



Work Plan
Roxy Cleaners Site No. 401058
156 Delaware Avenue
Bethlehem, NY

Objective

The objective of the Remedial Action is to remove facilities that are considered to be potential sources of residual chlorinated volatile organic compounds (CVOCs) at the Site, specifically the removal of known contaminated soils and a concrete pad.

Training

Due to site classification as an inactive Hazardous Waste Site, all Nature's Way on-site personnel as well as any subcontracted personnel, will have completed the OSHA 40-hour Hazardous Waste Operations and Emergency Response Training and must be current in the 8-hour Annual Refresher Training pursuant to OSHA Regulations 1910.120. Additionally, a site Safety Officer who is trained and certified in First Aid and CPR will be on-site during all site work. Documentation of the above listed training will be on-site prior to and during all site activities.

Site Verification

Prior to mobilization, Site Verification will be completed. The work area will be evaluated for factors that may influence performance of the work such as access and security. These items, as well as requirements for trailer staging, drum staging and temporary stockpiling areas, will be discussed with the Engineer to assure a coordinated effort.

A review of intended work procedures will be undertaken, with a Health and Safety discussion and plan modification if necessary. Also to be completed will be a review of waste tracking procedures and spill prevention practices, including those to be employed when transferring excavation water to holding tanks and during equipment fueling operations.

Initial Site Work (Characterization)

It is proposed that one of the initial work items to be completed will consist of the advancement of soil borings in the vicinity of the primary source area for waste characterization. At locations as directed by the Department Engineer, it is anticipated that an estimated five borings will be advanced using direct push methodology (truck mounted or tracked mounted dependent on site conditions) to depth of +/- 24 feet bgs. At the completion of every 4.0' sample interval, the macro-core samplers will be decontaminated by a rinse wash combined with a concentrated surfactant and a second rinse to complete decontamination.



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Initial Site Work (continued)

These samples will be utilized for pre-characterization to confirm that soil to be disposed is non-hazardous and can be accepted by a sanitary landfill and used as daily cover. A Photolonization Device (PID) will be utilized to scan soils and determine any “hot spots” within each 4.0’ macro-core sampling interval. Selected samples will be submitted to a NYS Certified Laboratory (Chemtech Consulting Group, Inc.) and analyzed for TCLP VOCs, TCLP SVOCs, TCLP Metals, TCLP Herbicides, TCLP Pesticides, and PCBs. Upon receipt of laboratory analysis, a waste profile will be submitted to the selected disposal facility for approval. It is intended to utilize the City of Albany Rapp Road Landfill for all Non-Hazardous soil disposal.

It is also proposed that the advancement of soil borings along the perimeter of the primary source area be completed to determine the extent of the area of impact and to aid in the placement of sheet piling for the stabilization of the remedial excavation. At locations as directed by the Department Engineer, borings will be advanced using direct push methodology (truck mounted or tracked mounted dependent on site conditions) to depth of +/-24 feet bgs. Based on prior site investigations, contamination is expected to cease at a depth of 20.0’ bgs. We propose to sample to a depth of 24.0’ bgs in the event that contamination may still be present at the 20.0’ bgs benchmark. At the completion of every 4.0’ sample interval, the macro-core samplers will be decontaminated by a rinse wash combined with a concentrated surfactant and a second rinse to complete decontamination. A Photolonization Device (PID) will be utilized to scan soils to determine if any “hot spots” within each 4.0’ macro-core sampling interval exist. If positive PID readings are present, the perimeter of the area of impact will be extended until favorable PID readings are achieved. Once a perimeter of favorable PID readings is achieved, it is proposed that samples be selected at locations as directed by the Department Engineer, to be submitted for confirmatory analysis to ensure that the sheet piling will be placed outside of the area of impact. These samples will be submitted to a NYS Certified Laboratory (Chemtech) and analyzed for TCL VOCs. **A minimum of 5 samples from each side wall and a minimum of 3 samples from the bottom of the excavation will be secured.** The bottom confirmatory samples will consist of the 20.0’ bgs interval from the waste characterization samples. The results of these analyses will be compared to the Soil Cleanup Objectives for **Restricted Commercial Use** per NYCRR Part 375-6. Analytical results will be submitted to the engineer for approval prior to the placement of sheet piling.

