



SAFETY DATA SHEET

DOW CHEMICAL CANADA ULC

Product name: XIAMETER™ PMX-0245 Cyclopentasiloxane

Issue Date: 07/28/2024

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DOW CHEMICAL CANADA ULC 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. IDENTIFICATION

Product name: XIAMETER™ PMX-0245 Cyclopentasiloxane

Other means of identification: decamethylcyclopentasiloxane

Recommended use of the chemical and restrictions on use

Identified uses: Intermediate

COMPANY IDENTIFICATION

DOW CHEMICAL CANADA ULC
#2400, 215 - 2ND STREET S.W.
CALGARY AB T2P 1M4
CANADA

Customer Information Number:

800-258-2436
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact (transportation emergencies only): 1-800-424-9300

Local Emergency Contact (transportation emergencies only): 1-800-424-9300

24-Hour Emergency Contact: 1-989-636-4400

2. HAZARDS IDENTIFICATION

Hazard classification

This product is hazardous under the criteria of the Hazardous Products Regulation (HPR) as implemented under the Workplace Hazardous Materials Information System (WHMIS 2015).
Flammable liquids - Category 4

Label elements

Signal word: **WARNING!**

Hazards

H227 Combustible liquid.

Precautionary statements

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves, protective clothing, eye protection, face protection and/or

hearing protection.

Response

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage

P403 Store in a well-ventilated place.

Disposal

P501 Dispose of contents and/or container to an approved waste disposal plant.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: decamethylcyclopentasiloxane

This product is a substance.

Substance name: Decamethylcyclopentasiloxane

CASRN: 541-02-6

Chemical name	Common name and synonym	CASRN	Concentration (w/w)
Decamethylcyclopentasiloxane	decamethylcyclopentasiloxane; D5	541-02-6	>= 96.0 - <= 100.0 %

4. FIRST AID MEASURES

Description of first aid measures**General advice:**

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; consult a physician.

Skin contact: Wash off with plenty of water.

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: No emergency medical treatment necessary.

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: 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.

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

Special hazards arising from the substance or mixture

Hazardous combustion products: Silicon oxides. Carbon oxides.

Unusual Fire and Explosion Hazards: Flash back possible over considerable distance.. Exposure to combustion products may be a hazard to health.. Closed containers may rupture via pressure build-up when exposed to fire or extreme heat.. Fire burns more vigorously than would be expected.. 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.. 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: Wear self-contained breathing apparatus for firefighting if necessary.. Use personal protective equipment..

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Remove all sources of ignition. Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions: Discharge into the environment must be avoided. 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. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. See sections: 7, 8, 11, 12 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling: 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. 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. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Conditions for safe storage: Keep in properly labelled containers. 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. 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.

Consult local authorities for recommended exposure limits.

Component	Regulation	Type of listing	Value
Decamethylcyclopentasiloxane	US WEEL	TWA	10 ppm

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. 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 when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). 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: When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, 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, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	liquid
Color	colourless

Odor none

Odor Threshold No data available

pH No data available

Melting point/freezing point

Melting point/ range No data available

Freezing point No data available

Boiling point, initial boiling point and boiling range

Boiling point (760 mmHg) 211 °C

Flash point closed cup 77 °C

Evaporation Rate (Butyl Acetate = 1) No data available

Flammability

Flammability (solid, gas) Not applicable

Flammability (liquids) Not applicable

Upper/lower flammability or explosive limits

Lower explosion limit No data available

Upper explosion limit No data available

Vapor Pressure No data available

Relative vapour density

Relative Vapor Density (air = 1) No data available

Density and / or relative density

Relative Density (water = 1) 0.95

Solubility(ies)

Water solubility No data available

Partition coefficient: n-octanol/water (log value) No data available

Auto-ignition temperature No data available

Decomposition temperature	No data available
Kinematic Viscosity	3.8 cSt at 25 °C
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Molecular weight	No data available
Particle characteristics	
Particle size	Not 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. Vapours may form explosive mixture with air.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Avoid contact with oxidizing materials.

Hazardous decomposition products:

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

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data are 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 Toxicity Endpoints:

Not classified based on available information.

Acute oral toxicity

Information for the Product:

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product: Single dose oral LD50 has not been determined.

For this family of materials:
LD50, Rat, male and female, > 24,134 mg/kg

Information for components:

Decamethylcyclopentasiloxane

LD50, Rat, male and female, > 24,134 mg/kg

Acute dermal toxicity

Information for the Product:

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on information for component(s):
LD50, Rabbit, > 2,000 mg/kg No deaths occurred at this concentration.

Information for components:

Decamethylcyclopentasiloxane

LD50, Rabbit, male and female, > 2,000 mg/kg No deaths occurred at this concentration.

