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

1.1. Product identifier

Product form : Substance
Physical state : Liquid
Substance name : VINYL TERMINATED POLYDIMETHYLSILOXANE
Product code : DMS-V05
Synonyms : POLY(DIMETHYLSILOXANE), VINYL TERMINATED; DIMETHYLVINYLXISOXY-TERMINATED DIMETHYL SILOXANES; SILOXANES AND SILICONES, DIMETHYL, VINYL TERMINATED
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. 4 H227
Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling
Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H227 - Combustible liquid
Precautionary statements (GHS-US) : P280 - Wear protective gloves/protective clothing/eye protection/face protection
P210 - Keep away from heat, open flames, sparks. - No smoking
P370+P378 - In case of fire: Use water spray or fog, foam, carbon dioxide, dry chemical to extinguish
P403+P235 - Store in a well-ventilated place. Keep cool
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 : VINYL TERMINATED POLYDIMETHYLSILOXANE
CAS No : 68083-19-2
EC no : 614-275-5

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl terminated polydimethylsiloxane</td>
<td>(CAS no) 68083-19-2</td>
<td>&gt; 95</td>
<td>Not classified</td>
</tr>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>(CAS no) 556-67-2</td>
<td>&lt; 3</td>
<td>Flam. Liq. 3, H226, Acute Tox. 4 (Oral), H302, Acute Tox. 4 (Dermal), H312, Eye Irrit. 2B, H320</td>
</tr>
</tbody>
</table>
VINYL TERMINATED POLYDIMETHYLSILOXANE
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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. 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: No information available.
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 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture
Fire hazard: Combustible liquid. 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. 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, open flames, sparks. - No smoking.
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: Ground/bond container and receiving equipment.
VINYL TERMINATED POLYDIMETHYLSILOXANE
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Storage conditions: Keep container tightly closed.
Storage area: Store in a well-ventilated place. Store away from heat.

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
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
Physical state: Liquid
Appearance: Clear liquid.
Molecular mass: 800 g/mol
Color: No data available
Odor: No data available
Odor threshold: No data available
Refractive index: No data available
pH: No data available
Relative evaporation rate (butyl acetate=1): No data available
Melting point: < -60 °C
Freezing point: No data available
Boiling point: > 205 °C
Flash point: 80 °C
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): Combustible liquid
Vapor pressure: No data available
Relative vapor density at 20 °C: > 1
Relative density: 0.93
VOC content: < 5 %
Solubility: Insoluble in water.
Log Pow: No data available
Log Kow: No data available
Viscosity, kinematic: 4 - 8 cSt
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidizing properties: No data available
Explosive 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 in sealed containers stored under a dry inert atmosphere.
10.3. Possibility of hazardous reactions
No additional information available

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

10.5. Incompatible materials

10.6. Hazardous decomposition products
Organic acid vapors. Silicon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

Viny terminated polydimethylsiloxane (68083-19-2)
- LD50 oral rat: > 16 ml/kg
- LD50 dermal rabbit: > 16 ml/kg

Octamethylcyclotetrasiloxane (556-67-2)
- LD50 oral rat: 1540 mg/kg
- LD50 dermal rat: 1770 mg/kg
- LD50 dermal rabbit: 794 μl/kg
- LC50 inhalation rat (mg/l): 36 g/m³ (Exposure time: 4 h)
- ATE US (oral): 1540.000 mg/kg body weight
- ATE US (dermal): 1770.000 mg/kg body weight
- ATE US (vapors): 36.000 mg/l/4h
- ATE US (dust, mist): 36.000 mg/l/4h

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: 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 inhalation: No information available.
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)
- 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

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

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
VINYL TERMINATED POLYDIMETHYLSILOXANE
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**Effect on the global warming**
No known ecological damage caused by this product.

### SECTION 13: Disposal considerations

<table>
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<tr>
<th><strong>13.1. Waste treatment methods</strong></th>
</tr>
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<td><strong>Waste disposal recommendations</strong></td>
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<tr>
<td><strong>Ecology - waste materials</strong></td>
</tr>
</tbody>
</table>

### SECTION 14: Transport information

<table>
<thead>
<tr>
<th><strong>14.1. UN number</strong></th>
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<tbody>
<tr>
<td>DOT NA no.</td>
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<table>
<thead>
<tr>
<th><strong>14.2. UN proper shipping name</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Proper Shipping Name (DOT)</strong></td>
</tr>
<tr>
<td><strong>Department of Transportation (DOT) Hazard Classes</strong></td>
</tr>
<tr>
<td><strong>DOT Symbols</strong></td>
</tr>
<tr>
<td><strong>Packing group (DOT)</strong></td>
</tr>
<tr>
<td><strong>DOT Packaging Exceptions (49 CFR 173.xxx)</strong></td>
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<tr>
<th><strong>14.3. Additional information</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other information</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th><strong>15.1. US Federal regulations</strong></th>
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<td>EPA TSCA Regulatory Flag</td>
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<td>Listed on the Canadian DSL (Domestic Substances List)</td>
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<td>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)</td>
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<tr>
<td>Listed on the Japanese ENCS (Existing &amp; New Chemical Substances) inventory</td>
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<td>Listed on the Korean ECL (Existing Chemicals List)</td>
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<tr>
<td>Listed on NZIoC (New Zealand Inventory of Chemicals)</td>
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<tr>
<td>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)</td>
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<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</td>
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<tr>
<td>U.S. - Maine - Chemicals of High Concern</td>
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<tr>
<td>U.S. - Minnesota - Chemicals of High Concern</td>
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<tr>
<td>U.S. - Minnesota - Chemicals of High Concern - Persistent Bioaccumulative Toxins</td>
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<td>U.S. - Oregon - Priority Persistent Pollutant - Tier I - Persistent Pollutants</td>
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<tr>
<td>U.S. - Texas - Effects Screening Levels - Long Term</td>
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<tr>
<td>U.S. - Texas - Effects Screening Levels - Short Term</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></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:
- 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
- Flam. Liq. 4 | Flammable liquids Category 4
- H266 | Flammable liquid and vapor
- H227 | Combustible liquid
- H302 | Harmful if swallowed
- H312 | Harmful in contact with skin
- H320 | Causes eye irritation

HMIS III Rating

- Health | 1 Slight Hazard - Irritation or minor reversible injury possible
- Flammability | 2 Moderate Hazard
- Physical | 0 Minimal Hazard

Prepared by safety and environmental affairs.

Date of issue: 10/29/2014 Version: 1.0
VINYL TERMINATED POLYDIMETHYLSILOXANE
Safety Data Sheet

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

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