

# Material Safty Data Sheet

Product

SR500S

## 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name	SR500S
1.2 Recommended use of the chemical and restrictions on use	
Recommended use of the product	Silicone sealant
Restrictions on use of the product	No data
1.3 Company information	
Company Name	DAEHEUNG CHEMICAL CO., LTD.
Address	52, Sandan-ro15beon-gil, Pyeongtaeksi, Gyeonggi-do
Emergency telephone number	+82-31-663-5251

## 2. HAZARD IDENTIFICATION

2.1 Hazard, Risk classification Skin sensitization: Category 1

2.2 GHS label elements

Symbol



Signal word

Warning

Harmful Risk phrases

H317 May cause an allergic skin reaction.

Precautions

Prevention

P261 In contact with water releases flammable gases.

P272 May intensify fire; oxidiser.

P280 Contains gas under pressure; may explode if heated.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

Corresponding

P321 Specific treatment (see ... on this label).

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

Storage

Not available

Disposal

P501 Dispose of contents and container in accordance with local regulations

Amorphous, fumed silica

Health	0
Fire	1
Reactivity	0

N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane

Health	3
Fire	1
Reactivity	1

Methyl Oximino Silane

Health	1
Fire	2
Reactivity	1

Polydimethylsiloxane

Health	1
Fire	1
Reactivity	0

Siloxanes and Silicones, di-Me, hydroxy-terminated

Health	1
Fire	2
Reactivity	0

Petroleum liquified organic oil

Health	No data
Fire	No data
Reactivity	No data

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Name	Comon Name	CAS No	Contents(%)
Amorphous, fumed silica	SILICA, AMORPHOUS, FUMED, CRYSTALLINE FREE	112945-52-5	5 ~ 10
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	1760-24-3	0.1 ~ 1
Methyl Oximino Silane	(METHYLTRI(2-BUTANONEOXIMYL)SILANE);	22984-54-9	1 ~ 5
Polydimethylsiloxane	DIMETHYLPOLYSILOXANE/WATER EMULSIONS	63148-62-9	10 ~ 20
Siloxanes and Silicones, di-Me, hydroxy-terminated	(DIMETHYL POLYSILOXANE);	70131-67-8	50 ~ 60
Petroleum liquified organic oil		64741-71-5	1 ~ 10

### 4. FIRST AID MEASURES

- 4.1 Eye contact  
Get emergency medical attention.  
Rinse skin and eyes immediately with plenty of water for at least 20 minutes when in contact with the material.
- 4.2 In case of skin contact  
If skin irritation or rash occurs, seek medical advice / advice.  
Wash contaminated clothing before reuse.  
Get emergency medical attention.  
Remove contaminated clothing and shoes and isolate contaminated areas.  
Rinse skin and eyes immediately with plenty of water for at least 20 minutes when in contact with the material.  
Prevent spread of contamination on mild skin contact
- 4.3 Inhalation  
Move to a place with fresh air.  
If not breathing, give artificial respiration.  
If breathing is difficult, give oxygen.  
Please warm and stabilize.
- 4.4 Ingestion  
Get emergency medical attention.
- 4.5 Other precautions  
Have the health care worker know about the material and take protective measures

### 5. FIRE FIGHTING MEASURES

- 5.1. Extinguishing media  
Suitable extinguishing media  
Use alcohol foam, carbon dioxide or water spray for digestion related to this material.  
Use dry sand or earth for digestion.
- 5.2. Special hazards arising from the substance or mixture  
Hazardous combustion products  
Container may explode on heating  
Some are burned but not easily ignited  
Non-flammable, the substance itself is not burned but decomposes on heating and may cause corrosive / toxic fumes  
May cause irritating, corrosive and toxic gases in case of fire
- 5.3. Protective equipment and precautions for fire-fighting  
Protective equipment and precautions for fire-fighting  
Be aware that it may be melted and transported.  
In case of tank fire, extinguish at maximum distance or use unmanned fire fighting equipment  
In the event of a large fire in a tank fire, use unmanned fire fighting equipment and allow it to retreat if it is not possible  
Rescuers should wear appropriate protective equipment.  
Extinguish the area and maintain safety distance.  
Some can be transported at high temperatures  
Leaky water may cause contamination.  
Contact may cause skin and eye burns.  
Drill ditches for the disposal of digestive waters to prevent them from being scattered.

