

Material Safty Data Sheet

Product

SR 7000

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name	SR 7000
1.2 Recommended use of the chemical and restrictions on use	
Recommended use of the product	Construction 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

P261 Do not breathe dust/fume/gas/mist/vapours/spray.

Prevention

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

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

Corresponding

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

P333+P313 Take off contaminated clothing and wash it before reuse

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

Trimethoxymethylsilane

Health 1

Fire 2

Reactivity 1

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	1 ~ 5
Lime stone		1317-65-3	40 ~ 50
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	(TRIMETHOXYSILYL)PROPYL)ETHYL	1760-24-3	0.1 ~ 1
Methyl Oximino Silane	(METHYLTRI(2-BUTANONEOXIMYL)SILANE);	22984-54-9	1 ~ 5
Siloxanes and Silicones, di-Me, hydroxy-terminated	(DIMETHYL POLYSILOXANE);	70131-67-8	20 ~ 30
Petroleum liquified organic oil		64741-71-5	10 ~ 20

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.
- Protective equipment and precautions for fire-fighting
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

Amorphous, fumed silica

No data

Lime stone

TWA - 10mg/m3

N-(2-Aminoethyl)-3-

aminopropyltrimethoxysilane

No data

Methyl Oximino Silane

No data

Siloxanes and Silicones, di-Me, hydroxy-

terminated

No data

Petroleum liquified organic oil

No data

ACGIH regulation

Amorphous, fumed silica

No data

Lime stone

No data

N-(2-Aminoethyl)-3-

aminopropyltrimethoxysilane

No data

Methyl Oximino Silane

No data

Siloxanes and Silicones, di-Me, hydroxy-

terminated

No data

Petroleum liquified organic oil

No data

Biological exposure standard

Amorphous, fumed silica

No data

Lime stone

No data

N-(2-Aminoethyl)-3-

aminopropyltrimethoxysilane

No data

Methyl Oximino Silane

No data

Siloxanes and Silicones, di-Me, hydroxy-

terminated

No data

Petroleum liquified organic oil

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	Black, Other Order 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

1.41

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
Lime stone	No data
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.
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.
Lime stone	No data
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.
terminated Siloxanes and Silicones, di-Me, hydroxy-	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
Lime stone	No data
aminopropyltrimethoxysilane N-(2-Aminoethyl)-3-	No data
Methyl Oximino Silane	Oxidant
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
Lime stone	No data
aminopropyltrimethoxysilane N-(2-Aminoethyl)-3-	During burning, pyrolysis or combustion can produce irritating and highly toxic gases.
Methyl Oximino Silane	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
Lime stone	No data
aminopropyltrimethoxysilane N-(2-Aminoethyl)-3-	Respiratory tract burns, allergic reactions Mucosa burn Skin burns, allergic reactions Snow burn
Methyl Oximino Silane	No data
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
	Lime stone	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	LD50 2400 mg/kg Rat
	Methyl Oximino Silane	(No data)
terminated	Siloxanes and Silicones, di-Me, hydroxy-	LD50 > 64 mg/kg Rat (Labor Department 3)
	Petroleum liquified organic oil	LD50 > 1000 mg/kg
Percutaneous		
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	LD50 16000 mg/kg Rabbit
	Methyl Oximino Silane	(No data)
terminated	Siloxanes and Silicones, di-Me, hydroxy-	LD50 > 16 mg/kg Rabbit (Labor Department 1)
	Petroleum liquified organic oil	LD50 > 2000 mg/kg
Inhalation		
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	No data
	Methyl Oximino Silane	(No data)
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	LC50> hr
Skin corrosive or irritant		
	Amorphous, fumed silica	No skin irritation reported
	Lime stone	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	No irritation: 24, 48, 72 hours after erythema score less than 1.5
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
Severe eye damage or irritation		
	Amorphous, fumed silica	No eye irritation reported
	Lime stone	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	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
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Petroleum liquified organic oil	No data
Respiratory sensitization		
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropyltrimethoxysilane	N-(2-Aminoethyl)-3-	No data
	Methyl Oximino Silane	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
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	Sensitive
	Methyl Oximino Silane	No data
	Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
	Petroleum liquified organic oil	No data
Carcinogenicity		
Industrial Safety and Health Act		
	Amorphous, fumed silica	No data
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	No data
	Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
	Petroleum liquified organic oil	No data
Notice of Ministry of Employment and Labor		
	Amorphous, fumed silica	No data
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	No data
	Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
	Petroleum liquified organic oil	No data
IARC		
	Amorphous, fumed silica	Group 3 (Silica, amorphous)
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	No data
	Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
	Petroleum liquified organic oil	No data
OSHA		
	Amorphous, fumed silica	No data
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	No data
	Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
	Petroleum liquified organic oil	No data
ACGIH		
	Amorphous, fumed silica	No data
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	No data
	Siloxanes and Silicones, di-Me, hydroxy-terminated	No data

Petroleum liquified organic oil	No data
NTP	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
Methyl Oximino Silane	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data
EU CLP	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
Methyl Oximino Silane	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	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.
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	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
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data
Reproductive toxicity	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	NOAEL=500 mg/kg bw/day
Methyl Oximino Silane	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data
Specific target organ toxicity (single exposure)	
Amorphous, fumed silica	Short-term exposure may cause respiratory irritation.
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
Methyl Oximino Silane	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	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.

Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	Rat:NOEAL 500mg/kg,0, 25, 125, and 500 mg/kg/day, Exposure period 28 days No effect.
Methyl Oximino Silane	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data
Inhalation hazard	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
Methyl Oximino Silane	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity

Fish	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	LC50 200 mg/l 96 hr <i>Lepomis macrochirus</i>
Methyl Oximino Silane	LC50 0.00000975 mg/l 96 hr etc
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data
Shellfish	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	EC50 90 mg/l 48 hr <i>Daphnia magna</i>
Methyl Oximino Silane	LC50 0.0000179 mg/l 48 hr etc
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data
Algae	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	ErC50 8.8 mg/l 72 hr <i>Selenastrum capricornutum</i>
Methyl Oximino Silane	EC50 0.0000176 mg/l 96 hr etc
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Petroleum liquified organic oil	No data
12.2. Persistence and degradability	
Persistence	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	log Kow -1.67 ((Estimate))
Methyl Oximino Silane	(Not applicable)

terminated	Siloxanes and Silicones, di-Me, hydroxy-	log Kow 2.43
	Petroleum liquified organic oil	No data
	degradability	
	Amorphous, fumed silica	No data
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	(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
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	BCF 8.49
terminated	Siloxanes and Silicones, di-Me, hydroxy-	BCF 14.77
	Petroleum liquified organic oil	No data
	Biodegradability	
	Amorphous, fumed silica	No data
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	39 (%) 28 day
	Methyl Oximino Silane	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
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	No data
	Methyl Oximino Silane	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
	Lime stone	No data
	N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	Underwater stability Half hour Less than 1 hour
	Methyl Oximino Silane	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	
Lime stone	Working environment Measured material (measurement cycle: 6 months)
Lime stone	Special medical examination subject substance (diagnosis period: 24 months)
Lime stone	Exposure standard setting substance
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 Chemical 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)

Lime stone

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)

Trimethoxymethylsilane

ECOSAR(fish)

ECOSAR(shellfish)

ECOSAR(Algae)

EPIWIN(Enrichment)

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 2012-09-24

16.3 Revision number and date

Revision number 4 time

Revision Date 2019-12-05

16.4 Etc.

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