



HEXAMETHYLDISILOXANE

SECTION-1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hexamethyldisiloxane (HMDSO)

Synonym: Disiloxane, hexamethyl, HMDO, Bis(trimethylsilyl)ether; Bis(trimethylsilyl)oxide

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SECTION-2. COMPOSITION, INFORMATION ON INGREDIENTS

Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL mg/m3	ACGIH TLV mg/m3
Hexamethyldisiloxane (107-46-0)	100	ND	ND

SECTION-3. HAZARDS IDENTIFICATION

Emergency overview

Appearance: Colorless liquid.

Immediate effects: Corrosive effect on skin, mucous membranes and eyes. Highly flammable

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Severe overexposure can result in death.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

SECTION-4. FIRST AID MEASURES

If accidental overexposure is suspected

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.



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SECTION-4. FIRST AID MEASURES

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse.

Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Get medical attention if symptoms appear.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to person. If large quantities of this material are swallowed, call a physician immediately.

Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

SECTION-5. FIRE FIGHTING MEASURES

Flammability of the Product: Flammable.

Auto-Ignition Temperature: Not available.

Flash Points: CLOSED CUP: -1°C (30.2°F).

Flammable Limits: LOWER: 8% UPPER: 10.3%

Products of Combustion: These products are carbon oxides (CO, CO₂). Some metallic oxides, toxic fumes of silicone oxides.

Fire Hazards in Presence of Various Substances: Highly flammable in presence of open flames and sparks, of heat.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.



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SECTION-5. FIRE FIGHTING MEASURES

Fire Fighting Media and Instructions:

Flammable liquid, insoluble in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog.

Special Remarks on Fire Hazards: Danger! Extremely flammable liquid and vapor. Vapor may cause flash fire.

Special Remarks on Explosion Hazards: Not available.

SECTION-6. ACCIDENTAL RELEASE MEASURES

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill: Toxic flammable liquid, insoluble or very slightly soluble in water. Poisonous liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

SECTION-7. HANDLING AND STORAGE

Precautions:

Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids, alkalis, moisture.

Storage:

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

SECTION-8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Ventilation required: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.



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SECTION-8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protection Equipment

Respiratory protection: Use suitable respirator when high concentrations are present.

Protective gloves: Impervious gloves.

Skin protection: Gloves and protective clothing.

Eye protection: Full face shield, tightly sealed goggles, safety glasses.

Additional clothing and/or equipment: Eye washes and shower stations.

Exposure Guidelines :- See Composition/Information on Ingredients (Section2)

SECTION-9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Liquid.

Odor: Not available.

Taste: Not available.

Molecular Weight: 162.38 g/mole

Color: Clear Colorless.

pH (1% soln/water): Not applicable.

Boiling Point: 101°C (213.8°F)

Melting Point: -59°C (-74.2°F)

Critical Temperature: Not available.

Specific Gravity: 0.764 (Water = 1)

Vapor Pressure: 2 kPa (@ 20°C)

Vapor Density: Not available.

Volatility: Not available.

Water/Oil Dist. Coeff.: The product is more soluble in oil; $\log(\text{oil/water}) = 4.2$

Solubility: Insoluble in cold water, hot water.

SECTION-10. STABILITY AND REACTIVITY

Stability: Stable in sealed containers in cool area.

Conditions to Avoid: Incompatible materials

Materials to Avoid (Incompatibility): Water/moisture, alcohols, oxidizing agents. Reacts with water/moisture releasing flammable gases.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, nitrogen oxides, ammonia

Hazardous Polymerization: Will not occur



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SECTION-11. TOXICOLOGICAL INFORMATION

Results of component toxicity test performed: Oral (mus, rat), LD50: 850 mg/Kg. Oral (rbt), LD50: 1100 mg/Kg. Dermal (gpg), LD50: 1000 mg/Kg. Dermal (rbt), LD50: 710 mg/Kg. Inhalation (mus), LC50: 12000 mg/M3/2 Hr. Inhalation (rat), LC50: 8700 mg/M3/4 Hr

Human experience: ND

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

SECTION-12. ECOLOGICAL INFORMATION

Ecological Information: Ecotoxicity: LC50 (fish, Brachydanio rerio): 88 mg/l/96 Hr. EC50 Daphnia, Daphnia magna): 80 mg/l/48 Hr. EC50 (Algae, Scenedesmus subspicatus): 19 mg/l/72 Hr.

Chemical Fate Information: ND

SECTION-13. DISPOSAL INFORMATION

RCRA 40 CFR 261 Classification: ND

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

SECTION-14. DEPARTMENT OF TRANSPORTATION (DOT)/TRANSPORT INFORMATION

DOT Classification: CLASS 3: Flammable liquid.

Identification: Flammable Liquid, n.o.s. (Hexamethyldisiloxane) UNNA: 1993 PG: II

Special Provisions for Transport: Not available.

SECTION-15. REGULATORY INFORMATION

Federal and State Regulations:

TSCA 8(b) inventory: Hexamethyldisiloxane TSCA 8(a) PAIR: Hexamethyldisiloxane TSCA 8(d) H and S

Data reporting:

Hexamethyldisiloxane: effective date: 10/12/93; Sunset date: 10/12/03

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.



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SECTION-15. REGULATORY INFORMATION

Other Classifications:

WHMIS (Canada):

CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).

DSCL (EEC):

R11- Highly flammable. S9- Keep container in a well-ventilated place. S16- Keep away from sources of ignition - No smoking.

S29- Do not empty into drains. S33- Take precautionary measures against static discharges.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 3

Reactivity: 1

Personal Protection: h

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 3

Reactivity: 2

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Wear appropriate respirator when ventilation is inadequate. Splash goggles.

SECTION-16. OTHER INFORMATION

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information.

This information relates to the specific product designated and may not be valid for such product used in combination with any other materials or in any other processes. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability, or completeness. It is the users' responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.



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SECTION-16. OTHER INFORMATION

Chemcon Speciality Chemicals reserves the right to refuse shipment of this product to any consumer who fails to demonstrate the ability to consistently handle and use it safely and in compliance with all applicable laws, rules and regulations. Such demonstration may require on-site inspection of any or all storage, processing, packaging and other handling systems that come in contact with it.

Customers are responsible for compliance with local and or state regulations that may be pertinent in the storage, application and disposal of this product.