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

1.1. Product identifier
Product form: Substance
Physical state: Liquid
Substance name: [13-17% (MERCAPTOPROPYL)METHYLSILOXANE]-DIMETHYLSILOXANE COPOLYMER
Product code: SMS-142
Synonyms: METHYL 3-MERCAPTO PROPYL SILOXANES; MERCAPTO FUNCTIONAL SILICONE OIL
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)
Repr. 2 H361
Full text of H-phrases: see section 16

2.2. Label elements
GHS-US labeling
Hazard pictograms (GHS-US):

Signal word (GHS-US): Warning
Hazard statements (GHS-US): H361 - Suspected of damaging fertility or the unborn child
Precautionary statements (GHS-US): P201 - 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
P405 - Store locked up
P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Other hazards
No additional information available

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

SECTION 3: Composition/information on ingredients

3.1. Substance
Substance type: Polymer
Name: [13-17% (MERCAPTOPROPYL)METHYLSILOXANE]-DIMETHYLSILOXANE COPOLYMER
CAS No: 102783-03-9

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl 3-mercaptopropyl siloxanes</td>
<td>(CAS No) 102783-03-9</td>
<td>&gt; 95</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
[13-17% (MERCAPTOPROPYL)METHYLSILOXANE]-DIMETHYLSILOXANE COPOLYMER
Safety Data Sheet

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>(CAS No) 556-67-2</td>
<td>&lt; 5</td>
<td>Flam. Liq. 3, H226, Acute Tox. 4 (Oral), H302, Acute Tox. 4 (Dermal), H312, Eye Irrit. 2B, H320</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 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.

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.

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

Symptoms/injuries after inhalation: May be harmful if inhaled.

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

5.2. Special hazards arising from the substance or mixture

Fire hazard: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. 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

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.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal.

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

Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapor and mist.
**[13-17% (MERCAPTOPROPYL)METHYLSILOXANE]-DIMETHYLSILOXANE COPOLYMER**

Safety Data Sheet

### 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

<table>
<thead>
<tr>
<th>Storage conditions</th>
<th>Keep container tightly closed. Store in a cool area. Store in a dark area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible materials</td>
<td>Oxidizing agent.</td>
</tr>
<tr>
<td>Storage area</td>
<td>Store in a well-ventilated place. Store away from heat.</td>
</tr>
</tbody>
</table>

### 7.3. Specific end use(s)
No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters
No additional information available

#### 8.2. Exposure controls

<table>
<thead>
<tr>
<th>Appropriate engineering controls</th>
<th>Provide local exhaust or general room ventilation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal protective equipment</td>
<td>Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Neoprene or nitrile rubber gloves.</td>
</tr>
<tr>
<td>Eye protection</td>
<td>Chemical goggles. Contact lenses should not be worn.</td>
</tr>
<tr>
<td>Skin and body protection</td>
<td>Wear suitable protective clothing.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified organic vapor (black cartridge) respirator.</td>
</tr>
</tbody>
</table>

### SECTION 9: Physical and chemical properties

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

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>3000 - 4000 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>Straw.</td>
</tr>
<tr>
<td>Odor</td>
<td>Unpleasant. Sulfides.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>1.41</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>&lt; -60 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt; 205 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 110 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.98</td>
</tr>
<tr>
<td>VOC content</td>
<td>&lt; 3 %</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>100 - 200 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>Explosive limits</td>
<td>No data available</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.

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.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
</table>

Octamethylcyclotetrasiloxane (556-67-2)

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>1540 mg/kg</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
Serious eye damage/irritation: Not classified
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified

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.

Specific target organ toxicity (single exposure): Not classified
Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified
Symptoms/injuries after inhalation: May be harmful if inhaled.
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

Octamethylcyclotetrasiloxane (556-67-2)

<table>
<thead>
<tr>
<th>LC50 fish 1</th>
<th>&gt; 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 2</td>
<td>&gt; 1000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Octamethylcyclotetrasiloxane (556-67-2)
Persistence and degradability: May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential
**Octamethylcyclotetrasiloxane (556-67-2)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>12400</td>
</tr>
<tr>
<td>Log Pow</td>
<td>5.1</td>
</tr>
</tbody>
</table>

**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 ecological damage caused by this product.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Waste disposal recommendations: Incinerate. 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**
Not regulated for transport.

**14.2. UN proper shipping name**
Not applicable

**14.3. Additional information**

Other information: No supplementary information available.

**Transport by sea**
No additional information available

**Air transport**
No additional information available

**SECTION 15: Regulatory information**

**15.1. US Federal regulations**

**[13-17% (MERCAPTOPROPYL)METHYLSILOXANE]-DIMETHYLSILOXANE COPOLYMER (102783-03-9)**

TSCA Exemption/Exclusion: Low Volume Exemption in accordance with 40 CFR 723.50(c)(1). This LVE limits site of manufacture of this substance to Gelest, Inc.

**Methyl 3-mercaptopropyl siloxanes (102783-03-9)**

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

**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**

**Methyl 3-mercaptopropyl siloxanes (102783-03-9)**

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

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

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Canadian DSL (Domestic Substances List)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
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)

**15.3. US State regulations**

**[13-17% (MERCAPTOPROPYL)METHYLSILOXANE]-DIMETHYLSILOXANE COPOLYMER (102783-03-9)**

U.S. - California - Proposition 65 - Carcinogens List: No

U.S. - California - Proposition 65 - Developmental Toxicity: No

U.S. - California - Proposition 65 - Reproductive: No
### Methyl 3-mercaptopropyl siloxanes (102783-03-9)

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

### Octamethylcyclotetrasiloxane (556-67-2)

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

### Octamethylcyclotetrasiloxane (556-67-2)

- **U.S. - Maine - Chemicals of High Concern**
- **U.S. - Minnesota - Chemicals of High Concern**
- **U.S. - Minnesota - Chemicals of High Concern - Persistent Bioaccumulative Toxins**
- **U.S. - Oregon - Priority Persistent Pollutant - Tier I - Persistent Pollutants**
- **U.S. - Texas - Effects Screening Levels - Long Term**
- **U.S. - Texas - Effects Screening Levels - Short Term**

### SECTION 16: Other information

**Abbreviations and acronyms**

- **Abbreviations:** ND: Not Determined; 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:**

- **Acute Tox. 4 (Dermal)**: Acute toxicity (dermal) Category 4
- **Acute Tox. 4 (Oral)**: Acute toxicity (oral) Category 4
- **Eye Irrit. 2B**: Serious eye damage/eye irritation Category 2B
- **Flam. Liq. 3**: Flammable liquids Category 3
- **Repr. 2**: Reproductive toxicity Category 2
- **H226**: Flammable liquid and vapor
- **H302**: Harmful if swallowed
- **H312**: Harmful in contact with skin
- **H313**: Causes eye irritation
- **H361**: Suspected of damaging fertility or the unborn child

**HMIS III Rating**

- **Health**: 2 Moderate Hazard - Temporary or minor injury may occur
- **Flammability**: 1 Slight Hazard
- **Physical**: 0 Minimal Hazard

Prepared by safety and environmental affairs.

**Date of issue:** 09/29/2014  **Revision date:** 01/13/2015  **Version:** 1.1

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
[13-17% (MERCAPTOPROPYL) METHYLSILOXANE]-DIMETHYLSILOXANE COPOLYMER

Safety Data Sheet

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