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

1.1. Product identifier

Product form: Substance
Physical state: Liquid
Substance name: (CARBINOL FUNCTIONAL) METHYLSILOXANE - DIMETHYLSILOXANE COPOLYMER
Product code: CMS-221
Synonyms: POLY(DIMETHYLSILOXANE), HYDROXYPROPYLENE OXIDE MODIFIED; (CARBINOL FUNCTIONAL) METHYL SILOXANE - DIMETHYLSILOXANE COPOLYMER
Chemical family: ORGANOSILOXANE
REACH authorisation exemptions: Exempted from REACH registration

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses
Use of the substance/mixture: Chemical intermediate

1.2.2. Uses advised against
No additional information available

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

GELEST INC.
Fritz-Klatte-Strasse 8
65933 Frankfurt
Germany
T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM
info@gelestde.com - www.gelestde.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 according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]
EUH-statements: EUH210 - Safety data sheet available on request.

2.3. Other hazards

Contains PBT/vPvB substances >= 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type: Polymer
Name: (CARBINOL FUNCTIONAL) METHYLSILOXANE - DIMETHYLSILOXANE COPOLYMER
CAS-No.: 68937-54-2
EC-No.: 614-822-8
(CARBINOL FUNCTIONAL) METHYLSILOXANE-DIMETHYLSILOXANE COPOLYMER
Safety Data Sheet

Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP]
---|---|---|---
Carbinol (hydroxyl) terminated polydimethylsiloxane | (CAS-No.) 68937-54-2 (EC-No.) 614-822-8 | > 95 | Not classified
Octamethylcyclotetrasiloxane | (CAS-No.) 556-67-2 (EC-No.) 209-136-7 | < 2 | Repr. 2, H361f Aquatic Chronic 4, H413

Full text of 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 person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact: Wash with plenty of 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 a unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/effects after inhalation: No information available.
Symptoms/effects after skin contact: May cause skin irritation.
Symptoms/effects after eye contact: May cause eye irritation.
Symptoms/effects 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

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 vapour 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 vapour 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

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
<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>Clear liquid</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>4000 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>1.419</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>&lt; -20 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt; 205 °C</td>
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<tr>
<td>Flash point</td>
<td>&gt; 94 °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>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
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</tr>
<tr>
<td>Relative density</td>
<td>1</td>
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</tbody>
</table>
# CARBINOL FUNCTIONAL) METHYLSILOXANE-DIMETHYLSILOXANE COPOLYMER

## Safety Data Sheet

<table>
<thead>
<tr>
<th>% Volatiles</th>
<th>&lt; 5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility</td>
<td>Slightly. Soluble in 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>125 - 150 cSt</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
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</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive 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
Organic acid vapors. Silicon dioxide.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
</table>

Octamethylcyclotetrasiloxane (556-67-2)

| LD50 oral rat | 1540 mg/kg RTECS Number: GZ4397000 |
| LD50 dermal rat | 1770 mg/kg |
| LD50 dermal rabbit | 794 µl/kg |
| LC50 inhalation rat (mg/l) | 36 g/m³ (Exposure time: 4 h) |
| ATE CLP (oral) | 1540 mg/kg bodyweight |
| ATE CLP (dermal) | 1770 mg/kg bodyweight |
| ATE CLP (vapours) | 36 mg/l/4h |
| ATE CLP (dust,mist) | 36 mg/l/4h |

| Skin corrosion/irritation | Not classified |
| Serious eye damage/irritation | Not classified |
| Respiratory or skin sensitisation | Not classified |
| Germ cell mutagenicity | Not classified |
| Carcinogenicity | Not classified |
| Reproductive toxicity | Not classified |
| STOT-single exposure | Not classified |
| STOT-repeated exposure | Not classified |
| Aspiration hazard | Not classified |

| Symptoms/effects after inhalation | No information available. |
| Symptoms/effects after skin contact | May cause skin irritation. |
| Symptoms/effects after eye contact | May cause eye irritation. |
| Symptoms/effects after ingestion | No information available. |
(CARBINOL FUNCTIONAL) METHYLSILOXANE-DIMETHYLSILOXANE COPOLYMER
Safety Data Sheet

SECTION 12: Ecological information

12.1. Toxicity
Acute aquatic toxicity : Not classified
Chronic aquatic toxicity : Not classified

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
No additional information available

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. Results of PBT and vPvB assessment
Component
Octamethylcyclotetrasiloxane (556-67-2)
- This substance/mixture meets the PBT criteria of REACH regulation, annex XIII
- This substance/mixture meets the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment 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
In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number
- UN-No. (ADR): Not applicable
- UN-No. (IMDG): Not applicable
- UN-No. (IATA): Not applicable
- UN-No. (ADN): Not applicable
- UN-No. (RID): Not applicable

14.2. UN proper shipping name
- Proper Shipping Name (ADR): Not applicable
- Proper Shipping Name (IMDG): Not applicable
- Proper Shipping Name (IATA): Not applicable
- Proper Shipping Name (ADN): Not applicable
- Proper Shipping Name (RID): Not applicable

14.3. Transport hazard class(es)
ADR
- Transport hazard class(es) (ADR): Not applicable

IMDG
- Transport hazard class(es) (IMDG): Not applicable

IATA
- Transport hazard class(es) (IATA): Not applicable

ADN
(CARBINOL FUNCTIONAL) METHYLSILOXANE-DIMETHYLSILOXANE COPOLYMER
Safety Data Sheet

Transport hazard class(es) (ADN) : Not applicable

RID
Transport hazard class(es) (RID) : Not applicable

14.4. Packing group
Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards
Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user
- Overland transport
No data available
- Transport by sea
No data available
- Air transport
No data available
- Inland waterway transport
No data available
- Rail transport
No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.1.1. EU-Regulations
No REACH Annex XVII restrictions
(CARBINOL FUNCTIONAL) METHYLSILOXANE-DIMETHYLSILOXANE COPOLYMER is not on the REACH Candidate List
Contains a substance on the REACH candidate list in concentration ≥ 0.1% or with a lower specific limit: Octamethylcyclotetrasiloxane (D4) (EC 209-136-7, CAS 556-67-2)
(CARBINOL FUNCTIONAL) METHYLSILOXANE-DIMETHYLSILOXANE COPOLYMER is not on the REACH Annex XIV List
(CARBINOL FUNCTIONAL) METHYLSILOXANE-DIMETHYLSILOXANE COPOLYMER is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals

% Volatiles : < 5 %

15.1.2. National regulations

Germany
Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to VwVwS, Annex 1 or 2; ID No. 543)

Netherlands
SZW-lijest van kankerverwekkende stoffen : The substance is not listed
(CARBINOL FUNCTIONAL) METHYLSILOXANE-DIMETHYLSILOXANE COPOLYMER
Safety Data Sheet

SECTION 16: Other information

Abbreviations and acronyms:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>Not Determined, No Data</td>
</tr>
</tbody>
</table>

Other information: Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

- Aquatic Chronic 4: Hazardous to the aquatic environment — Chronic Hazard, Category 4
- Repr. 2: Reproductive toxicity, Category 2
- H361f: Suspected of damaging fertility.
- H413: May cause long lasting harmful effects to aquatic life.
- EUH210: Safety data sheet available on request.

SDS EU (REACH Annex II) - Custom

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