



# SAFETY DATA SHEET

Revision Date 08-Apr-2015

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** VERSACHEM TITANIUM EPOXY SYSTEM (RESIN)

### Other means of identification

**Product Code** 47909

**Synonyms** None

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

**Recommended Use** Resin

**Uses advised against** No information available

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

#### Manufacturer Address

ITW Permatex  
10 Columbus Blvd.  
Hartford, CT 06106 USA

#### Distributor

ITW Permatex Canada  
35 Brownridge Road, Unit 1  
Halton Hills, ON Canada L7G 0C6  
Telephone: (800) 924-6994

**Company Phone Number** 1-87-Permatex  
(877) 376-2839

**24 Hour Emergency Phone Number** Chem-Tel: 800-255-3924  
International Emergency:  
00+1+ 813-248-0585  
Contract Number: MIS0003453

**E-mail address** mail@permatex.com

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)


Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Carcinogenicity	Category 1A

### Label elements

#### **Emergency Overview**

#### **Danger**

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

		
<b>Appearance</b> Clear	<b>Physical state</b> Viscous liquid	<b>Odor</b> Mild

**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  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 Specific treatment (see supplemental first aid instructions on this label)  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 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

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Harmful to aquatic life with long lasting effects  
 Contains epoxy constituents with an average molecular weight of <= 700

Unknown acute toxicity                      23.5% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**substance(s)**

Chemical Name	CAS No	Weight-%	Trade Secret
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN	25068-38-6	30 - 60	*
IRON	7439-89-6	10 - 30	*
LIMESTONE	1317-65-3	10 - 30	*
SILICON	7440-21-3	1 - 5	*
NEOPENTYL GLYCOL DIGLYCIDYL ETHER	17557-23-2	1 - 5	*
CRYSTALLINE SILICA	14808-60-7	1 - 5	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	Get medical advice/attention if you feel unwell.
<b>Eye contact</b>	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.
<b>Skin contact</b>	IF ON SKIN: Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
<b>Ingestion</b>	IF SWALLOWED. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

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

**Symptoms** See section 2 for more information.

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

**Note to physicians** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Dry chemical, Foam

##### Unsuitable extinguishing media

None.

##### Specific hazards arising from the chemical

None in particular.

##### Explosion data

**Sensitivity to Mechanical Impact** None.  
**Sensitivity to Static Discharge** None.

##### 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.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

##### Environmental precautions

**Environmental precautions** Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

##### Methods and material for containment and cleaning up

- Methods for containment** Prevent further leakage or spillage if safe to do so.
- Methods for cleaning up** Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.
- Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

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

- Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.
- Incompatible materials** Strong oxidizing agents, Acids, Bases

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
LIMESTONE 1317-85-3	-	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
SILICON 7440-21-3	-	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
CRYSTALLINE SILICA 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable fraction	(vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA total 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

*NIOSH IDLH Immediately Dangerous to Life or Health*

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Appropriate engineering controls**

- Engineering Controls** Showers  
Eyewash stations  
Ventilation systems

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

- Eye/face protection** Wear safety glasses with side shields (or goggles).
- Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state	Viscous liquid
Appearance	Clear
Odor	Mild
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Neutral	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	> 93 °C / > 200 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	>1	Air = 1
Relative density	>1	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

### Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	0
Density	No information available
Bulk density	No information available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

Excessive heat.

**Incompatible materials**

Strong oxidizing agents, Acids, Bases

**Hazardous Decomposition Products**

Carbon oxides  
Phenols

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
<b>Skin contact</b>	May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.
<b>Ingestion</b>	Ingestion may cause irritation to mucous membranes.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	= 11400 mg/kg ( Rat )	-	-
IRON 7439-89-6	= 984 mg/kg ( Rat )	-	-
SILICON 7440-21-3	= 3160 mg/kg ( Rat )	-	-
NEOPENTYL GLYCOL DIGLYCIDYL ETHER 17557-23-2	= 4500 mg/kg ( Rat )	-	-
CRYSTALLINE SILICA 14808-60-7	= 500 mg/kg ( Rat )	-	-

**Information on toxicological effects**

**Symptoms** No information available.

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

**Sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
CRYSTALLINE SILICA 14808-60-7	A2	Group 1	Known	X

*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*

**Target Organ Effects** Eyes, Lungs, Respiratory system, Skin.

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

**ATEmix (oral)** 2727 mg/kg

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

30% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
IRON 7439-89-6	-	13.6: 96 h Morone saxatilis mg/L LC50 static	-

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

<b>Disposal of wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Do not reuse container.
<b>US EPA Waste Number</b>	Not applicable

**14. TRANSPORT INFORMATION**

**DOT**

Proper shipping name: Not regulated

**IATA**

Proper shipping name: Not regulated

**IMDG**

Proper shipping name: Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Not Listed.
ENCS	Not Listed.
IECSC	Complies
KECL	Complies
PICCS	Not Listed.
AICS	Complies

**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**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**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)

**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). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
CRYSTALLINE SILICA - 14808-60-7	Carcinogen

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
LIMESTONE 1317-65-3	X	X	X
SILICON 7440-21-3	X	X	X
CRYSTALLINE SILICA 14808-60-7	X	X	X
ALUMINUM FLAKE 7429-90-5	X	X	X
TITANIUM 7440-32-8	X	-	-

