



# DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER

Safety Data Sheet DBP-V052

Date of issue: 02/19/2015 Version: 1.0

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

### 1.1. Product identifier

Product form : Substance  
 Physical state : Liquid  
 Substance name : DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER  
 Product code : DBP-V052  
 Synonyms : (0.5% VINYL METHYLSILOXANE)-(DIMETHYLSILOXANE) COPOLYMER-POLY (ETHYLENE GLYCOL-ran- PROPYLENE GLYCOL) MONOBUTYL ESTER TERMINATED, 30% nonsiloxane  
 Chemical family : ORGANOSILOXANE

### 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 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: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification (GHS-US)

Not classified

### 2.2. Label elements

#### GHS-US labeling

No labeling applicable

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS-US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Substance type : Polymer  
 Name : DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER  
 CAS No : Not found

| Name  | Product identifier | %    | Classification (GHS-US)   |
|---|--------------------|------|---|
| Dimethylsiloxane-vinylmethylsiloxane-(propylene oxide-ethylene oxide) block copolymer | (CAS No) Not found | > 95 | Not classified  |
| Octamethylcyclotetrasiloxane  | (CAS No) 556-67-2  | < 2  | Flam. Liq. 3, H226<br>Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Dermal), H312<br>Eye Irrit. 2B, H320 |

### 3.2. Mixture

Not applicable

# DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER

## Safety Data Sheet

### 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, both acute and delayed

|                                      |                              |
|--------------------------------------|------------------------------|
| Symptoms/injuries after inhalation   | : No information available.  |
| Symptoms/injuries after skin contact | : May cause 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

Suitable extinguishing media : Water spray. Water fog. Foam. Carbon dioxide. Dry chemical.

#### 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.

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

# DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER

## Safety Data Sheet

### 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                   | : Safety glasses. 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                              | : 8000 - 10000 g/mol     |
| Color                                       | : Pale yellow.           |
| Odor  | : No data available      |
| Odor threshold                              | : No data available      |
| Refractive index                            | : 1.418                  |
| pH  | : No data available      |
| Relative evaporation rate (butyl acetate=1) | : No data available      |
| Melting point                               | : -30 °C                 |
| Freezing point                              | : No data available      |
| Boiling point                               | : > 205 °C               |
| Flash point                                 | : > 110 °C               |
| 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                            | : 0.99                   |
| VOC content                                 | : < 3 %                  |
| Solubility                                  | : Insoluble in water.    |
| Log Pow                                     | : No data available      |
| Log Kow                                     | : No data available      |
| Viscosity, kinematic                        | : 500 - 600 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

# DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER

## Safety Data Sheet

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

Formaldehyde. 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                               |
| 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)                           | 1540.000 mg/kg body weight               |
| ATE US (dermal)                         | 1770.000 mg/kg body weight               |
| ATE US (vapors)                         | 36.000 mg/l/4h                           |
| ATE US (dust, mist)                     | 36.000 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

This material was tested in a bacterial mutagenicity assay (Ames test) and was found to be weakly mutagenic.

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

Potential Adverse human health effects and symptoms : Repeated inhalation of low concentration respirable aerosols of the alkyleneoxide component of this material (0.3 mg/m<sup>3</sup> and higher produced injury in the lungs of rats.

Symptoms/injuries after inhalation : No information available.

Symptoms/injuries after skin contact : May cause 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

| 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

| Octamethylcyclotetrasiloxane (556-67-2) |   |
|---|---|
| Persistence and degradability           | May cause long-term adverse effects in the environment. |

### 12.3. Bioaccumulative potential

| 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

Effect on ozone layer : No additional information available

# DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER

## Safety Data Sheet

Effect on the global warming : No known ecological damage caused by this product.

### 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

##### DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER (Not found)

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.

##### Dimethylsiloxane-vinylmethylsiloxane-(propylene oxide-ethylene oxide) block copolymer (Not found)

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 Section 4 test rule under TSCA.

#### 15.2. International regulations

##### Octamethylcyclotetrasiloxane (556-67-2)

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

#### 15.3. US State regulations

##### DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER(Not found)

U.S. - California - Proposition 65 - Carcinogens List

No

U.S. - California - Proposition 65 - Developmental Toxicity

No

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

No

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

No

##### Dimethylsiloxane-vinylmethylsiloxane-(propylene oxide-ethylene oxide) block copolymer (Not found)

U.S. - California - Proposition 65 - Carcinogens List

U.S. - California - Proposition 65 - Developmental Toxicity

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

No significance risk level (NSRL)

No

No

No

No

# DIMETHYLSILOXANE-VINYLMETHYLSILOXANE-(PROPYLENE OXIDE-ETHYLENE OXIDE) BLOCK COPOLYMER

## Safety Data Sheet

| Octamethylcyclotetrasiloxane (556-67-2)   |   |   |   |                                   |
|---|---|---|---|-----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List   | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significance risk level (NSRL) |
| No  | No  | No  | No  |                                   |
| Octamethylcyclotetrasiloxane (556-67-2)   |   |   |   |                                   |
| U.S. - Maine - Chemicals of High Concern<br>U.S. - Minnesota - Chemicals of High Concern<br>U.S. - Minnesota - Chemicals of High Concern - Persistent Bioaccumulative Toxins<br>U.S. - Oregon - Priority Persistent Pollutant - Tier I - Persistent Pollutants<br>U.S. - Texas - Effects Screening Levels - Long Term<br>U.S. - Texas - Effects Screening Levels - Short Term |   |   |   |                                   |

### 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::

|                       |   |
|-----------------------|---|
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal) Category 4            |
| Acute Tox. 4 (Oral)   | Acute toxicity (oral) Category 4              |
| Eye Irrit. 2B         | Serious eye damage/eye irritation Category 2B |
| Flam. Liq. 3          | Flammable liquids Category 3                  |
| H226                  | Flammable liquid and vapor                    |
| H302                  | Harmful if swallowed                          |
| H312                  | Harmful in contact with skin                  |
| H320                  | Causes eye irritation                         |

#### HMIS III Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible  
Flammability : 1 Slight Hazard  
Physical : 0 Minimal Hazard

Prepared by safety and environmental affairs.

Date of issue: 02/19/2015 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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