SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

- **Product form**: Substance
- **Physical state**: Liquid
- **Substance name**: HEXAMETHYLDISILOXANE, 98%
- **Product code**: SIH6115.0
- **Formula**: C6H18OSi2
- **Synonyms**: MM, HMDSO, HMDS; OXYBIS(TRIMETHYLSILANE); BIS(TRIMETHYLSILYL) OXIDE
- **Chemical family**: ORGANOSILOXANE

1.2. Relevant identified uses of the substance or mixture and uses advised against

- **Use of the substance/mixture**: Chemical intermediate
- **For research and industrial use only**

1.3. Details of the supplier of the safety data sheet

**GELEST, INC.**
11 East Steel Road
Morrisville, PA 19067
USA
T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST
info@gelest.com - www.gelest.com

1.4. Emergency telephone number

**Emergency number**: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

**Classification (GHS-US)**
- Flam. Liq. 2 H225
- Aquatic Acute 2 H401
- Aquatic Chronic 2 H411

**Full text of H-phrases**: see section 16

2.2. Label elements

**GHS-US labeling**

- **Signal word (GHS-US)**: Danger
- **Hazard pictograms (GHS-US)**: GHS02, GHS09

- **Hazard statements (GHS-US)**: H225 - Highly flammable liquid and vapor
  H401 - Toxic to aquatic life
  H411 - Toxic to aquatic life with long lasting effects

- **Precautionary statements (GHS-US)**: P280 - Wear protective gloves/protective clothing/eye protection/face protection
  P210 - Keep away from heat, open flames, sparks. - No smoking
  P233 - Keep container tightly closed
  P240 - Ground/bond container and receiving equipment
  P241 - Use explosion-proof electrical equipment
  P242 - Use only non-sparking tools
  P283 - Take precautionary measures against static discharge
  P273 - Avoid release to the environment
  P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
  P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish
  P391 - Collect spillage
  P403+P235 - Keep in a cool place
  P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Other hazards

No additional information available
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2.4. Unknown acute toxicity (GHS-US)
No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Mono-constituent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>HEXAMETHYLDISILOXANE, 98%</td>
</tr>
<tr>
<td>CAS No</td>
<td>107-46-0</td>
</tr>
<tr>
<td>EC no</td>
<td>203-492-7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethyldisiloxane</td>
<td>(CAS No) 107-46-0</td>
<td>&gt; 97</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 2, H401</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>

3.2. Mixture
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician.

First-aid measures after skin contact: Wash with plenty of soap and water.

First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Get medical advice/attention.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed


Symptoms/injuries after skin contact: May cause skin irritation.

Symptoms/injuries after eye contact: May cause eye irritation.

Symptoms/injuries after ingestion: May be harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Highly flammable liquid and vapor. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame. Liquid generates strong static charge when poured.

5.3. Advice for firefighters

Firefighting instructions: Use water spray to cool exposed surfaces. Exercise caution when fighting any chemical fire.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapor and mist.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Remove ignition sources. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.
### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Additional hazards when processed**
- Handle empty containers with care because residual vapors are flammable.

**Precautions for safe handling**
- Avoid all eye and skin contact and do not breathe vapor and mist. Provide good ventilation in process area to prevent accumulation of vapors. Take precautionary measures against static discharge. Use only non-sparking tools.

**Hygiene measures**
- Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Technical measures**
- Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical equipment.

**Storage conditions**
- Keep container tightly closed.

**Incompatible materials**
- Oxidizing agent. Peroxides.

**Storage area**
- Store in a well-ventilated place. Store away from heat.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

**Appropriate engineering controls**
- Provide local exhaust or general room ventilation.

**Personal protective equipment**
- Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Hand protection**
- Neoprene or nitrile rubber gloves.

**Eye protection**
- Chemical goggles. Contact lenses should not be worn.

**Skin and body protection**
- Wear suitable protective clothing.

**Respiratory protection**
- NIOSH-certified organic vapor (black cartridge) respirator.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>Clear liquid</td>
</tr>
<tr>
<td><strong>Molecular mass</strong></td>
<td>162.38 g/mol</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Odorless</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Refractive index</strong></td>
<td>1.3774</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Relative evaporation rate (butyl acetate=1)</strong></td>
<td>3.8</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Freezing point</strong></td>
<td>-67 °C</td>
</tr>
<tr>
<td><strong>Boiling point</strong></td>
<td>99 - 100 °C</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>-1 °C</td>
</tr>
<tr>
<td><strong>Critical temperature</strong></td>
<td>243 °C</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>340 °C</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Highly flammable liquid and vapor</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>55 mm Hg @ 30°C</td>
</tr>
<tr>
<td><strong>Critical pressure</strong></td>
<td>1.91 mPa</td>
</tr>
<tr>
<td><strong>Relative vapor density at 20 °C</strong></td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>0.7636</td>
</tr>
</tbody>
</table>
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VOC content: 100 %
Solubility: Insoluble in water.
   Water: 930 ppb
   Solubility parameter: 6.8
Log Pow: No data available
Log Kow: No data available
Viscosity, kinematic: 0.65 cSt
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidizing properties: No data available
Explosive limits: 1.25 - 18.6 vol % (lower; upper)

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Stable in sealed containers in a cool place.

