

1. Product and Company Identification

Material name	SEALANT 1X-SF
Version #	01
Issue date	02-20-2013
Revision date	02-20-2013
Supersedes date	01-25-12
Chemical name	Phenolic Resin
Chemical description	Fibrous Resin Mixture
CAS #	Mixture
Product code	800-0035
Product use	Industrial Leak Sealant
Manufacturer information	
Manufacturer/Supplier	Team Industrial Services, Inc. 200 Hermann Drive, Alvin, Texas 77511
Emergency Contact	CHEMTREC - 24 HOURS USA: CHEMTREC: 800-424-9300 International: 703-527-3887 (Collect)

2. Hazards Identification

Physical state	Liquid.
Appearance	Black pliable semi-solid with phenolic odor.
Emergency overview	DANGER Combustible liquid. May cause eye, skin and digestive tract burns. May cause severe respiratory tract irritation. Harmful if swallowed or absorbed through skin. Contains material which may cause lung, liver, kidney, heart, blood and central nervous system damage.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Eye contact. Ingestion. Inhalation. Skin contact.
Eyes	May cause eye burns. May cause permanent eye injury.
Skin	May cause skin burns. Harmful if absorbed through skin. Components of the product may be absorbed into the body through the skin. Risk of sensitization or allergic reactions among sensitive individuals. The product contains organic solvents which may be absorbed into the body by skin contact and may cause permanent damage to the nervous system, including the brain.
Inhalation	May cause severe respiratory tract irritation. May cause burns in mucous membranes, throat, esophagus and stomach. When cured: Elevated temperatures or mechanical action may form dust and fumes which may be irritating to the respiratory tract. Inhalation of high concentrations of quartz dust can lead to the lung disease known as silicosis, with cough and shortness of breath. Prolonged breathing of high levels of crystalline silica can cause silicosis. Also, airborne crystalline silica is possibly carcinogenic to humans.
Ingestion	May cause digestive tract burns. Harmful if swallowed. Components of the product may be absorbed into the body by ingestion.
Target organs	Blood. Cardiac. Central nervous system. Digestive tract.. Eyes. Kidneys. Liver. Lungs. Mucous membranes. Respiratory system. Skin.
Chronic effects	May cause kidney, liver, lung and central nervous system damage. Danger of serious damage to health by prolonged exposure. Chronic lung disease (silicosis) and/or lung cancer may result from prolonged/repeated breathing of the dust of this material. Phenolic resin releases formaldehyde and formaldehyde has carcinogenic potential and is a known skin and respiratory sensitizer.
Signs and symptoms	Unconsciousness. Coughing. Shortness of breath. Discomfort in the chest. Irritation of nose and throat. Symptoms include itching, burning, redness and tearing. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

Potential environmental effects The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Aluminium hydroxide	21645-51-2	25-50
Aluminum oxide	1344-28-1	25-50
Graphite	7782-42-5	5-10
Phenol, polymer with formaldehyde	9003-35-4	5-10
Carbon fiber	7440-44-0	<5
Ethanol	64-17-5	<5
m-Cresol	108-39-4	<5
p-Cresol	106-44-5	<5
2,6-Xylenol	576-26-1	<1
Formaldehyde	50-00-0	<1
Hexamethylenetetramine	100-97-0	<1
Methanol	67-56-1	<1
Phenol	108-95-2	<1
o-Ethylphenol	90-00-6	<1

Composition comments All concentrations are in percent by weight.

4. First Aid Measures

First aid procedures

Eye contact

Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin contact

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.

Inhalation

If breathing stops, provide artificial respiration. Get medical attention immediately.

Ingestion

Rinse mouth thoroughly with water and give large amounts of milk or water, if person is conscious. Only induce vomiting at the instruction of medical personnel. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.

Notes to physician

Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

General advice

Chemical burns must be treated by a physician.

5. Fire Fighting Measures

Flammable properties

Combustible liquid. Heated material: Vapors may travel to a source of ignition and flash back. If heated, volume and pressure increases strongly, resulting in explosion of container.

