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

### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Substance name</td>
<td>TETRAKIS(DIMETHYLAMINO)TIN</td>
</tr>
<tr>
<td>Product code</td>
<td>SNT7350</td>
</tr>
<tr>
<td>Formula</td>
<td>C8H24N4Sn</td>
</tr>
<tr>
<td>Synonyms</td>
<td>OCTAMETHYLSTANNANETETRAAMINE; TIN IV DIMETHYLAMIDE</td>
</tr>
<tr>
<td>Chemical family</td>
<td>ORGANOTIN</td>
</tr>
</tbody>
</table>

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Use of the substance/mixture**: Chemical intermediate
For research 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

Full text of H-phrases: see section 16

### 2.2. Label elements

**GHS-US labeling**

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

**Signal word (GHS-US)**
- Warning

**Hazard statements (GHS-US)**
- H226 - Flammable liquid and vapor
- H315 - Causes skin irritation
- H319 - Causes serious eye 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
- P264 - Wash hands thoroughly after handling
- P303+P361+P338 - 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
- P307+P337 - If eye irritation persists; Get medical advice/attention
- P321 - Specific treatment (see first aid instructions on this label)
- P362 - Take off contaminated clothing and wash it before reuse
- P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide, dry chemical to extinguish
TETRAKIS(DIMETHYLAMINO)TIN
Safety Data Sheet

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

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Mono-constituent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>TETRAKIS(DIMETHYLAMINO)TIN</td>
</tr>
<tr>
<td>CAS No</td>
<td>1066-77-9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
</table>
| Tetrakis(dimethylamino)tin| (CAS No) 1066-77-9 | 95 - 100 | Flam. Liq. 3, H226,
|                           |                    |    | Skin Irrit. 2, H315,
|                           |                    |    | Eye Irrit. 2A, H319   |

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 irritation to the respiratory tract. Acute effects may be associated with the hydrolysis product, dimethylamine.

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

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: Alcohol-resistant foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media: Water.

5.2. Special hazards arising from the substance or mixture

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. Advice for firefighters

Firefighting instructions: 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: Absorption of this compound onto combustible material such as paper goods can cause fires if there is subsequent exposure to moisture. Reacts vigorously with water, liberating dimethylamine.

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.
TETRAKIS(DIMETHYLAMINO)TIN
Safety Data Sheet

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. 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: Ground/bond container and receiving equipment. Avoid all eye and skin contact and do not breathe vapor and mist. 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.

7.3. Specific end use(s)
No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Tetrakis(dimethylamino)tin (1066-77-9)
USA ACGIH
ACGIH TWA (mg/m³) 0.1 mg/m³ as tin

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 combination organic vapor - amine gas (brown cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state: Liquid
- Appearance: Liquid.
- Molecular mass: 294.99 g/mol
- Color: Pale yellow.
- Odor: Acrid. Dimethylamine.
- Odor threshold: No data available
- Refractive index: No data available
- pH: No data available
TETRAKIS(DIMETHYLAMINO)TIN
Safety Data Sheet

Relative evaporation rate (butyl acetate=1) : No data available
Melting point : < 0 °C
Freezing point : No data available
Boiling point : 53 - 55 °C @ 0.1 mm Hg
Flash point : > 25 °C
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : Flammable liquid and vapor
Vapor pressure : < 0.1 mm Hg @ 20°C
Relative vapor density at 20 °C : > 1
Relative density : 1.169
Solubility : Reacts vigorously 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.

10.3. Possibility of hazardous reactions
Reacts with moisture and air.

10.4. Conditions to avoid
Heat. Open flame. Sparks.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Amines. Organic acid vapors.

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) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : Not classified
Symptoms/injuries after inhalation : May cause irritation to the respiratory tract. Acute effects may be associated with the hydrolysis product, dimethylamine.
Symptoms/injuries after skin contact : Causes skin irritation. Organotins may be absorbed through the skin.
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 ecological damage caused by 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

<table>
<thead>
<tr>
<th>UN-No.(DOT)</th>
<th>DOT NA no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>UN1993</td>
</tr>
</tbody>
</table>

#### 14.2. UN proper shipping name

- Proper Shipping Name (DOT): Flammable liquids, n.o.s. (TETRAKIS(DIMETHYLAMINO)TIN)
- Transport hazard class(es) (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

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

TETRAKIS(DIMETHYLAMINO)TIN (1066-77-9)

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.

Tetakis(dimethylamino)tin (1066-77-9)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations
No additional information available

15.3. US State regulations

TETRAKIS(DIMETHYLAMINO)TIN (1066-77-9)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Tetakis(dimethylamino)tin (1066-77-9)

<table>
<thead>
<tr>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<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>
</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:

| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
| Flam. Liq. 3 | Flammable liquids Category 3 |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| H226         | Flammable liquid and vapor |
| H315         | Causes skin irritation |
| H319         | Causes serious eye irritation |

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: 2 Moderate Hazard

Prepared by safety and environmental affairs.

Date of issue: 11/18/2015
Version: 1.0

SDS US (GHS HazCom 2012) - Custom
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