SECTION 1: Identification

1.1. Product identifier

- Product name: OCTAMETHYLCYCLOTETRASILOXANE, 98%
- Product code: SIO6700.0
- Physical state: Liquid
- Chemical family: ORGANOSILOXANE

1.2. Recommended use of the chemical and restrictions on use

- Recommended use: 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: Hazard(s) identification

2.1. Classification of the substance or mixture

- Flammable liquids Category 3: H226
- Acute toxicity (oral) Category 4: H302
- Acute toxicity (dermal) Category 4: H312
- Serious eye damage/eye irritation Category 2B: H320
- Reproductive toxicity Category 2: H361
- Hazardous to the aquatic environment - Chronic Hazard Category 4: H413
- Full text of H statements: see section 16

2.2. Label elements

- GHS-US labeling
  - Hazard pictograms (GHS-US):
    - GHS02
    - GHS07
    - GHS08

- Signal word (GHS-US): Warning

- Hazard statements (GHS-US):
  - H226 - Flammable liquid and vapor
  - H302+H312 - Harmful if swallowed or in contact with skin
  - H320 - Causes eye irritation
  - H361 - Suspected of damaging fertility or the unborn child
  - H413 - May cause long lasting harmful effects to aquatic life

- Precautionary statements (GHS-US):
  - P200 - Obtain special instructions before use
  - P202 - Do not handle until all safety precautions have been read and understood
  - P280 - Wear protective gloves/protective clothing/eye protection/face protection
  - P308+P313 - If exposed or concerned: Get medical advice/attention
  - 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
**OCTAMETHYLCYCLOTETRASILOXANE, 98%**

**Safety Data Sheet**

**Print date:** 03/17/2017  
**EN (English US)**  
**SDS ID:** SIO6700.0

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**2.3. Hazards not otherwise classified (HNOC)**

No additional information available

**2.4. Unknown acute toxicity (GHS US)**

No data available

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**SECTION 3: Composition/Information on ingredients**

**3.1. Substances**

**Substance type:** Mono-constituent  
**Name:** OCTAMETHYLCYCLOTETRASILOXANE, 98%  
**CAS No:** 556-67-2

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octamethylcyclosiloxane</td>
<td>(CAS No) 556-67-2</td>
<td>98 - 100</td>
<td>Flam. Liq. 3, H226, Acute Tox. 4 (Oral), H302, Acute Tox. 4 (Dermal), H312, Eye Irrit. 2B, H320, Repr. 2, H361, Aquatic Chronic 4, H413</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

**3.2. Mixtures**

Not applicable

---

**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 victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

**First-aid measures after skin contact:** Wash with plenty of soap and water. Get medical advice/attention.

**First-aid measures after eye contact:** Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

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

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

**Symptoms/injuries after inhalation:** May cause irritation to the respiratory tract.

**Symptoms/injuries after skin contact:** Harmful in contact with skin. Causes mild skin irritation.

**Symptoms/injuries after eye contact:** Causes eye irritation.

**Symptoms/injuries after ingestion:** Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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**4.3. Indication of any immediate medical attention and special treatment needed**

No additional information available

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media:** Water spray. Foam. Carbon dioxide. Dry chemical.

**Unsuitable extinguishing media:** None known.

**5.2. Special hazards arising from the substance or mixture**

**Fire hazard:** 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: Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

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: Eliminate ignition sources. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Protective equipment: Wear protective equipment as described in Section 8.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: “Exposure controls/personal protection.”

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up: Clean up any spills as soon as possible, using an absorbent material to collect it. Use only non-sparking tools.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Precautions for safe handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid all eye and skin contact and do not breathe vapor and mist. Ground/bond container and receiving equipment. 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 contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.

Storage conditions: Keep container tightly closed. Keep in a cool place. Store locked up.


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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th></th>
<th>AIHA</th>
<th>WEEL TWA (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octamethylcyclotetrasiloxane (556-67-2)</td>
<td></td>
<td>10 ppm</td>
</tr>
</tbody>
</table>

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: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. 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>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>296.61 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>1.3968</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>17.4 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>175 - 176 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>51 °C</td>
</tr>
<tr>
<td>Critical temperature</td>
<td>314 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>400 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Flammable liquid and vapor</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>1 mm Hg @ 23˚C</td>
</tr>
<tr>
<td>Critical pressure</td>
<td>1.03 mPa</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.956</td>
</tr>
<tr>
<td>VOC content</td>
<td>100 %</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>2.3 cSt</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>0.75 - 7.4 vol % (lower; upper)</td>
</tr>
</tbody>
</table>

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

Bases can cause non-hazardous polymerization.

