SECTION 1: Identification

1.1. Identification
Product name: 2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]HEPTAMETHYLTRISILOXANE, tech-90
Product code: SIM6492.6
Product form: Substance
Physical state: Liquid
Formula: CH₃O(CH₂CH₂O)₆-9(CH₂)₃(CH₃)[OSi(CH₃)₃]₂Si
Synonyms: (TRIMETHYLSILOXY)DISILOXANYL]PROPYL ETHER POLYALKYLENEOXIDE MODIFIED POLYDIMETHYLSILOXANE GLYCOLS, POLYETHYLENE, METHYL [1,3,3,3-TETRAMETHYL-1-(TRIMETHYLSILYL)OXY]-1-DISILOXANYL]PROPOXY;
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 - 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
Acute toxicity (inhalation:dust,mist) Category 4 H332 Harmful if inhaled
Serious eye damage/eye irritation Category 2 H319 Causes serious eye irritation
Hazardous to the aquatic environment - Acute Hazard Category 2 H401 Toxic to aquatic life
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
H332 - Harmful if inhaled
H401 - Toxic to aquatic life
Precautionary statements (GHS US): P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P261 - Avoid breathing mist.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a doctor if you feel unwell
P337+P313 - If eye irritation persists: Get medical advice/attention.
P501 - Dispose of contents/container to licensed waste disposal facility.

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethylsiloxane-ethylene oxide block copolymer</td>
<td>(CAS-No.) 27306-78-1</td>
<td>&gt; 95</td>
<td>Acute Tox. 4 (Inhalation: dust, mist), H332</td>
</tr>
<tr>
<td>Allyloxy (polyethylene oxide), methyl ether</td>
<td>(CAS-No.) 27252-80-8</td>
<td>&lt; 5</td>
<td>Acute Tox. 4 (Oral), H302</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/effects after inhalation: Harmful if inhaled. May cause irritation to the respiratory tract.

Symptoms/effects after skin contact: May cause skin irritation. May be harmful in contact with skin.

Symptoms/effects after eye contact: Causes serious 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.

5.3. Special protective equipment and precautions for fire-fighters

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

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
SECTION 6: Methods and material for containment and cleaning up

For containment: Contain any spills with dike 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.

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 outdoors or in a well-ventilated area.

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. 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

Physical state: Liquid
Appearance: Clear liquid. Viscous.
Molecular mass: 559 - 691 g/mol
Color: Pale yellow.
Odor: No data available
Odor threshold: No data available
Refractive index: 1.4416
pH: No data available
Relative evaporation rate (butyl acetate=1): No data available
Melting point: 0 °C
Freezing point: No data available
Boiling point: > 205 °C
Flash point: 116 °C
2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]HEPTAMETHYLTRISILOXANE, tech-90

Safety Data Sheet

Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : < 5 mm Hg
Relative vapor density at 20 °C : No data available
Relative density : 1.007
% Volatiles : < 3 %
Solubility : Soluble in w ater.
Log Pow : No data available
Log Kow : > 3.29  >3.28; >3.60
Viscosity, kinematic : 22 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
No additional information available

10.4. Conditions to avoid
Heat. Open flame. Sparks.

10.5. Incompatible materials
Oxidizing agent.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified

2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]HEPTAMETHYLTRISILOXANE, tech-90 (27306-78-1)
ATE US (dust, mist) 2.105 mg/l/4h

Allyloxy(polyethylene oxide), methyl ether (27252-80-8)
LD50 oral rat > 500 mg/kg
ATE US (oral) 500 mg/kg body w eight

Dimethylsiloxane-ethylene oxide block copolymer (27306-78-1)
LD50 oral rat 4920 μl/kg
LD50 dermal rat > 2000 mg/kg
LC50 inhalation rat (mg/l) 2 g/m³ (Exposure time: 4 h)
ATE US (oral) 4920 mg/kg body w eight
ATE US (vapors) 2 mg/l/4h
ATE US (dust, mist) 2 mg/l/4h

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

None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.
2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]HEPTAMETHYLTRISILOXANE, tech-90
Safety Data Sheet

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 : Harmful if inhaled. May cause irritation to the respiratory tract.
Symptoms/effects after skin contact : May cause skin irritation. May be harmful in contact with skin.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : May be harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Dimethylsiloxane-ethylene oxide block copolymer (27306-78-1)

<table>
<thead>
<tr>
<th>Test</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
<th>ErC50 (algae)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.8 mg/l (Zebra Fish)</td>
<td>25 mg/l (Daphnia magna)</td>
<td>32 mg/l (Pseudokirchneriella subcapitata)</td>
</tr>
</tbody>
</table>

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 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. Dispose of contents/container to licensed waste disposal facility.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number
UN-No. (DOT) : 3082
DOT NA no. : UN3082

14.2. UN proper shipping name
Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s. (2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]HEPTAMETHYLTRISILOXANE), 9, III
Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s. (2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]HEPTAMETHYLTRISILOXANE)
Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Packaging Exceptions (49 CFR 173.xxx) : 155
DOT Symbols : G - Identifies PSN requiring a technical name
14.3. Additional information

Emergency Response Guide (ERG) Number : 171
Other information : No supplementary information available.

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

Air transport

DOT Quantity Limitations Passenger aircraft/rail : No limit (49 CFR 173.27)
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

Allyloxy(polyethylene oxide), methyl ether (27252-80-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Dimethylsiloxane-ethylene oxide block copolymer (27306-78-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Allyloxy(polyethylene oxide), methyl ether (27252-80-8)
Listed on the Canadian DSL (Domestic Substances List)

Dimethylsiloxane-ethylene oxide block copolymer (27306-78-1)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
No additional information available

National regulations

Allyloxy(polyethylene oxide), methyl ether (27252-80-8)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on ECSSC (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)

Dimethylsiloxane-ethylene oxide block copolymer (27306-78-1)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on ECSSC (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 TCSI (Taiwan Chemical Substance 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:

H302 Harmful if swallowed
H319 Causes serious eye irritation
H332 Harmful if inhaled
H401 Toxic to aquatic life
2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]HEPTAMETHYLTRISILOXANE, tech-90

Safety Data Sheet

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.

Prepared by safety and environmental affairs.

Date of issue: 12/08/2014 Revision date: 04/05/2019 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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