

# SAFETY DATA SHEET

## 1. Identification

**Material name:** TREMSTOP IA+ RUST RED-30 CTG CS  
**Material:** 917860 323

### Recommended use and restriction on use

**Recommended use:** Sealant  
**Restrictions on use:** Not known.

### Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S Sealants  
3735 Green Road  
Cleveland OH 44122  
US

**Contact person:** EH&S Department  
**Telephone:** 216-292-5000  
**Emergency telephone number:** 1-800-424-9300 (US); 1-613-996-6666 (Canada)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Skin sensitizer	Category 1
Carcinogenicity	Category 1A

#### Unknown toxicity - Health

Acute toxicity, oral	41.49 %
Acute toxicity, dermal	59.2 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	99.89 %

#### Environmental Hazards

Acute hazards to the aquatic environment	Category 3
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#### Unknown toxicity - Environment

Acute hazards to the aquatic environment	85.21 %
Chronic hazards to the aquatic environment	100 %

### Label Elements

**Hazard Symbol:**



- Signal Word:** Danger
- Hazard Statement:** Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
May cause cancer.  
Harmful to aquatic life.
- Precautionary Statement:**
- Prevention:** Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
- 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 water. If skin irritation or rash occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Specific treatment (see this label). Wash contaminated clothing before reuse.
- Storage:** Store locked up.
- Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification:** None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Zinc borate	1332-07-6	10 - 30%
Graphite intercallation	7782-42-5	7 - 13%
Calcium Carbonate (Limestone)	1317-65-3	5 - 10%
Fibrous Glass	65997-17-3	5 - 10%
Propylene glycol	57-55-6	1 - 5%
Iron oxide	1309-37-1	1 - 5%
Sulfuric acid	7664-93-9	1 - 5%
Nitric acid	7697-37-2	0.5 - 1.5%
Crystalline Silica (Quartz)/	14808-60-7	0.1 - 1%

Silica Sand		
Ammonium hydroxide	1336-21-6	0.1 - 1%
Chlorothalonil	1897-45-6	0.1 - 1%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

- Ingestion:** Call a POISON CENTER/doctor/...if you feel unwell. Rinse mouth.
- Inhalation:** Move to fresh air.
- Skin Contact:** Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

### Most important symptoms/effects, acute and delayed

- Symptoms:** Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

### Indication of immediate medical attention and special treatment needed

- Treatment:** Symptoms may be delayed.

## 5. Fire-fighting measures

- General Fire Hazards:** No unusual fire or explosion hazards noted.

### Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.
- Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters

- Special fire fighting procedures:** No data available.
- Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures:</b>	See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
<b>Methods and material for containment and cleaning up:</b>	Collect spillage in containers, seal securely and deliver for disposal according to local regulations.
<b>Notification Procedures:</b>	In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.
<b>Environmental Precautions:</b>	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

<b>7. Handling and storage</b>
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<b>Precautions for safe handling:</b>	Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with skin. Avoid contact with eyes, skin, and clothing. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust.
<b>Conditions for safe storage, including any incompatibilities:</b>	Store locked up.

<b>8. Exposure controls/personal protection</b>
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**Control Parameters**  
**Occupational Exposure Limits**

Chemical Identity	type	Exposure Limit Values	Source
Graphite intercalation - Respirable fraction.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
Graphite intercalation - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Graphite intercalation - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Graphite intercalation	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Calcium Carbonate (Limestone) - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium Carbonate (Limestone) - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Fibrous Glass - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Fibrous Glass - Fiber.	TWA	1	US. ACGIH Threshold Limit Values

