SECTION 1: Identification

1.1. Identification

Product name: [2-4% (METHACRYLOXYPROPYL)METHYLSILOXANE]-DIMETHYSILOXANE COPOLYMER
Product code: RMS-033
Product form: Substance
Physical state: Liquid
Synonyms: METHACRYLATE FUNCTIONAL SILICONE OIL
Chemical family: ORGANOSILOXANE

1.2. Recommended use and restrictions on use

Recommended use: Chemical intermediate

1.3. Supplier

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

GHS-US classification
Serious eye damage/eye irritation Category 2B H320 Causes eye irritation
Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling
Signal word (GHS US): Warning
Hazard statements (GHS US): H320 - Causes eye irritation
Precautionary statements (GHS US): P264 - Wash hands thoroughly after handling.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Hazards not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type: Polymer
Name: [2-4% (METHACRYLOXYPROPYL)METHYLSILOXANE]-DIMETHYSILOXANE COPOLYMER
CAS-No.: 104780-61-2

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Methacryloxypropyl)methylsiloxane-dimethylsiloxane copolymer</td>
<td>(CAS-No.) 104780-61-2</td>
<td>95 - 100</td>
<td>Eye Irrit. 2B, H320</td>
</tr>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>(CAS-No.) 556-67-2</td>
<td>0 - 2</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
## 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. 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.

### 4.2. Most important symptoms and effects (acute and delayed)

- **Symptoms/effects after inhalation**: No information available.

- **Symptoms/effects after skin contact**: May cause skin irritation.

- **Symptoms/effects after eye contact**: Causes eye irritation.

- **Symptoms/effects after ingestion**: No information available.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media


- **Unsuitable extinguishing media**: None known.

### 5.2. Specific hazards arising from the chemical

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

### 5.3. Special protective equipment and precautions for fire-fighters

- **Firefighting instructions**: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

- **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

- **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

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.

### 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.

- **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

- **Storage conditions**: Keep container tightly closed. Store in a cool area. Store cold.
Incompatible materials: Oxidizing agent.
Storage area: Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Octamethylcyclotetrasiloxane (556-67-2) | AIHA     | WEEL TWA (ppm) | 10 ppm |

8.2. Appropriate engineering controls

Appropriate engineering controls: Provide local exhaust or general room ventilation.

8.3. Individual protection measures/Personal protective equipment

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>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid. Viscous.</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No data available</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; -40 °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>205 °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>% Volatiles</td>
<td>&lt; 5 %</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>1000 - 2000 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>
</tbody>
</table>
[2-4% (METHACRYLOXYPROPYL)METHYLSILOXANE]-DIMETHYLSILOXANE COPOLYMER
Safety Data Sheet

Explosion limits : No data available

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
Organic acid vapors. Silicon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Octamethylcyclotetrasiloxane (556-67-2)

<table>
<thead>
<tr>
<th>Octamethylcyclotetrasiloxane (556-67-2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>1540 mg/kg RTECS Number: GZ4397000</td>
</tr>
<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 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>1770 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>36 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>36 mg/l/4h</td>
</tr>
<tr>
<td>Skin corrosion/irritation              : Not classified</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation          : Causes eye irritation.</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitization      : Not classified</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity                 : Not classified</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity                        : Not classified</td>
<td></td>
</tr>
</tbody>
</table>

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

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/effects after inhalation : No information available.

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

Symptoms/effects after eye contact : Causes eye irritation.

Symptoms/effects after ingestion : No information available.

SECTION 12: Ecological information

12.1. Toxicity

Octamethylcyclotetrasiloxane (556-67-2)

<table>
<thead>
<tr>
<th>Octamethylcyclotetrasiloxane (556-67-2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)</td>
</tr>
<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
No additional information available

Print date: 04/10/2019  EN (English US)  SDS ID: RMS-033  4/6
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

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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

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 final TSCA section 4 test rule.

(Methacryloxypropyl)methylsiloxane-dimethylsiloxane copolymer (104780-61-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Octamethylcyclotetrasiloxane (556-67-2)
Listed on the Canadian DSL (Domestic Substances List)

(Methacryloxypropyl)methylsiloxane-dimethylsiloxane copolymer (104780-61-2)
Listed on the Canadian NDSL (Non-Domestic Substances List)

EU-Regulations

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

National regulations
Octamethylcyclotetrasiloxane (556-67-2)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECS (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)

(Methacryloxypropyl)methylsiloxane-dimethylsiloxane copolymer (104780-61-2)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)

15.3. US State regulations
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H226</td>
<td>Flammable liquid and vapor</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>H320</td>
<td>Causes eye irritation</td>
</tr>
<tr>
<td>H361</td>
<td>Suspected of damaging fertility or the unborn child</td>
</tr>
<tr>
<td>H413</td>
<td>May cause long lasting harmful effects to aquatic life</td>
</tr>
</tbody>
</table>

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; APF: Assigned Protection Factor.

Hazard Rating
Health: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIIB)
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: 06/25/2014    Revision date: 03/05/2019    Version: 2.1

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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