



# Safety Data Sheet

Issue Date: 21-May-2013

Revision Date: 02-Jun-2021

Version 2

## 1. IDENTIFICATION

### Product identifier

**Product Name** PC CONCRETE EPOXY, PART A

### Other means of identification

**SDS #** 130521-37B

### Recommended use of the chemical and restrictions on use

**Recommended Use** Adhesives.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Protective Coatings Co.  
221 S Third St.  
Allentown, PA 18102 USA

### Emergency telephone number

**Company Phone Number** 610-432-3543 / 800-220-2103  
**Emergency Telephone** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Physical state** Solid

**Odor** Slight

### Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Reproductive toxicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 1

### Signal Word

**Danger**

### Hazard statements

Causes skin irritation  
Causes serious eye damage  
May cause an allergic skin reaction  
May cause cancer  
May damage fertility or the unborn child  
Causes damage to organs through prolonged or repeated exposure

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Contaminated work clothing must not be allowed out of the workplace  
 Wear protective gloves  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Do not eat, drink or smoke when using this product

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a poison center or doctor/physician  
 IF ON SKIN: Wash with plenty of water and soap  
 Take off contaminated clothing and wash before reuse  
 If skin irritation or rash occurs: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards**

Toxic to aquatic life with long lasting effects

**Unknown Acute Toxicity**

Note: Acute Toxicity classifications / calculations are approximates, due to proprietary ingredient percentages

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Diglycidyl Ether of Bisphenol A	25085-99-8	30-60
Silica, Quartz	14808-60-7	>25-<50
Silica, cristobalite	14464-46-1	>10-<25
Titanium(IV) Oxide	13463-67-7	<5
Ethylene glycol	107-21-1	<5

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

\* Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). (Titanium Dioxide and Quartz Silica Sand (Crystalline Silica) ) Inhalation of particulates unlikely due to product's physical state.

## 4. FIRST AID MEASURES

### Description of first aid measures

<b>General Advice</b>	Provide this SDS to medical personnel for treatment. After first aid, get appropriate in-plant, paramedic, or community medical support.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediate medical attention is required.
<b>Skin Contact</b>	Wash with soap and water. Remove and wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Remove stomach contents by medical personnel only. Immediate medical attention is required.

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

<b>Symptoms</b>	Causes skin irritation and serious eye damage. Direct contact may cause temporary redness and discomfort. May cause respiratory irritation. Ingestion may cause nausea, vomiting, dizziness, and headache, May cause an allergic skin reaction.
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### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Skin and eye conditions may be aggravated by long term exposure. Medical Conditions Aggravated by Long-Term Exposure: skin disorders and allergies and eye conditions.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Carbon dioxide (CO<sub>2</sub>), Dry chemical, Alcohol foam.

**Unsuitable Extinguishing Media** Not determined.

### Specific Hazards Arising from the Chemical

May generate toxic or irritating combustion products. May generate carbon monoxide gas.

**Hazardous combustion products** Carbon monoxide. Carbon dioxide (CO<sub>2</sub>), Metal oxides. Halogenated compounds.

### Protective equipment and precautions for firefighters

Keep containers cool with water spray. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Do not release runoff from fire control methods to sewers or waterways.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal Precautions</b>	Wear protective gloves/protective clothing and eye/face protection. Remove any contaminated clothing and wash thoroughly before reuse.
<b>For Emergency Responders</b>	Follow applicable OSHA regulations (29 CFR 1910.120).

**Environmental precautions**

**Environmental precautions** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so. For large spills, dike far ahead of liquid spill for later disposal.

**Methods for Clean-Up** Collect and place in suitable, properly labeled container for recovery or disposal. Dispose of contents/container to an approved waste disposal plant. For waste disposal, see section 13 of the SDS.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on Safe Handling** Obtain special instructions before use. Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Do not remove labels from empty containers. Do not breathe dust/fume/gas/mist/vapors/spray.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