Extinguishing media

Suitable extinguishing media

Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

Unsuitable extinguishing media

No restrictions known.

Protection of firefighters

Specific hazards arising from the chemical

Solvent vapors may form explosive mixtures with air. During fire, gases hazardous to health may be formed.

Protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire fighting equipment/instructions

Ventilate closed spaces before entering them. Containers should be cooled with water to prevent vapor pressure build up. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Evacuate area and fight fire from a safe distance. Stop leak if you can do so without risk. Move containers from fire area if you can do it without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

Hazardous combustion products

Aluminum oxides. Carbon oxides. Formaldehyde. Silicon oxides.

6. Accidental Release Measures**Personal precautions**

Avoid inhalation of vapors and contact with skin and eyes. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see Section 8 of the MSDS. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Environmental manager must be informed of all major spillages.

Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up

Eliminate all ignition sources. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean contaminated surface thoroughly. Sweep up or vacuum up spillage and collect in suitable container for disposal. Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Collect and dispose of spillage as indicated in Section 13 of the MSDS.

Other information

Clean up in accordance with all applicable regulations.

7. Handling and Storage**Handling**

Avoid inhalation of vapors and contact with skin and eyes. The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Use personal protective equipment as required. Use only with adequate ventilation.

Storage

Follow rules for combustible liquids. Keep away from heat, spark, open flames and other sources of ignition. Keep away from sources of ignition - No smoking. Store in a cool, dry, well-ventilated place. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	1 mg/m3	Respirable fraction.
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m3	Respirable fraction.
Ethanol (CAS 64-17-5)	STEL	1000 ppm	
Formaldehyde (CAS 50-00-0)	Ceiling	0.3 ppm	
Graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable fraction.
m-Cresol (CAS 108-39-4)	TWA	20 mg/m3	Inhalable fraction and vapor.
p-Cresol (CAS 106-44-5)	TWA	20 mg/m3	Inhalable fraction and vapor.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Formaldehyde (CAS 50-00-0)	STEL	2 ppm
	TWA	0.75 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	PEL	5 mg/m3	Respirable fraction.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	PEL	15 mg/m3	Total dust.
		5 mg/m3	Respirable fraction.
Ethanol (CAS 64-17-5)	PEL	15 mg/m3	Total dust.
		1900 mg/m3	
Graphite (CAS 7782-42-5)	PEL	1000 ppm	
		5 mg/m3	Respirable fraction.
m-Cresol (CAS 108-39-4)	PEL	15 mg/m3	Total dust.
		22 mg/m3	
p-Cresol (CAS 106-44-5)	PEL	5 ppm	
		22 mg/m3	
		5 ppm	

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Carbon fiber (CAS 7440-44-0)	TWA	15 millions of particle
Graphite (CAS 7782-42-5)	TWA	15 millions of particle

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	TWA	10 mg/m3	
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m3	Respirable.
Ethanol (CAS 64-17-5)	TWA	1880 mg/m3	
		1000 ppm	
Formaldehyde (CAS 50-00-0)	Ceiling	1.3 mg/m3	
	TWA	1 ppm	
Graphite (CAS 7782-42-5)	TWA	0.9 mg/m3	
		0.75 ppm	
m-Cresol (CAS 108-39-4)	TWA	2 mg/m3	Respirable.
		22 mg/m3	
p-Cresol (CAS 106-44-5)	TWA	5 ppm	
		50 mg/m3	
		10 ppm	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	1 mg/m3	Respirable.
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable.
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m3	Respirable.
Ethanol (CAS 64-17-5)	STEL	1000 ppm	
Formaldehyde (CAS 50-00-0)	Ceiling	1 ppm	
	TWA	0.3 ppm	
Graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable.
m-Cresol (CAS 108-39-4)	TWA	10 mg/m3	
p-Cresol (CAS 106-44-5)	TWA	10 mg/m3	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	1 mg/m3	Respirable fraction.
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m3	Respirable fraction.
Ethanol (CAS 64-17-5)	STEL	1000 ppm	
Formaldehyde (CAS 50-00-0)	Ceiling	1.5 ppm	
	STEL	1 ppm	
Graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable fraction.
m-Cresol (CAS 108-39-4)	TWA	5 ppm	
p-Cresol (CAS 106-44-5)	TWA	5 ppm	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	TWA	10 mg/m3	Total dust.
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m3	Respirable dust.
Ethanol (CAS 64-17-5)	TWA	1880 mg/m3 1000 ppm	
Formaldehyde (CAS 50-00-0)	Ceiling	3 mg/m3	
		2 ppm	
Graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable dust.
m-Cresol (CAS 108-39-4)	TWA	22 mg/m3 5 ppm	
p-Cresol (CAS 106-44-5)	TWA	22 mg/m3 5 ppm	

