

SAFETY DATA SHEET

DOW CHEMICAL THAILAND LTD

Product name: XIAMETER™ PMX-6079 Fluid Issue Date: 20.08.2020 Print Date: 21.08.2020

DOW CHEMICAL THAILAND LTD encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: XIAMETER™ PMX-6079 Fluid

Recommended use of the chemical and restrictions on use Identified uses: Intermediate Laboratory chemicals Additives

COMPANY IDENTIFICATION

DOW CHEMICAL THAILAND LTD 75 SOI SAENG CHAN-RUBIA SUKHUMVIT ROAD, PRAKANONG KLONG TOEY BANGKOK 10110 THAILAND

Customer Information Number:

(66)2-3657000 SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: (66)38-925-400 **Local Emergency Contact:** 038-925-400

2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids - Category 2
Acute toxicity - Category 4 - Oral
Acute toxicity - Category 4 - Inhalation
Acute toxicity - Category 3 - Dermal
Short-term (acute) aquatic hazard - Category 3
Long-term (chronic) aquatic hazard - Category 3

GHS label elements Hazard pictograms





Product name: XIAMETER™ PMX-6079 Fluid

Signal word: DANGER!

Hazard statements

Highly flammable liquid and vapour. Harmful if swallowed or if inhaled.

Toxic in contact with skin.

Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ ventilating/ lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Wear protective gloves/ eye protection/ face protection.

Response

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

Wash contaminated clothing before reuse.

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage

Store in a well-ventilated place. Keep cool.

Store locked up.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Static-accumulating flammable liquid.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a substance.

Substance name: Trimethyl-N-(trimethylsilyl)silanamine

CASRN: 999-97-3

Component CASRN Concentration

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Trimethyl-N- 999-97-3 >= 95.0 - <= 100.0 %

(trimethylsilyl)silanamine

Hexamethyldisiloxane 107-46-0 >= 0.43 - <= 0.58 %

4. FIRST AID MEASURES

Description of first aid measures General advice:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Seek medical attention if symptoms occur or irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be immediately available.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: Do not induce vomiting. Give one cup (8 ounces or 240 ml) of water or milk if available and transport to a medical facility. Do not give anything by mouth unless the person is fully conscious.

Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. Due to irritant properties, swallowing may result in burns and/or ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal or esophageal control if lavage is done. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam. Dry sand. Dry chemical.

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Unsuitable extinguishing media: High volume water jet. Do not use direct water stream...

Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon oxides. Nitrogen oxides (NOx). Silicon oxides.

Unusual Fire and Explosion Hazards: Flash back possible over considerable distance.. Exposure to combustion products may be a hazard to health.. Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9.. Flammable mixtures may exist within the vapor space of containers at room temperature.. Closed containers may rupture via pressure build-up when exposed to fire or extreme heat.. Vapours may form explosive mixtures with air..

Advice for firefighters

Fire Fighting Procedures: Use water spray to cool unopened containers.. Evacuate area.. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed.. Do not use a solid water stream as it may scatter and spread fire..

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.. Use personal protective equipment..

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Remove all sources of ignition. Ventilate the area. Use personal protective equipment. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. Vapor explosion hazard. Keep out of sewers. Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions: Do not release the product to the aquatic environment above defined regulatory levels. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up: Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. Clean up remaining materials from spill with suitable absorbant. 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. 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. See sections: 7, 8, 11, 12 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not get on skin or clothing. Avoid inhalation of vapour or mist. Avoid contact with eyes. Do not swallow. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Non-sparking tools should be used. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied.

Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation. Ensure all equipment is electrically grounded before beginning transfer operations. This material can accumulate static charge due to its inherent physical properties and can therefore cause an electrical ignition source to vapors. In order to prevent a fire hazard, as bonding and grounding may be insufficient to remove static electricity, it isnecessary to provide an inert gas purge before beginning transfer operations. Restrict flow velocity in order to reduce the accumulation of static electricity. Ground and bond container and receiving equipment.

