

**1,1,3,3,5,5,7,7,9,9-DECAMETHYLPENTASILOXANE, 95%**

Safety Data Sheet SID2653.0

Date of issue: 11/23/2015 Version: 1.0

**SECTION 1: Identification****1.1. Identification**

|                 |  |
|-----------------|--|
| Product name    | : 1,1,3,3,5,5,7,7,9,9-DECAMETHYLPENTASILOXANE, 95%                                       |
| Product code    | : SID2653.0  |
| Product form    | : Substance  |
| Physical state  | : Liquid   |
| Formula         | : C <sub>10</sub> H <sub>32</sub> O <sub>4</sub> Si <sub>5</sub>                         |
| Synonyms        | : M'D3M'; (1,9-H)-DECAMETHYLPENTASILOXANE; PENTASILOXANE,1,1,3,3,5,5,7,7,9,9-DECAMETHYL- |
| 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](mailto:info@gelest.com) - [www.gelest.com](http://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 | : Multi-constituent                                |
| Name           | : 1,1,3,3,5,5,7,7,9,9-DECAMETHYLPENTASILOXANE, 95% |
| CAS-No.        | : 995-83-5   |

| Name  | Product identifier  | %        | GHS-US classification   |
|---|---------------------|----------|---|
| 1,1,3,3,5,5,7,7,9,9-Decamethylpentasiloxane | (CAS-No.) 995-83-5  | 90 - 100 | Not classified  |
| Octamethylcyclotetrasiloxane                | (CAS-No.) 556-67-2  | 0 - 5    | Flam. Liq. 3, H226<br>Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Dermal), H312<br>Eye Irrit. 2B, H320<br>Repr. 2, H361<br>Aquatic Chronic 4, H413 |
| 1,1,3,3,5,5,7,7-Octamethyltetrasiloxane     | (CAS-No.) 1000-05-1 | 0 - 5    | Flam. Liq. 3, H226  |

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

**3.2. Mixtures**

Not applicable

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### 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   | : May cause irritation to the respiratory tract. |
| Symptoms/effects after skin contact | : May cause skin irritation.                     |
| Symptoms/effects after eye contact  | : May cause 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

|                                |  |
|--------------------------------|--|
| Suitable extinguishing media   | : Water spray. 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. Liquid generates strong static charge when poured. |
|-------------|--|

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

|                                |   |
|--------------------------------|---|
| 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

##### 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. 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. Ground/bond container and receiving equipment. Provide good ventilation in process area to prevent accumulation of vapors. |
| 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. |
|--------------------|----------------------------------|

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Incompatible materials : Alcohols. Alkalis. Metal salts. Oxidizing agent. Precious metals. Water.  
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:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Avoid all unnecessary 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                              | : 356.79 g/mol        |
| Color                                       | : No data available   |
| Odor  | : Odorless.           |
| Odor threshold                              | : No data available   |
| Refractive index                            | : 1.3902              |
| pH  | : No data available   |
| Relative evaporation rate (butyl acetate=1) | : < 1                 |
| Melting point                               | : No data available   |
| Freezing point                              | : < 0 °C              |
| Boiling point                               | : 100 °C @ 20 mm Hg   |
| Flash point                                 | : > 65 °C             |
| Auto-ignition temperature                   | : No data available   |
| Decomposition temperature                   | : No data available   |
| Flammability (solid, gas)                   | : No data available   |
| Vapor pressure                              | : < 1 mm Hg @ 20°C    |
| Relative vapor density at 20 °C             | : > 1                 |
| Relative density                            | : 0.8813              |
| % Volatiles                                 | : 100 %               |
| Solubility                                  | : Insoluble in water. |
| Log Pow                                     | : No data available   |
| Log Kow                                     | : No data available   |
| Viscosity, kinematic                        | : No data available   |
| Viscosity, dynamic                          | : No data available   |
| Explosive properties                        | : No data available   |
| Oxidizing properties                        | : No data available   |

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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 in sealed containers stored under a dry inert atmosphere.

### 10.3. Possibility of hazardous reactions

The product can generate small amounts of hydrogen when exposed to alkalis and protic materials such as water and alcohol in combination with metal salts such as aluminum chloride or precious metals such as platinum.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Alcohols. Alkalis. Metal salts. Oxidizing agent. Precious metals. Water.

### 10.6. Hazardous decomposition products

Carbon monoxide. Formaldehyde. Hydrogen. Organic acid vapors. Silicon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| 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/m <sup>3</sup> (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

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 : May cause irritation to the respiratory tract.

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

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

Symptoms/effects after ingestion : No information available.

## 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

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| 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

Other adverse effects : This substance may be hazardous to the environment.  
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 : May be incinerated. 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

| 1,1,3,3,5,5,7,7,9,9-DECAMETHYLPENTASILOXANE, 95% (995-83-5) |   |
|---|---|
| TSCA Exemption/Exclusion                                    | CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States. |

| 1,1,3,3,5,5,7,7,9,9-Decamethylpentasiloxane (995-83-5)                        |  |
|---|--|
| 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 final TSCA section 4 test rule. |
| 1,1,3,3,5,5,7,7-Octamethyltetrasiloxane (1000-05-1)                           |  |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory     |  |

### 15.2. International regulations

#### CANADA

No additional information available

| Octamethylcyclotetrasiloxane (556-67-2)               |  |
|---|--|
| Listed on the Canadian DSL (Domestic Substances List) |  |
| 1,1,3,3,5,5,7,7-Octamethyltetrasiloxane (1000-05-1)   |  |
| Listed on the Canadian DSL (Domestic Substances List) |  |

#### EU-Regulations

No additional information available

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### Octamethylcyclotetrasiloxane (556-67-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### 1,1,3,3,5,5,7,7-Octamethyltetrasiloxane (1000-05-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### National regulations

#### 1,1,3,3,5,5,7,7,9,9-Decamethylpentasiloxane (995-83-5)

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 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)

#### 1,1,3,3,5,5,7,7-Octamethyltetrasiloxane (1000-05-1)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

### 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::

|      |  |
|------|--|
| 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; APF: Assigned Protection Factor.

### Hazard 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 : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Prepared by safety and environmental affairs.

Date of issue: 11/23/2015 Version: 1.0

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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