

Page: 1 of 8 Version: 1.2

Revision Date: 2005/03/14

# **DOW CORNING(R) OS-10**

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Dow Corning Corporation
South Saginaw Road
Customer Service: (989) 496-5900
Midland, Michigan 48686
Product Disposal Information: (989) 496-6315

CHEMTREC: (800) 424-9300

MSDS No.: 02341476 Revision Date: 2005/03/14

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. OSHA HAZARDOUS COMPONENTS

CAS Number Wt % Component Name

107-46-0 > 60.0 Hexamethyldisiloxane (HMDS)

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

## 3. 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: Vapor may irritate nose and throat. Vapor overexposure may cause drowsiness.

Oral: Low ingestion hazard in normal use. Swallowing large amounts may cause drowsiness.

#### 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: Repeated ingestion or swallowing large amounts may injure internally.

Signs and Symptoms of Overexposure



Page: 2 of 8 Version: 1.2

Revision Date: 2005/03/14

# **DOW CORNING(R) OS-10**

No known applicable information.

#### Medical Conditions Aggravated by Exposure

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.

## 4. FIRST AID MEASURES

Eye: Immediately flush with water for 15 minutes.

Skin: Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get

medical attention if irritation or other ill effects develop or persist.

Inhalation: Remove to fresh air. Get medical attention if ill effects persist.

Oral: Get medical attention.

Comments: 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 medium expansion (>30:1) AFFF alcohol compatible foam or water spray.

On small fires use medium expansion (>30:1) AFFF alcohol compatible foam, CO2 or water

spray. Water can be used to cool fire exposed containers.

Fire Fighting Measures: Self-contained breathing apparatus and protective clothing should be worn in fighting large

fires involving chemicals. Use water spray to keep fire exposed containers cool. Determine

the need to evacuate or isolate the area according to your local emergency plan.

Unusual Fire Hazards: Fire burns more vigorously than would be expected. 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.

#### Hazardous Decomposition Products

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



Page: 3 of 8 Version: 1.2

Revision Date: 2005/03/14

# **DOW CORNING(R) OS-10**

## 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 absorbant. 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 absorbant 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.

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. 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**

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.



Page: 4 of 8 Version: 1.2

Revision Date: 2005/03/14

# **DOW CORNING(R) OS-10**

Suitable Gloves: Silver Shield(R). 4H(R). Nitrile Rubber. Butyl Rubber.

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 as determined by air sampling or are unknown, appropriate respiratory protection should be worn. Follow CSA

Standard Z94.4-93 and use NIOSH/MHSA 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 CSA Standard Z94.4-93 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. 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.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

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 %

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

specifications.



Page: 5 of 8 Version: 1.2

Revision Date: 2005/03/14

# **DOW CORNING(R) OS-10**

#### 10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous polymerization will not occur.

Polymerization:

Conditions to Avoid: None.

Materials to Avoid: Oxidizing material can cause a reaction.

#### 11. TOXICOLOGICAL INFORMATION

## **Component Toxicology Information**

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

### **Special Hazard Information on Components**

No known applicable information.

#### 12. ECOLOGICAL INFORMATION

### **Environmental Fate and Distribution**

Complete information is not yet available.

### **Environmental Effects**

Complete information is not yet available.

#### **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



Page: 6 of 8 Version: 1.2

Revision Date: 2005/03/14

# **DOW CORNING(R) OS-10**

section concerning the overall ecological safety of this material.

## 13. DISPOSAL CONSIDERATIONS

## 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 LIQUID, N.O.S.

Hazard Technical Name: HEXAMETHYLDISILOXANE

Hazard Class: 3

UN/NA Number: UN1993

Packing Group: II

Hazard Label(s): FLAMMABLE LIQUID LABEL

## Ocean Shipment (IMDG)

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

Hazard Technical Name: HEXAMETHYLDISILOXANE

Hazard Class: 3

UN Number: 1993

Packing Group: II

Hazard Label(s): FLAMMABLE LIQUID

Marine Pollutant: Not Applicable

**Air Shipment (IATA)** 

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



Page: 7 of 8 Version: 1.2

Revision Date: 2005/03/14

# **DOW CORNING(R) OS-10**

Hazard Technical Name: HEXAMETHYLDISILOXANE

Hazard Class: 3

UN Number: 1993

Packing Group: II

Hazard Label(s): FLAMMABLE LIQUID

#### 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.

### **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.

#### **Massachusetts**

No ingredient regulated by MA Right-to-Know Law present.



Page: 8 of 8 Version: 1.2

Revision Date: 2005/03/14

# **DOW CORNING(R) OS-10**

**New Jersey** 

CAS Number Wt % Component Name

107-46-0 > 60.0 Hexamethyldisiloxane (HMDS)

Pennsylvania

CAS Number Wt % Component Name

107-46-0 > 60.0 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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