**Incompatible Materials** Strong oxidizing agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Silica, Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/( %SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/( %SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Silica, cristobalite 14464-46-1	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.05 mg/m <sup>3</sup> respirable dust : (1/2)(250)/( %SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (1/2)(10)/( %SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 25 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Ethylene glycol 107-21-1	STEL: 50 ppm vapor fraction STEL: 10 mg/m <sup>3</sup> inhalable particulate matter, aerosol only TWA: 25 ppm vapor fraction	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m <sup>3</sup>	-
Titanium(IV) Oxide 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> total dust	IDLH: 5000 mg/m <sup>3</sup> TWA: 2.4 mg/m <sup>3</sup> CIB 63 fine TWA: 0.3 mg/m <sup>3</sup> CIB 63 ultrafine, including engineered nanoscale

*NIOSH IDLH Immediately Dangerous to Life or Health*

**Other Information** If product is sanded, appropriate respirator should be worn to avoid breathing dust. Pre-

existing respiratory disorders may be aggravated by exposure. If sanded, this material may generate silica / titanium dust. Inhaled silica / titanium has been classified by IARC as a human carcinogen (see section 11).

### **Appropriate engineering controls**

#### **Engineering Controls**

Provide general or local exhaust ventilation systems if possible. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

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

#### **Eye/Face Protection**

Chemical safety goggles/faceshield. Refer to 29 CFR 1910.133 for eye and face protection regulations.

#### **Skin and Body Protection**

Wear chemically protective gloves to prevent skin contact. Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Refer to 29 CFR 1910.138 for appropriate skin and body protection. Reference Wiley's "Quick Selection Guide to Chemical Protective Clothing".

#### **Respiratory Protection**

Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure limits are exceeded. Refer to 29 CFR 1910.134 for respiratory protection requirements.

#### **General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice. Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **Information on basic physical and chemical properties**

<b>Physical state</b>	Solid	<b>Odor</b>	Slight
<b>Appearance</b>	Not determined	<b>Odor Threshold</b>	Not determined
<b>Color</b>	White		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>	
<b>pH</b>	> / = 2.0 - < / = 12.0		
<b>Melting point / freezing point</b>	Not determined		
<b>Boiling point / boiling range</b>	Not determined		
<b>Flash point</b>	Not determined		
<b>Evaporation Rate</b>	Not determined		
<b>Flammability (Solid, Gas)</b>	Not determined		
<b>Flammability Limit in Air</b>			
<b>Upper flammability or explosive limits</b>	Not available		
<b>Lower flammability or explosive limits</b>	Not available		
<b>Vapor Pressure</b>	Not determined		
<b>Vapor Density</b>	Not determined		
<b>Relative Density</b>	1.4		@ 60°F (ASTM D 1298)
<b>Water Solubility</b>	Insoluble in water		
<b>Solubility in other solvents</b>	Not determined		
<b>Partition Coefficient</b>	Not determined		
<b>Autoignition temperature</b>	Not determined		
<b>Decomposition temperature</b>	Not determined		
<b>Kinematic viscosity</b>	Not determined		
<b>Dynamic Viscosity</b>	Not determined		
<b>Explosive Properties</b>	Not determined		
<b>Oxidizing Properties</b>	Not determined		

## **10. STABILITY AND REACTIVITY**

**Reactivity**

Not reactive under normal conditions.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid**

Keep out of reach of children.

**Incompatible materials**

Strong oxidizing agents.

**Hazardous decomposition products**

Thermal oxidative decomposition can produce CO, CO<sub>2</sub> in a fire.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

**Eye Contact** Causes serious eye damage.

**Skin Contact** Causes skin irritation. May cause an allergic skin reaction.

**Inhalation** May cause irritation of respiratory tract.

**Ingestion** May cause nausea, vomiting, stomach ache, and diarrhea.

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene glycol 107-21-1	= 4700 mg/kg ( Rat )	= 10600 mg/kg ( Rat )	-
Titanium(IV) Oxide 13463-67-7	> 10000 mg/kg ( Rat )	-	-

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Please see section 4 of this SDS for symptoms.

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

**Sensitization** May cause an allergic skin reaction.

**Carcinogenicity** May cause cancer. Silica (quartz) is a possible carcinogen when it appears as a respirable dust. Titanium dioxide is a possible carcinogen when it appears as a respirable dust.