It is recommended that bottom confirmatory sampling be completed prior to the placement of the sheet piling for the stabilization of the remedial excavation because it will greatly reduce the amount of time that the excavation remains open. This will minimize the amount of water



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Initial Site Work (continued)

that may begin to fill up in the excavation, thus reducing the amount of waste coming off the site, as well as aiding in work site safety. Once the sheet piling is in place it will not be possible to obtain the side wall confirmatory sampling without compromising the sheet piling. Although contamination is expected to cease at the 20.0' bgs benchmark, we propose to sample to 24.0' bgs. In the event that the bottom confirmatory samples at 20.0' bgs result in exceedances of the Soil Cleanup Objectives for **Restricted Commercial Use** per NYCRR Part 375-6, the 22.0' bgs or 24.0' bgs sampling interval can be submitted for laboratory analysis at the direction of the Department Engineer.

Also during this initial phase of work, a representative sample of proposed backfill material will be secured from the elected quarry facility and submitted to a NYS Certified Laboratory (Chemtech) to be analyzed for TCL VOCs, TCL SVOCs, TCL Pesticides, PCBs, Herbicides and TAL metals (including total cyanide, hexavalent chromium, and mercury) as per the DER-10 requirement. It is intended to utilize Cedar Hill Trucking, Inc., to haul backfill materials. Cedar Hill Trucking, Inc., would obtain backfill materials from the Peter K. Freuh, Inc., Fuera Bush, NY quarry.

Erosion and Sediment Control

As the area to be disturbed is less than 1 acre a Storm Water Pollution and Prevention Plan (SWPPP) is not required. However, this project may warrant installation and maintenance of silt socks, storm drain inlet protection, and temporary sediment traps. During initial characterization work, a site walk will be conducted to review and document potential storm drain inlets, as well as other significant site features that will influence the type of controls required.

Concrete Pad and Foundation Removal

The Concrete area will be broken up utilizing an excavator with a buster attachment. Concrete will be broken up into 6" minus pieces and staged on-site atop and covered with 6 mil plastic to be transported to a permitted disposal facility along with the soil to be excavated. It is intended to utilize the City of Albany Rapp Road Landfill for the disposal of the concrete material.



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Air Monitoring

VOCs will be monitored continuously during excavation activities at the downwind perimeter of the immediate work area (exclusion zone) and at the start of each work day and periodically thereafter upwind of the immediate work area. Particulate concentrations will be monitored continuously during excavation activities at both the upwind and downwind perimeters of the exclusion zone. A list of the proposed equipment to conduct air monitoring activities as well as a Community Air Monitoring Plan (CAMP) is included in the Site HASP. All air monitoring activities will be conducted in conformance with the NYSDOH Generic Community Air Monitoring Plan.

Excavation

Prior to excavation, a temporary 6 foot high chain link fence with a locking gate will be set up around the perimeter of the work area to secure the site. Silt socks will be set up around the perimeter of the work area as well, and storm drain inlet protection and temporary sediment traps will be utilized if needed. An Excavation support system (sheet piling) will be installed by a qualified subcontractor prior to any soil excavation. Vibration/movement monitoring will be conducted during the installation of the excavation support system as well.

