

**DI-n-BUTYLtin SULFIDE, tech-95**

Safety Data Sheet SND3355

Date of issue: 01/13/2015

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Version: 2.0

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Substance  
 Physical state : Liquid  
 Substance name : DI-n-BUTYLtin SULFIDE, tech-95  
 Product code : SND3355  
 Formula : C<sub>8</sub>H<sub>18</sub>SSn  
 Synonyms : DI-n-BUTYLthioxostannane  
 Chemical family : ORGANOTIN

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

Use of the substance/mixture : Chemical intermediate  
 For research and industrial 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](mailto:info@gelest.com) - [www.gelest.com](http://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****Classification (GHS-US)**

Acute Tox. 3 (Oral) H301  
 STOT SE 3 H335

Full text of H-phrases: see section 16

**2.2. Label elements****GHS-US labeling**

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H301 - Toxic if swallowed  
 H335 - May cause respiratory irritation

Precautionary statements (GHS-US) :

P261 - Avoid breathing mist  
 P264 - Wash hands thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P301+P310 - If swallowed: Immediately call a POISON CENTER  
 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
 P312 - Call a doctor if you feel unwell  
 P330 - Rinse mouth  
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
 P405 - Store locked up  
 P501 - Dispose of contents/container to licensed waste disposal facility.

**2.3. Other hazards**

No additional information available

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

No data available

# DI-n-BUTYLTIN SULFIDE, tech-95

## Safety Data Sheet

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

|                |                                  |
|----------------|----------------------------------|
| Substance type | : Mono-constituent               |
| Name           | : DI-n-BUTYLTIN SULFIDE, tech-95 |
| CAS No         | : 4253-22-9                      |
| EC no          | : 224-220-3                      |

| Name               | Product identifier | %        | Classification (GHS-US)                      |
|--------------------|--------------------|----------|--|
| Dibutyltin sulfide | (CAS No) 4253-22-9 | 95 - 100 | Acute Tox. 3 (Oral), H301<br>STOT SE 3, H335 |

#### 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.  |
| 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 respiratory irritation.  |
| Symptoms/injuries after skin contact | : May cause skin irritation.   |
| Symptoms/injuries after eye contact  | : May cause eye irritation.  |
| Symptoms/injuries after ingestion    | : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. |

#### 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 : Foam. Water spray. Carbon dioxide.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

#### 5.3. Advice for firefighters

|                                |   |
|--------------------------------|---|
| 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. |

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 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.

#### 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. |

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Use only in well ventilated areas. Avoid all eye and skin contact and do not breathe vapor and mist.
- 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. Do not eat, drink or smoke when using this product.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed.
- 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

##### Dibutyltin sulfide (4253-22-9)

|          |                                     |                              |
|----------|-------------------------------------|------------------------------|
| USA OSHA | OSHA PEL (TWA) (mg/m <sup>3</sup> ) | 0.1 mg/m <sup>3</sup> as tin |
|----------|-------------------------------------|------------------------------|

#### 8.2. Exposure controls

- Appropriate engineering controls : Handle in an enclosing hood with exhaust 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.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Viscous.
- Molecular mass : 264.98 g/mol
- Color : Yellow. Amber.
- Odor : Stench.
- Odor threshold : No data available
- Refractive index : 1.579
- pH : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : 90 - 98 °C
- Freezing point : No data available
- Boiling point : > 300 °C
- Flash point : > 110 °C
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapor pressure : No data available
- Relative vapor density at 20 °C : No data available
- Relative density : 1.42
- VOC content : < 0.3 %
- Solubility : Insoluble in water. Reacts with water. Soluble in tetrahydrofuran. Soluble in toluene.
- 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

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### 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. Product will solidify with prolonged storage.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Organic acid vapors. Sulfur dioxide. Tin oxides. Tin sulfides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed.

| DI-n-BUTYLTIN SULFIDE, tech-95 (4253-22-9) |           |
|--|-----------|
| LD50 oral rat                              | 145 mg/kg |
| Dibutyltin sulfide (4253-22-9)             |           |
| LD50 oral rat                              | 145 mg/kg |

|   |  |
|---|--|
| Skin corrosion/irritation                           | : Not classified   |
| Serious eye damage/irritation                       | : Not classified   |
| 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.<br>Exposure to dust or fumes of inorganic tin compounds is known to cause a benign pneumoniosis. (stannosis) |
| Specific target organ toxicity (repeated exposure)  | : Not classified   |
| Aspiration hazard                                   | : Not classified   |
| Potential Adverse human health effects and symptoms | : Toxic if swallowed.  |
| Symptoms/injuries after inhalation                  | : May cause respiratory irritation.  |
| Symptoms/injuries after skin contact                | : May cause skin irritation.   |
| Symptoms/injuries after eye contact                 | : May cause eye irritation.  |
| Symptoms/injuries after ingestion                   | : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.   |

## 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

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Effect on the global warming : No known ecological damage caused by this product.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : 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) : 2788  
DOT NA no. UN2788

#### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Organotin compounds, liquid, n.o.s.  
(DI-n-BUTYLTIN SULFIDE)

Department of Transportation (DOT) Hazard Classes : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132

Hazard labels (DOT) : 6.1 - Poison



Packing group (DOT) : III - Minor Danger

DOT Packaging Exceptions (49 CFR 173.xxx) : 153

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

#### 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.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

#### 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

##### Dibutyltin sulfide (4253-22-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

##### Dibutyltin sulfide (4253-22-9)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on the Canadian DSL (Domestic Substances List)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the Canadian IDL (Ingredient Disclosure List)

#### 15.3. US State regulations

##### DI-n-BUTYLTIN SULFIDE, tech-95(4253-22-9)

|   |    |
|---|----|
| U.S. - California - Proposition 65 - Carcinogens List       | No |
| U.S. - California - Proposition 65 - Developmental Toxicity | No |
| U.S. - California - Proposition 65 - Reproductive           | No |

# DI-n-BUTYL TIN SULFIDE, tech-95

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| DI-n-BUTYL TIN SULFIDE, tech-95(4253-22-9)                        |   |   |   |                                   |
|---|---|---|---|-----------------------------------|
| Toxicity - Female   |   |   |   |                                   |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male |   | No  |   |                                   |
| Dibutyltin sulfide (4253-22-9)                                    |   |   |   |                                   |
| U.S. - California - Proposition 65 - Carcinogens List             | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significance risk level (NSRL) |
| No  | No  | No  | No  |                                   |

### 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::

|                     |   |
|---------------------|---|
| Acute Tox. 3 (Oral) | Acute toxicity (oral) Category 3                            |
| STOT SE 3           | Specific target organ toxicity (single exposure) Category 3 |
| H301                | Toxic if swallowed  |
| H335                | May cause respiratory irritation                            |

#### HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given  
Flammability : 1 Slight Hazard  
Physical : 1 Slight Hazard

Prepared by safety and environmental affairs.

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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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