Move container from fire area if it is not hazardous.

Cool containers with large amounts of water even after the fire has extinguished.

In the event of a tank fire, if there is a high tone in the pressure relief device or if the tank is discolored, immediately withdraw it

Tanks Fires in a fire.

## 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, protective equipment and emergency procedures

Remove all ignition sources as very fine particles may cause fire or explosion.

Wipe off any spills immediately and follow all protective precautions.

Remove all ignition sources.

Stop the leak if it is not dangerous.

Do not touch a damaged container or spill without adequate protection.

Cover with plastic sheet to prevent diffusion

Note the substances and conditions to avoid

Prevent entry into waterways, sewers, basements, and confined spaces.

6.2. Environmental precautions

6.3. Methods and material for containment and cleaning up

Absorb spillage with inert materials (eg dry sand or earth) and place in a chemical waste container.

Absorb liquid and rinse contaminated area with detergent and water..

## 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid inhalation.(Dust, fume, gas, mist, steam, spray)

Do not carry contaminated clothing out of the workplace.

Follow all MSDS / label precautions as product residues may remain after emptying containers.

Avoid prolonged or repeated skin contact.

Note the substances and conditions to avoid

Refer to engineering controls and personal protective equipment.

7.2 Safe storage

The empty drum should be completely drained, properly blocked and immediately returned to the drum regulator or properly positioned.

## 8. EXPOSURECONTROLS & PERSONAL PROTECTION

8.1. Exposure standards for chemicals, biological exposure standards, etc.

Domestic regulation

No data

ACGIH regulation

No data

Petroleum liquified organic oil

No data

Biological exposure standard

No data

8.2 Personal protective equipment

Respiratory protection

Wear a respirator that has been approved by the Korean Occupational Safety and Health Administration in accordance with the physicochemical properties of the substance being exposed.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

Physical Form

Paste

Color

White. Etc, Other oder colors

9.2 Odor

Oxime

9.3 Odor threshold

No data

9.4 pH

No data

9.5 Melting point / freezing point

No data

9.6 Boiling point

No data

9.7 Flash point

No data

9.8 Evaporation Rate

No data

9.9 Flammability (solid, gas)

No data

9.10 Upper/lower flammability or explosive limits

No data

9.11 Vapor Pressure

No data

9.12 Solubility

No data

9.13 Vapor Density

No data

9.14 Specific gravity

1.00 ~ 1.03

9.15 N-octanol/water partition coefficient	No data
9.16 Autoignition temperature	No data
9.17 Decomposition Temperature	No data
9.18 Viscosity	Paste
9.19 Molecular weight	No data

## 10. STABILITY AND REACTIVITY

10.1 Possibility of chemical stability and adverse reaction	
Amorphous, fumed silica	Container may explode on heating
Amorphous, fumed silica	Some are burned but not easily ignited
Amorphous, fumed silica	Non-flammable, the substance itself is not burned but decomposes on heating and may cause corrosive / toxic fumes
Amorphous, fumed silica	May cause irritating, corrosive and toxic gases in case of fire
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
Methyl Oximino Silane	Polymerization: not polymerized Reactivity: Contact with water or moist air may form flammable and / or toxic gases and vapors.
Polydimethylsiloxane	Stable at normal temperature and pressure
Polydimethylsiloxane	Container may explode on heating
Polydimethylsiloxane	Some are burned but not easily ignited
Polydimethylsiloxane	May cause irritation and poisonous gas in case of fire
Polydimethylsiloxane	Inhalation of the substance may be harmful
Polydimethylsiloxane	Some fluids may cause dizziness, suffocation-inducing vapors
Siloxanes and Silicones, di-Me, hydroxy-terminated	Stable at normal temperature and pressure
Siloxanes and Silicones, di-Me, hydroxy-terminated	Container may explode on heating
Siloxanes and Silicones, di-Me, hydroxy-terminated	Some are burned but not easily ignited
Siloxanes and Silicones, di-Me, hydroxy-terminated	May cause irritation and poisonous gas in case of fire
Siloxanes and Silicones, di-Me, hydroxy-terminated	Inhalation of the substance may be harmful
Siloxanes and Silicones, di-Me, hydroxy-terminated	Some fluids may cause dizziness, suffocation-inducing vapors
Petroleum liquified organic oil	Stable at normal temperature and pressure
Petroleum liquified organic oil	Container may explode on heating
Petroleum liquified organic oil	Some are burned but not easily ignited
Petroleum liquified organic oil	May cause irritation and poisonous gas in case of fire
Petroleum liquified organic oil	Inhalation of the substance may be harmful
Petroleum liquified organic oil	Some fluids may cause dizziness, suffocation-inducing vapors
10.2 Conditions to avoid	
Amorphous, fumed silica	Heat source, spark, flame, etc.
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
Methyl Oximino Silane	Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep away from waterworks and sewers.
Polydimethylsiloxane	Heat source, spark, flame, etc.
Siloxanes and Silicones, di-Me, hydroxy-terminated	Heat source, spark, flame, etc.
Petroleum liquified organic oil	Heat source, spark, flame, etc.
10.3 Substances to avoid	
Amorphous, fumed silica	Combustible materials, reducing materials
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
Methyl Oximino Silane	Oxidant

