

**DOW CORNING CORPORATION**  
**Material Safety Data Sheet**

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Version: 2.2

Revision Date: 2013/05/21

**DOW CORNING(R) OS-10****1. PRODUCT AND COMPANY IDENTIFICATION**

Dow Corning Corporation  
South Saginaw Road  
Midland, Michigan 48686

**24 Hour Emergency Telephone: (989) 496-5900**

Customer Service: (989) 496-6000

Product Disposal Information: (989) 496-6315

CHEMTREC: (800) 424-9300

MSDS No.: 02341476

Revision Date: 2013/05/21

Generic Description: Methyl Siloxane

Physical Form: Liquid

Color: Colorless

Odor: Slight odor

NFPA Profile: Health 1 Flammability 3 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

**2. HAZARDS IDENTIFICATION****POTENTIAL HEALTH EFFECTS****Acute Effects**

Eye: Direct contact may cause mild irritation.

Skin: No significant irritation expected from a single short-term exposure.

Inhalation: Irritates respiratory passages very slightly. Overexposure by inhalation may cause drowsiness, dizziness, confusion or loss of coordination.

Oral: Overexposure by ingestion may cause drowsiness, dizziness, confusion or loss of coordination.

**Prolonged/Repeated Exposure Effects**

Skin: Repeated or prolonged contact may cause defatting and drying of skin which may result in skin irritation and dermatitis.

Inhalation: No known applicable information.

Oral: No known applicable information.

**Signs and Symptoms of Overexposure**

No known applicable information.

**Medical Conditions Aggravated by Exposure**

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No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
107-46-0	85.0 - 100.0	Hexamethyldisiloxane (HMDS)

The above components are hazardous as defined in 29 CFR 1910.1200.

**4. FIRST AID MEASURES**

Eye:	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes while holding the eyelid(s) open. Obtain medical attention.
Skin:	Remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Flush with lukewarm gently flowing water for 15 minutes. If irritation persists, repeat flushing. If irritation persists, obtain medical advice.
Inhalation:	Remove from the source of contamination or move to fresh air. If irritation persists, obtain medical advice.
Oral:	Never give anything by mouth if victim is rapidly losing consciousness or convulsing. DO NOT INDUCE VOMITING. Have victim drink 2 to 8 oz. (60 to 240 mL) of water. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Have victim rinse mouth with water again. Immediately obtain medical attention.
Notes to Physician:	Treat according to person's condition and specifics of exposure.

**5. FIRE FIGHTING MEASURES**

Flash Point:	26.6 °F / -3 °C (Pensky-Martens Closed Cup)
Autoignition Temperature:	645.8 °F / 341 °C
Flammability Limits in Air:	Not determined.
Extinguishing Media:	On large fires use AFFF alcohol compatible foam or water spray (fog). On small fires use AFFF alcohol compatible foam, CO2 or water spray (fog). Water can be used to cool fire exposed containers.

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Fire Fighting Measures:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire Hazards:	Vapors are heavier than air and may travel to a source of ignition and flash back. Static electricity will accumulate and may ignite vapors. Prevent a possible fire hazard by bonding and grounding or inert gas purge. Fire burns more vigorously than would be expected.

**6. ACCIDENTAL RELEASE MEASURES**

Containment/Clean up:	Remove possible ignition sources. Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and 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 federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.
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Note: See Section 8 for Personal Protective Equipment for Spills. Call (989) 496-5900, if additional information is required.

**7. HANDLING AND STORAGE**

Use with adequate ventilation. Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally.

Static electricity will accumulate and may ignite vapors. Prevent a possible fire hazard by bonding and grounding or inert gas purge. Keep container closed and away from heat, sparks, and flame.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Component Exposure Limits**

<u>CAS Number</u>	<u>Component Name</u>	<u>Exposure Limits</u>
107-46-0	Hexamethyldisiloxane (HMDS)	Dow Corning guide: TWA 200 ppm.

**Engineering Controls**

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Local Ventilation: Recommended.  
General Ventilation: Recommended.

**Personal Protective Equipment for Routine Handling**

Eyes: Use proper protection - safety glasses as a minimum.

Skin: Wash at mealtime and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended.

Suitable Gloves: Avoid skin contact by implementing good industrial hygiene practices and procedures. Select and use gloves and/or protective clothing to further minimize the potential for skin contact. Consult with your glove and/or personnel protective equipment manufacturer for selection of appropriate compatible materials.

Inhalation: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. IH personnel can assist in judging the adequacy of existing engineering controls.

Suitable Respirator: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

**Personal Protective Equipment for Spills**

Eyes: Use full face respirator.

Skin: Wash at mealtime and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended.

