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-BUTYLDIMETHYL Tin
- **Product code**: SND3282
- **Formula**: C10H24Sn
- **Synonyms**: DIMETHYLDIBUTYLSTANNANE, DIBUTYLDIMETHYLSTANNANE
- **Chemical family**: ORGANOTIN

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

1.2.1. Relevant identified uses

- **Use of the substance/mixture**: Chemical intermediate

1.2.2. Uses advised against

- **No additional information available**

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

**GELEST INC.**
Fritz-Klatte-Strasse 8
65933 Frankfurt
Germany
T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM
info@gelestde.com - www.gelestde.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 according to Regulation (EC) No. 1272/2008 [CLP]**

- **Acute toxicity (oral)**, Category 3: H301
- **Skin corrosion/irritation**, Category 2: H315
- **Serious eye damage/eye irritation**, Category 2: H319

**Adverse physicochemical, human health and environmental effects**

- **No additional information available**

2.2. Label elements

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

- **Hazard pictograms (CLP)**: GHS06
- **Signal word (CLP)**: Danger
- **Hazard statements (CLP)**: H301 - Toxic if swallowed. H315 - Causes skin irritation.
DI-n-BUTYLDIMETHYLTIN
Safety Data Sheet


SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di-n-butyldimethyltin</td>
<td>(CAS-No.) 1528-00-3</td>
<td>95 - 100</td>
<td>Acute Tox. 3 (Oral), H301</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>

No additional information available

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 person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact: Wash with plenty of 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. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation: May cause irritation to the respiratory tract.

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: 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

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: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: None known.

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: 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 vapour and mist.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

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

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.

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

Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapour and mist. Provide good ventilation in process area to prevent formation of vapour.

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. Store locked up.

Incompatible materials: Direct sunlight. Oxidizers.

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

<table>
<thead>
<tr>
<th>Di-n-butyldimethyltin (1528-00-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy - Portugal - USA ACGIH</td>
</tr>
<tr>
<td>0.1 mg/m³ as tin</td>
</tr>
</tbody>
</table>

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. 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

Physical state: Liquid
DI-n-BUTYLDIMETHYLTIN
Safety Data Sheet

Appearance: Clear liquid.
Molecular mass: 263.01 g/mol
Colour: Straw.
Odour: Mild.
Odour threshold: No data available
Refractive index: 1.465
pH: No data available
Relative evaporation rate (butylacetate=1): < 1
Melting point: No data available
Freezing point: < 0 °C
Boiling point: 69 °C @ 1 mm Hg
Flash point: > 65 °C
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): No data available
Vapour pressure: < 0.1 mm Hg @ 20°C
Relative vapour density at 20 °C: > 1
Relative density: 1.119
Solubility: Insoluble in 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
Oxidising properties: No data available
Explosive 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.

10.3. Possibility of hazardous reactions
Direct sunlight causes degradation to an inorganic tin salt.

10.4. Conditions to avoid
No additional information available

10.5. Incompatible materials
Direct sunlight. Oxidizers.

10.6. Hazardous decomposition products
Organic acid vapors. Tin oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Toxic if swallowed.

<table>
<thead>
<tr>
<th>Substance</th>
<th>ATE CLP (oral)</th>
<th>Toxicity</th>
</tr>
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<tbody>
<tr>
<td>DI-n-BUTYLDIMETHYLTIN (1528-00-3)</td>
<td>100 mg/kg bodyweight</td>
<td></td>
</tr>
<tr>
<td>Di-n-butyl(dimethyl)tin (1528-00-3)</td>
<td>100 mg/kg bodyweight</td>
<td></td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
## Carcinogenicity
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
Reproductive toxicity: Not classified

## STOT - single exposure
STOT-single exposure: Not classified

## STOT - repeated exposure
STOT-repeated exposure: Not classified

## Aspiration hazard
Aspiration hazard: Not classified

## Symptoms/effects after inhalation
Symptoms/effects after inhalation: May cause irritation to the respiratory tract.

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

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

## Symptoms/effects after ingestion
Symptoms/effects after ingestion: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

## Reason for classification
Reason for classification: Expert judgment

## SECTION 12: Ecological information

### 12.1. Toxicity
- Acute aquatic toxicity: Not classified
- Chronic aquatic toxicity: Not classified

### 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. Results of PBT and vPvB assessment
No additional information available

### 12.6. Other adverse effects
No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment 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.
- Ecology - waste materials: Avoid release to the environment.

