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

1.1. Product identifier
Product form: Substance
Physical state: Liquid
Substance name: HEXAMETHYLDISILTHIANE
Product code: SIH6116.0
Formula: C₆H₁₈SSi₂
Synonyms: BIS(TRIMETHYLSILYL)SULFIDE
Chemical family: ORGANOSILANE

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Chemical intermediate
For research and industrial 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 - 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
GHS-US classification
Flam. Liq. 3 H226
Skin Irrit. 2 H315
Eye Irrit. 2A H319
STOT SE 3 H335
Full text of H statements: see section 16

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

Signal word (GHS-US): Warning
Hazard statements (GHS-US):
H226 - Flammable liquid and vapor
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Precautionary statements (GHS-US):
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P210 - Keep away from heat, open flames, sparks. - No smoking
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
P261 - Avoid breathing vapors
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower
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
HEXAMETHYLDISILTHIANE
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P312 - Call a doctor if you feel unwell
P321 - Specific treatment (see first aid instructions on this label)
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use carbon dioxide, dry powder to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Keep in a cool place
P405 - Store locked up
P501 - Dispose of contents/container to licensed waste disposal facility

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: Mono-constituent
Name: HEXAMETHYLDISILTHIANE
CAS No: 3385-94-2
EC no: 222-201-4

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethyldisilathiane</td>
<td>(CAS No) 3385-94-2</td>
<td>97 - 100</td>
<td>Flam. Liq. 3, H226</td>
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<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</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: May cause respiratory irritation. Inhalation of large amounts is expected to cause dizziness, and dysuria followed sometimes by bronchopneumonia.
Symptoms/injuries after skin contact: Causes skin irritation.
Symptoms/injuries after eye contact: Causes serious eye irritation.
Symptoms/injuries after ingestion: May be harmful if swallowed.

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: Carbon dioxide. Dry powder.
Unsuitable extinguishing media: Do not use straight streams.

5.2. Special hazards arising from the substance or mixture
Fire hazard: Flammable liquid and vapor. Material readily ignited with flame, sparks, friction or heat. Burning material may release toxic and corrosive fumes.
Explosion hazard: May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters
Firefighting instructions: Exercise caution when fighting any chemical fire. Leave the area unless fitted with a self-contained breathing apparatus and fire protective clothing.
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 every possible source of ignition. Use special care to avoid static electric charges.
---|---
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

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

For containment | Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up | Spillage of the material can create widespread odor problem. Leave the area unless fitted with a self-contained breathing apparatus. Small spills can be absorbed into vermiculite or other suitable absorbent. Odor can be attenuated by slurring material adsorbed onto vermiculite with 3-5% aqueous sodium hypochlorite (bleach). 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. Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Precautions for safe handling | Avoid all eye and skin contact and do not breathe vapor and mist. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Use only non-sparking tools.
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. Keep in a cool place. Store locked up.
Incompatible materials | Water.
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

<table>
<thead>
<tr>
<th>Hexamethyldisilathiane (3385-94-2)</th>
<th>USA OSHA</th>
<th>OSHA PEL (TWA) (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA OSHA</td>
<td>10 ppm H2S</td>
<td></td>
</tr>
</tbody>
</table>

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 | 178.45 g/mol
### HEXAMETHYLDISILTHIANE
#### Safety Data Sheet

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Colorless.</td>
</tr>
<tr>
<td>Odor</td>
<td>Strong. Stench.</td>
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<tr>
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<tr>
<td>Refractive index</td>
<td>1.4598</td>
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<tr>
<td>pH</td>
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<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
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<tr>
<td>Freezing point</td>
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<tr>
<td>Boiling point</td>
<td>162 - 164 °C</td>
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<tr>
<td>Flash point</td>
<td>26 °C</td>
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<td>Auto-ignition temperature</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Flammable liquid and vapor</td>
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<td>Vapor pressure</td>
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<td>Relative vapor density at 20 °C</td>
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</tr>
<tr>
<td>Relative density</td>
<td>0.851</td>
</tr>
<tr>
<td>VOC content</td>
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<tr>
<td>Solubility</td>
<td>Insoluble in water. Reacts with water.</td>
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<tr>
<td>Log Pow</td>
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</tr>
<tr>
<td>Log Kow</td>
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<tr>
<td>Viscosity, kinematic</td>
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</tr>
<tr>
<td>Viscosity, dynamic</td>
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<tr>
<td>Explosive properties</td>
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<tr>
<td>Oxidizing properties</td>
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</tr>
<tr>
<td>Explosion limits</td>
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</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 in sealed containers stored under moisture free atmosphere.

10.3. **Possibility of hazardous reactions**

Material decomposes slowly in contact with moist air or with water liberating hydrogen sulfide.

10.4. **Conditions to avoid**

Heat. Open flame. Sparks.

10.5. **Incompatible materials**

Water.

10.6. **Hazardous decomposition products**


### 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)**: May cause respiratory irritation.
- **Specific target organ toxicity (repeated exposure)**: Not classified
- **Aspiration hazard**: Not classified
Symptoms/injuries after inhalation: May cause respiratory irritation. Inhalation of large amounts is expected to cause dizziness, and dysuria followed sometimes by bronchopneumonia.
Symptoms/injuries after skin contact: Causes skin irritation.
Symptoms/injuries after eye contact: Causes serious eye irritation.
Symptoms/injuries after ingestion: May be harmful if swallowed.
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

12.5. Other adverse effects
Other adverse effects: This substance may be hazardous to the environment.
Effect on ozone layer: No additional information available
Effect on the global warming: No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Sewage disposal recommendations: Do not dispose of waste into sewer.
Waste disposal recommendations: 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
Proper Shipping Name (DOT): Flammable liquids, n.o.s.
(HEXAMETHYLDISILTHIANE)
Class (DOT): 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT): 3 - Flammable liquid

DOT Symbols: G - Identifies PSN requiring a technical name
Packing group (DOT): III - Minor Danger
DOT Packaging Exceptions (49 CFR 173.xxx): 150
DOT Packaging Non Bulk (49 CFR 173.xxx): 203
DOT Packaging Bulk (49 CFR 173.xxx): 242

14.3. Additional information
Emergency Response Guide (ERG) Number: 128
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
HEXAMETHYLDISILTHIANE
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Air transport
DOT Quantity Limitations Passenger aircraft/rail: 60 L (49 CFR 173.27)
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

SECTION 15: Regulatory information
15.1. US Federal regulations
Hexamethyldisilathiane (3385-94-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations
Hexamethyldisilathiane (3385-94-2)
Listed on the Canadian NDSL (Non-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)

15.3. US State regulations

<table>
<thead>
<tr>
<th>HEXAMETHYLDISILTHIANE (3385-94-2)</th>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California - Proposition 65 - Developmental Toxicity</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hexamethyldisilathiane (3385-94-2)</th>
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<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>Non-significant risk level (NSRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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>H226</th>
<th>Flammable liquid and vapor</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
</tbody>
</table>

HMIS III Rating
Health: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability: 3 Serious Hazard
Physical: 1 Slight Hazard

Prepared by safety and environmental affairs.
Date of issue: 05/31/2016
Version: 1.0

SDS US (GHS HazCom 2012) - Custom
HEXAMETHYLDISILTHIANE
Safety Data Sheet

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

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