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Aluminum oxide (CAS 1344-28-1)	TWA	10 mg/m3
Carbon fiber (CAS 7440-44-0)	TWA	10 mg/m3
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm
Formaldehyde (CAS 50-00-0)	Ceiling	3 mg/m3
		2 ppm
Graphite (CAS 7782-42-5)	TWA	10 mg/m3
m-Cresol (CAS 108-39-4)	TWA	22 mg/m3 5 ppm
p-Cresol (CAS 106-44-5)	TWA	22 mg/m3 5 ppm

Engineering controls

Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of exposure. An eye wash and safety shower must be available in the immediate work area.

Personal protective equipment**Eye / face protection**

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Wear suitable gloves. Butyl rubber gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Wear appropriate clothing to prevent possibility of skin contact.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Black pliable semi-solid with phenolic odor.
Physical state	Liquid.
Form	Pliable semi-solid.
Color	Black.
Odor	Phenolic.
Odor threshold	0.003 - 5 ppm (m-Cresol)
pH	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Slightly.
Specific gravity	Not available.
Flash point	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Partition coefficient (n-octanol/water)	No data available.
Other data	
Decomposition temperature	> 1200 °F (> 648.9 °C) When cured

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Flames and sparks. Avoid static discharge and uncontrolled exposure to high temperatures. Contact with incompatible materials.
Incompatible materials	Strong oxidizers, strong acids, and strong bases. Strong reducing agents.
Hazardous decomposition products	Aluminum oxides. Carbon oxides. Formaldehyde. Silicon oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information**Toxicological data**

Components	Species	Test Results
Aluminium hydroxide (CAS 21645-51-2)		
Acute		
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Carbon fiber (CAS 7440-44-0)		
Acute		
<i>Oral</i>		
LD50	Rat	> 10000 mg/kg

Components	Species	Test Results
Ethanol (CAS 64-17-5)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	39 mg/l, 4 Hours
	Rat	30000 mg/m3
<i>Oral</i>		
LD50	Rat	11.5 g/kg
Formaldehyde (CAS 50-00-0)		
Acute		
<i>Inhalation</i>		
LC50	Rat	0.48 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	100 mg/kg
Graphite (CAS 7782-42-5)		
Acute		
<i>Oral</i>		
LD50	Rat	> 10000 mg/kg
m-Cresol (CAS 108-39-4)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	620 mg/kg
<i>Oral</i>		
LD50	Rat	242 mg/kg
p-Cresol (CAS 106-44-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	300 mg/kg
<i>Oral</i>		
LD50	Rat	207 mg/kg
Sensitization	The product contains a sensitizing substance which may provoke an allergic reaction among sensitive individuals.	
ACGIH Sensitizer		
Formaldehyde (CAS 50-00-0)	Sensitizer.	
Acute effects	May cause skin, eye and digestive tract burns. May cause severe respiratory tract irritation. Harmful if swallowed or absorbed through skin. Contains material which may cause lung, liver, kidney, heart, blood and central nervous system damage.	
Local effects	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Components of the product may be absorbed into the body by inhalation, ingestion and through the skin.	
US. ACGIH Threshold Limit Values		
m-Cresol (CAS 108-39-4)	Can be absorbed through the skin.	
p-Cresol (CAS 106-44-5)	Can be absorbed through the skin.	
Chronic effects	Danger of serious damage to health by prolonged exposure. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. When cured: Chronic lung disease (silicosis) and/or lung cancer may result from prolonged/repeated breathing of the dust of this material. Phenolic resin releases formaldehyde and formaldehyde has carcinogenic potential and is a known skin and respiratory sensitizer.	
Carcinogenicity	Risk of cancer cannot be excluded with prolonged exposure. When cured: Prolonged breathing of high levels of crystalline silica can cause silicosis. Also, airborne crystalline silica is possibly carcinogenic to humans.	
ACGIH Carcinogens		
Aluminium hydroxide (CAS 21645-51-2)	A4 Not classifiable as a human carcinogen.	