## SECTION 14: Transport information

### 14.1. UN number
In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number
- UN-No. (ADR): 2788
- UN-No. (IMDG): 2788
- UN-No. (IATA): 2788
- UN-No. (ADN): 2788
- UN-No. (RID): 2788

#### 14.2. UN proper shipping name
- Proper Shipping Name (ADR): ORGANOTIN COMPOUND, LIQUID, N.O.S.
- Proper Shipping Name (IMDG): ORGANOTIN COMPOUND, LIQUID, N.O.S.
- Proper Shipping Name (IATA): Organotin compound, liquid, n.o.s.
- Proper Shipping Name (ADN): ORGANOTIN COMPOUND, LIQUID, N.O.S.
- Proper Shipping Name (RID): ORGANOTIN COMPOUND, LIQUID, N.O.S.
- Transport document description (IATA): UN 2788 Organotin compound, liquid, n.o.s. (Di-n-BUTYLDIMETHYLTIN), 6.1, III
# DI-n-BUTYLDIMETHYLTIN

## Safety Data Sheet

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<th>Transport document description (RID)</th>
<th>UN 2788 ORGANOTIN COMPOUND, LIQUID, N.O.S. (DI-n-BUTYLDIMETHYLTIN), 6.1, III</th>
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### 14.3. Transport hazard class(es)

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### 14.5. Environmental hazards

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<td>Marine pollutant</td>
<td>Yes (IMDG only)</td>
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## 14.6. Special precautions for user

<table>
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<tr>
<th>Transport type</th>
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<td><strong>- Overland transport</strong></td>
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<td>43, 274</td>
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<td>MP19</td>
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<td>Portable tank and bulk container instructions (ADR)</td>
<td>T7</td>
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<tr>
<td>Portable tank and bulk container special provisions (ADR)</td>
<td>TP2, TP28</td>
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<td>Tank special provisions (ADR)</td>
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<td>Special provisions for carriage - Loading, unloading and handling (ADR)</td>
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<td>EAC code</td>
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<td>APP code</td>
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<td>Packing instructions (IMDG)</td>
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<td>IBC packing instructions (IMDG)</td>
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<td>T7</td>
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<td>Tank special provisions (IMDG)</td>
<td>TP2, TP28</td>
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<td>EmS-No. (Spillage)</td>
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<td>Stowage and handling (IMDG)</td>
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<td>Properties and observations (IMDG)</td>
<td>A wide variety of toxic liquids. Toxic if swallowed, by skin contact or by inhalation.</td>
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<td><strong>- Air transport</strong></td>
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<td>PCA Limited quantities (IATA)</td>
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<td>PCA max net quantity (IATA)</td>
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<td>CAO packing instructions (IATA)</td>
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<td>CAO max net quantity (IATA)</td>
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<td>Special provisions (IATA)</td>
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<td>ERG code (IATA)</td>
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<td><strong>- Inland waterway transport</strong></td>
<td></td>
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<tr>
<td>Classification code (ADN)</td>
<td>T3</td>
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</tbody>
</table>
DI-n-BUTYLDIMETHYLTIN
Safety Data Sheet

Special provisions (ADN) : 43, 274, 802
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, EP, TOX, A
Ventilation (ADN) : VE02
Number of blue cones/lights (ADN) : 0

- Rail transport
Classification code (RID) : T3
Special provisions (RID) : 43, 274
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T7
Portable tank and bulk container special provisions (RID) : TP2, TP28
Tank codes for RID tanks (RID) : L4BH
Special provisions for RID tanks (RID) : TU15
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W12
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW28, CW31
Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 60

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations
No REACH Annex XVII restrictions
DI-n-BUTYLDIMETHYLTIN is not on the REACH Candidate List
DI-n-BUTYLDIMETHYLTIN is not on the REACH Annex XIV List
DI-n-BUTYLDIMETHYLTIN is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

15.1.2. National regulations

Germany
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands
SZW-lijst van kankerverwekkende stoffen : The substance is not listed
SZW-lijst van mutagene stoffen : The substance is not listed
NIET-limttatifie lijst van voor de voortplanting gifige stoffen – Borstvoeding : The substance is not listed
NIET-limttatifie lijst van voor de voortplanting gifige stoffen – Vruchtbaarheid : The substance is not listed
NIET-limttatifie lijst van voor de voortplanting gifige stoffen – Ontwikkeling : The substance is not listed

Denmark
Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
DI-n-BUTYLDIMETHYLTIN
Safety Data Sheet

15.2. Chemical safety assessment
No additional information available

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; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor

Other information:
Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Acute Tox. 3 (Oral)</th>
<th>Acute toxicity (oral), Category 3</th>
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</thead>
<tbody>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Category 2</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Category 2</td>
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<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
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<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
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</table>

SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

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