Chemical name	ACGIH	IARC	NTP	OSHA
Silica, Quartz 14808-60-7	A2	Group 1	Known	X
Silica, cristobalite	A2	Group 1	Known	X

14464-46-1			
Titanium(IV) Oxide 13463-67-7		Group 2B	X

**Legend**

- ACGIH (American Conference of Governmental Industrial Hygienists)
- A2 - Suspected Human Carcinogen
- IARC (International Agency for Research on Cancer)
- Group 1 - Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans
- NTP (National Toxicology Program)
- Known - Known Carcinogen
- OSHA (Occupational Safety and Health Administration of the US Department of Labor)
- X - Present

- Reproductive toxicity**                      May damage fertility or the unborn child.
- STOT - repeated exposure**              May cause damage to organs through prolonged or repeated exposure.

**Numerical measures of toxicity**

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

- Unknown Acute Toxicity**                      Note: Acute Toxicity classifications / calculations are approximates, due to proprietary ingredient percentages.
- Oral LD50**    9,524.30 mg/kg
- ATEmix (inhalation-dust/mist)**              30.00 mg/L

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

**Component Information**

Chemical name	Algae/aquatic plants	Fish	Crustacea
aliphatic triglycidyl ether 30499-70-8		75: 96 h Cyprinus carpio mg/L LC50 static	
Ethylene glycol 107-21-1	6500 - 13000: 96 h Pseudokirchneriella subcapitata mg/L EC50	14 - 18: 96 h Oncorhynchus mykiss m/L LC50 static 40000 - 60000: 96 h Pimephales promelas mg/L LC50 static 16000: 96 h Poecilia reticulata mg/L LC50 static 27540: 96 h Lepomis macrochirus mg/L LC50 static 40761: 96 h Oncorhynchus mykiss mg/L LC50 static 41000: 96 h Oncorhynchus mykiss mg/L LC50	46300: 48 h Daphnia magna mg/L EC50

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

There is no data for this product.

**Mobility**

Chemical name	Partition coefficient
Ethylene glycol 107-21-1	-1.93

**13. DISPOSAL CONSIDERATIONS**

**Waste Treatment Methods**

- Disposal of Wastes**                      Contact your supplier or a licensed contractor for detailed recommendations. Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Contaminated Packaging**              Disposal should be in accordance with applicable regional, national and local laws and regulations.

**14. TRANSPORT INFORMATION**

**Note**    Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**    Not regulated

**IATA**

- UN number**                                      UN3077
- Proper Shipping Name**                      Environmentally hazardous substance, solid, n.o.s (Oxirane,[(2-methylphenoxy)methyl]-)
- Transport hazard class(es)**                      9
- Packing Group**                                      III

**IMDG**

- UN number**                                      UN3077
- Proper Shipping Name**                      Environmentally hazardous substance, solid, n.o.s (Oxirane,[(2-methylphenoxy)methyl]-)
- Transport hazard class(es)**                      9
- Packing Group**                                      III
- Marine Pollutant**                                      Yes

**15. REGULATORY INFORMATION**

**International Inventories**

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Diglycidyl Ether of Bisphenol A	X	ACTIVE	X			X	X	X	X
Silica, Quartz	X	ACTIVE	X	X	X	X	X	X	X
Silica, cristobalite	X	ACTIVE	X	X	X	X	X	X	X
aliphatic triglycidyl ether	X	ACTIVE	X		X	X	X	X	X
Ethylene glycol	X	ACTIVE	X	X	X	X	X	X	X
Titanium(IV) Oxide	X	ACTIVE	X	X	X	X	X	X	X

- Legend:**
- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
  - DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
  - EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
  - ENCS** - Japan Existing and New Chemical Substances
  - IECSC** - China Inventory of Existing Chemical Substances
  - KECL** - Korean Existing and Evaluated Chemical Substances
  - PICCS** - Philippines Inventory of Chemicals and Chemical Substances
  - AICS** - Australian Inventory of Chemical Substances



**US Federal Regulations****CERCLA**

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylene glycol 107-21-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

**SARA 313**

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

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ethylene glycol - 107-21-1	107-21-1	<5	1.0

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Silica, Quartz - 14808-60-7	Carcinogen
Silica, cristobalite - 14464-46-1	Carcinogen
Ethylene glycol - 107-21-1	Developmental
Titanium(IV) Oxide - 13463-67-7	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Silica, Quartz 14808-60-7	X	X	X
Silica, cristobalite 14464-46-1	X	X	X
Ethylene glycol 107-21-1	X	X	X
Titanium(IV) Oxide 13463-67-7	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	3	1	0	Not determined
<b>HMIS</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical hazards</b>	<b>Personal Protection</b>
	3*	1	0	B- Safety Glasses, Gloves

