

# Material Safty Data Sheet

## Product

SR9100

### 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name	SR9100
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
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#### 2.2 GHS label elements

Symbol



Signal word

Waring

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

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

P362+P364 Take off contaminated clothing and wash it before reuse.

Storage

Not available

Disposal

P501 Dispose of contents and container in accordance with local regulations.

Aluminum oxide

Health

0

Fire

No data

Reactivity

No data

Amorphous, fumed silica

Health

0

Fire

1

Reactivity

0

Methyltrimethoxysilane

Health

1

Fire

3

Reactivity

1

Aluminium hydroxide

Health

0

Fire

No data

Reactivity

0

Siloxanes and Silicones, di-Me, hydroxy-terminated

Health

1

Fire

2

Reactivity

0

### 3. COMPOSITION / INFORMATION ON INTEGREDIENTS

Name	Comon Name	CAS No	Contents(%)
Aluminum oxide	Alpha-ALUMINA	1344-28-1	60 ~ 70
Amorphous, fumed silica	SILICA, AMORPHOUS, FUMED, CRYSTALLINE FREE	112945-52-5	1 ~ 5
Methyltrimethoxysilane	SILANE, TRIMETHOXMETHYL-	1185-55-3	1 ~ 5
Aluminium hydroxide		21645-51-2	10 ~ 20
Siloxanes and Silicones, di-Me, hydroxy-terminated	DIMETHYL POLYSILOXANE	70131-67-8	10 ~ 20

### 4. FIRST AID MEASURES

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

### 5. FIRE FIGHTING MEASURES

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

Protective equipment and precautions for fire-fighting	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.
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## 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, protective equipment and emergency procedures	<p>Remove all ignition sources as very fine particles may cause fire or explosion.</p> <p>Wipe off any spills immediately and follow all protective precautions.</p> <p>Remove all ignition sources.</p> <p>Stop the leak if it is not dangerous.</p> <p>Do not touch a damaged container or spill without adequate protection.</p> <p>Cover with plastic sheet to prevent diffusion</p> <p>Note the substances and conditions to avoid</p>
6.2. Environmental precautions	Prevent entry into waterways, sewers, basements, and confined spaces.
6.3. Methods and material for containment and cleaning up	<p>Absorb spillage with inert materials (eg dry sand or earth) and place in a chemical waste container.</p> <p>Absorb liquid and rinse contaminated area with detergent and water..</p>

## 7. HANDLING AND STORAGE

7.1. Precautions for safe handling	<p>Avoid inhalation.(Dust, fume, gas, mist, steam, spray)</p> <p>Do not carry contaminated clothing out of the workplace.</p> <p>Follow all MSDS / label precautions as product residues may remain after emptying containers.</p> <p>Avoid prolonged or repeated skin contact.</p> <p>Note the substances and conditions to avoid</p> <p>Refer to engineering controls and personal protective equipment.</p>
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	
Aluminum oxide	TWA – 10mg/m3
Amorphous, fumed silica	No data
Methyltrimethoxysilane	No data
Aluminium hydroxide	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
ACGIH regulation	
Aluminum oxide	TWA 10 mg/m³
Amorphous, fumed silica	No data
Methyltrimethoxysilane	Not applicable
Aluminium hydroxide	No data
Siloxanes and Silicones, di-Me, hydroxy-terminated	No data
Biological exposure standard	No data
8.2. Appropriate engineering controls	Use process isolation, local exhaust ventilation or other engineering controls to keep air levels below exposure limits.
8.3 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, Gray, Black .. Etc
9.2 Odor	alcohol
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	1.85 ~ 1.95
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	
Aluminum oxide	No data
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
Methyltrimethoxysilane	Flammable liquids and vapors
Methyltrimethoxysilane	Violent reaction may cause fire and explosion.
Methyltrimethoxysilane	May form explosive mixture at or above flash point
Methyltrimethoxysilane	Container may explode on heating
Methyltrimethoxysilane	Highly flammable: easily ignited by heat, spark, flame
Methyltrimethoxysilane	Leakage is a fire / explosion hazard.
Methyltrimethoxysilane	Vapors may explode indoors, outdoors, and in drains
Methyltrimethoxysilane	Vapors may form explosive mixtures with air
Methyltrimethoxysilane	Vapors may cause dizziness or suffocation without knowledge.
Methyltrimethoxysilane	May cause irritation, corrosive and toxic gas in case of fire.
Methyltrimethoxysilane	Inhalation and contact may irritate or burn the skin and eyes.
Aluminium hydroxide	No data
terminated Siloxanes and Silicones, di-Me, hydroxy-	Stable at normal temperature and pressure
terminated Siloxanes and Silicones, di-Me, hydroxy-	Container may explode on heating
terminated Siloxanes and Silicones, di-Me, hydroxy-	Some are burned but not easily ignited
terminated Siloxanes and Silicones, di-Me, hydroxy-	May cause irritation and poisonous gas in case of fire
terminated Siloxanes and Silicones, di-Me, hydroxy-	Inhalation of the substance may be harmful
terminated Siloxanes and Silicones, di-Me, hydroxy-	Some fluids may cause dizziness, suffocation-inducing vapors
10.2 Conditions to avoid	
Aluminum oxide	No data
Amorphous, fumed silica	Heat source, spark, flame, etc.
Methyltrimethoxysilane	Keep away from heat, sparks, open flame and heat. – No smoking
Aluminium hydroxide	No data
terminated Siloxanes and Silicones, di-Me, hydroxy-	Heat source, spark, flame, etc.
10.3 Substances to avoid	
Aluminum oxide	Combustible materials, reducing materials
Amorphous, fumed silica	No data
Methyltrimethoxysilane	No data

