

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
 	Flammable material; avoid heat and sources of ignition. Irritating to skin, eyes, and the respiratory system. Store under nitrogen.	   

Section I. Chemical Product and Company Identification

Chemical Name	Hexamethyldisiloxane		
Catalog Number	H0091	Supplier	TCI America 9211 N. Harborside St. Portland OR 1-800-423-8616
Synonym	Bis(trimethylsilyl)ether		
Chemical Formula	[(CH ₃) ₃ Si] ₂ O		
CAS Number	107-46-0	In case of Emergency Call	Chemtec® (800) 424-9300 (U.S.) (703) 527-3887 (International)

Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Hexamethyldisiloxane	107-46-0	Min. 99.0 (GC)	Not available.	Mouse LD ₅₀ (intraperitoneal) 4500mg/kg Rabbit LD ₅₀ (dermal) 16mL/kg

Section III. Hazards Identification

Acute Health Effects	Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY : Not available. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes. Keeping eyelids open. COLD water may be used. DO NOT use an eye ointment. Flush eyes with running water for a minimum of 15 minutes, occasionally lifting the upper eyelids. Seek medical attention. Treat symptomatically and supportively.
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. Seek medical attention. Treat symptomatically and supportively. Wash any contaminated clothing before reusing.
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 artificial respiration. WARNING: It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.
Ingestion	INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt, or waistband. If the victim is not breathing, administer artificial respiration. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.

Section V. Fire and Explosion Data

Flammability	Flammable.	Auto-Ignition	Not available.
Flash Points	-2°C (28.4°F).	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO ₂), Some metallic oxides.		
Fire Hazards	No specific information is available regarding the flammability of this compound in the presence of various materials.		
Explosion Hazards	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. No additional information is available regarding the risks of explosion.		

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Emergency phone number (800) 424-9300

Fire Fighting Media
and Instructions

Flammable liquid.
SMALL FIRE: Use DRY chemicals, CO₂, alcohol foam or water spray.
LARGE FIRE: Use alcohol foam, water spray or fog.

Section VI. Accidental Release MeasuresSpill Cleanup
Instructions

Flammable liquid. Irritating material.
Keep away from heat and sources of ignition. Mechanical exhaust required. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal.

Section VII. Handling and StorageHandling and Storage
Information

FLAMMABLE. IRRITANT. STORE UNDER NITROGEN. Handle with caution and minimize exposure. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively.
Always store away from incompatible compounds such as oxidizing agents, acids, alkalis (bases).

Section VIII. Exposure Controls/Personal Protection

Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.

Personal Protection

Splash goggles. Lab coat. Vapor respirator. Boots. Gloves. A MSHA/NIOSH approved respirator must be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.



Exposure Limits

Not available.

Section IX. Physical and Chemical Properties

Physical state @ 20°C

Colorless liquid.

Solubility

Soluble in alcohol.

Specific Gravity

0.764

Molecular Weight

162.38

Partition Coefficient

Not available.

Boiling Point

101°C (213.8°F)

Vapor Pressure

Not available.

Melting Point

-59°C (-74.2°F)

Vapor Density

>1

Refractive Index

Not available.

Volatility

Not available.

Critical Temperature

Not available.

Odor

Not available.

Viscosity

Not available.

Taste

Not available.

Section X. Stability and Reactivity Data

Stability

This material is stable if stored under proper conditions. (See Section VII for instructions)

Conditions of Instability

May decompose on exposure to moist air or water. Avoid excessive heat and light.

Incompatibilities

Reactive with strong oxidizing agents, strong acids, strong alkalis (bases).

Section XI. Toxicological Information

RTECS Number

JM9237000

Routes of Exposure

Eye contact. Ingestion. Inhalation. Skin contact.

Toxicity Data

Mouse LD₅₀ (intraperitoneal) 4500mg/kg
Rabbit LD₅₀ (dermal) 16mL/kg

Chronic Toxic Effects

CARCINOGENIC EFFECTS : Not available.
MUTAGENIC EFFECTS : Not available.
TERATOGENIC EFFECTS : Not available.
DEVELOPMENTAL TOXICITY : Not available.
Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Acute Toxic Effects

Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Section XII. Ecological Information

Ecotoxicity Not available.

Environmental Fate Hexamethyldisiloxane is an anthropogenic compound which has a wide variety of commercial and consumer uses. Release to the environment may be possible during waste disposal from its production and use. If released to soil, it may rapidly volatilize to the atmosphere although its potential for strong adsorption to soil may attenuate the rate of this process. It is stable to hydrolysis except in clay soils. If released to water, it is expected to rapidly volatilize to the atmosphere. Its volatilization half-life from a model river has been estimated to be approximately 4hrs. It is resistant to biodegradation and will not hydrolyze in environmental waters. An estimated bioconcentration factor of 5,000 indicates that it has the potential to bioconcentrate in fish although its rapid rate of volatilization may diminish the importance of this process in the environment. If released to the atmosphere, it will be oxidized by the gas-phase reaction with photochemically produced hydroxyl radicals with an estimated half-life of 12d. Oxidation by ozone and nitrate radicals and direct photolysis are not expected to be significant. Occupational exposure may occur by inhalation or dermal contact during its production or use. Members of the general population may be exposed by dermal contact or inhalation due to its use in cosmetic products.

Section XIII. Disposal Considerations

Waste Disposal Recycle to process, if possible. Consult your local or regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state, and local regulations when disposing of the substance.

Section XIV. Transport Information

DOT Classification DOT CLASS 3: Flammable liquid.

PIN Number UN1993

Proper Shipping Name Flammable liquid, corrosive, n.o.s.

Packing Group (PG) II

DOT Pictograms

**Section XV. Other Regulatory Information and Pictograms**

TSCA Chemical Inventory (EPA) This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.

WHMIS Classification (Canada) WHMIS CLASS B-2: Flammable liquid with a flash point lower than 35°C (100°F).

EINECS Number (EEC) 203-492-7

EEC Risk Statements R11- Highly flammable.
R18- In use, may form flammable/explosive vapor-air mixture.
R36/37/38- Irritating to eyes, respiratory system and skin.

Japanese Regulatory Data Not available.

Section XVI. Other Information**Version 1.0****Validated on 2/2/1999.****Printed 2/24/2005.****Notice to Reader**

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, household, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.