# SECTION 1: Identification

## 1.1. Identification

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>BIS(TRIMETHYLSILYL)TELLURIDE</td>
</tr>
<tr>
<td>Product code</td>
<td>SIB1873.0</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>C6H18TeSi2</td>
</tr>
<tr>
<td>Synonyms</td>
<td>HEXAMETHYLDISILATELLURANE</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>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids</td>
<td>Category 4 H227: Combustible liquid</td>
</tr>
<tr>
<td>Acute toxicity (oral)</td>
<td>Category 3 H301: Toxic if swallowed</td>
</tr>
<tr>
<td>Acute toxicity (inhalation/vapor)</td>
<td>Category 3 H331: Toxic if inhaled</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>
<th>:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signal word (GHS US)</th>
<th>Danger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard statements (GHS US)</td>
<td>H227: Combustible liquid</td>
</tr>
<tr>
<td></td>
<td>H301: Toxic if swallowed or if inhaled</td>
</tr>
<tr>
<td>Precautionary statements (GHS US)</td>
<td>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</td>
</tr>
<tr>
<td></td>
<td>P210 - Keep away from heat, ignition sources. - No smoking.</td>
</tr>
<tr>
<td></td>
<td>P261 - Avoid breathing vapors.</td>
</tr>
<tr>
<td></td>
<td>P264 - Wash hands thoroughly after handling.</td>
</tr>
<tr>
<td></td>
<td>P270 - Do not eat, drink or smoke when using this product.</td>
</tr>
<tr>
<td></td>
<td>P271 - Use only outdoors or in a well-ventilated area.</td>
</tr>
<tr>
<td></td>
<td>P330 - Rinse mouth.</td>
</tr>
<tr>
<td></td>
<td>P301+P310 - If swallowed: Immediately call a doctor</td>
</tr>
<tr>
<td></td>
<td>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing</td>
</tr>
<tr>
<td></td>
<td>P311 - Call a doctor</td>
</tr>
<tr>
<td></td>
<td>P370+P378 - In case of fire: Use carbon dioxide (CO2), dry powder to extinguish.</td>
</tr>
<tr>
<td></td>
<td>P403+P233 - Store in a well-ventilated place. Keep container tightly closed.</td>
</tr>
<tr>
<td></td>
<td>P403+P235 - Keep in a cool place</td>
</tr>
<tr>
<td></td>
<td>P405 - Store locked up.</td>
</tr>
<tr>
<td></td>
<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)TELLURIDE
CAS-No.: 4551-16-0

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bis(trimethylsilyl)telluride</td>
<td>(CAS-No.) 4551-16-0</td>
<td>&gt;97</td>
<td>Flam. Liq. 4, H227, Acute Tox. 3 (Oral), H301, Acute Tox. 3 (Inhalation/vapour), H331</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. Get immediate medical advice/attention.

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 immediate medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)
Symptoms/effects after inhalation: Toxic if inhaled.
Symptoms/effects after skin contact: May cause skin irritation.
Symptoms/effects after eye contact: May cause eye irritation.
Symptoms/effects after ingestion: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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
Suitable extinguishing media: Carbon dioxide. Dry powder.

5.2. Specific hazards arising from the chemical
Fire hazard: Combustible liquid.

5.3. Special protective equipment and precautions for fire-fighters
Firefighting instructions: Material readily ignited with flame, sparks, friction or heat. Burning material may release toxic and corrosive fumes. Leave the area unless fitted with a self-contained breathing apparatus and fire protective clothing. 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: Remove 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. Leave the area unless fitted with a self-contained breathing apparatus.

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: Spillage of the material can create widespread odor problem. Small spills can be absorbed into vermiculite or other suitable absorbent. Odor can be attenuated by slurrying 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: Keep away from heat, ignition sources. - No smoking.
Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapor and mist. Provide good ventilation in process area to prevent accumulation of vapors. Containers must be properly grounded before beginning transfer. 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
<table>
<thead>
<tr>
<th>Bis(trimethylsilyl)telluride (4551-16-0)</th>
<th>OSHA</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m³ (as Te)</td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls
Appropriate engineering controls: Handle in an enclosing hood with exhaust ventilation. Provide local exhaust or general room ventilation. Mechanical with caustic scrubber is recommended.

8.3. Individual protection measures/Personal protective equipment
Personal protective equipment:
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Avoid all unnecessary 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

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
| Physical state | Liquid |
| Appearance     | Liquid. |
| Molecular mass | 273.98 g/mol |
| Color          | Deep. Straw to amber. |
| Odor           | Strong. Stench. |
| Odor threshold | No data available |
| Refractive index | No data available |
| pH             | No data available |
| Relative evaporation rate (butyl acetate=1) | No data available |
| Melting point  | 13 - 14 °C |
BIS(TRIMETHYLSILYL)TELLURIDE
Safety Data Sheet

Freezing point: No data available
Boiling point: 74 °C @ 11 mm Hg
Flash point: > 65 °C
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): Combustible liquid
Vapor pressure: ~ 1 mm Hg @ 20°C
Relative vapor density at 20 °C: > 1
Relative density: 0.97
% Volatiles: > 97 %
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 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 telluride.

10.4. Conditions to avoid
Heat, ignition sources.

10.5. Incompatible materials
Moisture, Water.

10.6. Hazardous decomposition products
Carbon dioxide, Carbon monoxide, Hydrogen telluride, Organic fumes, Silicon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified

Bis(trimethylsilyl)telluride (4551-16-0)

<table>
<thead>
<tr>
<th>Effect Type</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>100 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>3 mg/l/4h</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity – single exposure</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity – repeated exposure</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
<tr>
<td>Potential Adverse human health effects and symptoms</td>
<td>Even at less than 0.1mg Te/m3 can impart a garlic-like odor to the breath which can take weeks to subside.</td>
</tr>
<tr>
<td>Symptoms/effects after inhalation</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>Symptoms/effects after skin contact</td>
<td>May cause skin irritation.</td>
</tr>
</tbody>
</table>
BIS(TRIMETHYLSILYL)TELLURIDE
Safety Data Sheet

Symptoms/effects after eye contact: May cause eye irritation.
Symptoms/effects after ingestion: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
Reason for classification: Based on Testing of Similar Materials

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.
Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number
UN-No. (DOT): 3284
DOT NA no.: UN3284

14.2. UN proper shipping name
Transport document description: UN3284 Tellurium compound, n.o.s. (BIS(TRIMETHYLSILYL)TELLURIDE), 6.1, III
Proper Shipping Name (DOT): Tellurium compound, n.o.s. (BIS(TRIMETHYLSILYL)TELLURIDE)
Packing group (DOT): III - Minor Danger
Hazard labels (DOT): 6.1 - Poison

DOT Packaging Non Bulk (49 CFR 173.xxx): 213
DOT Packaging Bulk (49 CFR 173.xxx): 240
DOT Packaging Exceptions (49 CFR 173.xxx): 153
DOT Symbols: G - Identifies PSN requiring a technical name

14.3. Additional information
Emergency Response Guide (ERG) Number: 151
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): 100 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 200 kg
SECTION 15: Regulatory information

15.1. US Federal regulations

**BIS(TRIMETHYLSILYL)TELLURIDE (4551-16-0)**

**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.

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Bis(trimethylsilyl)telluride (4551-16-0)

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:

<table>
<thead>
<tr>
<th>H227</th>
<th>Combustible liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
</tbody>
</table>

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**

4 Severe Hazard - Life-threatening, major or permanent damage may result from single or repeated overexposures

**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: 11/21/2014  Revision date: 09/01/2015  Version: 2.0

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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