Polydimethylsiloxane	Combustible material
Polydimethylsiloxane	Irritant, toxic gas
terminated Siloxanes and Silicones, di-Me, hydroxy-	Combustible material
terminated Siloxanes and Silicones, di-Me, hydroxy-	Irritant, toxic gas
Petroleum liquified organic oil	Combustible material
Petroleum liquified organic oil	Irritant, toxic gas

#### 10.4 Hazardous materials generated during decomposition

Amorphous, fumed silica	Corrosive / toxic fume
Amorphous, fumed silica	Irritating, corrosive, toxic gas
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	During burning, pyrolysis or combustion can produce irritating and highly toxic gases.
Methyl Oximino Silane	No data
Polydimethylsiloxane	No data
terminated Siloxanes and Silicones, di-Me, hydroxy-	No data
Petroleum liquified organic oil	No data

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information about possible routes of exposure

Amorphous, fumed silica	Exposure to respiration can cause pneumoconiosis in large quantities of inhalation May cause nausea, vomiting and diarrhea by stimulating the stomach. Exposed to skin contact Exposed by eye contact
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	Respiratory tract burns, allergic reactions Mucosa burn Skin burns, allergic reactions Snow burn
Methyl Oximino Silane	No data
Polydimethylsiloxane	Can absorb body by inhalation
Polydimethylsiloxane	Can be absorbed by inhalation and extinguisher
Polydimethylsiloxane	Through skin, digestive system, can absorb body by inhalation of aerosol
Polydimethylsiloxane	Absorption of body by inhalation of steam
Polydimethylsiloxane	Can be absorbed by inhalation, skin and digestive system
terminated Siloxanes and Silicones, di-Me, hydroxy-	Can absorb body by inhalation
terminated Siloxanes and Silicones, di-Me, hydroxy-	Can be absorbed by inhalation and extinguisher
terminated Siloxanes and Silicones, di-Me, hydroxy-	Through skin, digestive system, can absorb body by inhalation of aerosol
terminated Siloxanes and Silicones, di-Me, hydroxy-	Absorption of body by inhalation of steam
terminated Siloxanes and Silicones, di-Me, hydroxy-	Can be absorbed by inhalation, skin and digestive system
Petroleum liquified organic oil	Can absorb body by inhalation
Petroleum liquified organic oil	Can be absorbed by inhalation and extinguisher
Petroleum liquified organic oil	Through skin, digestive system, can absorb body by inhalation of aerosol
Petroleum liquified organic oil	Absorption of body by inhalation of steam
Petroleum liquified organic oil	Can be absorbed by inhalation, skin and digestive system

## 11.2 Health hazard information

### Acute toxicity

#### Oral

Amorphous, fumed silica	LD50 > 3100 mg/kg Rat
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	LD50 2400 mg/kg Rat
Methyl Oximino Silane	(No data)
Polydimethylsiloxane	LD50 > 17000 mg/kg Rat
Siloxanes and Silicones, di-Me, hydroxy-terminated	LD50 > 64 mg/kg Rat (Labor Department 3)
Petroleum liquified organic oil	LD50 > 1000 mg/kg

