Safety Data Sheet (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : MK1K/MK1KS

Manufacturer or supplier's details

Company name	: MITSUBISHI MATERIALS Co., Ltd.	
Address	: 1-3-2 Otemachi, Chiyoda-ku, Tokyo, 100-8117, Japan	
Telephone	:03-5252-5381	
Emergency telephone number: 0584-27-1033		
Recommended use of the chemical and restrictions on use		
Recommended use	: Lubricants and lubricant additives	

2. HAZARDS IDENTIFICATION

GHS Classification

Serious eye damage/eye	: Category 1
irritation	
GHS label elements	
Hazard pictograms	
Signal word	: Danger
Hazard statements	: H318 Causes serious eye damage
Precautionary statements	: Prevention:
	P280 Wear eye protection/ face protection.
	Response:
	P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously
	with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing. Immediately
	call a POISON CENTER/doctor.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	: Mixture
Chemical nature	: Inorganic and organic compounds
	Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)	ENCS No.
White mineral oil (petroleum)	8042-47-5	>=40-<50	
Graphite	7782-42-5	>=20-<30	
Calcium hydroxide	1305-62-0	>=10-<20	1-181
Zirconium oxide	1314-23-4	>=10-<20	1-563
Silicon dioxide	7631-86-9	>=1-<10	1-548

4. FIRST AID MEASURES

General advice

·In the case of accident or if you feel unwell, seek medical ad-vice immediately.

•When symptoms persist or in all cases of doubt seek medical advice.

If inhaled

·If inhaled, remove to fresh air.

 \cdot Get medical attention if symptoms occur.

In case of skin contact

 $\cdot \operatorname{Wash}$ with water and soap as a precaution.

 \cdot Get medical attention if symptoms occur.

In case of eye contact

·In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

· If easy to do, remove contact lens, if worn. Ψ

 \cdot Get medical attention immediately.

 $If \ swallowed \\$

·If swallowed, DO NOT induce vomiting.

 $\cdot \mathrm{Get}$ medical attention if symptoms occur.

·Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed

·Causes serious eye damage.

Protection of first-aiders

• First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Notes to physician

·Treat symptomatically and supportively.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

 \cdot Water spray

- $\cdot Alcohol\text{-}resistant \text{ foam}$
- ·Carbon dioxide (CO2)
- \cdot Dry chemical

Unsuitable extinguishing media

 \cdot None known.

Specific hazards during fire-fighting

 $\cdot Exposure to combustion products may be a hazard to health.$

Hazardous combustion products

- \cdot Carbon oxides
- \cdot Metal oxides
- \cdot Silicon oxides

Specific extinguishing methods

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- \cdot Use water spray to cool unopened containers.
- $\cdot Remove$ undamaged containers from fire area if it is safe to do so.
- Evacuate area.

Special protective equipment for firefighters

- \cdot In the event of fire, wear self-contained breathing apparatus.
- $\cdot Use \ personal \ protective \ equipment.$

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- \cdot Use personal protective equipment.
- ·Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions

- $\cdot \operatorname{Discharge}$ into the environment must be avoided.
- ·Prevent further leakage or spillage if safe to do so.
- $\cdot \operatorname{Retain}$ and dispose of contaminated wash water.
- $\cdot {\rm Local}$ authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

- $\cdot \operatorname{Soak}$ up with inert absorbent material.
- For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
- \cdot Clean up remaining materials from spill with suitable absorbent.

- •Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
- •Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

7. HANDLING AND STORAGE

Handling

Technical measures

•See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation

 $\cdot Use \ only \ with \ adequate \ ventilation.$

Advice on safe handling

- $\cdot \mathrm{Do} \ \mathrm{not} \ \mathrm{swallow}.$
- ·Do not get in eyes.
- ·Avoid prolonged or repeated contact with skin.
- ·Handle in accordance with good industrial hygiene and safety practice.
- •Keep container tightly closed.
- •Take care to prevent spills, waste and minimize release to the environment.

Avoidance of contact

 \cdot Oxidizing agents

Hygiene measures

- Ensure that eye flushing systems and safety showers are located close to the working place.
- •When using do not eat, drink or smoke.
- ·Wash contaminated clothing before re-use.
- •These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may re-quire added precautions.

Storage

Conditions for safe storage

- ·Keep in properly labelled containers.
- ·Keep tightly closed.
- ·Store in accordance with the particular national regulations.

