Material Safty Data Sheet

Product	SR333
1. PRODUCT AND COMPANY IDENTIFICATION	
1.1 Product Name	SR333
1.1 Product Name 1.2 Recommended use of the chemical and restrictions on	
Recommended use of the product	Panel sealing
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	Waring
Harmful Risk phrases	H317 May cause an allergic skin reaction.
Precautions	
	P261 In contact with water releases flammable gases.
Prevention	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.
Storage	Not available
Disposal	P501 Dispose of contents and container in accordance with local regulations.
Amorphous, fumed silica	
Health	0
Fire	1
Reactivity	0
Lime stone	
Health	No data
Fire	No data
Reactivity	No data
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	
Health	3
Fire	1
Reactivity	1
Methyl Oximino Silane	
Health	1
Fire	2
Reactivity	1
Siloxanes and Silicones, di-Me, hydroxy-terminated	
Health	1
Fire	2

Name	Comon Name	CAS No	Contents(%)
Amorphous, fumed silica	Amorphous, fumed silica	112945-52-5	1~5
Lime stone		1317-65-3	25 ~ 35
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	N-(3-Trimethoxysilylpropyl)ethylenediamine	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	50 ~ 60
4. FIRST AID MEASURES			

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 and advice.오.
	Wash contaminated clothing before reuse.
	In the case of hot materials, immerse or wash affected areas in a large amount of cold water to remove heat
	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	Extinguish the area and maintain safety distance.
	Be aware that it may be melted and transported.
	Drill ditches for the disposal of digestive waters to prevent them from being scattered.
	Move container from fire area if it is not hazardous.
Protective equipment and precautions for fire-fighting	In case of tank fire, extinguish at maximum distance or use unmanned fire fighting equipment
	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.
	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
	Be careful because it can be carried in a hot state.

Some can be transported at high temperatures Leaky water may cause contamination. Contact may cause skin and eye burns.

6. ACCIDENTAL RELEASE MEASURES	
6.1. Personal Precautions, protective equipment and	Remove all ignition sources as very fine particles may cause fire or explosion.
emergency procedures	Wine off any spills immediately and follow all protective processions
	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
6.2. Environmental precautions	Prevent entry into waterways, sewers, basements, and confined spaces.
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	I
8.1. Exposure standards for chemicals, biological exposur	e standards, etc.
Domestic regulation	
Lime stone	TWA - 10mg/m3
ACGIH regulation	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
9. PHYSICAL AND CHEMICAL PROPERTIES	being exposed.
9.1 Appearance	
Physical Form	Deste
Color	Paste
9.2 Odor	White
9.3 Odor threshold	Oxime
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 No data
9.8 Evaporation Rate	
9.9 Flammability (solid, gas)	No data No data
9.10 Upper/lower flammability or explosive limits	No data No data
9.11 Vapor Pressure	
9.12 Solubility	No data
9.12 Solubility 9.13 Vapor Density	No data
9.14 Specific gravity	No data 1.38
9.15 N-octanol/water partition coefficient	
	No data

No data

No data

9.16 Autoignition temperature

9.17 Decomposition Temperature

9.18 Viscosity	
9 19 Molecular weight	

Paste

No data

9.19 Molecular weight		No data
10. STABI	LITY AND REACTIVITY	
10.1 Poss	sibility 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
aminopropy	N-(2-Aminoethyl)-3- yltrimethoxysilane	No data
	Methyl Oximino Silane	Polymerization: not polymerized Reactivity: Contact with water or moist air may form flammable and / or toxic gases and vapors.
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 Cond	ditions to avoid	
	Amorphous, fumed silica	Heat source, spark, flame, etc.
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- yltrimethoxysilane	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.
10.3 Subs	stances to avoid	
	Amorphous, fumed silica	Combustible materials, reducing materials
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- yltrimethoxysilane	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
10.4 Haza	ardous materials generated during decomposition	
	Amorphous, fumed silica	Corrosive / toxic fume
	Amorphous, fumed silica	Irritating, corrosive, toxic gas
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- yltrimethoxysilane	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

11. TOXICOLOGICAL INFORMATION

11.1. Info	rmation 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
aminopropy	N-(2-Aminoethyl)-3- yltrimethoxysilane	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
	th hazard information • toxicity	
Or	-	
01	Amorphous, fumed silica	LD50 > 3100 mg/kg Rat
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /ltrimethoxysilane	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)
Pe	rcutaneous	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /ltrimethoxysilane	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)
Inf	nalation	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /ltrimethoxysilane	No data
	Methyl Oximino Silane	(No data)
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
Skin (corrosive or irritant	
	Amorphous, fumed silica	No skin irritation reported
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /ltrimethoxysilane	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