Acute inhalation toxicity

Information for the Product:

Brief exposure (minutes) is not likely to cause adverse effects.

For this family of materials:
LC50, Rat, male and female, 4 Hour, dust/mist, 8.67 mg/l

Information for components:

Decamethylcyclopentasiloxane

LC50, Rat, male and female, 4 Hour, dust/mist, 8.67 mg/l

Skin corrosion/irritation

Not classified based on available information.

Information for the Product:

Based on information for component(s):
Prolonged contact is essentially nonirritating to skin.

Information for components:

Decamethylcyclopentasiloxane

Prolonged contact is essentially nonirritating to skin.

Serious eye damage/eye irritation

Not classified based on available information.

Information for the Product:

Based on information for component(s):
Essentially nonirritating to eyes.

Information for components:

Decamethylcyclopentasiloxane

Essentially nonirritating to eyes.

Sensitization

For skin sensitization:

Not classified based on available information.

For respiratory sensitization:

Not classified based on available information.

Information for the Product:

For skin sensitization:

Contains component(s) which have not demonstrated the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

Information for components:

Decamethylcyclopentasiloxane

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Decamethylcyclopentasiloxane

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

Aspiration Hazard

Not classified based on available information.

Information for the Product:

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

Information for components:

Decamethylcyclopentasiloxane

Based on physical properties, not likely to be an aspiration hazard.

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)

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Decamethylcyclopentasiloxane

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

Carcinogenicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Decamethylcyclopentasiloxane

Results from a 2 year repeated vapour inhalation exposure study to rats of decamethylcyclopentasiloxane (D5) indicate effects (uterine endometrial tumors) in female animals. This finding occurred at the highest exposure dose (160 ppm) only. Studies to date have not demonstrated if this effect occurs through a pathway that is relevant to humans.

Teratogenicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Decamethylcyclopentasiloxane

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

Reproductive toxicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Decamethylcyclopentasiloxane

In animal studies, did not interfere with reproduction.

Mutagenicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Decamethylcyclopentasiloxane

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 are available.

Toxicity

Decamethylcyclopentasiloxane

Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.

No toxicity at the limit of solubility

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 16 µg/l, OECD Test Guideline 204 or Equivalent

Acute toxicity to aquatic invertebrates

No toxicity at the limit of solubility

EC50, Daphnia magna, 48 Hour, > 2.9 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

No toxicity at the limit of solubility

ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate, > 0.012 mg/l

No toxicity at the limit of solubility

NOEC, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate, 0.012 mg/l

Chronic toxicity to fish

No toxicity at the limit of solubility

LC50, Oncorhynchus mykiss (rainbow trout), 14 d, > 16 mg/l

No toxicity at the limit of solubility

NOEC, Oncorhynchus mykiss (rainbow trout), 45 d, >= 0.017 mg/l

No toxicity at the limit of solubility
NOEC, Oncorhynchus mykiss (rainbow trout), 90 d, ≥ 0.014 mg/l

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna, 21 d, 0.015 mg/l

Toxicity to soil-dwelling organisms

This product does not have any known adverse effect on the soil organisms tested.

NOEC, Eisenia fetida (earthworms), ≥ 76 mg/kg

Persistence and degradability**Decamethylcyclopentasiloxane**

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Not applicable

Biodegradation: 0.14 %

Exposure time: 28 d

Method: OECD Test Guideline 310

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitization: OH radicals

Atmospheric half-life: 7.15 d

Method: Estimated.

Bioaccumulative potential**Decamethylcyclopentasiloxane**

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 5.2 Measured

Bioconcentration factor (BCF): 2,010 Fish Estimated.

Mobility in soil**Decamethylcyclopentasiloxane**

Partition coefficient (Koc): > 5000 Estimated.

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 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 SDS SECTION 1: Identified Uses. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. For additional information, refer to: Handling &

Storage Information, MSDS Section 7 Stability & Reactivity Information, MSDS Section 10
Regulatory Information, MSDS Section 15

Treatment and disposal methods of used packaging: Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility of the waste generator. Do not re-use containers for any purpose.

14. TRANSPORT INFORMATION

TDG

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

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

Not regulated for transport
Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Not regulated for transport

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

Canadian Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

16. OTHER INFORMATION

Revision

Identification Number: 4088923 / A208 / Issue Date: 07/28/2024 / Version: 9.1

In case this version of the SDS contains significant changes from the previous version, they are listed below. If no significant changes are displayed, then no significant changes occurred.

Changes encompass identification, hazards, tox/eco-tox information and the addition/removal of the ingredients, and regulatory information, hazard information, uses, risk management measures and other key regulatory changes of the product. Detailed explanation of the changes can be obtained upon request.

Legend

TWA	8-hr TWA
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; 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

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW CHEMICAL CANADA ULC 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.

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