Soil Management

Soils are intended to be live loaded and transported via a Part 364 permitted hauling subcontractor to a permitted disposal facility. Any soils that need to be amended due to high moisture content will be staged atop 6 mil plastic sheeting and stockpiled on-site to be mixed with Portland cement or an equivalent in order to meet the moisture content and stability requirements of the selected permitted disposal facility. Any soils stockpiled on-site will be covered with 6 mil plastic sheeting pending transportation for disposal. If the 1000 ton threshold of soils being transported and disposed is nearing, an additional composite sample of soil will be secured for landfill disposal characterization analysis. This sample will be submitted to a NYS Certified Laboratory (Chemtech) and analyzed for TCLP VOCs, TCLP SVOCs, TCLP Metals, TCLP Herbicides, TCLP Pesticides, and PCBs. Upon receipt of laboratory analysis additional tonnage will be requested at the disposal facility. This process will be repeated per every 1000 tons of impacted soils removed from the site. It is intended that there will be no discontinuation in the live loading of material into dump trucks for transport. At this point in time, the final disposal facility has not been determined, as approvals will depend on analysis. It is intended that the City of Albany Rapp Road Landfill will be utilized for Non-Hazardous



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Soil Management (continued)

material and U.S. Ecology, Stablex Landfill in Blainville Quebec will be utilized for Hazardous material.

Dewatering

It is expected that dewatering will be required during all excavation work. Water will be evacuated utilizing a 2" diameter trash pump or a 2" diameter submersible electric pump and containerized on site utilizing 21,000 gallon holding tanks.

It is proposed that carbon treatment and discharge to ground surface of the excavation water be utilized. Should carbon treatment be elected, a pilot test using four activated carbon drum filters (in series) will be conducted with discharge of the pilot cycled back into source tank. A sample of the post carbon treatment discharge will be secured and analyzed by a NYS Certified Laboratory (Chemtech) for the parameters listed in Section 00022 of the contract documents to ensure that the effluent meets the groundwater discharge criteria. One post carbon treatment sample will be secured and analyzed per 7,000 gallons of water treated. Any permitting that may be required to complete discharging activities will be obtained.

Should analytical results be above carbon treatment discharge levels a hazardous permitted vacuum truck will be utilized to transport excavation water off-site for disposal at an approved disposal facility.

Waste Transportation

Five part manifests will be required to complete waste disposal for Non-Hazardous materials (and Hazardous if encountered). A copy of the manifests will be provided to the Engineer for review in advance of shipment. The manifest also will require the signature of an authorized agent at the time of shipment, at which time the rearmost (Generator/Shipper) copy will be detached and given to the representative if requested. All trucks used for transportation of Non-Hazardous (and Hazardous if encountered) materials for disposal off-site will be permitted pursuant to 6 NYCRR Part 364. It is the intended to utilize Cedar Hill Trucking, Inc., for the transportation of Non-Hazardous material. If Hazardous material is encountered, U.S. Ecology will supply the hauling services to their Blainville, Quebec facility.



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Backfill

Backfill will be obtained from a local quarry, with analysis performed on the material prior to transport to the site. It is intended to utilize Cedar Hill Trucking, Inc., to haul backfill materials. Cedar Hill Trucking, Inc., would obtain backfill materials from the Peter K. Freuh, Inc., Fuera Bush, NY quarry. Representative samples will be collected by Nature's Way and submitted to a NYS certified laboratory (Chemtech) to be analyzed for TCL VOCs, TCL SVOCs, TCL Pesticides, PCBs, herbicides and TAL metals (including total cyanide, hexavalent chromium and mercury) to meet DER-10 requirements. It is proposed that this sampling and analysis be completed during initial site work to allow for the reduction in time that the excavation is open. If the 1000 cy threshold of backfill material used is nearing, an additional sample of backfill material will be secured and submitted to a NYS Certified Laboratory (Chemtech) and analyzed for the above listed parameters. This process will be repeated per every 1000 cy of backfill material used. The results of these analyses will be compared to Allowable Constituent Levels for imported Fill or Soil for **Restricted Commercial Use** per DER-10. Analytical results will be submitted to the engineer for approval prior to transport to site. All backfilling operations will be performed by Nature's Way Environmental. Compaction testing in lifts will also be completed by a certified trained technician.