		fibers/cm <sup>3</sup>	(03 2014)
	TWA	1 fibers/cm <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2014)
	TWA	1 fibers/cm <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2014)
	TWA	1 fibers/cm <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2014)
	TWA	1 fibers/cm <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2014)
	TWA	0.2 fibers/cm <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2014)
Iron oxide - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Iron oxide - Fume.	PEL	10 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Sulfuric acid - Thoracic fraction.	TWA	0.2 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Sulfuric acid	PEL	1 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Nitric acid	TWA	2 ppm	US. ACGIH Threshold Limit Values (2011)
	STEL	4 ppm	US. ACGIH Threshold Limit Values (2011)
	PEL	2 ppm 5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Crystalline Silica (Quartz)/ Silica Sand - Respirable.	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Crystalline Silica (Quartz)/ Silica Sand - Total dust.	TWA	0.3 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Ammonium hydroxide	STEL	35 ppm	US. ACGIH Threshold Limit Values (2011)
	TWA	25 ppm	US. ACGIH Threshold Limit Values (2011)
	PEL	50 ppm 35 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Chemical name	type	Exposure Limit Values	Source
Graphite intercalation - Respirable.	TWA	2 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Graphite intercalation - Respirable fraction.	TWAEV	2 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Graphite intercalation - Respirable dust.	TWA	2 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium Carbonate (Limestone) - Total dust.	STEL	20 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Respirable fraction.	TWA	3 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Fibrous Glass - Fiber.	TWA	0.2 fibers/cm <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	1 fibers/cm <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)

Fibrous Glass - Inhalable fibers.	TWA	5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Fibrous Glass - Inhalable	TWAEV	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Fibrous Glass - Respirable fibers.	TWAEV	1 fibers/mL	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Fibrous Glass - Fiber.	TWAEV	0.2 fibers/mL	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Fibrous Glass - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Fibrous Glass - Fiber.	TWA	1 fibres/cm3 (non-asbestos fibres) -- size restrictions apply	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	TWA	2 fibres/cm3 (non-asbestos fibres) -- size restrictions apply	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Propylene glycol - Aerosol.	TWAEV	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Propylene glycol - Vapor and aerosol, inhalable fraction.	TWAEV	50 ppm 155 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Iron oxide - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Dust. - as Fe	TWA	5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Fume. - as Fe	STEL	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Fume. - as Fe	TWA	5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Respirable fraction.	TWAEV	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Iron oxide - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Iron oxide - Dust and fume. - as Fe	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Sulfuric acid - Mist.	TWA	0.2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Sulfuric acid - Thoracic fraction.	TWAEV	0.2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Sulfuric acid	TWA	1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	STEL	3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the



			Quality of the Work Environment) (12 2008)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable.	TWAEV	0.10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

**Appropriate Engineering Controls**

Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

**Individual protection measures, such as personal protective equipment**

**General information:** Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

**Skin Protection**

**Hand Protection:** Use suitable protective gloves if risk of skin contact.

**Other:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

**Hygiene measures:** Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. Wash contaminated clothing before reuse. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace.

**9. Physical and chemical properties**

**Appearance**

**Physical state:** solid  
**Form:** Paste  
**Color:** Dark red  
**Odor:** Mild  
**Odor threshold:** No data available.  
**pH:** No data available.

<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	No data available.
<b>Evaporation rate:</b>	Slower than Ether
<b>Flammability (solid, gas):</b>	No
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
<b>Relative density:</b>	1.38
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Miscible with water.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	No data available.
<b>Conditions to Avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.
<b>Inhalation:</b>	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye irritation.

**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)****Oral****Product:** ATEmix: 10,943.07 mg/kg**Dermal****Product:** ATEmix: 11,067.35 mg/kg**Inhalation****Product:** No data available.**Repeated dose toxicity****Product:** No data available.**Skin Corrosion/Irritation****Product:** No data available.**Serious Eye Damage/Eye Irritation****Product:** No data available.**Specified substance(s):**

Zinc borate	Irritating
Graphite intercalation	in vivo (Rabbit, 24 - 72 hrs): Category 2
Propylene glycol	(Human): Irritating
Iron oxide	in vivo (Rabbit, 1 - 72 hrs): Not irritating
Nitric acid	Corrosive
Ammonium hydroxide	Severely Irritating

