SIH6117.0 - 1,1,3,3,5,5-HEXAMETHYLTRISILOXANE

1,1,3,3,5,5-HEXAMETHYLTRISILOXANE
Safety Data Sheet SIH6117.0
Date of issue: 10/24/2014
Version: 1.0

SECTION 1: Identification

1.1. Identification
Product name : 1,1,3,3,5,5-HEXAMETHYLTRISILOXANE
Product code : SIH6117.0
Product form : Substance
Physical state : Liquid
Formula : C₆H₁₈O₂Si₃
Synonyms : METHYL 1,5-DIHYDRO-1,1,3,3-HEXAMETHYLTRSILOXANE; M'DM'
Chemical family : HYDRIDOSILOXANE

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
Flammable liquids Category 2  H225  Highly flammable liquid and vapor
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements
GHS US labeling
Hazard pictograms (GHS US) : [Flame]

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H225 - Highly flammable liquid and vapor
Precautionary statements (GHS US) : P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P210 - Keep away from heat, open flames, sparks. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P370+P378 - In case of fire: Use water spray or fog, foam, carbon dioxide, dry chemical to extinguish.
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower
P403+P235 - Keep in a cool place
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
Substance type : Mono-constituent
Name : 1,1,3,3,5,5-HEXAMETHYLTRISILOXANE
1,1,3,3,5,5-HEXAMETHYLTRISILOXANE
Safety Data Sheet

CAS-No. : 1189-93-1

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,3,5,5-Hexamethytrisiloxane</td>
<td>(CAS-No.) 1189-93-1</td>
<td>&gt; 95</td>
<td>Flam. Liq. 2, H225</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: 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. 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: Highly flammable liquid and vapor. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.
Explosion hazard: May form flammable/explosive vapor-air mixture.

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
General measures: Eliminate ignition sources. Use special care to avoid static electric charges.

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. Use only non-sparking tools.

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
Additional hazards when processed: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapor and mist. Containers must be properly grounded before beginning transfer. Provide good ventilation in process area to prevent accumulation of vapors. Take precautionary measures against static discharge. Use only non-sparking tools.

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

Technical measures: Ground/bond container and receiving equipment.

Storage conditions: Keep container tightly closed.


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

<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>208.48 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</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>1.3811</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>&gt; 1</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>128 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>20 °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>Highly flammable liquid and vapor</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>0.8222</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>&gt; 95 %</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water.</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Stable in sealed containers stored under a dry inert atmosphere.

10.3. Possibility of hazardous reactions
The product can generate small amounts of hydrogen when exposed to alkalis and protic materials such as water and alcohol in combination with metal salts such as aluminum chloride or precious metals such as platinum.

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

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified
Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
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/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.

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

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. Dispose of contents/container to licensed waste disposal facility.

Additional information: Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials: Avoid release to the environment.

**SECTION 14: Transport information**

**14.1. UN number**

UN-No.(DOT) : 1993

DOT NA no. : UN1993

**14.2. UN proper shipping name**

Transport document description: UN1993 Flammable liquids, n.o.s. (1,1,3,3,5,5-HEXAMETHYLTRISILOXANE), 3, II

Proper Shipping Name (DOT): Flammable liquids, n.o.s. (1,1,3,3,5,5-HEXAMETHYLTRISILOXANE)

Class (DOT): 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT): II - Medium Danger

Hazard labels (DOT): 3 - Flammable liquid

**14.3. Additional information**

Emergency Response Guide (ERG) Number : 128

Other information : No supplementary information available.

**Transport by sea**

DOT Vessel Stowage Location : B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) “On deck only” on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

**Air transport**

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 60 L

**SECTION 15: Regulatory information**

**15.1. US Federal regulations**

1,3,3,5,5-Hexamethyltrisiloxane (1189-93-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**15.2. International regulations**

**CANADA**

1,3,3,5,5-Hexamethyltrisiloxane (1189-93-1)

Listed on the Canadian NDSL (Non-Domestic Substances List)

**EU-Regulations**

1,3,3,5,5-Hexamethyltrisiloxane (1189-93-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
1,1,3,3,5,5-Hexamethyltrisiloxane
Safety Data Sheet

National regulations

1,3,3,5,5-Hexamethyltrisiloxane (1189-93-1)

| 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 NZIoC (New Zealand Inventory of Chemicals) |
| Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) |

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:

| H225 | Highly flammable liquid and vapor |

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: 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability: 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)

Physical: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Prepared by safety and environmental affairs.

Date of issue: 10/24/2014 Version: 1.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

© 2019 Gelest Inc. Morrisville, PA 19067