## SECTION 1: Identification

### 1.1. Identification

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>TRIS(TRIMETHYLSILYL)ANTIMONY</td>
</tr>
<tr>
<td>Product code</td>
<td>SIT8721.3</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>C9H27SBSi3</td>
</tr>
<tr>
<td>Synonyms</td>
<td>TRIS(TRIMETHYLSILYL)STIBINE</td>
</tr>
<tr>
<td></td>
<td>TRIS(TRIMETHYLSILYL)ANTIMONIDE</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

**GHS US classification**

- Flammable liquids Category 2: H225 - Highly flammable liquid and vapor
- Pyrophoric liquids Category 1: H250 - Catches fire spontaneously if exposed to air
- Serious eye damage/eye irritation Category 2A: H319 - Causes serious eye irritation

Full text of H statements: see section 16

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

**GHS labeling**

**Hazard pictograms (GHS US):**

![Hazard pictograms](image)

**Signal word (GHS US):** Danger

**Hazard statements (GHS US):**

- H225 - Highly flammable liquid and vapor
- H250 - Catches fire spontaneously if exposed to air
- H319 - Causes serious eye irritation

**Precautionary statements (GHS US):**

- P210 - Keep away from heat, open flames, sparks. - No smoking.
- P222 - Do not allow contact with air.
- P233 - Keep container tightly closed.
- P240 - Ground/Bond container and receiving equipment.
- P241 - Use explosion-proof electrical/ventilating/lighting equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P264 - Wash hands thoroughly after handling.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P334 - If on skin: Immerse in cool water/.wrap with wet bandages
- P303+P361+P35 - If on skin (or hair): take off immediately all contaminated clothing, rinse skin with water/shower
- 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+P31 - If eye irritation persists: Get medical advice/attention.
- P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish.
- P403+P235 - Keep in a cool place
- P422 - Store contents under nitrogen or argon in sealed containers below 20°C.
- P501 - Dispose of contents/container to licensed waste disposal facility.
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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

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mono-constituent</td>
<td>TRIS(TRIMETHYLSILYL)ANTIMONY</td>
<td>7029-27-8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS US classification</th>
</tr>
</thead>
</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 if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause irritation to the respiratory tract. May be harmful if inhaled.

Symptoms/effects after skin contact : May cause skin irritation. May be harmful in contact with skin.

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

Symptoms/effects after ingestion : May be harmful if swallowed.

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 : Catches fire spontaneously if exposed to air. Pyrophoric liquids. Highly flammable liquid and vapor. Irritating fumes and vapors may develop when material is exposed to water 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 every possible source of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.
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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.

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/sparks/open flames/hot surfaces. - No smoking. Product may ignite spontaneously if exposed to air.
Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapor and mist. Do not allow contact with air. Take precautionary measures against static discharge.
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 under dry nitrogen or argon in sealed containers below 20°C.
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>Tris(trimethylsilyl)antimony (7029-27-8)</th>
<th>ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
<th>0.5 mg/m³ Antimony (Sb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>0.5 mg/m³ Antimony (Sb)</td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls
Appropriate engineering controls: Glove box or sealed system under inert atmosphere is required.

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:
Full face shield with chemical workers 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>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid. Turns dark on exposure to light or during extended storage, fumes in air and may ignite.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>341.33 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>Straw.</td>
</tr>
</tbody>
</table>
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Odor : Disagreeable.
Odor threshold : No data available
Refractive index : 1.5428
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : -1 – 6 °C
Boiling point : 88 °C - initial (hexane)
Flash point : < -18 °C
Auto-ignition temperature : < 75 °C
Decomposition temperature : No data available
Flammability (solid, gas) : Catches fire spontaneously if exposed to air, Pyrophoric liquids, Highly flammable liquid and vapor
Vapor pressure : < 0.1 mm Hg @ 25˚C
Relative vapor density at 20 °C : > 1
Relative density : 1.246
Solubility : Reacts extremely rapidly with moisture and oxygen.
Partition coefficient n-octanol/water (Log Pow) : No data available
Partition coefficient n-octanol/water (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 a dry inert atmosphere

10.3. Possibility of hazardous reactions
Reacts with oxygen, water and moisture in air.

10.4. Conditions to avoid

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : 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
STOT-single exposure : Not classified
### TRIS(TRIMETHYLSILYL)ANTIMONY

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**STOT-repeated exposure**
- Not classified
- May cause damage to organs through prolonged or repeated exposure

**Aspiration hazard**
- Not classified

**Potential Adverse human health effects and symptoms**
- This material is expected to have health effects similar to antimony, but no studies have been conducted.

**Symptoms/effects after inhalation**
- May cause irritation to the respiratory tract. May be harmful if inhaled.

**Symptoms/effects after skin contact**
- May cause skin irritation. May be harmful in contact with skin.

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

**Symptoms/effects after ingestion**
- May be harmful if swallowed.

### 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 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): 2845
- DOT NA No: UN2845

#### 14.2. UN proper shipping name
- Transport document description: UN2845 Pyrophoric liquids, organic, n.o.s. (TRIS(TRIMETHYLSILYL)ANTIMONY), 4.2, I
- Proper Shipping Name (DOT): Pyrophoric liquids, organic, n.o.s. (TRIS(TRIMETHYLSILYL)ANTIMONY)
- Class (DOT): 4.2 - Class 4.2 - Spontaneously combustible material 49 CFR 173.124
- Packing group (DOT): I - Great Danger
- Hazard labels (DOT): 4.2 - Spontaneously combustible

- DOT Packaging Non Bulk (49 CFR 173.xxx): 181
- DOT Packaging Bulk (49 CFR 173.xxx): 244
- DOT Packaging Exceptions (49 CFR 173.xxx): None
- DOT Symbols: G - Identifies PSN requiring a technical name

#### 14.3. Additional information
- Emergency Response Guide (ERG) Number: 135
- Other information: No supplementary information available.
Transport by sea

DOT Vessel Stowage Location: D - The material must be stowed “on deck only” 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, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.

DOT Vessel Stowage Other: 13 - Keep as dry as reasonably practicable. 78 - Stow “separated longitudinally by an intervening complete compartment or hold from” explosives

Air transport

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

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

SECTION 15: Regulatory information

15.1. US Federal regulations

TRIS(TRIMETHYLSILYL)ANTIMONY (7029-27-8)

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.

Tris(trimethylsilyl)antimony (7029-27-8)

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>H225</th>
<th>Highly flammable liquid and vapor</th>
</tr>
</thead>
<tbody>
<tr>
<td>H250</td>
<td>Catches fire spontaneously if exposed to air</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</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: 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)
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Physical: 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

Prepared by safety and environmental affairs.

Issue date: 08/19/2020 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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