#### Percutaneous

Amorphous, fumed silica	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	LD50 16000 mg/kg Rabbit
Methyl Oximino Silane	(No data)
Polydimethylsiloxane	LD50 > 2000 mg/kg Rabbit
Siloxanes and Silicones, di-Me, hydroxy-terminated	LD50 > 16 mg/kg Rabbit (Labor Department 1)
Petroleum liquified organic oil	LD50 > 2000 mg/kg

#### Inhalation

Amorphous, fumed silica	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
Methyl Oximino Silane	(No data)
Polydimethylsiloxane	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	LC50> hr

#### Skin corrosive or irritant

Amorphous, fumed silica	No skin irritation reported
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No irritation: 24, 48, 72 hours after erythema score less than 1.5
Methyl Oximino Silane	No data
Polydimethylsiloxane	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data

#### Severe eye damage or irritation

Amorphous, fumed silica	No eye irritation reported
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	With stimulation: average observed (24 + 48 + 72 hrs) chemosis 3.0, enanthema 2.5, congestion 1.0, opacity 2.0
Methyl Oximino Silane	No data
Polydimethylsiloxane	Eye Standard dose test Rabbit amount: 100 mg / 1H; Reaction: Mild (light stimulus)
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data

#### Respiratory sensitization

Amorphous, fumed silica	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data

Methyl Oximino Silane	No data
Polydimethylsiloxane	No data
terminated Siloxanes and Silicones, di-Me, hydroxy-	No data
Petroleum liquified organic oil	No data
Skin sensitization	
Amorphous, fumed silica	No skin sensitization reported in humans
aminopropyltrimethoxysilane N-(2-Aminoethyl)-3-	Sensitive
Methyl Oximino Silane	No data
Polydimethylsiloxane	No data
terminated Siloxanes and Silicones, di-Me, hydroxy-	No data
Petroleum liquified organic oil	No data
Carcinogenicity	
Industrial Safety and Health Act	
Amorphous, fumed silica	No data
aminopropyltrimethoxysilane N-(2-Aminoethyl)-3-	No data
Methyl Oximino Silane	No data
Polydimethylsiloxane	No data
terminated Siloxanes and Silicones, di-Me, hydroxy-	No data
Petroleum liquified organic oil	No data
Notice of Ministry of Employment and Labor	
Amorphous, fumed silica	No data
aminopropyltrimethoxysilane N-(2-Aminoethyl)-3-	No data
Methyl Oximino Silane	No data
Polydimethylsiloxane	No data
terminated Siloxanes and Silicones, di-Me, hydroxy-	No data
Petroleum liquified organic oil	No data
IARC	
Amorphous, fumed silica	Group 3 (Silica, amorphous )
aminopropyltrimethoxysilane N-(2-Aminoethyl)-3-	No data
Methyl Oximino Silane	No data
Polydimethylsiloxane	No data
terminated Siloxanes and Silicones, di-Me, hydroxy-	No data
Petroleum liquified organic oil	No data
OSHA	
Amorphous, fumed silica	No data
aminopropyltrimethoxysilane N-(2-Aminoethyl)-3-	No data
Methyl Oximino Silane	No data
Polydimethylsiloxane	No data

terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	ACGIH	
	Amorphous, fumed silica	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	No data
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	NTP	
	Amorphous, fumed silica	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	No data
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	EU CLP	
	Amorphous, fumed silica	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	No data
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	Germ cell mutagenicity	
	Amorphous, fumed silica	In vivo / In vitro tests There was no evidence that this substance caused mutations In any of the tests. - Genotoxicity effects do not occur when exposed to this material.
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	Return mutation test: negative concentration > 5000 ug / plate HGPRT assay: negative CHO cells: S9-: 0.1-4.0 mg / ml, S9 +: 2.0-5.0 mg / ml Sister exchange chromosomal aberration test: negative, CHO cells: 1.5 to 4.0 mg / ml without S9 activation; 1.0 to 3.5 mg / ml with S9 activation Micronucleus Test: Negative Mouse (Swiss webster): 87.5, 175, and 280 mg / kg
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	Reproductive toxicity	
	Amorphous, fumed silica	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	NOAEL=500 mg/kg bw/day
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	Specific target organ toxicity (single exposure)	