10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid
Heat. Open flame. Sparks.

10.5. Incompatible materials
Oxidizing agent. Peroxides.

10.6. Hazardous decomposition products
Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified

Hexamethyldisiloxane (107-46-0)
LC50 inhalation rat (ppm) 15956 ppm/4h
LDLo oral guinea pig 32500 mg/kg
ATE US (gases) 15956.000 ppmV/4h

Skin corrosion/irritation: Not classified
   Skin Irritation - rabbit: 500mg/24H: mild irritant effect
   Eye Irritation - rabbit: 100 uL/24H: mild irritant effect

Serious eye damage/irritation: Not classified
   Eye Irritation - rat: 100 uL/24H: mild irritant effect

Respiratory or skin sensitization: Not classified
   Respiratory Irritation - rabbit: 10 mg/24H: mild irritant effect
   Skin Irritation - rabbit: 500 mg/24H: mild irritant effect

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified


Symptoms/injuries after skin contact: May cause skin irritation.

Symptoms/injuries after eye contact: May cause eye irritation.

Symptoms/injuries after ingestion: May be harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - water: Toxic to aquatic life with long lasting effects.

Hexamethyldisiloxane (107-46-0)
LC50 fish 1 3.02 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

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12.2. Persistence and degradability

| Hexamethyldisiloxane (107-46-0) | Persistence and degradability | May cause long-term adverse effects in the environment. |

12.3. Bioaccumulative potential

| Hexamethyldisiloxane (107-46-0) | BCF fish 1 | 1300 |
| - | Log Pow | 4.2 |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other adverse effects: This substance may be hazardous to the environment.
Effect on ozone layer: No additional information available
Effect on the global warming: No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations: May be incinerated. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Additional information: Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

UN-No.(DOT): 1993
DOT NA no.: UN1993

14.2. UN proper shipping name

Proper Shipping Name (DOT): Flammable liquids, n.o.s. (HEXAMETHYLDISILOXANE)
Department of Transportation (DOT) Hazard Classes: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT): 3 - Flammable liquid

DOT Symbols: G - Identifies PSN requiring a technical name
Packing group (DOT): II - Medium Danger
DOT Packaging Exceptions (49 CFR 173.xxx): 150
DOT Packaging Non Bulk (49 CFR 173.xxx): 202
DOT Packaging Bulk (49 CFR 173.xxx): 242

14.3. Additional information

Other information: No supplementary information available.

Transport by sea

DOT Vessel Stowage Location: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 60 L

SECTION 15: Regulatory information

15.1. US Federal regulations
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15.2. International regulations

<table>
<thead>
<tr>
<th>Hexamethyldisiloxane (107-46-0)</th>
<th>Listed on the United States TSCA (Toxic Substances Control Act) inventory</th>
</tr>
</thead>
</table>

15.3. US State regulations

<table>
<thead>
<tr>
<th>Hexamethyldisiloxane (107-46-0)</th>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U.S. - California - Proposition 65 - Developmental</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Toxicity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>U.S. - California - Proposition 65 - Reproductive</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Toxicity - Female</td>
<td></td>
</tr>
<tr>
<td></td>
<td>U.S. - California - Proposition 65 - Reproductive</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Toxicity - Male</td>
<td></td>
</tr>
</tbody>
</table>

15.3. US State regulations

<table>
<thead>
<tr>
<th>Hexamethyldisiloxane (107-46-0)</th>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>U.S. - California - Proposition 65 - Developmental Toxicity</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</th>
<th>No significance risk level (NSRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No significance risk level (NSRL)</td>
</tr>
</tbody>
</table>

SECTION 16: Other information

Abbreviations and acronyms:
- Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development.

Full text of H-phrases:
- Aquatic Acute 2: Hazardous to the aquatic environment - Acute Hazard Category 2
- Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard Category 2
- Flam. Liq. 2: Flammable liquids Category 2
- H225: Highly flammable liquid and vapor
- H401: Toxic to aquatic life
- H411: Toxic to aquatic life with long lasting effects

HMIS III Rating
- Health: 1 Slight Hazard - Irritation or minor reversible injury possible
- Flammability: 3 Serious Hazard
- Physical: 0 Minimal Hazard

Prepared by safety and environmental affairs.
Date of issue: 11/04/2014  Version: 1.0

SDS US (GHS HazCom 2012) - Custom
11/04/2014 EN (English US) SDS ID: SIH6115.0 6/7
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According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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