Decontamination

Prior to demobilization from a designated Work Area and final demobilization from the Site, all utilized heavy equipment and tooling leaving the exclusion zone will be decontaminated using dry decontamination methods. If necessary, a decontamination pad will be constructed and a high-pressure washer will be utilized. A drawing for a 12' x 12' x 12" decontamination pad (to be purchased from Pactec or equivalent) is included as Attachment #1. All decontamination water will be staged within 55 gallon drums pending analysis and disposal facility approval. All personnel engaged in decontamination activities will wear the appropriate protective clothing as determined in the HASP.

If the proposed completion of initial borings using direct push methodology is elected, the macro-core samplers will be decontaminated by a rinse wash combined with a concentrated surfactant and a second rinse to complete decontamination at the completion of every sample interval. All sampling tools and equipment will be decontaminated using the same wash method between samples.



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Spill Prevention

Heavy equipment will include numerous tracked excavators, tandem axle dump trucks, dump trailers and a vacuum truck if required. The excavators will be the only equipment left on-site overnight. Additional tooling will include air compressor and accessories such as pneumatic pump, shears, and electric generator (if required), hand tools, 55-gallon drums and absorbent products. With the exception of heavy equipment delivery and potential off-site disposal operations, it is anticipated that two vehicles will be used to transport equipment and personnel to the site on a daily basis. All Nature's Way equipment will have been checked prior to mobilization for the presence of leaks and to ensure equipment is in good working condition.

Spill response and containment materials will be maintained on-site at all times. Observation of machines and equipment for proper function and evidence of spills or leakage is an ongoing item. The chief times at which Spill prevention will be of heightened importance will be those associated with fueling heavy equipment. Plastic sheeting may be deployed to guard against spills during such operations.

Spill Response

If a spill should be encountered on-site, the spill will be immediately reported to the Engineer and NYSDEC SPILL REPORTING HOTLINE 1-800-457-7362.

If a spill should be encountered, Nature's Way will have all equipment and materials necessary to immediately respond and remediate the spill such as a Vacuum truck, absorbent products, 6 mil plastic sheeting, 55-gallon drums, and all appropriate associated PPE.

Any spills will be promptly cleaned up; any spill that is the due to the error of Nature's Way will be drummed and labeled with Nature's Way as the generator.