Materials to avoid

·Do not store with the following product types: Strong oxidizing agents

Packaging material

·Unsuitable material: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Threshold limit value and permissible exposure limits for each component in the work environment

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
White mineral oil	8042-47-5	OEL-M (Mist)	3 mg/m ³	JP OEL
(petroleum)				JSOH
	Further infor	mation: Substance	whose OEL is set ba	used on non-
	carcinogenic h	ealth effects. See III,	Group 1: carcinogenic t	o humans
		TWA (Inhalable	5 mg/m ³	ACGIH
		fraction)	0	
Graphite	7782-42-5	OEL-M	0.5 mg/m^3	JP OEL
orapino		(Respirable dust)		JSOH
	Further inform	nation: Class 1 Dust		
		OEL-M (Total	2 mg/m^3	JP OEL
		dust)	0	JSOH
	Further inform	nation: Class 1 Dust		
		TWA (Respirable	2 mg/m ³	ACGIH
		fraction)	U	
Calcium	1305-62-0	TWA	5 mg/m ³	ACGIH
hydroxide			F (2	
Zirconium oxide	1314-23-4	TWA	5 mg/m ³ (Zirconium)	ACGIH
		ampi		
		STEL	10 mg/m ³ (Zirconium)	ACGIH
			(Zircomum)	

These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.

Calcium hydroxide

Engineering measures

- Ensure adequate ventilation, especially in confined areas.
- ·Minimize workplace exposure concentrations.

Personal protective equipment

Respiratory protection

 \cdot Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type: Combined particulates and organic vapour type

Hand protection

Material:

Chemical-resistant gloves

Remarks:

Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous sub-stance and specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection

•Wear the following personal protective equipment: Chemical resistant goggles must be worn.

 $\cdot If splashes are likely to occur, wear: Face-shield$

Skin and body protection

- Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
- •Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc.).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: paste
Colour	: grey
Odour	: none
Odour Threshold	: No data available
pH	: Not applicable
Melting point/freezing point	: No data available
Initial boiling point and	: Not applicable
boiling range	
Flash point	:>170 °C
	Method: Seta closed cup
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not classified as a flammability hazard
Self-ignition	: The substance or mixture is not classified as pyrophoric.
	The substance or mixture is not classified as self-heating.
Upper explosion limit / Upper	: No data available
flammability limit	
Lower explosion limit / Lower	: No data available
flammability limit	
Vapour pressure	: Not applicable

Relative vapour density	: No data available
Relative density	: 1.21
Solubility (ies)	
Water solubility	: No data available
Partition coefficient:	: No data available
n-octanol/water	
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: No data available
Particle size	: No data available

10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous	: Can react with strong oxidizing agents.
reactions	When heated to temperatures above 150 °C (300 °F) in
	the presence of air, trace quantities of formaldehyde may
	be released.
	Adequate ventilation is required.
Conditions to avoid	: None known.
Incompatible materials	: Oxidizing agents
Hazardous decomposition	: No hazardous decomposition products are known.
products	

11. TOXICOLOGICAL INFORMATION

Information on likely routes	: Skin contact
of exposure	Ingestion
	Eye contact

Acute toxicity

Not classified based on available information.

Components:

White mineral oil (petroleum)

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity	: LC50 (Rat) :> 5 mg/l
	Exposure time: 4 h
	Test atmosphere: dust/mist
	Assessment: The substance or mixture has no acute
	inhalation toxicity
Acute dermal toxicity	: LD50 (Rabbit) :> 2,000 mg/kg
	Assessment: The substance or mixture has no acute dermal
	toxicity
Graphite	
Acute oral toxicity: LD50 (R	(at) :> 2,000 mg/kg
	Method: OECD Test Guideline 401
	Assessment: The substance or mixture has no acute oral
	toxicity
Acute inhalation toxicity	: LC50 (Rat) :> 2 mg/l
	Exposure time: 4 h
	Test atmosphere: dust/mist
	Method: OECD Test Guideline 403
	Assessment: The substance or mixture has no acute
	inhalation toxicity
Calcium hydroxide	
Acute oral toxicity	: LD50 (Rat) : > 2,000 mg/kg
	Method: OECD Test Guideline 425
	Assessment: The substance or mixture has no acute oral
	toxicity
Acute dermal toxicity	\therefore LD50 (Rabbit) \therefore 2,500 mg/kg
	Method: OECD Test Guideline 402
	Assessment: The substance or mixture has no acute dermal
	toxicity
	Remarks: Based on data from similar materials
Zirconium oxide	
Acute oral toxicity	: LD50 (Rat) :> 5,000 mg/kg
Acute inhalation toxicity	: LC50 (Rat) :> 4.3 mg/l
	Exposure time: 4 h
	Test atmosphere: dust/mist
	Method: OECD Test Guideline 436
	Assessment: The substance or mixture has no acute
	inhalation toxicity

