SECTION 1: Identification

1.1. Product identifier

Product name: POLYDIMETHYLSILOXANE EMULSION
Product code: DMS-T21M50
Product form: Mixture
Physical state: Liquid
Synonyms: SILICONE OIL EMULSION, POLY(DIMETHYLSILOXANE), TRIMETHYLSILOXY TERMINATED, emulsion
Chemical family: ORGANOSILOXANE

1.2. Recommended use of the chemical and restrictions on use

Recommended use: 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: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labeling
No labeling applicable

2.3. Hazards not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polydimethylsiloxane</td>
<td>(CAS No) 9016-00-6/63148-62-9</td>
<td>45 - 50</td>
<td>Not classified</td>
</tr>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>45 - 50</td>
<td>Not classified</td>
</tr>
<tr>
<td>Polyoxyethylene(20)sorbitan monooleate</td>
<td>(CAS No) 9005-65-6</td>
<td>1 - 5</td>
<td>Not classified</td>
</tr>
<tr>
<td>Sorbitan monolaurate</td>
<td>(CAS No) 1338-39-2</td>
<td>1 - 5</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

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

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.
POLYDIMETHYLSILOXANE EMULSION
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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 mild skin irritation.
Symptoms/injuries after eye contact: May cause eye irritation.
Symptoms/injuries after ingestion: No information available.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

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: 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: 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: 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. Use only in well ventilated areas.
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: Oxidizing agent.
Storage area: Store in a well-ventilated place. Store away from heat.

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.
**POLYDIMETHYLSILOXANE EMULSION**
Safety Data Sheet

<table>
<thead>
<tr>
<th>Personal protective equipment</th>
<th>Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.</th>
</tr>
</thead>
<tbody>
<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>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>White liquid.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>5000 - 7000 g/mol</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>0 °C water</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100 °C initial (water)</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</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>1.01</td>
</tr>
<tr>
<td>VOC content</td>
<td>50 % water</td>
</tr>
<tr>
<td>Solubility</td>
<td>Emulsion-miscible w/ 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 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>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.

### 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

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

**POPDIMETHYLSILOXANE EMULSION**

Toxicity information: > 10000 mg/kg Oral Toxicity - rat, LD50

**Polydimethylsiloxane (9016-00-6/63148-62-9)**

- LD50 oral rat: > 40000 mg/kg
- LC50 inhalation rat: > 535 mg/l

**Water (7732-18-5)**

- LD50 oral rat: > 90 ml/kg

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: 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/injuries after inhalation: No information available.
Symptoms/injuries after skin contact: May cause mild skin irritation.
Symptoms/injuries after eye contact: May cause eye irritation.
Symptoms/injuries after ingestion: No information available.

SECTION 12: Ecological information

12.1. Toxicity

**Polydimethylsiloxane (9016-00-6/63148-62-9)**

- LC50 fish 1: > 10000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
- LC50 fish 2: > 10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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 effects from this product.
GWPmix comment: No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations: Do not dispose of waste into sewer.
Waste 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

<table>
<thead>
<tr>
<th>Material</th>
<th>Inventory/Regulation Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polydimethylsiloxane (9016-00-6/63148-62-9)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Sorbitan monolaurate (1338-39-2)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Polyoxyethylene(20)sorbitan monooleate (9005-65-6)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA

<table>
<thead>
<tr>
<th>Material</th>
<th>Inventory/Regulation Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polydimethylsiloxane (9016-00-6/63148-62-9)</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
<tr>
<td>Sorbitan monolaurate (1338-39-2)</td>
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</tbody>
</table>

EU-Regulations
No additional information available

<table>
<thead>
<tr>
<th>Material</th>
<th>Inventory/Regulation Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water (7732-18-5)</td>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
<tr>
<td>Sorbitan monolaurate (1338-39-2)</td>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
<tr>
<td>Polyoxyethylene(20)sorbitan monooleate (9005-65-6)</td>
<td>Listed on the EU NLP (No Longer Polymers) inventory</td>
</tr>
</tbody>
</table>

National regulations

<table>
<thead>
<tr>
<th>Material</th>
<th>Inventory/Regulation Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polydimethylsiloxane (9016-00-6/63148-62-9)</td>
<td>Listed on the AICS (Australian Inventory of Chemical Substances)</td>
</tr>
<tr>
<td></td>
<td>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)</td>
</tr>
<tr>
<td></td>
<td>Listed on the Japanese ENCS (Existing &amp; New Chemical Substances) inventory</td>
</tr>
<tr>
<td></td>
<td>Listed on the Korean ECL (Existing Chemicals List)</td>
</tr>
<tr>
<td></td>
<td>Listed on NZIoC (New Zealand Inventory of Chemicals)</td>
</tr>
<tr>
<td></td>
<td>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)</td>
</tr>
<tr>
<td></td>
<td>Listed on INSQ (Mexican National Inventory of Chemical Substances)</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Listed on the AICS (Australian Inventory of Chemical Substances)</td>
</tr>
<tr>
<td></td>
<td>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)</td>
</tr>
<tr>
<td></td>
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<tr>
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<td>Listed on NZIoC (New Zealand Inventory of Chemicals)</td>
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POLYDIMETHYLSILOXANE EMULSION
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- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

15.3. US State regulations
No additional information available

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; GHS: The Globally Harmonized System of Classification and Labelling.

HMIS III Rating
- Health: 1 Slight Hazard - Irritation or minor reversible injury possible
- Flammability: 0 Minimal Hazard - Materials that will not burn
- 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: 06/29/2016  Revision date: 09/07/2016  Version: 1.1

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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