Inhalation/Suitable Respirator: Respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Precautionary Measures: Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally. Use reasonable care.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry ([www.SEHSC.com](http://www.SEHSC.com)) or contact the Dow Corning customer service group.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

## DOW CORNING(R) OS-10

Physical Form: Liquid  
Color: Colorless  
Odor: Slight odor  
Specific Gravity @ 25°C: 0.76  
Viscosity: 0.65 cSt

Freezing/Melting Point: -68 °C  
Boiling Point: 100 °C  
Vapor Pressure @ 25°C: 42.2 mm Hg  
Vapor Density: 1.25  
Solubility in Water: Not determined.  
pH: Not determined.  
Volatile Content: 100 %  
Flash Point: 26.6 °F / -3 °C (Pensky-Martens Closed Cup)  
Autoignition Temperature: 645.8 °F / 341 °C  
Flammability Limits in Air: Not determined.

Note: The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

## 10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Hazardous polymerization will not occur.

Conditions to Avoid: None.

Materials to Avoid: Oxidizing material can cause a reaction.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

## 11. TOXICOLOGICAL INFORMATION

Acute Toxicology Data for Product

	<u>Species</u>	<u>Test Results</u>	<u>Type of Test</u>
Inhalation LC50:	Rat	106 mg/l	4hr vapor

Component Toxicology Information

A 2-year combined chronic/carcinogenicity study was conducted on HMDS in Fischer 344 rats. A dose related increase in

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Leydig cell tumors was observed at the end of one year. Nearly 100% of the male rats in the control and treated groups had Leydig cell tumors at the end of 2 years, which is an expected observation in this strain of rat. The early onset of Leydig cell tumors in this study may have little or no relevance to humans. Also at the end of two years there was a dose related increase in kidney tumors in male rats at the two highest exposure concentrations (1,600 and 5,000 ppm). Additional work indicates that the kidney tumors in the male rats are mediated through a-2u-globulin. This is considered a rat-specific mode of action with no relevance to humans. The lack of relevance of these findings from this study to humans supports the use of HMDS in its intended applications.

This material contains hexamethyldisiloxane (HMDS). Repeated exposure in rats to HMDS resulted in what appears to be protoporphyrin accumulation in the liver at dose levels that exceed typical workplace or consumer exposures. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown. Industrial, commercial, or consumer intended uses of products containing HMDS do not represent a risk to humans.

**Special Hazard Information on Components**

No known applicable information.

**12. ECOLOGICAL INFORMATION****Environmental Fate and Distribution**

Complete information is not yet available.

**Environmental Effects**

Fish: Oncorhynchus mykiss; 96 Hrs; LC50; 0.46 mg/l

Daphnia: Daphnia magna; 72 Hrs; EC50; 0.79 mg/l

Algae: Selenastrum capricornutum; 96 Hrs; EC50; > 0.93 mg/l

**Fate and Effects in Waste Water Treatment Plants**

Complete information is not yet available.

## Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

**13. DISPOSAL CONSIDERATIONS**

**DOW CORNING(R) OS-10****RCRA Hazard Class (40 CFR 261)**

When a decision is made to discard this material, as received, is it classified as a hazardous waste? Yes

Characteristic Waste:

Ignitable: D001

State or local laws may impose additional regulatory requirements regarding disposal. Call (989) 496-6315, if additional information is required.

**14. TRANSPORT INFORMATION****DOT Road Shipment Information (49 CFR 172.101)**

Proper Shipping Name: Flammable liquids, n.o.s.

Hazard Technical Name: Hexamethyldisiloxane

Hazard Class: 3

UN/NA Number: UN 1993

Packing Group: II

Hazard Label(s): Flammable Liquid

**Ocean Shipment (IMDG)**

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.

Hazard Technical Name: Hexamethyldisiloxane

Hazard Class: 3

UN/NA Number: UN 1993

Packing Group: II

Hazard Label(s): flammable liquid

Marine Pollutant: Hexamethyldisiloxane

**Air Shipment (IATA)**

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

Hazard Technical Name: Hexamethyldisiloxane

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Hazard Class: 3  
UN/NA Number: UN 1993  
Packing Group: II  
Hazard Label(s): Flammable Liquid

Call Dow Corning Transportation, (989) 496-8577, if additional information is required.

**15. REGULATORY INFORMATION**

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

**EPA SARA Title III Chemical Listings****Section 302 Extremely Hazardous Substances (40 CFR 355):**

None.

**Section 304 CERCLA Hazardous Substances (40 CFR 302):**

None.

**Section 311/312 Hazard Class (40 CFR 370):**

Acute: Yes  
Chronic: No  
Fire: Yes  
Pressure: No  
Reactive: No

**Section 313 Toxic Chemicals (40 CFR 372):**

None present or none present in regulated quantities.

Note: Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

**Supplemental State Compliance Information****California**

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

None known.



**DOW CORNING(R) OS-10****New Jersey**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
107-46-0	85.0 - 100.0	Hexamethyldisiloxane (HMDS)

**Pennsylvania**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
107-46-0	85.0 - 100.0	Hexamethyldisiloxane (HMDS)

**16. OTHER INFORMATION**

Prepared by: Dow Corning Corporation

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

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