	Aluminium hydroxide	Combustible material
terminated	Siloxanes and Silicones, di-Me, hydroxy-	Combustible material
terminated	Siloxanes and Silicones, di-Me, hydroxy-	Irritant, toxic gas
10.4 Hazardous materials generated during decomposition		
	Aluminum oxide	No data
	Amorphous, fumed silica	Corrosive / toxic fume
	Amorphous, fumed silica	Irritating, corrosive, toxic gas
	Methyltrimethoxysilane	Irritation, Corrosive, Toxic gas
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data

## 11. TOXICOLOGICAL INFORMATION

11.1. Information about possible routes of exposure		
	Aluminum oxide	No data
	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
	Methyltrimethoxysilane	stimulus
	Aluminium hydroxide	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
11.2 Health hazard information		
Acute toxicity		
Oral		
	Aluminum oxide	LD50 > 10000 mg/kg Rat (No deaths during observation (OECD Guideline 401))
	Amorphous, fumed silica	LD50 > 3100 mg/kg Rat
	Methyltrimethoxysilane	LD50 12.3 mg/kg Rat
	Aluminium hydroxide	LD50 > 2000 mg/kg Rat (female, No deaths (OECD TG 423, GLP))
terminated	Siloxanes and Silicones, di-Me, hydroxy-	LD50 > 64 mg/kg Rat (Labor Department 3)
Percutaneous		
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	(No data)
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	LD50 > 16 mg/kg Rabbit (Labor Department 1)
Inhalation		
	Aluminum oxide	Dust LC50> 2.3 mg/l 4 hr Rat (No deaths, EPA 40 CFR 158, OECD Guideline 403, GLP)
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	(No data)

	Aluminium hydroxide	Dust LC50 7.6 mg/ℓ 1 hr Rat (male (OECD TG 403))
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Skin corrosive or irritant	
	Aluminum oxide	Observation of the amount of 0.5 g of rabbit (water) at 24, 48, and 72 hours after 4 hours exposure showed no stimulation, OECD Guideline 404, GLP
	Amorphous, fumed silica	No skin irritation reported
	Methyltrimethoxysilane	rabbit, light stimulus OPEN DRAIZE TEST, Mild
	Aluminium hydroxide	No signs of irritation (OECD TG 404)
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Severe eye damage or irritation	
	Aluminum oxide	Eye irritation test results for 72 hours in rabbits (male), unstimulated. (OECD Guideline 405, GLP)
	Amorphous, fumed silica	No eye irritation reported
	Methyltrimethoxysilane	rabbit, Weak stimulus OPEN DRAIZE TEST, Mild
	Aluminium hydroxide	Severe eye damage / irritation test using rabbit, no irritant(OECD TG 405 ,GLP)
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Respiratory sensitization	
	Aluminum oxide	Respiratory sensitization tests on mice (male) revealed non-irritant
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Skin sensitization	
	Aluminum oxide	Skin sensitization test results for guinea pigs (non-irritant) (OECD Guideline 406, EPA OPPTS 870.2600, GLP)
	Amorphous, fumed silica	No skin sensitization reported in humans
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	Skin irritability test results using guinea pig (water), non-irritant (OECD TG 406 ,GLP)
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Carcinogenicity	
	Industrial Safety and Health Act	
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Notice of Ministry of Employment and Labor	
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	IARC	
	Aluminum oxide	No data
	Amorphous, fumed silica	Group 3 (Silica, amorphous )
	Methyltrimethoxysilane	No data