Sever	e eye damage or irritation	
00101	Amorphous, fumed silica	No eye irritation reported
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- yltrimethoxysilane	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
Respi	iratory sensitization	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /Itrimethoxysilane	No data
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
Skin s	sensitization	
	Amorphous, fumed silica	No skin sensitization reported in humans
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /Itrimethoxysilane	민강함
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
Carcin	nogenicity	
Inc	dustrial Safety and Health Act	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- yltrimethoxysilane	No data
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
No	tice of Ministry of Employment and Labor	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /ltrimethoxysilane	No data
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
IAI	RC	
	Amorphous, fumed silica	Group 3 (Silica, amorphous)
	Lime stone	No data
	N-(2-Aminoethyl)-3-	No data
aminopropy	/Itrimethoxysilane	
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
05	SHA	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /Itrimethoxysilane	No data

	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
AC	GIH	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /ltrimethoxysilane	No data
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
NT	Р	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /Itrimethoxysilane	No data
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
EU	CLP	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /Itrimethoxysilane	No data
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	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
aminopropy	N-(2-Aminoethyl)-3- /ltrimethoxysilane	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
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
Repro	ductive toxicity	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- /ltrimethoxysilane	NOAEL=500 mg/kg bw/day
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
Speci	fic target organ toxicity (single exposure)	
	Amorphous, fumed silica	Short-term exposure may cause respiratory irritation.
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- Itrimethoxysilane	No data
	Methyl Oximino Silane	No data

Siloxanes and Silicones, di-Me, hydroxy-	No data
terminated	
Specific target organ toxicity (repeated exposure) Amorphous, fumed silica	After two years of long-term application, evidence for reversible effects in this material
Anorphous, rumed sinca	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
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
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 Lepomis macrochirus
Methyl Oximino Silane	LC50 0.00000975 mg/l 96 hr etc
Siloxanes and Silicones, di-Me, hydroxy- terminated	No data
Shellfish	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3- aminopropyltrimethoxysilane	EC50 90 mg/l 48 hr Daphnia magna
Methyl Oximino Silane	LC50 0.0000179 mg/ℓ 48 hr etc
Siloxanes and Silicones, di-Me, hydroxy- terminated	No data
Algae	
Amorphous, fumed silica	No data
Lime stone	No data
N-(2-Aminoethyl)-3- aminopropyltrimethoxysilane	ErC50 8.8 mg/l 72 hr Selenastrum capricornutum
Methyl Oximino Silane	EC50 0.0000176 mg/l 96 hr etc
Siloxanes and Silicones, di-Me, hydroxy- terminated	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
	adability	
arg,	Amorphous, fumed silica	No data
	Lime stone	No data
aminoprop	N-(2-Aminoethyl)-3- yltrimethoxysilane	No data
	Methyl Oximino Silane	(No data)
	Siloxanes and Silicones, di-Me, hydroxy-	No data
terminated	accumulation	
	chment	
enne	Amorphous, fumed silica	No data
	Lime stone	No data
aminoprop	N-(2-Aminoethyl)-3- yltrimethoxysilane	No data
	Methyl Oximino Silane	BCF 8.49
torminated	Siloxanes and Silicones, di-Me, hydroxy-	BCF 14.77
terminated Rigd	egradability	
biou	Amorphous, fumed silica	No data
	Lime stone	No data
	N-(2-Aminoethyl)-3-	39 (%) 28 day
aminopropy	yltrimethoxysilane Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
12.4. Soil	mobility	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminopropy	N-(2-Aminoethyl)-3- yltrimethoxysilane	No data
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
12.5. Oth	er harmful effects	
	Amorphous, fumed silica	No data
	Lime stone	No data
aminoprop	N-(2-Aminoethyl)-3- yltrimethoxysilane	Underwater stability Half hour Less than 1 hour
	Methyl Oximino Silane	No data
terminated	Siloxanes and Silicones, di-Me, hydroxy-	No data
13. DISPO	OSAL CONSIDERATIONS	
	osal method	Dispose of contents and container in accordance with local regulations.
13.2 Disp	osal considerations	Dispose of contents and container in accordance with local regulations.
14. TRANS	SPORT INFORMATION	
14.1 UN M	Number (UN No.)	UN transport hazard classification not available
	proper shipping name	Not applicable
	nsport hazard class(es)	Not applicable
	king group	Not applicable No data
	ironmental hazards	NO Udia

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/OECDSIDS/silicates.pdf)(Specific target organ toxicity (single exposure))

Intermational 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) Methyl Oximino Silane 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) 16.2 Date First 2012-09-24 16.3 Revision number and date Revision number 2 time Revision Date 2017-06-29 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)