# SECTION 1: Identification

### 1.1. Identification

| **Product name** | DIMETHYLAMINOTRIMETHYLTIN, tech-95 |
| **Product code** | SND3610 |
| **Product form** | Substance |
| **Physical state** | Liquid |
| **Formula** | C₅H₁₅NSn |
| **Synonyms** | TRIMETHYLSTANNYLDIMETHYLAMIDE; (DIMETHYLAMINO)TRIMETHYLSTANNANE |
| **Chemical family** | ORGANOTIN |

### 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
- Acute toxicity (inhalation:vapor) Category 2: H330 - Fatal if inhaled
- Skin corrosion/irritation Category 2: H315 - Causes skin irritation
- Serious eye damage/eye irritation Category 2A: H319 - Causes serious eye irritation
- Specific target organ toxicity (single exposure) Category 3: H335 - May cause respiratory irritation

Full text of H statements : see section 16

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

**GHS US labeling**

- **Signal word (GHS US)**: Danger
- **Hazard pictograms (GHS US)**: 🔥 💥 ⚠️
- **Hazard statements (GHS US)**:
  - H225 - Highly flammable liquid and vapor
  - H315 - Causes skin irritation
  - H319 - Causes serious eye irritation
  - H330 - Fatal if inhaled
  - 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.
  - 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.
  - P260 - Do not breathe vapors.
  - P264 - Wash hands thoroughly after handling.
  - P271 - Use only outdoors or in a well-ventilated area.
  - P284 - [In case of inadequate ventilation] wear in case of inadequate ventilation wear respiratory protection.
  - P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
  - P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower
  - P332+P313 - [In case of skin irritation] Get medical advice/attention.
**DIMETHYLAMINOTRIMETHYLTIN, tech-95**

Safety Data Sheet

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**2.3. Hazards not otherwise classified (HNOC)**

No additional information available

**2.4. Unknown acute toxicity (GHS US)**

Not applicable

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**SECTION 3: Composition/Information on ingredients**

### 3.1. Substances

**Name**: DIMETHYLAMINOTRIMETHYLTIN, tech-95

**CAS-No.**: 993-50-0

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Dimethylamino)trimethylstannane</td>
<td>(CAS-No.) 993-50-0</td>
<td>95 - 100</td>
<td>Flam. Liq. 2, H225 Acute Tox. 2 (Inhalation:vapour), H330 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335</td>
</tr>
<tr>
<td>Other Organotins</td>
<td></td>
<td>0 - 5</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

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**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. Immediately call a poison center or doctor/physician.

**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 immediate medical advice/attention.

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

**Symptoms/effects after inhalation**: Fatal if inhaled. May cause respiratory irritation. At low levels exposure to dimethylaminotrimethyltin may produce coughing, headache and nausea. At higher levels trimethyltin compounds have been reported to cause cerebral edema. Laboratory animal studies of related compounds have demonstrated neurotoxicity, decreases in oxidative phosphorylation associated with mitochondrial binding and inhibition of ATPase.

**Symptoms/effects after skin contact**: Causes skin irritation. Organotins may be absorbed through the 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

Note to physician: Application of corticosteroid creams has been effective in treating severe skin irritation. If blisters develop, they may require abrasion to promote healing.

**SECTION 5: Fire-fighting measures**

### 5.1. Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media**: Water spray. Foam. Carbon dioxide. Dry chemical.

**Unsuitable extinguishing media**: Do not use straight streams.

### 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.
5.3. Special protective equipment and precautions for fire-fighters

- **Firefighting instructions**: Use water spray to cool exposed surfaces. 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.
- **Other information**: Extremely toxic. Self-contained breathing apparatus should be worn at all times to avoid inhalation.

### 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.

**For non-emergency personnel**

- **Protective equipment**: Wear protective equipment as described in Section 8.
- **Emergency procedures**: Evacuate unnecessary personnel.

