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

<table>
<thead>
<tr>
<th>1.1. Product identifier</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Substance name</td>
<td>[2-3% (EPOXYCYCLOHEXYLETHYL)METHYLSILOXANE] (10-15% METHOXYPOLYALKYLENOXYMETHYLSILOXANE) DIMETHYLSILOXANE TERPOLYMER</td>
</tr>
<tr>
<td>Product code</td>
<td>EBP-234</td>
</tr>
<tr>
<td>Synonyms</td>
<td>EPOXY FUNCTIONAL SILICONE OIL; SILOXANES AND SILICONES. DIMETHYL 3-HYDROXYPROPYL METHYL, METHYL 2-(7-OXABICYCLO [4.1.0] HEPT-3-YL)ETHYL, ETHERS WITH POLYETHYLENE-POLYPROPYLENE GLYCOL MONOMETHYL ETHER</td>
</tr>
<tr>
<td>Chemical family</td>
<td>EPOXYSILOXANE</td>
</tr>
</tbody>
</table>

| 1.2. Relevant identified uses of the substance or mixture and uses advised against |
| Use of the substance/mixture | Chemical intermediate |
|                              | For research 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 AM 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) |
| Skin Irrit. 2 | H315 |
| Eye Irrit. 2A | H319 |
| Full text of H--phrases: see section 16 |

| 2.2. Label elements |
| GHS-US labeling |
| Hazard pictograms (GHS-US) |

| Signal word (GHS-US) | Warning |
| Hazard statements (GHS-US) | H315 - Causes skin irritation |
|                        | 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 |
|                            | P302+P352 - If on skin: Wash with plenty of water |
|                            | P332+P313 - If skin irritation occurs: Get medical advice/attention |
|                            | 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 |
|                            | P362 - Take off contaminated clothing and wash before reuse |

| 2.3. Other hazards |
| No additional information available |

| 2.4. Unknown acute toxicity (GHS-US) |
| No data available |
[2-3% (EPOXYCYCLOHEXYLETHYL)METHYLSILOXANE] (10-15% METHOXYPOLYALKYLENEOXYMETHYLSILOXANE) DIMETHYLSILOXANE TERPOLYMER

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SECTION 3: Composition/information on ingredients

3.1. Substance

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Polymer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>[2-3% (EPOXYCYCLOHEXYLETHYL)METHYLSILOXANE] (10-15% METHOXYPOLYALKYLENEOXYMETHYLSILOXANE) DIMETHYLSILOXANE TERPOLYMER</td>
</tr>
<tr>
<td>CAS No</td>
<td>69669-36-9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siloxanes and Silicones, dimethyl, 3-hydroxypropyl methyl,</td>
<td>(CAS No) 69669-36-9</td>
<td>&gt; 95</td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td>methyl 2-(7-oxabicyclo[4.1.0]hept-3-yl)ethyl, ethers with</td>
<td></td>
<td></td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td>polyethylene-polypropylene glycol monomethyl ether</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 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, both acute and delayed

Symptoms/injuries after inhalation: No information available.

Symptoms/injuries after skin contact: Causes skin irritation.

Symptoms/injuries after eye contact: Causes serious 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: 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 in a cool area. Store in a dark area.

Incompatible materials: Oxidizing agent.

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: Liquid.
Molecular mass: 25000 - 36000 g/mol
Color: Straw. Amber.
Odor: No data available
Odor threshold: No data available
Refractive index: 1.445
pH: No data available
Relative evaporation rate (butyl acetate=1): No data available
Melting point: No data available
Freezing point: < -60 °C
Boiling point: > 205 °C
Flash point: 143 °C
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): No data available
Vapor pressure: No data available
Relative vapor density at 20 °C: No data available
Relative density: 1.03
VOC content: < 5 %
Solubility: Insoluble in water.
[2-3% (EPOXYCYCLOHEXYLETHYL)METHYLSILOXANE] (10-15% METHOXYPOLYALKYLENEOXYMETHYLSILOXANE) DIMETHYLSILOXANE TERPOLYMER

Safety Data Sheet

Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : 4000 - 5000 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.

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
Organic acid vapors. Silicon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified
Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
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 : Causes skin irritation.
Symptoms/injuries after eye contact : Causes serious eye irritation.
Symptoms/injuries after ingestion : No information available.
Reason for classification : Expert judgment

SECTION 12: Ecological information

12.1. Toxicity
No additional information available

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

04/13/2015 EN (English US) SDS ID: EBP-234
12.5. **Other adverse effects**

<table>
<thead>
<tr>
<th>Effect on ozone layer</th>
<th>: No additional information available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect on the global warming</td>
<td>: No known ecological damage caused by this product.</td>
</tr>
</tbody>
</table>

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

| 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

- **Siloxanes and Silicones, dimethyl, 3-hydroxypropyl** methyl, methyl 2-(7-oxabicyclo[4.1.0]hept-3-yl)ethyl, ethers with polyethylene-polypropylene glycol monomethyl ether (69669-36-9)
  - Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

- **Siloxanes and Silicones, dimethyl, 3-hydroxypropyl** methyl, methyl 2-(7-oxabicyclo[4.1.0]hept-3-yl)ethyl, ethers with polyethylene-polypropylene glycol monomethyl ether (69669-36-9)
  - Listed on the AICS (Australian Inventory of Chemical Substances)
  - Listed on the Canadian DSL (Domestic Substances List)
  - Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

#### 15.3. US State regulations

<table>
<thead>
<tr>
<th>[2-3% (EPOXYCYCLOHEXYLETHYL)METHYLSILOXANE] (10-15% METHOXYPOLYALKYLENEOXYMETHYLSILOXANE) DIMETHYLSILOXANE TERPOLYMER (69669-36-9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California - Proposition 65 - Carcinogens List</td>
<td>No</td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Developmental Toxicity</td>
<td>No</td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</td>
<td>No</td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</td>
<td>No</td>
</tr>
</tbody>
</table>

**Siloxanes and Silicones, dimethyl, 3-hydroxypropyl** methyl, methyl 2-(7-oxabicyclo[4.1.0]hept-3-yl)ethyl, ethers with polyethylene-polypropylene glycol monomethyl ether (69669-36-9)

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<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>U.S. - California - Proposition 65 - Developmental Toxicity</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</th>
<th>No significance risk level (NSRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
[2-3% (EPOXYCYCLOHEXYLETHYL)METHYLSILOXANE] (10-15% METHOXYPOLYALKYLENEOXYMETHYLSILOXANE) DIMETHYLSILOXANE TERPOLYMER

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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:

<table>
<thead>
<tr>
<th>H315</th>
<th>Causes skin irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
</tbody>
</table>

HMIS III Rating

Health: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability: 1 Slight Hazard

Physical: 0 Minimal Hazard

Prepared by safety and environmental affairs.

Date of issue: 04/13/2015  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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