SECTION 1: Identification

1.1. Identification

Product name: VINYL TERMINATED POLYDIMETHYLSILOXANE
Product code: DMS-V33
Product form: Substance
Physical state: Liquid
Synonyms:
- POLY(DIMETHYLSILOXANE), VINYL TERMINATED
- DIMETHYLVinylsiloxy-TERMINATED DIMETHYL SILOXANES
- SILOXANES AND SILICONES, DIMETHYL, VINYL TERMINATED
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
Tel: 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
- Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling
- No labeling applicable

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: VINYL TERMINATED POLYDIMETHYLSILOXANE
CAS-No.: 68083-19-2

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl terminated polydimethylsiloxane</td>
<td>(CAS-No.) 68083-19-2</td>
<td>95-100</td>
<td>Not classified</td>
</tr>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>(CAS-No.) 556-67-2</td>
<td>0-2</td>
<td>Flam. Liq. 3, H226</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Oral), H302</td>
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<tr>
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<td></td>
<td></td>
<td>Acute Tox. 4 (Dermal), H312</td>
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<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2B, H320</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Repr. 2, H361</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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 | May cause eye irritation. |
| Symptoms/effects after ingestion | May be harmful if swallowed. |

### 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

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

**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.

**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

**For non-emergency personnel**
- **Protective equipment:** Wear protective equipment as described in Section 8.
- **Emergency procedures:** Evacuate unnecessary personnel.

**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. Spillage of this material may create a slippery condition for foot or vehicle traffic.
- **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.
- **Incompatible materials:** Alkalis. Metal salts. Oxidizing agent. Precious metals.
- **Storage area:** Store in a well-ventilated place. Store away from heat.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters
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>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear liquid, Viscous.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>43000 g/mol</td>
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<tr>
<td>Color</td>
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<tr>
<td>Odor</td>
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</tr>
<tr>
<td>Odor threshold</td>
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<tr>
<td>Refractive index</td>
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<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate</td>
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<tr>
<td>Melting point</td>
<td>&lt; -60 °C</td>
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<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>
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<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>
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<tr>
<td>Relative vapor density at 20 °C</td>
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</tr>
<tr>
<td>Relative density</td>
<td>0.97</td>
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<tr>
<td>% Volatiles</td>
<td>&lt; 3 %</td>
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<tr>
<td>Solubility</td>
<td>Insoluble in water.</td>
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<tr>
<td>Log Pow</td>
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<tr>
<td>Log Kow</td>
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<tr>
<td>Viscosity, kinematic</td>
<td>3500 cSt</td>
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<tr>
<td>Viscosity, dynamic</td>
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</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>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 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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Vinyl 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 RTECS Number: GZ4397000
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 mg/kg body weight
ATE US (dermal) 1770 mg/kg body weight
ATE US (vapors) 36 mg/l/4h
ATE US (dust, mist) 36 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

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 : May cause eye irritation.
Symptoms/effects 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
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 the ozone layer : 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

Vinyl terminated polydimethylsiloxane (68083-19-2)
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 final TSCA section 4 test rule.

15.2. International regulations

CANADA
Vinyl terminated polydimethylsiloxane (68083-19-2)
Listed on the Canadian DSL (Domestic Substances List)

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

EU-Regulations
No additional information available

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

National regulations

Vinyl terminated polydimethylsiloxane (68083-19-2)
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 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)
VINYL TERMINATED POLYDIMETHYLSILOXANE
Safety Data Sheet

Octamethylcyclotetrasiloxane (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
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:

| H225 | Flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H313 | 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; APF: Assigned Protection Factor.

Hazard Rating
- Health: 1 Slight Hazard - Irritation or minor reversible injury possible
- 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 IIIB)
- 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: 10/28/2014 Revision date: 09/07/2016 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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