**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. 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. Provide good ventilation in process area to prevent accumulation of vapors. 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 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**: Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.
- **Storage conditions**: Keep container tightly closed. Store locked up. Keep in a cool place. Store in sealed containers in a manner consistent with safe-handling and regulatory requirements for a hazardous substance.
- **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>Other Organotins</th>
<th>ACGIH TWA (mg/m³)</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethylamino(trimethylstannane (993-50-0))</td>
<td>0.1 mg/m³ as tin</td>
<td>0.1 mg/m³ as tin</td>
</tr>
</tbody>
</table>

#### 8.2. Appropriate engineering controls

- **Appropriate engineering controls**: Provide local exhaust or general room ventilation. Handle in an enclosing hood with exhaust ventilation. Insure that exhaust is vented properly - caustic scrubbing is recommended.
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

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>207.87 g/mol</td>
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<tr>
<td>Color</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>Distinct. Characteristic.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>1.463</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>&lt; 0 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>126 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>1 °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>
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<tr>
<td>Relative vapor density at 20 °C</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.274</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>100 %</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</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 when stored out of light in sealed containers.

10.3. Possibility of hazardous reactions
Direct sunlight causes slow degradation to an inorganic tin salt.
### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials


### 10.6. Hazardous decomposition products

Organic acid vapors.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
</table>

**DIMETHYLAMINOTRIMETHYLTIN, tech-95 (993-50-0)**

<table>
<thead>
<tr>
<th>ATE US (vapors)</th>
<th>0.5 mg/l/4h</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Dimethylamino)trimethylstannane (993-50-0)</td>
<td>0.5 mg/l/4h</td>
</tr>
</tbody>
</table>

- **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/effects after inhalation**: Fatal if inhaled. May cause respiratory irritation. At low levels exposure to dimethylaminotrimethyltin may produce coughing, headache and nausea. At higher levels trimethyltin compounds have been reported to cause cerebral edema. Laboratory animal studies of related compounds have demonstrated neurotoxicity, decreases in oxidative phosphorylation associated with mitochondrial binding and inhibition of ATPase.
- **Symptoms/effects after skin contact**: Causes skin irritation. Organotins may be absorbed through the skin.
- **Symptoms/effects after eye contact**: Causes serious eye irritation.
- **Symptoms/effects 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 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.

Print date: 04/11/2019  
EN (English US)  
SDS ID: SND3610  
5/7
### SECTION 14: Transport information

#### 14.1. UN number

<table>
<thead>
<tr>
<th>UN-No. (DOT)</th>
<th>2787</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT NA no.</td>
<td>UN2787</td>
</tr>
</tbody>
</table>

#### 14.2. UN proper shipping name

| Transport document description | UN2787 Organotin pesticides, liquid, flammable, toxic (DIMETHYLAMINOTRIMETHYLTIN), 3 (6.1), II |
| Proper Shipping Name (DOT)     | Organotin pesticides, liquid, flammable, toxic (DIMETHYLAMINOTRIMETHYLTIN) |
| 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 6.1 - Poison |

Marine pollutant : Yes (IMDG only)

| DOT Packaging Non Bulk (49 CFR 173.xxx) | 202 |
| DOT Packaging Bulk (49 CFR 173.xxx)    | 243 |
| DOT Packaging Exceptions (49 CFR 173.xxx) | 150 |

#### 14.3. Additional information

| Emergency Response Guide (ERG) Number | 131 |
| 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. |
| DOT Vessel Stowage Other       | 40 - Stow “clear of living quarters” |

**Air transport**

| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | 1 L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)   | 60 L |

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

**DIMETHYLAMINOTRIMETHYLTIN, tech-95 (993-50-0)**

**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.

**(Dimethylamino)trimethylstannane (993-50-0)**

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

**CANADA**

No additional information available
DIMETHYLAMINOTRIMETHYLTIN, tech-95  
Safety Data Sheet

EU-Regulations
No additional information available

<table>
<thead>
<tr>
<th>(Dimethylamino)trimethylstannane (993-50-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
</tbody>
</table>

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>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H330</td>
<td>Fatal if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory 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)

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: 09/28/2015  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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