	Amorphous, fumed silica	Short-term exposure may cause respiratory irritation.
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	No data
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	Specific target organ toxicity (repeated exposure)	
	Amorphous, fumed silica	After two years of long-term application, evidence for reversible effects in this material could not be explained, and at high doses, there was only a slight increase in tissue weight or growth delay from time to time. – showed normal lung reaction.
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	Rat:NOEAL 500mg/kg,0, 25, 125, and 500 mg/kg/day, Exposure period 28 days No effect.
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	Inhalation hazard	
	Amorphous, fumed silica	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	No data
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data

## 12. ECOLOGICAL INFORMATION

### 12.1. Ecotoxicity

	Fish	
aminopropyltrimethoxysilane	Amorphous, fumed silica	No data
	N-(2-Aminoethyl)-3-	LC50 200 mg/l 96 hr <i>Lepomis macrochirus</i>
	Methyl Oximino Silane	LC50 0.00000975 mg/l 96 hr etc
	Polydimethylsiloxane	LC50 37.79 mg/l 96 hr <i>Lepomis macrochirus</i>
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	Shellfish	
aminopropyltrimethoxysilane	Amorphous, fumed silica	No data
	N-(2-Aminoethyl)-3-	EC50 90 mg/l 48 hr <i>Daphnia magna</i>
	Methyl Oximino Silane	LC50 0.0000179 mg/l 48 hr etc
	Polydimethylsiloxane	LC50 44.5 mg/l 48 hr <i>Daphnia magna</i>
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
	Algae	
aminopropyltrimethoxysilane	Amorphous, fumed silica	No data
	N-(2-Aminoethyl)-3-	ErC50 8.8 mg/l 72 hr <i>Selenastrum capricornutum</i>
	Methyl Oximino Silane	EC50 0.0000176 mg/l 96 hr etc
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data

### 12.2. Persistence and degradability

#### Persistence

	Amorphous, fumed silica	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	log Kow -1.67 ((Estimate))
	Methyl Oximino Silane	(Not applicable)
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	log Kow 2.43
	Petroleum liquified organic oil	No data
	degradability	
	Amorphous, fumed silica	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	(No data)
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
12.3. Bioaccumulation		
	Enrichment	
	Amorphous, fumed silica	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	BCF 8.49
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	BCF 14.77
	Petroleum liquified organic oil	No data
	Biodegradability	
	Amorphous, fumed silica	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	39 (%) 28 day
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
12.4. Soil mobility		
	Amorphous, fumed silica	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
12.5. Other harmful effects		
	Amorphous, fumed silica	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	Underwater stability Half hour Less than 1 hour
	Methyl Oximino Silane	No data
	Polydimethylsiloxane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data

## 13. DISPOSAL CONSIDERATIONS

13.1 Disposal method	Dispose of contents and container in accordance with local regulations.
13.2 Disposal considerations	Dispose of contents and container in accordance with local regulations.

## 14. TRANSPORT INFORMATION

14.1 UN Number (UN No.)	UN transport hazard classification not available
14.2. UN proper shipping name	Not applicable
14.3. Transport hazard class(es)	Not applicable
14.4. Packing group	Not applicable
14.5. Environmental hazards	No data
14.6 Special safety measures that the user needs or needs to know about transportation or transportation	
Emergency measures in case of fire	Not applicable
Emergency Action	Not applicable
14.7 Other International Transportation Regulations	
Air Transport (IATA-DGR)	Not subject to IATA regulations.