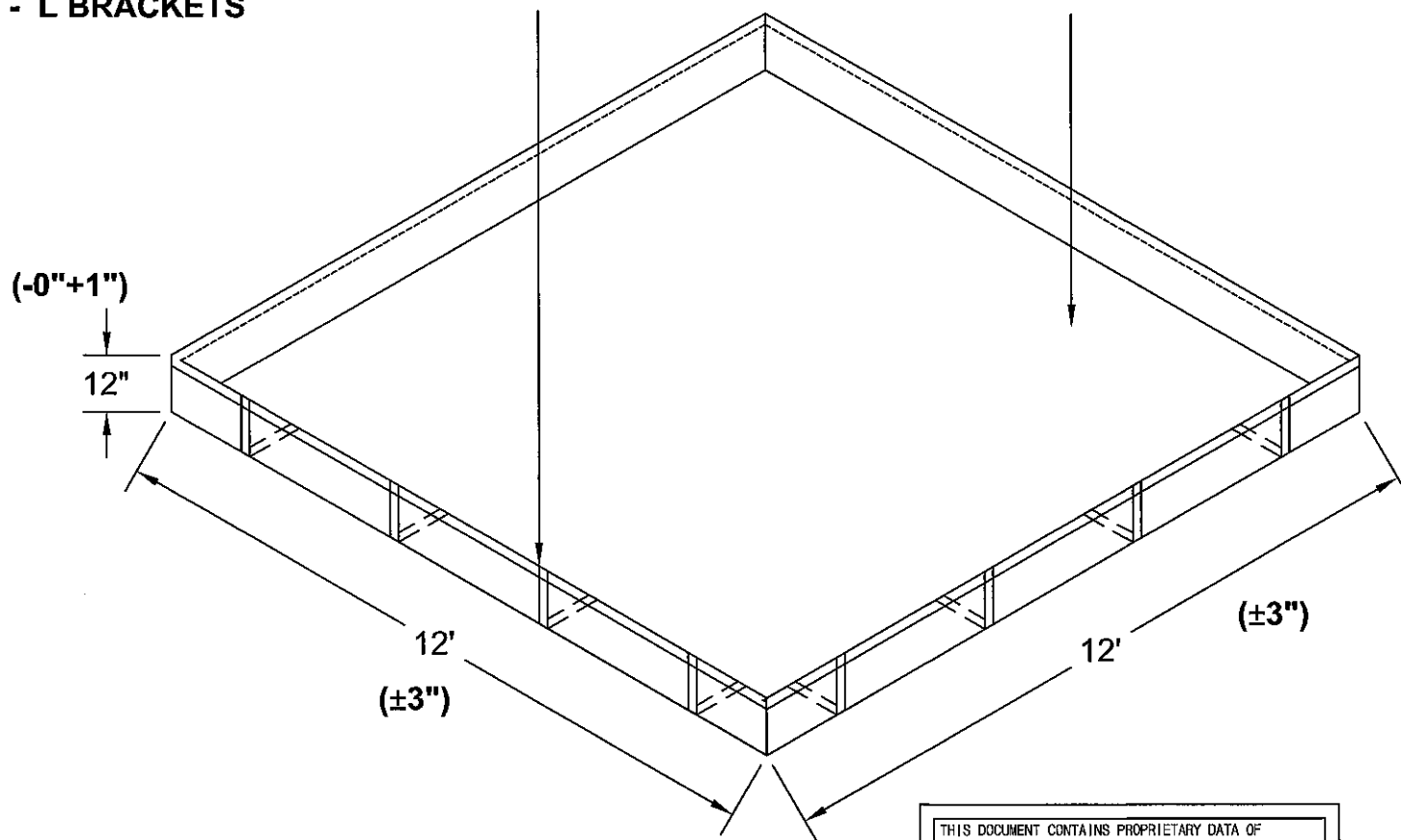
PT121212-40

MTL:

- 40 mil LLDPE
- L BRACKETS

12" X 12" ALUMINUM
BRACKETS EVERY 36"

40mil LLDPE BODY



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BRITISH PATENT # GB2453305

FINISHED



PacTec, Inc. 1-(800)-272-2832		CUSTOMER NAME	
CUSTOMER APPROVAL		CUSTOMER ITEM CODE-	
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NAME _____ PHONE # _____		SIZE A	SCALE N/A
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40 Mil Polyethylene Chemical Resistance

Use this Chart as a General Guide Only. Test each chemical first before storing in plastic. The first letter of each pair represents the resistance rating at 20 degrees Celsius; the second at 50 degrees Celsius.

E – No Damage after 30 days of constant exposure.

G – Little or no damage after 30 days of constant exposure.

F – Some effect after seven days of constant exposure. Depending on the plastic, the effect may be cracking, crazing, and loss of strength or discoloration. Solvents may cause softening, swelling and permeation losses with HDPE; the solvent effects on these materials are normally reversible.

N – Not recommended for continuous use. Immediate damage may occur.

Depending on the plastic, the effect will be severe cracking, crazing, loss of strength, discoloration, deformation, dissolution or permeation loss.

EFFECTS OF CHEMICALS ON PLASTICS

Chemicals can affect the weight, strength, color, dimensions, flexibility and surface appearance of plastics. The basic models of interaction that cause these changes are: (1) chemical attack on the polymer chain, with resultant reduction in physical properties, including oxidation reaction of functional groups in, or on, the chain, with resultant reduction in physical properties, including oxidation; reaction of functional groups, in or on the chain; and depolymerization; (2) physical change, including absorption of solvents, resulting in softening and swelling of the plastic; permeation of solvent through the plastic; or dissolution in a solvent; and (3) stress-cracking from the interaction of a "stress-cracking agent" with molded-in or external stresses.