**Respiratory or Skin Sensitization****Product:** No data available.**Carcinogenicity****Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Fibrous Glass	Overall evaluation: Not classifiable as to carcinogenicity to humans. Overall evaluation: Not classifiable as to carcinogenicity to humans. Overall evaluation: Possibly carcinogenic to humans. Overall evaluation: Possibly carcinogenic to humans.
Sulfuric acid	Overall evaluation: Carcinogenic to humans.
Crystalline Silica (Quartz)/ Silica Sand	Overall evaluation: Carcinogenic to humans.
Chlorothalonil	Overall evaluation: Possibly carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

Fibrous Glass	Reasonably Anticipated to be a Human Carcinogen. Reasonably Anticipated to be a Human Carcinogen.
Sulfuric acid	Known To Be Human Carcinogen.
Crystalline Silica (Quartz)/ Silica Sand	Known To Be Human Carcinogen.

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

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**  
**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**  
**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**  
**Product:** No data available.

**Aspiration Hazard**  
**Product:** No data available.

**Other effects:** No data available.

<b>12. Ecological information</b>
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**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

<b>Product:</b>	No data available.
<b>Specified substance(s):</b>	
Propylene glycol	LC 50 (Fathead minnow ( <i>Pimephales promelas</i> ), 96 h): 55,770 mg/l Mortality
Sulfuric acid	LC 50 (Western mosquitofish ( <i>Gambusia affinis</i> ), 96 h): 42 mg/l Mortality
Nitric acid	LC 50 (Starfish ( <i>Asterias rubens</i> ), 48 h): 100 - 330 mg/l Mortality
Ammonium hydroxide	LC 50 (Western mosquitofish ( <i>Gambusia affinis</i> ), 96 h): 15 mg/l Mortality
Chlorothalonil	LC 50 (Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> ), 96 h): 0.018 mg/l Mortality

**Aquatic Invertebrates**

<b>Product:</b>	No data available.
<b>Specified substance(s):</b>	
Propylene glycol	EC 50 (Water flea ( <i>Daphnia magna</i> ), 48 h): > 10,000 mg/l Intoxication EC 50 (Water flea ( <i>Daphnia magna</i> ), 24 h): > 10,000 mg/l Intoxication LC 50 (Brine shrimp ( <i>Artemia salina</i> ), 24 h): > 10,000 mg/l Mortality
Sulfuric acid	LC 50 (Common shrimp, sand shrimp ( <i>Crangon crangon</i> ), 48 h): 70 - 80 mg/l Mortality
Nitric acid	LC 50 (Green or European shore crab ( <i>Carcinus maenas</i> ), 48 h): 180 mg/l Mortality
Ammonium hydroxide	LC 50 (Water flea ( <i>Daphnia magna</i> ), 25 h): 60 mg/l Mortality LC 50 (Water flea ( <i>Ceriodaphnia dubia</i> ), 48 h): > 0 - 10 mg/l Mortality
Chlorothalonil	LC 50 (Water flea ( <i>Daphnia magna</i> ), 48 h): 0.151 - 0.253 mg/l Mortality LC 50 (Water flea ( <i>Moina macrocopa</i> ), 3 h): > 10 mg/l Mortality LC 50 (Amphipod ( <i>Neoniphargus</i> ), 7 d): > 0.04 mg/l Mortality LC 50 (Amphipod ( <i>Neoniphargus</i> ), 4 d): > 0.04 mg/l Mortality LC 50 (Isopod ( <i>Colubotelson chiltoni minor</i> ), 4 d): > 0.04 mg/l Mortality

**Chronic hazards to the aquatic environment:**

**Fish**

<b>Product:</b>	No data available.
<b>Specified substance(s):</b>	
Graphite intercalation	NOAEL (Danio rerio, 72 h): 120 - 360 mg/l experimental result
Propylene glycol	NOAEL ( <i>Pimephales promelas</i> , 7 d): 11,530 mg/l experimental result
Iron oxide	LOAEL ( <i>Pimephales promelas</i> , 33 d): 1.6 mg/l experimental result

Sulfuric acid NOAEL (Jordanelia floridae, 65 d): 0.025 mg/l experimental result

Nitric acid NOAEL (Amphiprion ocellaris): 97.8 mg/l interpreted

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability****Biodegradation**

**Product:** No data available.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative Potential****Bioconcentration Factor (BCF)**

**Product:** No data available.

**Specified substance(s):**

Chlorothalonil Algae, algal mat (Algae), Bioconcentration Factor (BCF): 271 (Static)

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Specified substance(s):**

Propylene glycol Log Kow: -0.92

**Mobility in Soil:** No data available.

**Other Adverse Effects:** Harmful to aquatic organisms.

**13. Disposal considerations**

**Disposal instructions:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Contaminated Packaging:** No data available.