Silicon dioxide	
Acute oral toxicity	: LD50 (Rat) : > 3,300 mg/kg
	Assessment: The substance or mixture has no acute oral
	toxicity
	Remarks: Information taken from reference works and the
	literature.
Acute inhalation toxicity	: LC50 (Rat) :> 2.08 mg/l
	Exposure time: 4 h
	Test atmosphere: dust/mist
	Assessment: The substance or mixture has no acute
	inhalation toxicity
	Remarks: Information taken from reference works and the
	literature.
Acute dermal toxicity	: LD50 (Rabbit) : > 5,000 mg/kg
	Assessment: The substance or mixture has no acute dermal
	toxicity
	Remarks: Information taken from reference works and the
	literature.

Skin corrosion/irritation

Not classified based on available information.

Product:	
Species	: Rabbit
Result	: No skin irritation
Remarks	\vdots Based on data from similar materials
Components:	
White mineral oil (pet	roleum)
Species	: Rabbit
Result	: No skin irritation
Graphite	
Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: No skin irritation
Calcium hydroxide	
Species	: Rabbit
Method	: OECD Test Guideline 404
Result	Skin irritation

Zirconium oxide

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: No skin irritation
Silicon dioxide	
Result	: No skin irritation
Remarks	\div Information taken from reference works and the literature.

Serious eye damage/eye irritation

Causes serious eye damage.

<u>Components:</u>		
White mineral oil (petroleum)		
Species	: Rabbit	
Result	: No eye irritation	
Graphite:		
Species	: Rabbit	
Result	: No eye irritation	
Calcium hydroxide:		
Species	: Rabbit	
Result	: Irreversible effects on the eye	
Method	: OECD Test Guideline 405	
Zirconium oxide		
Species	: Rabbit	
Result	: No eye irritation	
Remarks	: Based on data from similar materials	
Silicon dioxide		
Result	: No eye irritation	
Remarks	\vdots Information taken from reference works and the literature.	

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

White mineral oil (petroleum)

Test Type	: Buehler Test
Exposure routes	Skin contact

: Guinea pig
: negative
: Local lymph node assay (LLNA)
: Skin contact
: Mouse
: Maximisation Test
: Skin contact
: Guinea pig
: negative
: Based on data from similar materials
: Does not cause skin sensitisation.
: test type not specified
: Guinea pig
: negative
\div Information taken from reference works and the literature.

Germ cell mutagenicity

Not classified based on available information.

Components:

White mineral oil (petroleum)

Genotoxicity in vitro	: Test Type: In vitro mammalian cell gene mutation test	
	Result: negative	
Genotoxicity in vivo	: Test Type: Mammalian erythrocyte micronucleus test (in vivo	
	cytogenetic assay)	
	Species: Mouse	
	Application Route: Intraperitoneal injection	
	Method: OECD Test Guideline 474	
	Result: negative	
	Remarks: Based on data from similar materials	
Graphite		
Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES)	
	Result: negative	
Calcium hydroxide		
Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES)	

	Method: OECD Test Guideline 471		
	Result: negative		
Zirconium oxide			
Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES)		
	Method: OECD Test Guideline 471		
	Result: negative		
Silicon dioxide			
Genotoxicity in vitro	: Result: negative		
	Remarks: Information taken from reference works and the		
	literature.		
Genotoxicity in vivo	Application Route: Ingestion		
	Result: negative		
	Remarks: Information taken from reference works and the		
	literature.		
Germ cell	Animal testing did not show any mutagenic effects.		
mutagenicity -			
Assessment			

Carcinogenicity

Not classified based on available information.

<u>Components:</u>

White mineral oil (petroleum)		
Species	: Rat	
Application Route	: Ingestion	
Exposure time	:24 Months	
Result	: negative	
Calcium hydroxide		
Species	: Rat	
Application Route	: Ingestion	
Exposure time	: 104 weeks	
Result	: negative	
Remarks	: Based on data from similar materials	

Reproductive toxicity

Not classified based on available information.