The reaction combination of compounds of two or more classes may cause a synergistic or undesirable chemical effect. Other factors affecting chemical resistance include temperature, pressure, internal or external stresses (such as centrifugation), and length of exposure to and concentration of the chemical. As temperature increases, resistance to attack decreases.

Acetaldehyde	GF	Cinnamon Oil	FN
Acetamide, sat.	EE	Citric Acid 10%	EE
Acetic Acid 5%	EE	Cresol	DN
Acetic Acid 50%	EE	Cyclohexane	DN
Acetone	NN	DeCalin	EG
Acetonitrile	EE	o-Dichlorobenzene	FF
Acrylotnitrile	EE	p-Dichlorobenzene	DF
Adipic Acid	EE	Diethyl Benzene	FN
Alanine	EE	Diethyl Ether	FN
Allyl Alchohol	EE	Diethyl Ketone	NN
Aluminum Hydroxide	EE	Diethyl Malonate	EE
Aluminum Salts	EE	Diethylene Glycol	EE
Amino Acids	EE	Diethylene Glycol Ethyl Ether	EE
Ammonia	EE	Dimethyl Formamide	EE
Ammonium Acetate, sat	EE	Dimethylsulfoxide	EE
Ammonium Glycolate	EE	1,4 Dioxane	GG
Ammonium Hydroxide 5%	EE	Dipropylene Glycol	EE
Ammonium Hydroxide 30%	EE	Ether	FN
Ammonium Oxalate	EE	Ethyl Acetate	EE
Ammonium Salts	EE	Ethyl Alcohol (absolute)	EE
n-Amyl Acetate	EG	Ethyl Alcohol 40%	EE
Amyl Chloride	FN	Ehyl Benzene	GF
Aniline	EG	Ethyl Benzoate	GG
Banzaldehyde	EE	Ethyl Butyrate	GF
Benzene	NN	Ethyl Chlorode, liquid	FN
Benzoic Acid, sat.	EE	Ethyl Cyanoacetate	EE
Benzyl Acetate	EE	Ethyl Lactate	EE
Benzyl Alcohol	FN	Ethylene Chloride	GF
Bromine	FN	Ethylene Glycol	EE
Bromobenzene	FN	Ethylene Glycol Methyl Ether	EE
Bromoform	NN	Ethylene Oxide	GF
Butadiene	FN	Fluoride	EE
n-Butyl Acetate	EG	Flourine	GN
n-Butyl Alcohol	EE	Formaldehyde 10%	EE
sec-Butyl Alcohol	EE	Formaldehyde 40%	EE
tert-Butyl Alcohol	EE	Formic Acid 3%	EE
Butyric Acid	FN	Formic Acid 50%	EE
Calcium Hypochlorite, Sat.	EE	Formic Acid 98-100%	EE
Cabazole	EE	Freon TF	EG
Carbon Disulfide	NN	Fuel Oil	GF
Carbon tetrachloride	GF	Gasoline	GG
Cedarwood Oil	FN	Glacial Acetic Acid	EE
Cellosolve Acetate	EE	Glycerine	EE
Chlorine 10% in air	EF	n-Heptane	GF
Chlorine 10% (moist)	GF	Hydrochloric Acid 1-5%	EE
Chloroacetic Acid	EE	Hydrochloric Acid 20%	EE
p-Chloroacetophenone	EE	Hydrochloric Acid 35%	EE
Chloroform	FN	Hydrofluoric Acid 4	EE
Chromic Acid 10%	EE	Hydrofluoric Acid 48%	EE
Chromic Acid 50%	EE	Hydrogen Peroxide 3%	EE