terminated	Aluminium hydroxide	No data
	Siloxanes and Silicones, di-Me, hydroxy-	No data
	OSHA	
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
terminated	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
	Siloxanes and Silicones, di-Me, hydroxy-	No data
	ACGIH	
	Aluminum oxide	No data
terminated	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
	Siloxanes and Silicones, di-Me, hydroxy-	No data
	NTP	
terminated	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
	Siloxanes and Silicones, di-Me, hydroxy-	No data
terminated	EU CLP	
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Germ cell mutagenicity	
	Aluminum oxide	Mammalian erythrocyte micronucleus tests in vivo in rats (cancer) showed positive (OECD Guideline 474)
	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.
	Methyltrimethoxysilane	No data
terminated	Aluminium hydroxide	No data
	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Reproductive toxicity	
	Aluminum oxide	(OECD Guideline 422, GLP), a repeat-binding study of dose toxicity studies with regeneration / developmental toxicity screening tests in rats (female / male)
	Amorphous, fumed silica	No data
terminated	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Specific target organ toxicity (single exposure)	
	Aluminum oxide	(LD50> 2000 mg / kg bw (OECD Guideline 423, GLP) in rats (cancer) as a result of acute toxicity (oral)
	Amorphous, fumed silica	Short-term exposure may cause respiratory irritation.

	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Specific target organ toxicity (repeated exposure)	
	Aluminum oxide	LOAEL: 141 or 302 mg / kg No significant effects were observed (OECD Guideline 407), as a result of repeated oral toxicity (28 days)
	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.
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
	Inhalation hazard	
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data

## 12. ECOLOGICAL INFORMATION

### 12.1. Ecotoxicity

#### Fish

	Aluminum oxide	LC50 0.078 ~ 0.108 mg/ℓ 96 hr Pimephales promelas
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	LC50 32662.842 mg/ℓ 96 hr
	Aluminium hydroxide	LC50 > 218.6441 mg/ℓ 96 hr Pimephales promelas (Ring formula( ASTM 2000,GLP))
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data

#### Shellfish

	Aluminum oxide	LC50 > 3.69 mg/ℓ 48 hr Ceriodaphnia dubia
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	LC50 29104.090 mg/ℓ 48 hr
	Aluminium hydroxide	LC50 22 mg/ℓ 96 hr etc (Gammarus sp., Exponential)
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data

#### Algae

	Aluminum oxide	EC50 > 0.024 mg/ℓ 96 hr Scenedesmus subspicatus
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	EC50 1.000 mg/ℓ 96 hr
	Aluminium hydroxide	ErC50 0.0455 ~ 0.6999 mg/ℓ 72 hr etc (Pseudokirchneriella subcapitata Exponential(OECD Guideline 201))
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data

### 12.2. Persistence and degradability

#### Persistence

	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	log Kow -0.67 ((Estimate))
	Aluminium hydroxide	log Kow -0.5304



terminated	Siloxanes and Silicones, di-Me, hydroxy-	log Kow 2.43
	degradability	
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	(No data)
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
12.3. Bioaccumulation		
	Enrichment	
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	(No data)
	Aluminium hydroxide	BCF 3.162
terminated	Siloxanes and Silicones, di-Me, hydroxy-	BCF 14.77
	Biodegradability	
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	(No data)
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
12.4. Soil mobility		
	Aluminum oxide	No data
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
12.5. Other harmful effects		
	Aluminum oxide	Pikephales promelas NOEC 28d 7.1mg / L (ECHA), Daphnia magna NOEC 28d 1.89mg / L (ECHA), Pseudokirchneriella subcapitata 96hr NOEC ≥0.004mg / L (OECD Guideline 201 Inhibition Test), GLP (Poorly soluble substance (water solubility is less than 1 mg / L) and therefore not classified as acute toxicity
	Amorphous, fumed silica	No data
	Methyltrimethoxysilane	No data
	Aluminium hydroxide	Fish (Pimephales promelas), NOEC (7d) = 1 156.5 µg / L, ring formula (EPA 2002, GLP) Crustacean (Ceriodaphnia dubia), EC50 (7d) = 250 µg / L, Ring formula (USEPA 2002) (Pseudokirchneriella subcapitata), NOErC (72h) ≥ 4 µg / L, exponential (OECD Guideline 201, GLP)
terminated	Siloxanes and Silicones, di-Me, hydroxy-	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

Aluminum oxide

ECHA

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)

Methyltrimethoxysilane

THOMSON(oral)

THOMSONSkin corrosive or irritant )

THOMSON(Severe eye damage or irritation )

ECOSAR(fish)

ECOSAR(shellfish)

ECOSAR(algae)

Aluminium hydroxide

EPIWIN(Enrichment)

NITE, HSDB

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)

16.2 Date First 2017-08-28

16.3 Revision number and date

Revision number 0 time

Revision Date 0

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)