SECTION 1: Identification

1.1. Identification
Product name: METHACRYLOXYPROPYL TERMINATED POLYDIMETHYLSILOXANE
Product code: DMS-R05
Product form: Substance
Physical state: Liquid
Synonyms:
- METHACRYLATE FUNCTIONAL SILICONE OIL; POLY(DIMETHYLSILOXANE)
- METHACRYLOXYPROPYL TERMINATED POLYDIMETHYLSILOXANE
Chemical family: METHACRYLATESILOXANE

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 2A H319 Causes serious eye irritation
Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements
GHS US labeling
- Hazard pictograms (GHS US):
  - !
- Signal word (GHS US): Warning
- Hazard statements (GHS US): H319 - Causes serious eye irritation
- Precautionary statements (GHS US):
  - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
  - 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)
Other hazards not contributing to the classification:
- Low molecular weight methacrylates have been found to sensitize certain individuals, resulting in severe itching and hives.

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
- Substance type: Multi-constituent
- Name: METHACRYLOXYPROPYL TERMINATED POLYDIMETHYLSILOXANE
- CAS-No.: 58130-03-3
METHACRYLOXYPROPYL TERMINATED POLYDIMETHYLSILOXANE
Safety Data Sheet

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methacryloxypropyl terminated polydimethylsiloxane</td>
<td>(CAS-No.) 58130-03-3</td>
<td>&gt; 95</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td>2,6-Di-tert-butyl-p-cresol</td>
<td>(CAS-No.) 128-37-0</td>
<td>&lt; 1</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td>Hydroquinone monomethyl ether</td>
<td>(CAS-No.) 150-76-5</td>
<td>&lt; 0.05</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2B, H320</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Sens. 1, H317</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.

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/effect after inhalation: No information available.

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

Symptoms/effect after eye contact: Causes serious eye irritation.

Symptoms/effect 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: 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.

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 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
Storage conditions: Keep container tightly closed. Store < 5°C.
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

<table>
<thead>
<tr>
<th>Hydroquinone monomethyl ether (150-76-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2,6-Di-tert-butyl-p-cresol (128-37-0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
</tr>
</tbody>
</table>

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.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>380 - 550 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>Pale yellow.</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>1.448</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Melting point</td>
<td>&lt; -60 °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>&gt; 110 °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>&gt; 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.97</td>
</tr>
</tbody>
</table>
% Volatiles : < 5 %
Solubility : Insoluble in water.
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : 4 - 6 cSt
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
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
Non-hazardous polymerization may occur.

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

Hydroquinone monomethyl ether (150-76-5)
LD50 oral rat 1600 mg/kg

2,6-Di-tert-butyl-p-cresol (128-37-0)
LD50 oral rat 890 mg/kg
LD50 dermal rat > 2000 mg/kg
ATE US (oral) 890 mg/kg body weight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

2,6-Di-tert-butyl-p-cresol (128-37-0)
IARC group 3 - Not classifiable
Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified
Aspiration hazard : Not classified
Potential Adverse human health effects and symptoms : Low molecular weight methacrylates have been found to sensitize certain individuals, resulting in severe itching and hives.
Symptoms/effects after inhalation : No information available.
Symptoms/effects after skin contact : May cause skin irritation.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : No information available.
Reason for classification : Expert judgment
### SECTION 12: Ecological information

#### 12.1. Toxicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>LC50 fish 1 (mg/l)</th>
<th>LC50 fish 2 (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydroquinone monomethyl ether</td>
<td>84.3</td>
<td>28.5</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Compound</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydroquinone monomethyl ether</td>
<td>1.34</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Compound</th>
<th>BCF fish 1</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-Di-tert-butyl-p-cresol</td>
<td>230-2500</td>
<td>4.17</td>
</tr>
</tbody>
</table>

#### 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

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.

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

**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.

<table>
<thead>
<tr>
<th>Compound</th>
<th>TSCA Exemption/Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methacryloxypropyl terminated polydimethylsiloxane (58130-03-3)</td>
<td>No listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Hydroquinone monomethyl ether (150-76-5)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>2,6-Di-tert-butyl-p-cresol (128-37-0)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>
METHACRYLOXYPROPYL TERMINATED POLYDIMETHYLSILOXANE
Safety Data Sheet

15.2. International regulations

CANADA
No additional information available

Hydroquinone monomethyl ether (150-76-5)
Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification
Class D Division 2 Subdivision B - Toxic material causing other toxic effects

2,6-Di-tert-butyl-p-cresol (128-37-0)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
No additional information available

Hydroquinone monomethyl ether (150-76-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

2,6-Di-tert-butyl-p-cresol (128-37-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Hydroquinone monomethyl ether (150-76-5)
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 the Canadian IDL (Ingredient Disclosure List)
Listed on INSC (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

2,6-Di-tert-butyl-p-cresol (128-37-0)
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)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)
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

Hydroquinone monomethyl ether (150-76-5)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

2,6-Di-tert-butyl-p-cresol (128-37-0)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

H302 Harmful if swallowed
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H320 Causes eye irritation
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 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.

Date of issue: 11/12/2014
Revision date: 03/05/2019
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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