**Chronic Hazard Star Legend**

\* = Chronic Health Hazard

**Issue Date:** 21-May-2013

**Revision Date:** 02-Jun-2021

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



# Safety Data Sheet

Issue Date: 21-May-2013

Revision Date: 02-Jun-2021

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** PC CONCRETE EPOXY, PART B

### Other means of identification

**SDS #** 130521-38B

**UN/ID No** UN3267

### Recommended use of the chemical and restrictions on use

**Recommended Use** Adhesives.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Protective Coatings Co.  
221 S Third St.  
Allentown, PA 18102 USA

### Emergency telephone number

**Company Phone Number** 610-432-3543 / 800-220-2103  
**Emergency Telephone** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Black paste

**Physical state** Paste

**Odor** Slight

### Classification

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Reproductive toxicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 1

### Signal Word

**Danger**

### Hazard statements

Causes severe skin burns and eye damage  
May cause an allergic skin reaction  
May cause cancer  
May damage fertility or the unborn child  
Causes damage to organs through prolonged or repeated exposure

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Contaminated work clothing must not be allowed out of the workplace  
 Wear protective gloves  
 Do not eat, drink or smoke when using this product

**Precautionary Statements - Response**

Immediately call a poison center or doctor/physician  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a poison center or doctor/physician  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a poison center or doctor/physician  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards**

Very toxic to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Silica, Quartz	14808-60-7	>25-<50
Silica, cristobalite	14464-46-1	>10-<25
Nonyl phenol	84852-15-3	>10-<25
1-(2-Aminoethyl) piperazine	140-31-8	>10-<25
2,4,6-tri(dimethylaminomethyl)phenol	90-72-2	<7
Polyoxypropylenediamine	9046-10-0	1-6
Proprietary ingredients 1, 2, & 3	Proprietary	>0.3-<5
Benzyl alcohol	100-51-6	<5
BIS(DIMETHYLAMINOMETHYL)PHENOL	71074-89-0	>1-<3
N-(2-Aminoethyl)ethanolamine	111-41-1	>0.3-<1

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

\* Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
 (Quartz Silica Sand (Crystalline Silica)) Inhalation of particulates unlikely due to product's physical state.

## 4. FIRST AID MEASURES

### Description of first aid measures

<b>Eye Contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.
<b>Skin Contact</b>	Wash with soap and water. Remove and wash contaminated clothing before reuse. Call a poison center or doctor/physician if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

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

<b>Symptoms</b>	Causes severe skin burns and eye damage. Ingestion may cause severe burns to mouth, throat or stomach. May cause an allergic skin reaction.
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### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Skin and eye conditions may be aggravated by long term exposure.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Dry chemical, CO2 or water spray.

**Unsuitable Extinguishing Media** Not determined.

### Specific Hazards Arising from the Chemical

Not determined.

**Hazardous combustion products** Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). Metal oxides.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Do not release runoff from fire control methods to sewers or waterways.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal Precautions</b>	Wear protective gloves/protective clothing and eye/face protection. Remove any contaminated clothing and wash thoroughly before reuse.
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### Environmental precautions

<b>Environmental precautions</b>	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
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### Methods and material for containment and cleaning up

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Clean-Up</b>	Dispose of contents/container to an approved waste disposal plant.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Advice on Safe Handling**

Handle in accordance with good industrial hygiene and safety practice. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wear appropriate personal protective equipment. Wash face, hands and any exposed skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Use personal protection recommended in Section 8.

### Conditions for safe storage, including any incompatibilities

#### **Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

#### **Incompatible Materials**

Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Silica, Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/( %SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/( %SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Silica, cristobalite 14464-46-1	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.05 mg/m <sup>3</sup> respirable dust : (1/2)(250)/( %SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (1/2)(10)/( %SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 25 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
N-(2-Aminoethyl)ethanolamine 111-41-1	-	(vacated) TWA: 0.1 mg/m <sup>3</sup> Formaldehyde	TWA: 0.1 mg/m <sup>3</sup> Formaldehyde

*NIOSH IDLH Immediately Dangerous to Life or Health*

#### **Other Information**

If product is sanded, appropriate respirator should be worn to avoid breathing dust. Pre-existing respiratory disorders may be aggravated by exposure. If sanded, this material may generate silica dust. Inhaled silica has been classified by IARC as a human carcinogen (see section 11).