## 15. REGULATORY INFORMATION

15.1 Regulation by the Industrial Safety and Health Act	No data
15.2 Regulation by Chemical Substance Control Act	No data
15.3 Regulation under dangerous goods safety management law	No data
15.4 Regulation by waste management law	Designated waste
15.5 Other domestic and foreign regulations	
Domestic regulation	
Residual Organic Pollutant Control Act	Not available
Foreign regulation	
OSHA regulations	Not applicable
CERCLA regulations	Not applicable
US Administration Information(EPCRA 302 regulations)	Not applicable
US Administration Information(EPCRA 304 regulations)	Not applicable
US Administration Information(EPCRA 313 regulations)	Not applicable
US Administration Information(Rotterdam Convention material)	Not applicable
US Administration Information(Stockholm Convention substance)	Not applicable
US Administration Information(Montreal Protocol substance)	Not applicable
EU Classification information(Confirmed classification result)	Not applicable
EU Classification information(Danger phrases)	Not applicable
EU Classification information(Safety phrases)	Not applicable

## 16. OTHER INFORMATION

### 16.1 Source of material

Amorphous, fumed silica

Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)(Information on possible routes of exposure)

Seton compliance resource center(<http://www.setonresourcecenter.com>)(Information on possible routes of exposure)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)(Oral)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)(Skin corrosive or irritant)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)(Severe eye damage or irritation )

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)(Skin sensitization)

International Uniform ChemicalL Information Database(IUCLID)(<http://ecb.jrc.it/esis>)(Germ cell mutagenicity)

OECD SIDS(<http://www.chem.unep.ch/irptc/sids/OECD/SIDS/silicates.pdf>)(Specific target organ toxicity (single exposure))

International Programme on Chemical Safety(IPCS INCHEM)(<http://www.inchem.org/>)(Specific target organ toxicity (repeated exposure))

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)(Specific target organ toxicity (repeated exposure))

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)(Recommended use of the product)

N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane

OECD 401, EEC 67/548 1967)-79/831, OECD SIDS(Oral)

OECD SIDS(Percutaneous)

OECD TG 404 ,OECD SIDS(Skin corrosive or irritant)

OECD TG 405 OECD SIDS(Severe eye damage or irritation )

OECD TG406, OECD SIDS (1992)(Skin sensitization)

EPA Health Effect Test Guidelines, EPA Report 560/6-83-001, OECD SIDS(Germ cell mutagenicity)

EPA Health Effects Test Guidelines, OEC SIDS(Germ cell mutagenicity)

OECD TG 471, Directive 84/449/EEC(Germ cell mutagenicity)

OECD TG 422, OECD SIDS(Reproductive toxicity)

OECD TG 422: US EPA Guideline OPPTS 870.3650, OECD SIDS(Specific target organ toxicity (repeated exposure))

Static,EPA-660/3-75-009,SIDS(fish)

Static,OECD Guide-line 202,SIDS(shellfish)

OECD Guide-line 201,SIDS(Algae)

OECD SIDS(Biodegradable)

Methyl Oximino Silane

ECOSAR(fish)

ECOSAR(shellfish)

ECOSAR(Algae)

EPIWIN(Enrichment)

Polydimethylsiloxane

National Library of Medicine(NLM)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM>)(Oral)

National Library of Medicine(NLM)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM>)(Percutaneous)

Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)(Severe eye damage or irritation )

The ECOTOXicology database (ECOTOX)([http://cfpub.epa.gov/ECOTOX/quick\\_query.htm](http://cfpub.epa.gov/ECOTOX/quick_query.htm))(fish)

The ECOTOXicology database (ECOTOX)([http://cfpub.epa.gov/ECOTOX/quick\\_query.htm](http://cfpub.epa.gov/ECOTOX/quick_query.htm))(shellfish)

The Chemical Database, The Department of Chemistry at the University of Akron(<http://ull.chemistry.uakron.edu/erd>)

Siloxanes and Silicones, di-Me, hydroxy-terminated

Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)(Oral)

Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)(Percutaneous)

Quantitative Structure Activity Relation(QSAR)(residual)

Quantitative Structure Activity Relation(QSAR)(Enrichment)

Petroleum liquified organic oil

ChemIDplus(Oral)

ChemIDPlus(Percutaneous)

ChemIDplus(iinhalation)

16.2 Date First 2017-09-01

16.3 Revision number and date

Revision number 0 time

Revision Date -

16.4 Etc.

The MSDS (Material Safety Data Sheet) is edited or partially corrected by referring to the MSDS provided by KOSHA (Korea Occupational Safety and Health Agency)