Aluminum oxide (CAS 1344-28-1)
Ethanol (CAS 64-17-5)

A4 Not classifiable as a human carcinogen.
A3 Confirmed animal carcinogen with unknown relevance to humans.
A2 Suspected human carcinogen.
A4 Not classifiable as a human carcinogen.
A4 Not classifiable as a human carcinogen.

Formaldehyde (CAS 50-00-0)
m-Cresol (CAS 108-39-4)
p-Cresol (CAS 106-44-5)

IARC Monographs. Overall Evaluation of Carcinogenicity

Formaldehyde (CAS 50-00-0)

1 Carcinogenic to humans.

US NTP Report on Carcinogens: Known carcinogen

Formaldehyde (CAS 50-00-0)

Known To Be Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Formaldehyde (CAS 50-00-0)

Potential cancer hazard.

Epidemiology	None known.
Mutagenicity	Contains a substance which may have a mutagenic effect.
Neurological effects	May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue) and/or damage.
Reproductive effects	No data available.
Teratogenicity	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Symptoms and target organs	Slightly corrosive. Prolonged contact may causes serious eye and tissue damage. Prolonged or repeated inhalation/ingestion may cause central nervous system, blood, lung, liver or kidney damage.
Further information	Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

12. Ecological Information

Ecotoxicological data

Components		Species	Test Results
Ethanol (CAS 64-17-5)			
Aquatic			
Algae Fish	EC50	Freshwater algae	275 mg/l, 72 Hours
		Marine water algae	1970 mg/l
Invertebrate	LC50	Fathead minnow (<i>Pimephales promelas</i>)	> 100 mg/l, 96 hours
		Freshwater fish	11200 mg/l, 96 Hours
Formaldehyde (CAS 50-00-0)	EC50	Freshwater invertebrate	5012 mg/l, 48 Hours
Aquatic		Marine water invertebrate	857 mg/l, 48 Hours
Crustacea			
Fish			
m-Cresol (CAS 108-39-4)	EC50	Water flea (<i>Daphnia pulex</i>)	4.3 - 7.8 mg/l, 48 hours
Aquatic	LC50	American eel (<i>Anguilla rostrata</i>)	0 - 197.79 mg/l, 96 hours
Crustacea			
Fish			
p-Cresol (CAS 106-44-5)	EC50	Scud (<i>Gammarus fasciatus</i>)	7 mg/l, 48 hours
Aquatic	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	8.9 mg/l, 96 hours
Crustacea			
Fish			
	EC50	Water flea (<i>Daphnia magna</i>)	7.7 mg/l, 48 hours
	LC50	Fish (<i>Lepidocephalichthyes guntea</i>)	6.15 - 7.96 mg/l, 96 hours
Ecotoxicity		The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Environmental effects		An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.	
Persistence and degradability		No data available.	

Bioaccumulation / Accumulation	No data available.
Partition coefficient	No data available.
Ethanol (CAS 64-17-5)	-0.31
Formaldehyde (CAS 50-00-0)	0.35
p-Cresol (CAS 106-44-5)	1.94
m-Cresol (CAS 108-39-4)	1.96
Mobility in environmental media	The product is slightly soluble in water. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