Conditions for safe storage: Keep in properly labelled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

Do not store with the following product types: Strong oxidizing agents. Organic peroxides. Flammable solids. Pyrophoric liquids. Pyrophoric solids. Self-heating substances and mixtures. Substances and mixtures, which in contact with water, emit flammable gases. Explosives. Gases. Unsuitable materials for containers: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value
Trimethyl-N-	US WEEL	TWA	10 ppm
(trimethylsilyl)silanamine			
	US WEEL	STEL	50 ppm
	Dow IHG	TWA	5 ppm
	Dow IHG	STEL	10 ppm
Hexamethyldisiloxane	Dow IHG	TWA	50 ppm
Ammonia	ACGIH	TWA	25 ppm, Ammonia
	ACGIH	STEL	35 ppm, Ammonia
	Dow IHG	TWA	10 ppm
	Dow IHG	STEL	30 ppm
	TH OEL	TWA	50 ppm

The following substance(s), which have Occupational Exposure Limit(s) (OEL), may be formed during handling or processing:, Ammonia

Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Examples of acceptable glove barrier materials include: Natural rubber ("latex"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Multi-gas cartridge.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state liquid colourless
Odor ammoniacal
Odor Threshold No data available pH No data available
Melting point/range No data available
Freezing point No data available

Boiling point (760 mmHg) 126 °C

Flash point Pensky-Martens closed cup 8.8 °C

Evaporation Rate (Butyl Acetate No data available

= 1)

Flammability (solid, gas)

Lower explosion limit

Upper explosion limit

Vapor Pressure

Relative Vapor Density (air = 1)

Not applicable

No data available

No data available

No data available

Relative Density (water = 1) 0.77

Product name: XIAMETER™ PMX-6079 Fluid

Water solubility No data available

Partition coefficient: n- log Pow: 1.19 OECD Test Guideline 107 or Equivalent

octanol/water

Auto-ignition temperatureNo data availableDecomposition temperatureNo data availableKinematic Viscosity0.75 mm2/s at 25 °C

Explosive properties Not explosive

Oxidizing properties The substance or mixture is not classified as oxidizing.

Molecular weightNo data availableParticle sizeNot applicable

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Can react with strong oxidizing agents. When heated to temperatures above 150 °C (300 °F) in the presence of air, product can form formaldehyde vapours. Safe handling conditions may be maintained by keeping vapour concentrations within the occupational exposure limit for formaldehyde. Vapours may form explosive mixture with air. Hazardous decomposition products will be formed at elevated temperatures. Highly flammable liquid and vapour.

Conditions to avoid: Avoid static discharge. Heat, flames and sparks.

Incompatible materials: Oxidizing agents

Hazardous decomposition products:

Decomposition products can include and are not limited to: Ammonia.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Information on likely routes of exposure

Inhalation, Eye contact, Skin contact, Ingestion.

Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)

Acute oral toxicity

Low toxicity if swallowed. Swallowing may result in irritation or burns of the mouth, throat, and gastrointestinal tract.

Based on product testing:

LD50, Rat, male and female, 851 mg/kg OECD Test Guideline 401

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Information for components:

<u>Trimethyl-N-(trimethylsilyl)silanamine</u>

LD50, Rat, male and female, 851 mg/kg OECD Test Guideline 401

Hexamethyldisiloxane

LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

Prolonged or widespread skin contact may result in absorption of harmful amounts.

Based on product testing:

LD50, Rabbit, male and female, 547 - 589 mg/kg OECD Test Guideline 402

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

LD50, Rabbit, male and female, 547 - 589 mg/kg OECD Test Guideline 402

Hexamethyldisiloxane

LD50, Rat, > 2,000 mg/kg No deaths occurred at this concentration.

Acute inhalation toxicity

Vapor concentrations are attainable which could be hazardous on single exposure.

Based on product testing:

LC50, Rat, male and female, 6 Hour, vapour, 1516 ppm OECD Test Guideline 403 **Information for components:**

Trimethyl-N-(trimethylsilyl)silanamine

LC50, Rat, male and female, 6 Hour, vapour, 1516 ppm OECD Test Guideline 403

Hexamethyldisiloxane

LC50, Rat, male and female, 4 Hour, vapour, 106 mg/l OECD Test Guideline 403

Skin corrosion/irritation

Based on product testing:

Brief contact may cause slight skin irritation with local redness.

May cause more severe response on covered skin (under clothing, gloves).

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

Brief contact may cause slight skin irritation with local redness.

May cause more severe response on covered skin (under clothing, gloves).

Hexamethyldisiloxane

Brief contact is essentially nonirritating to skin.

Prolonged contact may cause skin irritation with local redness.

May cause more severe response on covered skin (under clothing, gloves).

Serious eye damage/eye irritation

Based on product testing:

May cause slight temporary eye irritation. Corneal injury is unlikely.

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

May cause slight temporary eye irritation. Corneal injury is unlikely.

Hexamethyldisiloxane

May cause slight temporary eye irritation. Corneal injury is unlikely. Vapor or mist may cause eye irritation.