Components:

White mineral oil (petroleum)

Effects on fertility

: Test Type: One-generation reproduction toxicity study

Effects on foetal development	Species: Rat Application Route: Skin contact Result: negative : Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Result: negative
Graphite	
Effects on fertility	 Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422
Effects on foetal development	Result: negative : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
	Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative
Calcium hydroxide	
Effects on foetal development	: Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Result: negative Remarks: Based on data from similar materials
Zirconium oxide	itematiks. Dased on data from similar materials
Effects on fertility	 Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative
Effects on foetal development	Remarks: Based on data from similar materials : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion

Method: OECD Test Guideline 422 Result: negative Remarks: Based on data from similar materials

STOT - single exposure

Not classified based on available information.

Components:

Calcium hydroxide:

Assessment	: May cause respiratory irritation.
Remarks	: These substance(s) are inextricably bound in the product and
	therefore do not contribute to a dust inhalation hazard.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

$\underline{Components:}$

White mineral oil (petroleum)

Species	: Rat
LOAEL	: > 160 mg/kg
Application Route	: Ingestion
Exposure time	: 90 Days
Species	: Rat
LOAEL	$\Rightarrow = 1 \text{ mg/l}$
Application Route	: inhalation (dust/mist/fume)
Exposure time	: 4 Weeks
Method	: OECD Test Guideline 412
Graphite	
Species	: Rat
NOAEL	: 12 mg/m3
Application Route	: inhalation (dust/mist/fume)
Exposure time	: 28 Days
Method	: OECD Test Guideline 412
Zirconium oxide	
Species	: Rat
NOAEL	:>= 3,150 mg/kg
Application Route	: Ingestion
Exposure time	÷17 Weeks
Remarks	\vdots Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

Components:

White mineral oil (petroleum)

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Ecotoxicity	
Components:	
White mineral oil (petroleum)	
Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
	Exposure time: 96 h
	Method: OECD Test Guideline 203
Toxicity to daphnia and	: EC50 (Daphnia magna (Water flea)): > 100 mg/l
other aquatic invertebrates	Exposure time: 48 h
	Method: OECD Test Guideline 202
Toxicity to algae	: NOEC (Pseudokirchneriella subcapitata (green algae)): 100
	mg/l
	Exposure time: 72 h
	Method: OECD Test Guideline 201
Toxicity to fish (Chronic	: NOEC (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l
toxicity)	Exposure time: 28 d
Toxicity to daphnia and	: NOEC (Daphnia magna (Water flea)): 1,000 mg/l
other aquatic invertebrates	Exposure time: 21 d
(Chronic toxicity)	
Graphite	
Toxicity to fish	: LC50 (Danio rerio (zebra fish)): > 100 mg/l
	Exposure time: 96 h
	Method: OECD Test Guideline 203
Toxicity to daphnia and	: EC50 (Daphnia magna (Water flea)): > 100 mg/l
other aquatic invertebrates	Exposure time: 48 h
	Method: OECD Test Guideline 202
Toxicity to algae	: EC50 (Pseudokirchneriella subcapitata (green algae)): >
	100 mg/l
	Exposure time: 72 h

12. ECOLOGICAL INFORMATION

Toxicity to microorganisms	Method: OECD Test Guideline 201 : EC50: > 1,012.5 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Calcium hydroxide:	
Toxicity to fish	: LC50 (Gasterosteus aculeatus (threespine stickleback)): 457 mg/l Exposure time: 96 h
Toxicity to daphnia and	: EC50 (Daphnia magna (Water flea)): 49.1 mg/l
other aquatic invertebrates	Exposure time: 48 h
-	Method: OECD Test Guideline 202
Toxicity to algae	: EC10 (Pseudokirchneriella subcapitata (green algae)): 79.22 mg/l
	Exposure time: 72 h
	Method: OECD Test Guideline 201
	EC50 (Pseudokirchneriella subcapitata (green algae)):
	184.57 mg/l
	Exposure time: 72 h
	Method: OECD Test Guideline 201
Toxicity to daphnia and	: NOEC: 32 mg/l
other aquatic invertebrates	Exposure time: 14 d
(Chronic toxicity)	
Toxicity to microorganisms	: EC50: 300.4 mg/l
	Exposure time: 3 h
	Method: OECD Test Guideline 209
Zirconium oxide:	
Toxicity to fish	: LC50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h
	Method: OECD Test Guideline 203
Toxicity to daphnia and	: EC50 (Daphnia magna (Water flea)): > 100 mg/l
other aquatic invertebrates	Exposure time: 48 h
Toxicity to algae	: ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
	Exposure time: 72 h
	Method: OECD Test Guideline 201
	Remarks: Based on data from similar materials

Persistence and degradability	
<u>Components:</u>	
White mineral oil (petroleum)	
Biodegradability: Result	: Not readily biodegradable.
	Biodegradation: 31 %
	Exposure time: 28 d
Bioaccumulative potential	
No data available	
Mobility in soil	
No data available	

Hazardous to the ozone layer

Not applicable

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	: Dispose of in accordance with local regulations.
Contaminated packaging	: Empty containers should be taken to an approved waste
	handling site for recycling or disposal.
	If not otherwise specified: Dispose of as unused product.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

Refer to section 15 for specific national regulation.

