document description : UN1950 Aerosols (flammable, (each not exceeding 1 L capacity)), 2.1

UN-No.(DOT) : UN1950

Proper Shipping Name (DOT) : Aerosols
flammable, (each not exceeding 1 L capacity)

Transport hazard class(es) (DOT) : 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115

Hazard labels (DOT) : 2.1 - Flammable gas

Marine pollutant : Yes (IMDG only)

DOT Packaging Non Bulk (49 CFR 173.xxx) : None

DOT Packaging Bulk (49 CFR 173.xxx) : None

DOT Special Provisions (49 CFR 172.102) : N82

DOT Packaging Exceptions (49 CFR 173.xxx) : 306

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg

DOT Vessel Stowage Location : A

DOT Vessel Stowage Other : 25 - Shade from radiant heat,87 - Stow ‘‘separated from’’ Class 1 (explosives) except Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials

Additional information

Other information : This product may be eligible to be shipped as a Limited Quantity or Consumer Commodity ORM-D utilizing the exception found at 49 CFR 173.306.

ADR

No additional information available

Transport by sea

UN-No. (IMDG)	:	UN1950
Proper Shipping Name (IMDG)	:	Aerosols
Class (IMDG)	:	2.1 - Flammable gases

Air transport

UN-No.(IATA)	:	UN1950
Proper Shipping Name (IATA)	:	Aerosols, flammable
Class (IATA)	:	2.1 - Gases : Flammable

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

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Aluminum Chips	CAS No 7429-90-5	0.1 - 1
Copper	CAS No 7440-50-8	10 - 20

butane (106-97-8)	
Not listed on SARA Section 313 (Specific toxic chemical listings)	

acetone, propan-2-one, propanone (67-64-1)	
Not listed on SARA Section 313 (Specific toxic chemical listings)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb

Aluminum Chips (7429-90-5)	
Listed on SARA Section 313 (Specific toxic chemical listings)	

Copper (7440-50-8)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb

propane (74-98-6)	
Not listed on SARA Section 313 (Specific toxic chemical listings)	

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases:

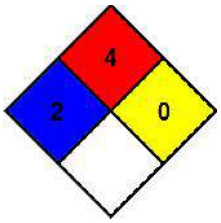
Asp. Tox. 1	Aspiration hazard Category 1
Compressed gas	Gases under pressure Compressed gas
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Aerosol 1	Flammable aerosol Category 1
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 4	Flammable liquids Category 4
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas

H222	Extremely flammable aerosol
H225	Highly flammable liquid and vapor
H227	Combustible liquid
H280	Contains gas under pressure; may explode if heated
H304	May be fatal if swallowed and enters airways
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Prepared by: Technical Department

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