### Appropriate engineering controls

#### **Engineering Controls**

Provide general or local exhaust ventilation if product is sanded or ground.

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

#### **Eye/Face Protection**

Wear protective eyeglasses or chemical safety goggles. Refer to 29 CFR 1910.133 for eye and face protection regulations.

#### **Skin and Body Protection**

Wear protective gloves and protective clothing. Reference Wiley's "Quick Selection Guide to Chemical Protective Clothing". Refer to 29 CFR 1910.138 for appropriate skin and body protection.

**Respiratory Protection** Ensure adequate ventilation, especially in confined areas. If engineering controls do not maintain airborne concentrations below recommended exposure limits, a NIOSH/MSHA approved respirator must be worn.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product. Wash contaminated clothing before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Paste	<b>Odor</b>	Slight
<b>Appearance</b>	Black paste	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Black		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>	
<b>pH</b>	Not determined		
<b>Melting point / freezing point</b>	Not determined		
<b>Boiling point / boiling range</b>	Not determined		
<b>Flash point</b>	Not determined		
<b>Evaporation Rate</b>	Not determined		
<b>Flammability (Solid, Gas)</b>	Not determined		
<b>Flammability Limit in Air</b>			
<b>Upper flammability or explosive limits</b>	Not determined		
<b>Lower flammability or explosive limits</b>	Not determined		
<b>Vapor Pressure</b>	Not determined		
<b>Vapor Density</b>	Not determined		
<b>Relative Density</b>	Not determined		
<b>Water Solubility</b>	Insoluble in water		
<b>Solubility in other solvents</b>	Not determined		
<b>Partition Coefficient</b>	Not determined		
<b>Autoignition temperature</b>	Not determined		
<b>Decomposition temperature</b>	Not determined		
<b>Kinematic viscosity</b>	Not determined		
<b>Dynamic Viscosity</b>	Not determined		
<b>Explosive Properties</b>	Not determined		
<b>Oxidizing Properties</b>	Not determined		

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

### Conditions to Avoid

Keep out of reach of children.

### Incompatible materials

Strong oxidizing agents.

**Hazardous decomposition products**

None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information**

<b>Eye Contact</b>	Causes severe eye damage.
<b>Skin Contact</b>	Causes severe skin burns. May cause an allergic skin reaction.
<b>Inhalation</b>	May cause irritation if inhaled.
<b>Ingestion</b>	Ingestion may cause irritation to mucous membranes.

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1-(2-Aminoethyl) piperazine 140-31-8	= 2140 µL/kg ( Rat )	= 866 mg/kg ( Rabbit )	-
Nonyl phenol 84852-15-3	= 1300 mg/kg ( Rat )	= 2000 mg/kg ( Rabbit )	-
2,4,6-tri(dimethylaminomethyl)phenol 90-72-2	= 1200 mg/kg ( Rat )	= 1280 mg/kg ( Rat )	-
Polyoxypropylenediamine 9046-10-0	= 1100 mg/kg ( Rat )	= 1555 mg/kg ( Rabbit )	-
Benzyl alcohol 100-51-6	= 1230 mg/kg ( Rat )	= 2 g/kg ( Rabbit )	= 8.8 mg/L ( Rat ) 4 h
N-(2-Aminoethyl)ethanolamine 111-41-1	= 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Please see section 4 of this SDS for symptoms.

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

**Sensitization** May cause an allergic skin reaction.

**Carcinogenicity** May cause cancer. Silica (quartz) is a possible carcinogen when it appears as a respirable dust.

Chemical name	ACGIH	IARC	NTP	OSHA
Silica, Quartz 14808-60-7	A2	Group 1	Known	X
Silica, cristobalite 14464-46-1	A2	Group 1	Known	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure.

### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document Not determined.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Very toxic to aquatic life with long lasting effects.

### Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
1-(2-Aminoethyl) piperazine 140-31-8	495: 72 h Pseudokirchneriella subcapitata mg/L EC50	1950 - 2460: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Poecilia reticulata mg/L LC50 semi-static 100: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	32: 48 h Daphnia magna mg/L EC50
Nonyl phenol 84852-15-3	0.16 - 0.72: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.36 - 0.48: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 1.3: 72 h Desmodesmus subspicatus mg/L EC50	0.135: 96 h Pimephales promelas mg/L LC50 flow-through 0.1351: 96 h Lepomis macrochirus mg/L LC50 flow-through	0.14: 48 h Daphnia magna mg/L EC50
Benzyl alcohol 100-51-6		10: 96 h Lepomis macrochirus mg/L LC50 static 460: 96 h Pimephales promelas mg/L LC50 static	23: 48 h water flea mg/L EC50
N-(2-Aminoethyl)ethanolamine 111-41-1	210: 72 h Desmodesmus subspicatus mg/L EC50	728: 96 h Pimephales promelas mg/L LC50	22: 48 h Daphnia magna mg/L EC50

### Persistence/Degradability

Not determined.

### Bioaccumulation

There is no data for this product.

### Mobility

Chemical name	Partition coefficient
1-(2-Aminoethyl) piperazine 140-31-8	-1.48
Benzyl alcohol 100-51-6	1.1
N-(2-Aminoethyl)ethanolamine 111-41-1	-1.46

### Other Adverse Effects

Not determined

## 13. DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

#### **Disposal of Wastes**

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



**Contaminated Packaging**

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

**14. TRANSPORT INFORMATION****Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

**UN/ID No** UN3267  
**Proper Shipping Name** Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, Branched, 2-Piperazin-1-Ylethylamine)  
**Hazard class** 8  
**Packing Group** III

**IATA**

**UN number** UN3267  
**Proper Shipping Name** Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, Branched, 2-Piperazin-1-Ylethylamine)  
**Transport hazard class(es)** 8  
**Packing Group** III

**IMDG**

**UN number** UN3267  
**Proper Shipping Name** Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, Branched, 2-Piperazin-1-Ylethylamine)  
**Transport hazard class(es)** 8  
**Packing Group** III  
**Marine Pollutant** Yes

**15. REGULATORY INFORMATION****International Inventories**

Chemical name	TSCA	TSCA Inventory Status	DSL/NDL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Silica, Quartz	X	ACTIVE	X	X	X	X	X	X	X
1-(2-Aminoethyl) piperazine	X	ACTIVE	X	X	X	X	X	X	X
Silica, cristobalite	X	ACTIVE	X	X	X	X	X	X	X
Nonyl phenol	X	ACTIVE	X	X	X	X	X	X	X
2,4,6-tri(dimethylaminomethyl)phenol	X	ACTIVE	X	X	X	X	X	X	X
Polyoxypropylenediamine	X	ACTIVE	X		X	X	X	X	X
Benzyl alcohol	X	ACTIVE	X	X	X	X	X	X	X
BIS(DIMETHYLAMINOMETHYL)PHENOL				X	X	X		X	
N-(2-Aminoethyl)ethanolamine	X	ACTIVE	X	X	X	X	X	X	X

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations****CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

**SARA 313**

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

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Nonyl phenol - 84852-15-3	84852-15-3	>10-<25	1.0

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Silica, Quartz - 14808-60-7	Carcinogen
Silica, cristobalite - 14464-46-1	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Silica, Quartz 14808-60-7	X	X	X
1-(2-Aminoethyl) piperazine 140-31-8	X	X	X
Silica, cristobalite 14464-46-1	X	X	X
Benzyl alcohol 100-51-6		X	X
N-(2-Aminoethyl)ethanolamine 111-41-1	X	X	X

**16. OTHER INFORMATION****NFPA****Health Hazards**

3

**Flammability**

0

**Instability**

0

**Special Hazards**

Not determined

**HMIS****Health Hazards**

3\*

**Flammability**

0

**Physical hazards**

0

**Personal Protection**

B

**Chronic Hazard Star Legend**

\* = Chronic Health Hazard

**Issue Date:**

21-May-2013

**Revision Date:**

02-Jun-2021

**Revision Note:**

New formula

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**