Sensitization

For skin sensitization:

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

For skin sensitization:

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Hexamethyldisiloxane

Did not cause allergic skin reactions when tested in humans. Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Hexamethyldisiloxane

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Aspiration Hazard

Based on available information, aspiration hazard could not be determined.

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

Based on available information, aspiration hazard could not be determined.

Hexamethyldisiloxane

Based on available information, aspiration hazard could not be determined.

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Hexamethyldisiloxane

In animals, effects have been reported on the following organs:

Liver.

Testes.

Kidney.

However, the effects are species specific and are not relevant to humans.

This material contains hexamethyldisiloxane (HMDS). Repeated inhalation exposure in rats to HMDS resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

Carcinogenicity

No relevant data found.

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

No relevant data found.

Hexamethyldisiloxane

Kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans. Early onset of testicular cell tumors has been observed that are spontaneous and common in rats. These effects are believed to be species specific and unlikely to occur in humans.

Teratogenicity

Did not cause birth defects in laboratory animals.

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

Did not cause birth defects in laboratory animals.

Hexamethyldisiloxane

Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive toxicity

Issue Date: 20.08.2020

In animal studies, did not interfere with reproduction.

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

In animal studies, did not interfere with reproduction.

Hexamethyldisiloxane

In animal studies, did not interfere with reproduction.

Mutagenicity

In vitro genetic toxicity studies were negative. For similar material(s): Animal genetic toxicity studies were negative.

Information for components:

Trimethyl-N-(trimethylsilyl)silanamine

In vitro genetic toxicity studies were negative. For similar material(s): Animal genetic toxicity studies were negative.

Hexamethyldisiloxane

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Ecotoxicity

Acute toxicity to fish

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50, Brachydanio rerio (zebrafish), 96 Hour, 88 mg/l, Directive 67/548/EEC, Annex V, C.1.

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna, Static, 48 Hour, 80 mg/l, Directive 67/548/EEC, Annex V, C.2.

Acute toxicity to algae/aquatic plants

EC50, Desmodesmus subspicatus (green algae), Static, 72 Hour, Growth rate inhibition, 50 mg/l, EU Method C.3 (Algal Inhibition test)

Persistence and degradability

Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.

10-day Window: Fail **Biodegradation:** 15.3 % Exposure time: 28 d

Method: OECD Test Guideline 301D or Equivalent

Stability in Water (1/2-life)

Hydrolysis, DT50, < 28.5 s, pH 7, OECD Test Guideline 111

Bioaccumulative potential

Bioaccumulation: For similar material(s): Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 1.19 OECD Test Guideline 107 or

Equivalent

Mobility in Soil

No data available

Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Other adverse effects

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Recycler. Reclaimer. Incinerator or other thermal destruction device.

14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

Proper shipping name FLAMMABLE LIQUID, TOXIC, N.O.S.(Trimethyl-N-

(trimethylsilyl)silanamine)

UN number UN 1992 Class 3 (6.1) Packing group

Classification for SEA transport (IMO-IMDG):

Proper shipping name FLAMMABLE LIQUID, TOXIC, N.O.S. (Trimethyl-N-

(trimethylsilyl)silanamine)

UN number UN 1992
Class 3 (6.1)
Packing group II
Marine pollutant No

Transport in bulk Consult IMO regulations before transporting ocean bulk

according to Annex I or II of MARPOL 73/78 and the

IBC or IGC Code

Product name: XIAMETER™ PMX-6079 Fluid

Classification for AIR transport (IATA/ICAO):

Proper shipping name Flammable liquid, toxic, n.o.s.(Trimethyl-N-

(trimethylsilyl)silanamine)

UN number UN 1992 Class 3 (6.1) Packing group

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

Emergency Decree on Controlling the Use of Volatile Substances B.E. 2533

Not applicable

Hazardous Substance Act B.E. 2535

Department of Agriculture Not applicable

Department of Energy Business Not applicable

Department of Livestock Not applicable

Department of Industrial Works Not applicable

Food and Drug Administration Not applicable

Department of Fisheries Not applicable

16. OTHER INFORMATION

Revision

Identification Number: 6025338 / A176 / Issue Date: 20.08.2020 / Version: 6.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
Dow IHG	Dow Industrial Hygiene Guideline
STEL	Short term exposure limit
TH OEL	Thailand. Occupational Exposure Limits
TWA	Time weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

Full text of other abbreviations

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; 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

DOW CHEMICAL THAILAND LTD urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