15. REGULATORY INFORMATION

Related Regulations

Fire Service Law

Designated Flammable Substances, Synthetic resins, others, (3000 kilogram)

Chemical Substance Control Law

Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Priority Assessment Chemical Substance.

Industrial Safety and Health Law

Harmful Substances Prohibited from Manufacture

Not applicable

Harmful Substances Required Permission for Manufacture

Not applicable

Substances Prevented From Impairment of Health

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

Substances Subject to be Notified Names

Article 57-2 (Enforcement Order Table 9)

Chemical name	Number	Concentration (%)
Mineral oil	168	>=40 - <50
Calcium hydroxide	317	>=10 - <20
Zirconium compounds	313	>=10 - <20
Silica	312	>=1 - <10

Substances Subject to be Indicated Names

Article 57 (Enforcement Order Article 18)

Chemical name	Number
Mineral oil	168
Calcium hydroxide	317
Zirconium compounds	313
Silica	312

Ordinance on Prevention of Hazards Due to Specified Chemical Substances

Not applicable

Ordinance on Prevent	tion of Lead Poisoning
Not applicable	
Ordinance on Prevention of Tetraalkyl Lead Poisoning	
Not applicable	
Ordinance on Prevent	ion of Organic Solvent Poisoning
Not applicable	
Enforcement Order of	the Industrial Safety and Health Law - Attached table 1 (Dangerous
Substances)	
Not applicable	
Poisonous and Deleter	rious Substances Control Law
Not applicable	
Act on Confirmation,	etc. of Release Amounts of Specific Chemical Substances in the
Environment and Prop	motion of Improvements to the Management Thereof
Not applicable	
High Pressure Gas Sa	lfety Act
Not applicable	
Explosive Control Lav	v
Not applicable	
Vessel Safety Law	
Not regulated as a c	langerous good
Aviation Law	
Not regulated as a c	dangerous good
Marine Pollution and	Sea Disaster Prevention etc Law
Bulk transportation	: Not applicable for product as supplied.
Pack transportation	: Not classified as marine pollutant
Waste Disposal and P	ublic Cleansing Law
Industrial waste	
The components of thi	is product are reported in the following inventories:
NZIoC	All ingredients listed or exempt.
TSCA	All chemical substances in this product are either listed on the
	TSCA Inventory or are in compliance with a TSCA Inventory
	exemption.
AICS	All ingredients listed or exempt.
IECSC	All ingredients listed or exempt.
ENCS/ISHL	: All components are listed on ENCS/ISHL or exempted from
	inventory listing.
KECI	All ingredients listed, exempt or notified.
PICCS	All ingredients listed or exempt.

DSL	: All chemical substances in this product comply with the CEPA 1999
	and NSNR and are on or exempt from listing on the Canadian
	Domestic Substances List (DSL).
REACH	: For purchases from Dow Corning EU legal entities, all ingredients
	are currently pre/registered or exempt under REACH. Please refer
	to section 1 for recommended uses. For purchases from non-EU Dow
	Corning legal entities with the intention to export into EEA please
	contact your DC representative/local office.
TCSI	: All ingredients listed or exempt.

16. OTHER INFORMATION

Further information

Sources of key data used to compile the	: Internal technical data, data from raw
Safety Data Sheet	material SDSs, OECD eChem Portal search
	results and European Chemicals Agency,
	http://echa.europa.eu/

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format	÷ yyyy/mm/dd
Full text of other abbreviations	
ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
JP OEL JSOH	\div Japan. The Japan Society for Occupational Health. Recommendation of
Occupational Exposure Limits	
ACGIH / TWA	: 8-hour, time-weighted average
ACGIH / STEL	: Short-term exposure limit
JP OEL JSOH / OEL-M: Occupational Exposure Limit-Mean	

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC -International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG -International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL -Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH -Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS -Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable. JP / EN