

Section 1. Product and Company Identification

Product Name Hexamethyldisiloxane
CAS Number 107-46-0

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Section 2. Hazards Identification

Classification of the substance or mixture

Physical hazards

Flammable liquids - Category 2

Health hazards

Aspiration hazard - Aspiration hazard - Category 1

Environmental hazards

Hazardous to the aquatic environment, acute hazard - Category 1

Hazardous to the aquatic environment, long-term hazard - Category 2

OSHA defined hazards: Not classified

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements

Hazard statements

Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Very toxic to aquatic life. Toxic 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 release to the environment. Wear protective gloves/eye



protection/face protection.

Response: If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use appropriate media to extinguish. Collect spillage.

Storage: Store in a well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations

Hazards not otherwise classified (HNOC): Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Section 3. Composition / Information on Ingredients

Common Name Hexamethyldisiloxane
CAS Number 107-46-0

COMPONENT	CAS NUMBER	CONCENTRATION
Hexamethyldisiloxane	107-46-0	60 - 100%

Section 4. First Aid Measures

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.

Skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms/effects, acute and delayed: Indication of immediate medical attention and special treatment needed

Section 5. Firefighting Measures

Suitable extinguishing media: Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.



Specific hazards arising from the chemical: Vapors may form explosive mixtures with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed. This material may generate formaldehyde at temperatures greater than 150°C (300°F) in air or the presence of oxygen.

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting equipment/instructions: In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Do not allow run-off from firefighting to enter drains or water courses. Use water spray to cool unopened containers.

General fire hazards: Highly flammable liquid and vapor

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. In case of spills, beware of slippery floors and surfaces. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see Section 13 of the SDS.

Environmental precautions: Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.



Section 7. Handling and Storage

Precautions for safe handling: Vapors may form explosive mixtures with air. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment.

Wear appropriate personal protective equipment. Do not breathe mist or vapor. Provide adequate ventilation. Avoid contact with eyes, skin, and clothing. Observe good industrial hygiene practices. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities: Follow rules for flammable liquids. Store locked up. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Avoid spark promoters. Eliminate sources of ignition. These alone may be insufficient to remove static electricity. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

Section 8. Exposure Controls / Personal Protection

Occupational exposure limits: No exposure limits noted for ingredient(s).

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

This product may be capable of generating 0.1 ppm or greater formaldehyde vapors under certain use conditions. According to OSHA 29 CFR 1910.1048, formaldehyde vapors may be considered hazardous if workplace airborne concentrations exceed 0.1 ppm. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection: Wear appropriate chemical resistant gloves.

Other: Wear suitable protective clothing.

Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9. Physical and Chemical Properties

Appearance

Physical state: Liquid.

Form: Liquid.

Color: Clear, water white

Odor: Mild to none.

Odor threshold: Not available.

pH: Not available.

Melting point/freezing point: -90.4°F (-68°C)

Initial boiling point and boiling range: 212°F (100°C)

Flash point (Pensky-Martens Closed Cup): 26.6°F (-3.0°C)

Evaporation rate: < 1 (n-Butyl acetate = 1)

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower: 1.5 %

Flammability limit - upper: Not available.

Explosive limit - lower: Not available.

Explosive limit - upper: Not available.

Vapor pressure: 4.2 kPa at 25°C

Vapor density: > 1 (25°C) (Air = 1)

Relative density: 0.76 (25°C)

Solubility(ies)

Solubility (Water): Insoluble.

Partition coefficient (n-Octanol/Water): 4.2

Auto-ignition temperature: 665.6°F (352°C)

Decomposition temperature: Not available.

Viscosity: 0.1 cSt (20°C)

Viscosity: 0.65 cSt (25°C)



Other information

Density: 0.76 g/cm³

Molecular formula: C₆H₁₈OSi₂

Molecular weight: 162.42 g/mol

VOC (Weight %): 760 g/l

Section 10. Stability and Reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Thermal decomposition or combustion may liberate toxic gases or fumes. This material may generate formaldehyde at temperatures greater than 150°C (300°F).

Section 11. Toxicological Information

Information on likely routes of exposure

Inhalation: May be fatal if swallowed and enters airways

Skin contact: No adverse effects due to skin contact are expected.

Eye contact: Direct contact with eyes may cause temporary irritation.

Ingestion: May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics:

Aspiration may cause pulmonary edema and pneumonitis.

Information on toxicological effects

Acute toxicity: May be fatal if swallowed and enters airways.

Components	Species	Test Results
Acute - Dermal LD50	Rabbit	-
	Rat	12160mg/kg 16 ml/kg
Acute - Inhalation LD50	Rat	15956 ppm, 4h
Acute - Oral LD50	Rat	6080 mg/kg 8ml/kg

Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation: Direct contact with eyes may cause temporary irritation.



Respiratory or skin sensitization

Respiratory sensitization: Not available.

Skin sensitization: This product is not expected to cause skin sensitization.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: Due to lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure: Not available.

Aspiration hazard: May be fatal if swallowed and enters airways.

Section 12. Ecological Information

Ecotoxicity: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Components	Species	Test Results
Acute - Fish LC50	Oncorhynchus mykiss	0.49 mg/l, 96hr
Acute - NOEC	Oncorhynchus mykiss	0.49 mg/l, 96hr

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: Has the potential to bioaccumulate.

Partition coefficient (n-Octanol/water): log Kow: 4.2

Mobility in soil: Not available

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT

UN number: UN1993

UN proper shipping name: Flammable Liquids, N.O.S. (Hexamethyldisiloxane)

Transport hazard class: 3

Subsidiary risk: -

Label(s): 3

Packing group: PG II

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Special provisions: IB2, T7, TP1, TP8, TP28

Packaging exceptions: 150

Packaging non bulk: 202

Packaging bulk: 242

IATA

UN number: UN1993

UN proper shipping name: Flammable Liquid, N.O.S. (Hexamethyldisiloxane)

Transport hazard class: 3

Subsidiary risk: -

Packing group: PG II

Environmental hazards: Yes

ERG Code: 3H

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number: UN1993

UN proper shipping name: Flammable Liquid, N.O.S. (Hexamethyldisiloxane)

Transport hazard class: 3

Subsidiary risk: -

Packing group: PG II

Environmental hazards Marine pollutant: Yes

EmS: F-E, S-E

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not established.



Section 15. Regulatory Information

US Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are listed on or exempt from the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.
CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard: Yes

Delayed Hazard: No

Fire Hazard: Yes

Pressure Hazard: No

Reactivity Hazard: No

SARA 302 Extremely hazardous substance: Not listed.

SARA 311/312 Hazardous chemical: Yes

SARA 313 (TRI reporting): Not regulated.

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
Not regulated.

Safe Drinking Water Act (SDWA): Not regulated.

US state regulations

US Massachusetts RTK - Substance List: Not regulated.

US New Jersey Worker and Community Right-to-Know Act: Not listed.

US Pennsylvania Worker and Community Right-to-Know Law: Not listed.

US Rhode Island RTK: Not regulated.

US California Proposition 65: This product contains the following chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm: None known.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No



China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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