**14. Transport information****TDG:**

Not Regulated

**CFR / DOT:**

Not Regulated

**IMDG:**

Not Regulated

## 15. Regulatory information

### US Federal Regulations

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

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

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Acrylonitrile	Liver Central nervous system Flammability Eye irritation Skin irritation Skin sensitization Respiratory irritation Cancer Acute toxicity

#### CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Zinc borate	1000 lbs.
Sulfuric acid	1000 lbs.
Nitric acid	1000 lbs.
Ammonium hydroxide	1000 lbs.
Acrylamide	5000 lbs.
Methanol	5000 lbs.
Acrylonitrile	100 lbs.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### Hazard categories

Immediate (Acute) Health Hazards

Delayed (Chronic) Health Hazard

##### SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Sulfuric acid	1000 lbs.	1000 lbs.
Nitric acid	1000 lbs.	1000 lbs.
Acrylamide	5000 lbs.	- - -
Acrylonitrile	100 lbs.	10000 lbs.

**SARA 304 Emergency Release Notification**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Zinc borate	1000 lbs.
Sulfuric acid	1000 lbs.
Nitric acid	1000 lbs.
Ammonium hydroxide	1000 lbs.
Acrylamide	5000 lbs.
Methanol	5000 lbs.
Acrylonitrile	100 lbs.

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Sulfuric acid	500lbs
Nitric acid	500lbs
Acrylamide	500lbs
Acrylonitrile	500lbs
Zinc borate	500 lbs
Graphite intercalation	500 lbs
Calcium Carbonate (Limestone)	500 lbs
Fibrous Glass	500 lbs
Propylene glycol	500 lbs
Iron oxide	500 lbs
Crystalline Silica (Quartz)/ Silica Sand	500 lbs
Ammonium hydroxide	500 lbs
Chlorothalonil	500 lbs

**SARA 313 (TRI Reporting)**

<u>Chemical Identity</u>
Zinc borate
Sulfuric acid
Chlorothalonil

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Sulfuric acid	10000 lbs
Nitric acid	15000 lbs
Acrylonitrile	20000 lbs

**US State Regulations****US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.



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

### Chemical Identity

Zinc borate  
Graphite intercalation  
Calcium Carbonate (Limestone)  
Fibrous Glass  
Propylene glycol  
Iron oxide  
Sulfuric acid

## US. Massachusetts RTK - Substance List

### Chemical Identity

Zinc borate  
Graphite intercalation  
Calcium Carbonate (Limestone)  
Fibrous Glass  
Iron oxide  
Sulfuric acid  
Nitric acid  
Crystalline Silica (Quartz)/ Silica Sand  
Chlorothalonil  
Acrylamide  
Acrylonitrile

## US. Pennsylvania RTK - Hazardous Substances

### Chemical Identity

Zinc borate  
Graphite intercalation  
Calcium Carbonate (Limestone)  
Fibrous Glass  
Propylene glycol  
Iron oxide  
Sulfuric acid

## US. Rhode Island RTK

### Chemical Identity

Zinc borate  
Sulfuric acid

## Other Regulations:

<b>Regulatory VOC (less water and exempt solvent):</b>	26 g/l
<b>VOC Method 310:</b>	1.26 %

## Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	One or more components in this product are not listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.

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Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

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

<b>Revision Date:</b>	07/31/2015
<b>Version #:</b>	1.0
<b>Further Information:</b>	No data available.
<b>Disclaimer:</b>	For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.