13. Disposal Considerations

Waste codes	D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel]
Disposal instructions	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Dispose of this material and its container to hazardous or special waste collection point.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT	Not regulated as a hazardous material by DOT.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
TDG	Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Formaldehyde (CAS 50-00-0) m-Cresol (CAS 108-39-4) p-Cresol (CAS 106-44-5)
US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Spill: Reportable quantity	Formaldehyde (CAS 50-00-0) 100 lbs
US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Substance: Threshold Planning Quantity	Formaldehyde (CAS 50-00-0) 500 lbs
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration	Aluminum oxide (CAS 1344-28-1) 1.0 % Formaldehyde (CAS 50-00-0) 0.1 % m-Cresol (CAS 108-39-4) 1.0 % p-Cresol (CAS 106-44-5) 1.0 %
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance	Aluminum oxide (CAS 1344-28-1) Listed. Formaldehyde (CAS 50-00-0) Listed. m-Cresol (CAS 108-39-4) Listed. p-Cresol (CAS 106-44-5) Listed.
CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)	m-Cresol: 100 p-Cresol: 100 Formaldehyde: 100

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance (40 CFR 355, Appendix A)	No
Section 311/312 (40 CFR 370)	Yes
Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)	Not controlled
Canadian regulations	This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
WHMIS status	Controlled
WHMIS classification	B3 - Combustible Liquids D1A - Immediate/Serious-VERY TOXIC D2A - Other Toxic Effects-VERY TOXIC D2B - Other Toxic Effects-TOXIC E - Corrosive

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations

US - California Hazardous Substances (Director's): Listed substance

Aluminum oxide (CAS 1344-28-1)	Listed.
Carbon fiber (CAS 7440-44-0)	Listed.
Ethanol (CAS 64-17-5)	Listed.
Formaldehyde (CAS 50-00-0)	Listed.
Graphite (CAS 7782-42-5)	Listed.
m-Cresol (CAS 108-39-4)	Listed.
p-Cresol (CAS 106-44-5)	Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Formaldehyde (CAS 50-00-0)	Listed.
Methanol (CAS 67-56-1)	Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (CAS 50-00-0)	Listed: January 1, 1988 Carcinogenic.
----------------------------	---------------------------------------

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Methanol (CAS 67-56-1)	Listed: March 16, 2012 Developmental toxin.
------------------------	---

US - New Jersey RTK - Substances: Listed substance

Aluminum oxide (CAS 1344-28-1)	Listed.
Carbon fiber (CAS 7440-44-0)	Listed.
Ethanol (CAS 64-17-5)	Listed.
Formaldehyde (CAS 50-00-0)	Listed.
Graphite (CAS 7782-42-5)	Listed.
m-Cresol (CAS 108-39-4)	Listed.
p-Cresol (CAS 106-44-5)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Special hazard

Formaldehyde (CAS 50-00-0)	Special hazard.
----------------------------	-----------------

US. Massachusetts RTK - Substance List

Aluminum oxide (CAS 1344-28-1)	Listed.
Ethanol (CAS 64-17-5)	Listed.
Formaldehyde (CAS 50-00-0)	Listed.
Graphite (CAS 7782-42-5)	Listed.
m-Cresol (CAS 108-39-4)	Listed.
p-Cresol (CAS 106-44-5)	Listed.

US. New Jersey Worker and Community Right-to-Know Act

Aluminum oxide (CAS 1344-28-1)	500 lbs
Formaldehyde (CAS 50-00-0)	500 lbs
m-Cresol (CAS 108-39-4)	500 lbs
p-Cresol (CAS 106-44-5)	500 lbs

US. Pennsylvania RTK - Hazardous Substances

Aluminum oxide (CAS 1344-28-1)	Listed.
Ethanol (CAS 64-17-5)	Listed.
Formaldehyde (CAS 50-00-0)	Listed.
Graphite (CAS 7782-42-5)	Listed.
m-Cresol (CAS 108-39-4)	Listed.
p-Cresol (CAS 106-44-5)	Listed.

16. Other Information**Further information**

HMIS® is a registered trade and service mark of the NPCA.
I - Safety Glasses, Gloves, Dust, Vapor Respirator

HMIS® ratings

Health: 4*
Flammability: 2
Physical hazard: 0
Personal protection: J

NFPA ratings

Health: 4
Flammability: 2
Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.