## SECTION 1: Identification

### 1.1. Identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>BIS(TRIMETHYLSILYL)SULFUR DIIMIDE, 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>SIB1872.0</td>
</tr>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Formula</td>
<td>C₆H₁₈N₂SSi₂</td>
</tr>
<tr>
<td>Synonyms</td>
<td>BIS(TRIMETHYLSILYLIMINO)SULFUR</td>
</tr>
<tr>
<td>Chemical family</td>
<td>ORGANOSILANE</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids Category 3</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation Category 2A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazard statements (GHS US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H226 - Flammable liquid and vapor</td>
</tr>
<tr>
<td>H319 - Causes serious eye irritation</td>
</tr>
</tbody>
</table>

**Full text of H statements:** see section 16

### 2.2. GHS Label elements, including precautionary statements

**GHS US labeling**

<table>
<thead>
<tr>
<th>Hazard pictograms (GHS US)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Warning" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signal word (GHS US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H226 - Flammable liquid and vapor</td>
</tr>
<tr>
<td>H319 - Causes serious eye irritation</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Precautionary statements (GHS US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P260 - Wear protective gloves/protective clothing/eye protection/facial protection</td>
</tr>
<tr>
<td>P210 - Keep away from heat, open flames, sparks. - No smoking.</td>
</tr>
<tr>
<td>P233 - Keep container tightly closed.</td>
</tr>
<tr>
<td>P240 - Ground/Bond container and receiving equipment</td>
</tr>
<tr>
<td>P241 - Use explosion-proof electrical equipment</td>
</tr>
<tr>
<td>P242 - Use only non-sparking tools.</td>
</tr>
<tr>
<td>P243 - Take precautionary measures against static discharge.</td>
</tr>
<tr>
<td>P264 - Wash hands thoroughly after handling.</td>
</tr>
<tr>
<td>P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower</td>
</tr>
<tr>
<td>P305+P351+P338 - If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</td>
</tr>
<tr>
<td>P337+P313 - If eye irritation persists: Get medical advice/attention.</td>
</tr>
<tr>
<td>P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish.</td>
</tr>
<tr>
<td>P403+P235 - Keep in a cool place</td>
</tr>
<tr>
<td>P501 - Dispose of contents/container to licensed waste disposal facility.</td>
</tr>
</tbody>
</table>

### 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 : BIS(TRIMETHYLSILYL)SULFUR DIIMIDE, 95%
CAS-No. : 18156-25-7

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIS(trimethylsilyl)sulfur diimide</td>
<td>(CAS-No.) 18156-25-7</td>
<td>95 - 100</td>
<td>Flam. Liq. 3, H226 Eye Irrit. 2A, H319</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. 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 (acute and delayed)
Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
Symptoms/effects after skin contact : May cause skin irritation.
Symptoms/effects after eye contact : Causes serious 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 : Do not use straight streams.

5.2. Specific hazards arising from the chemical
Fire hazard : 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 : Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.
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
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: Clean up any spills as soon as possible, using an absorbent material to collect it. 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: Keep away from heat, open flames, sparks. - 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. 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 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
Technical measures: Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.
Storage conditions: Keep container tightly closed. Keep in a cool place.
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 combination organic vapor/acid gas (yellow cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state: Liquid
Appearance: Clear liquid.
Molecular mass: 206.46 g/mol
Color: Straw.
Odor: Mild.
Odor threshold: No data available
RefRACTive index: 1.454
pH: No data available
Relative evaporation rate (butyl acetate=1): No data available
Melting point: No data available
Freezing point: < 0 °C
Boiling point: 59 - 61 °C @ 12 mm Hg
Flash point: 45 °C
**Auto-ignition temperature** : No data available

**Decomposition temperature** : No data available

**Flammability (solid, gas)** : Flammable liquid and vapor

**Vapor pressure** : < 5 mm Hg @ 25°C

**Relative vapor density at 20 °C** : > 1

**Relative density** : 0.877

**% Volatiles** : < 3 %

**Solubility** : Insoluble in water. Reacts with water.

**Log Pow** : No data available

**Log Kow** : No data available

**Viscosity, kinematic** : No data available

**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 when stored in sealed containers.

10.3. **Possibility of hazardous reactions**

No additional information available

10.4. **Conditions to avoid**

Heat. Sparks. Open flame. Degrades at temperatures above 80°C.

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** : 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.

**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** : May cause irritation to the respiratory tract.

**Symptoms/effects after skin contact** : May cause skin irritation.

**Symptoms/effects after eye contact** : Causes serious eye irritation.

**Symptoms/effects after ingestion** : No information available.

**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 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 : 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. (BIS(TRIMETHYLSILYL)SULFUR DIIMIDE), 3, III
Proper Shipping Name (DOT) : Flammable liquids, n.o.s. (BIS(TRIMETHYLSILYL)SULFUR DIIMIDE)
Class (DOT) : 3 - Class 3 : Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 3 - Flammable liquid

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

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.

Air transport
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
SECTION 15: Regulatory information

15.1. US Federal regulations

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.

Bis(trimethylsilyl)sulfur diimide (18156-25-7) Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

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:

- H226: Flammable liquid and vapor
- H319: Causes serious eye irritation

Abbreviations and acronyms:

<table>
<thead>
<tr>
<th>Abbreviations:</th>
<th>Flammable liquid and vapor</th>
<th>Causes serious eye irritation</th>
</tr>
</thead>
</table>

Hazard Rating

Health: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

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: 11/30/2016 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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