Hydrogen Peroxide 30%	EE	Sulfuric Dioxide, wet or dry	EE
Osobutyl Alcohol	EE	Sulfur Salts	GF
Isopropyl Acetate	EG	Tartarci Acid	EE
Isopropyl Alcohol	EE	Tetrahydrofuran	GF
Osopropyl Benzene	GF	Thionyl Chloride	NN
Kerosene	GG	Toluene	GG
Lactic Acid 3%	EE	Tributyl Citrate	EG
Lactic Acid 85%	EE	Trichloroethane	FN
Methoxyethyl Oleate	EE	Trichloroethylene	FN
Methyl Alcohol	EE	Triethylene Glycol	EE
Methyl Ethyl Ketone	NN	Tripopylene Glycol	EE
Methyl Isobutyl Ketone	NN	Trupentine	GG
Methyl Propyl Ketone	EG	Undecyl Alcohol	EG
Methylene Chloride	FN	Urea	EE
Mineral Oil	EE	Vinylidene Chloride	FN
Nitric Acid 1-10%	EE	Xylene	GF
Nitric Acid 50%	GN	Zinc Stearate	EE
Nitric Acid 70%	GN		
Perchloroethylene	NN		
Phenol, Chrystals	GF		
Phosphoric Acid 1-5%	EE		
Phosphoric Acid 85%	EE		
Pine Oil	EG		
Potassium Hydroxide 1%	EE		
Potassium Hydroxide conc.	EE		
Propane Gas	FN		
Propylene Glycol	EE		
Propylene Oxide	EE		
Resorcinol sat.	EE		
Resorcinol 5%	EE		
Salicylaldehyde	EE		
Salicylic Acid, powder	EE		
Salicylic Acid, sat.	EE		
Salt Solutions, metallic	EE		
Siver Acetate	EE		
Sodium Nitrate	EE		
Sodium Acetate, sat.	EE		
Sodium Hydroxide 1%	EE		
Sodium Hydroxide 50% to sat.	EE		
Sodium Hypochlorite 15%	EE		
Stearic Acid, crystals	EE		
Sulfuric Acid 1-6%	EE		
Sulfuric Acid 20%	EE		
Sulfuric Acid 60%	EE		
Sulfuric Acid, 98%	GG		
Sulfur Dioxide, liq., 46psi	FN		

The information contained herein is typical and to the best of our knowledge accurate and indicative of the results that can be obtained by testing in an accredited laboratory. The buyer or user of these products is solely responsible for determining whether these products are suitable for any intended use and for its proper installation and use.

► BermPac™

Specifications	40 mil Polyethylene	RPP	Reinforced Geomembrane	X Guard	18 oz Vinyl
Weight	28 oz/yd ² (950 g/m ²)	25 oz/yd ² (850 g/m ²)	30 oz/yd ² (1017 g/m ²)	25 oz/yd ² (850 g/m ²)	18 oz/yd ² (610.3 g/m ²)
Thickness	40 mil avg (1.01 mm)	36 mil (0.91 mm)	36 mil (0.91 mm)	33 mil (0.83 mm)	19.5 mil (0.49 mm)
Puncture Strength	85 lbs (378 N)	105 lbs (467 N)	225 lbs (1000 N)	250 lbs (1112 N)	430 lbs (1,912 N)
Low Working Temp	-106° F (-77° C)	-40° F (-40° C)	-25° F (bend) (-32° C)	-10° F (bend) (-23° C)	-40° F (-40° C)
High Working Temp	160° F (71° C)	170° F (77° C)	180° F (82° C)	180° F (82° C)	158° F (70° C)

► Ground Cover and Trackguard

Specifications	8 oz Non-Woven Polypropylene	12 oz Non-Woven Polypropylene	Track Guard	Rubber Matting
Weight	8 oz/yd ² (271 g/m ²)	12 oz/yd ² (406.9 g/m ²)	77 oz/yd ² (2.61 kg/m ²)	77 oz/yd ² (2.61 kg/m ²)
Thickness	90 mil (2.2 mm)	105 mil (2.6 mm)	106 mil (2.6 mm)	95 mil (2.4 mm)
Puncture Strength	500 lbs (2,224 N)	800 lbs (3,558 N)	N/A	N/A
UV Resistance	70% @ 500 hours	70 % @ 500 hours	N/A	N/A

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