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

<b><u>NFPA</u></b>	Health hazards 2	Flammability 1	Instability 0	-
<b><u>HMIS</u></b>	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)  
HMIS (Hazardous Material Information System)

Revision Date 08-Apr-2015



**Disclaimer**

The information provided in this Material 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

Revision Date 08-Apr-2015

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** VERSACHEM TITANIUM EPOXY SYSTEM (HARDENER)

### Other means of identification

**Product Code** 47909V

**Synonyms** None

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

**Recommended Use** Epoxy curing agent

**Uses advised against** No information available

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

#### Manufacturer Address

ITW Permatex  
10 Columbus Blvd.  
Hartford, CT 06106 USA

#### Distributor

ITW Permatex Canada  
35 Brownridge Road, Unit 1  
Halton Hills, ON Canada L7G 0C6  
Telephone: (800) 924-6994

**Company Phone Number** 1-87-Permatex  
(877) 376-2839

**24 Hour Emergency Phone Number** Chem-Tel: 800-255-3924  
International Emergency:  
00+1+ 813-248-0585  
Contract Number: MIS0003453

**E-mail address** mail@permatex.com

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**



This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Carcinogenicity	Category 1A

### Label elements

#### Emergency Overview

**Danger**  
Harmful if swallowed  
May cause cancer

**Appearance** Amber
**Physical state** Viscous liquid
**Odor** Mercaptan

**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  
 Do not eat, drink or smoke when using this product

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Harmful to aquatic life with long lasting effects

Unknown acute toxicity                      98% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

substance(s)

Chemical Name	CAS No	Weight-%	Trade Secret
MERCAPTAN AMINE BLEND (TSRN 679485-6533P)	-	40 - 70	*
LIMESTONE	1317-65-3	15 - 40	*
CRYSTALLINE SILICA	14808-60-7	1 - 5	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES**

Description of first aid measures

**General advice**                                      Get medical advice/attention if you feel unwell.

**Eye contact**                                      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.

---

<b>Skin contact</b>	IF ON SKIN: Wash skin with soap and water. If skin irritation persists, call a physician. Wash contaminated clothing before reuse.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
<b>Ingestion</b>	IF SWALLOWED. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

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

**Symptoms** See section 2 for more information.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>), Dry chemical, Foam

**Unsuitable extinguishing media**

None.

**Specific hazards arising from the chemical**

None in particular.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**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.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

**Environmental precautions**

**Environmental precautions** Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.  
**Incompatible materials** Strong oxidizing agents, Acids, Peroxides, Calcium hypochlorite, Sodium hypochlorite

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
LIMESTONE 1317-65-3	-	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
CRYSTALLINE SILICA 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable fraction	(vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA total 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

*NIOSH IDLH Immediately Dangerous to Life or Health*

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems

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

**Eye/face protection** Wear safety glasses with side shields (or goggles).  
**Skin and body protection** Wear protective gloves and protective clothing.  
**Respiratory protection** Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state** Viscous liquid  
**Appearance** Amber  
**Odor** Mercaptan  
**Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	> 93 °C / > 200 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<1mmHg @ 70°F	
Vapor density	>1	Air = 1
Relative density	1.13	
Water solubility	Negligible	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

**Other Information**

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	0
Density	No information available
Bulk density	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Excessive heat.

**Incompatible materials**

Strong oxidizing agents, Acids, Peroxides, Calcium hypochlorite, Sodium hypochlorite

**Hazardous Decomposition Products**

Carbon oxides  
Nitrogen oxides (NOx)  
Oxides of sulfur

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

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

**Eye contact** Contact with eyes may cause irritation. May cause redness and tearing of the eyes.  
**Skin contact** May cause skin irritation and/or dermatitis.  
**Ingestion** Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
CRYSTALLINE SILICA 14808-60-7	= 500 mg/kg ( Rat )	-	-

**Information on toxicological effects**

**Symptoms** No information available.

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

**Sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
CRYSTALLINE SILICA 14808-60-7	A2	Group 1	Known	X

*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*

**Target Organ Effects** Eyes, Lungs, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document .  
**ATEmix (oral)** 1000 mg/kg

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

99.5% of the mixture consists of components(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

**Other adverse effects**

No information available

**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** Do not reuse container.



US EPA Waste Number Not applicable

**14. TRANSPORT INFORMATION**

**DOT**  
Proper shipping name: Not regulated

**IATA**  
Proper shipping name: Not regulated

**IMDG**  
Proper shipping name: Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Not Listed
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

**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**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**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)

**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). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
CRYSTALLINE SILICA - 14808-60-7	Carcinogen

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
LIMESTONE 1317-65-3	X	X	X
CRYSTALLINE SILICA 14808-60-7	X	X	X
4-T-BUTYL CATECHOL 98-29-3	-	X	X
BENZYL ALCOHOL 100-51-6	-	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

<b><u>NFPA</u></b>	Health hazards 2	Flammability 1	Instability 0	-
<b><u>HMIS</u></b>	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)  
HMIS (Hazardous Material Information System)

Revision Date 08-Apr-2015

**Disclaimer**

The information provided in this Material 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