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: Oral: Harmful if swallowed. Dermal: Harmful in contact with skin.

**OCTAMETHYLCYCLOTETRASILOXANE, 98% (556-67-2)**

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>1540.000 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>1770.000 mg/kg body weight</td>
</tr>
</tbody>
</table>
Octamethylcyclotetrasiloxane (556-67-2)

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>1540 mg/kg RTECS Number: GZ4397000</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 dermal rat</td>
<td>1770 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>794 µl/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>36 g/m³ (Exposure time: 4 h)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1540.000 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>1770.000 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>36.000 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>36.000 mg/l/4h</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
- Not classified
- Skin Irritation - rabbit: 500 mg/24H: mild

**Serious eye damage/irritation**
- Causes eye irritation.
- Eye Irritation - rabbit: 500 mg/24H: mild

**Respiratory or skin sensitization**
- Not classified

**Germ cell mutagenicity**
- Not classified

**Carcinogenicity**
- Not classified

None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

**Reproductive toxicity**
- Suspected of damaging fertility or the unborn child.
- The classification is based on reproductive studies in animals.

**Octamethylcyclotetrasiloxane: Rat TDLo (Inhalation) 500 ppm, male 70 days and 70 days prior to mating - 3 weeks after birth prior to mating. Toxic Effects: Effects on Newborn - Live birth index.**

**STOT-single exposure**
- Not classified

**STOT-repeated exposure**
- Not classified

**Aspiration hazard**
- Not classified

**Symptoms/injuries after inhalation**
- May cause irritation to the respiratory tract.

**Symptoms/injuries after skin contact**
- Harmful in contact with skin. Causes mild skin irritation.

**Symptoms/injuries after eye contact**
- Causes eye irritation.

**Symptoms/injuries after ingestion**
- Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ecology - water: May cause long lasting harmful effects to aquatic life.

**Octamethylcyclotetrasiloxane (556-67-2)**

| LC50 fish 1 | > 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio) |
| LC50 fish 2 | > 1000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus) |

**12.2. Persistence and degradability**

No additional information available

**12.3. Bioaccumulative potential**

**Octamethylcyclotetrasiloxane (556-67-2)**

| BCF fish 1 | 12400 |
| Log Pow | 5.1 |

**12.4. Mobility in soil**

No additional information available

**12.5. Other adverse effects**

- Effect on ozone layer: No additional information available
- Effect on the global warming: No known effects from this product.
- GWPmix comment: No known effects from this product.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Sewage disposal recommendations: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.

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
Transport document description : UN1993 Flammable liquids, n.o.s. (OCTAMETHYLCYCLOTETRASILOXANE), 3, III
Proper Shipping Name (DOT) : Flammable liquids, n.o.s. (OCTAMETHYLCYCLOTETRASILOXANE)
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Symbols : G - Identifies PSN requiring a technical name

14.3. Additional information
Emergency Response Guide (ERG) Number : 128
Other information : No supplementary information available.

Transport by sea
DOT Vessel Stowage Location : A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

Air transport
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

SECTION 15: Regulatory information

15.1. US Federal regulations
Octamethylcyclotetrasiloxane (556-67-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
EPA TSCA Regulatory Flag : T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

15.2. International regulations
CANADA
Octamethylcyclotetrasiloxane (556-67-2)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
Octamethylcyclotetrasiloxane (556-67-2)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations
Octamethyldicyclosiloxane (556-67-2)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

15.3. US State regulations
No additional information available

SECTION 16: Other information

Full text of H-phrases:

| H226 | Flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H312 | Harmful in contact with skin |
| H320 | Causes eye irritation |
| H361 | Suspected of damaging fertility or the unborn child |
| H413 | May cause long lasting harmful effects to aquatic life |

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; GHS: The Globally Harmonized System of Classification and Labelling.

HMIS III Rating

Health: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)
Physical: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Prepared by safety and environmental affairs.

Date of issue: 12/18/2014  Revision date: 03/17/2017  Version: 2.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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