

**DI-t-BUTYL TIN OXIDE****Safety Data Sheet SND3351**

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Version: 1.2

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

|                 |                                                     |
|-----------------|-----------------------------------------------------|
| Product form    | : Substance                                         |
| Physical state  | : Solid                                             |
| Substance name  | : DI-t-BUTYL TIN OXIDE                              |
| Product code    | : SND3351                                           |
| Formula         | : (C <sub>8</sub> H <sub>18</sub> OSn) <sub>n</sub> |
| Synonyms        | : DI-t-BUTYL-OXO-STANNANE                           |
| Chemical family | : TIN COMPOUND                                      |

**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.**

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**USA**

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[info@gelestde.com](mailto:info@gelestde.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 according to Regulation (EC) No. 1272/2008 [CLP]**

|                                                                                            |      |
|--------------------------------------------------------------------------------------------|------|
| Skin corrosion/irritation, Category 2                                                      | H315 |
| Serious eye damage/eye irritation, Category 2                                              | H319 |
| Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation | H335 |

Full text of H- and EUH-statements: see section 16

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

No additional information available

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### 2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

Precautionary statements (CLP)

: P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P261 - Avoid breathing dust.

P264 - Wash hands thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P501 - Dispose of contents/container to licensed waste disposal facility..

P312 - Call a doctor if you feel unwell.

### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type

: Mono-constituent

Name

: DI-t-BUTYLTIN OXIDE

CAS-No.

: 19140-19-3

| Name               | Product identifier   | %        | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--------------------|----------------------|----------|-----------------------------------------------------------------|
| Di-t-butylin oxide | (CAS-No.) 19140-19-3 | 95 – 100 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335    |

Full text of H- and EUH-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 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. Get medical advice/attention.

### 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.

Symptoms/effects after eye contact

: Causes serious eye irritation.

Symptoms/effects after ingestion

: May be harmful if swallowed.

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Chronic symptoms : Exposure to dust or fumes of inorganic tin compounds is known to cause a benign pneumoniosis. (stannosis).

### 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 : Water spray. Foam. Carbon dioxide.  
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 contact with skin and eyes. Do not breathe dust.

## 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 product 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 : Sweep or shovel spills into appropriate container for disposal.

### 6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe dust. Avoid dust formation. Use only outdoors or in a well-ventilated area.  
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 : None known.  
Storage area : Store in a well-ventilated place.

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### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

##### Di-t-butyltin oxide (19140-19-3)

##### USA - ACGIH - Occupational Exposure Limits

|               |                              |
|---------------|------------------------------|
| ACGIH OEL TWA | 0.1 mg/m <sup>3</sup> as tin |
|---------------|------------------------------|

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

##### Appropriate engineering controls:

Provide local exhaust or general room ventilation.

#### 8.2.2. Personal protection 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.

##### 8.2.2.1. Eye and face protection

##### Eye protection:

Chemical goggles. Contact lenses should not be worn

##### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

##### Hand protection:

Neoprene or nitrile rubber gloves

##### 8.2.2.3. Respiratory protection

##### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.

##### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

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

Physical state : Solid

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|                                                 |                       |
|-------------------------------------------------|-----------------------|
| Appearance                                      | : Powder.             |
| Molecular mass                                  | : 242.98 g/mol        |
| Colour                                          | : White to off-white. |
| Odour                                           | : Odourless.          |
| Odour threshold                                 | : No data available   |
| Refractive index                                | : No data available   |
| pH                                              | : No data available   |
| Relative evaporation rate (butylacetate=1)      | : No data available   |
| Melting point                                   | : > 270 °C decomposes |
| Freezing point                                  | : No data available   |
| Boiling point                                   | : No data available   |
| Flash point                                     | : No data available   |
| Auto-ignition temperature                       | : No data available   |
| Decomposition temperature                       | : No data available   |
| Flammability (solid, gas)                       | : No data available   |
| Vapour pressure                                 | : < 0.1 mm Hg @ 25°C  |
| Relative vapour density at 20°C                 | : No data available   |
| Relative density                                | : > 1                 |
| Solubility                                      | : Insoluble in water. |
| 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   |
| 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

No additional information available

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

Organic acid vapors. Tin oxides.

## 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 sensitisation | : Not classified                 |
| Germ cell mutagenicity            | : Not classified                 |
| Carcinogenicity                   | : Not classified                 |

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|                                     |                                                                                                              |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Reproductive toxicity               | : Not classified                                                                                             |
| STOT-single exposure                | : May cause respiratory irritation.                                                                          |
| STOT-repeated exposure              | : Not classified                                                                                             |
| Aspiration hazard                   | : Not classified                                                                                             |
| Symptoms/effects after inhalation   | : May cause irritation to the respiratory tract.                                                             |
| Symptoms/effects after skin contact | : Causes skin irritation.                                                                                    |
| Symptoms/effects after eye contact  | : Causes serious eye irritation.                                                                             |
| Symptoms/effects after ingestion    | : May be harmful if swallowed.                                                                               |
| Chronic symptoms                    | : Exposure to dust or fumes of inorganic tin compounds is known to cause a benign pneumoniosis. (stannosis). |
| Reason for classification           | : Expert judgment                                                                                            |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                                                           |                  |
|-----------------------------------------------------------|------------------|
| Hazardous to the aquatic environment, short-term (acute)  | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : 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

|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| Other adverse effects | : This substance may be hazardous to the environment. |
|-----------------------|-------------------------------------------------------|

## 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

In accordance with ADR / IMDG / IATA / ADN / RID

### 14.1 UN number

|               |                  |
|---------------|------------------|
| UN-No. (ADR)  | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |
| UN-No. (ADN)  | : Not applicable |
| UN-No. (RID)  | : Not applicable |

### 14.2. UN proper shipping name

|                             |                  |
|-----------------------------|------------------|
| Proper Shipping Name (ADR)  | : Not applicable |
| Proper Shipping Name (IMDG) | : Not applicable |

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|                             |                  |
|-----------------------------|------------------|
| Proper Shipping Name (IATA) | : Not applicable |
| Proper Shipping Name (ADN)  | : Not applicable |
| Proper Shipping Name (RID)  | : Not applicable |

### 14.3. Transport hazard class(es)

|                                  |                  |
|----------------------------------|------------------|
| <b>ADR</b>                       |                  |
| Transport hazard class(es) (ADR) | : Not applicable |

|                                   |                  |
|-----------------------------------|------------------|
| <b>IMDG</b>                       |                  |
| Transport hazard class(es) (IMDG) | : Not applicable |

|                                   |                  |
|-----------------------------------|------------------|
| <b>IATA</b>                       |                  |
| Transport hazard class(es) (IATA) | : Not applicable |

|                                  |                  |
|----------------------------------|------------------|
| <b>ADN</b>                       |                  |
| Transport hazard class(es) (ADN) | : Not applicable |

|                                  |                  |
|----------------------------------|------------------|
| <b>RID</b>                       |                  |
| Transport hazard class(es) (RID) | : Not applicable |

### 14.4. Packing group

|                      |                  |
|----------------------|------------------|
| Packing group (ADR)  | : Not applicable |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | : Not applicable |
| Packing group (ADN)  | : Not applicable |
| Packing group (RID)  | : Not applicable |

### 14.5. Environmental hazards

|                               |                                          |
|-------------------------------|------------------------------------------|
| Dangerous for the environment | : No                                     |
| Marine pollutant              | : No                                     |
| Other information             | : No supplementary information available |

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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## Safety Data Sheet

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

###### REACH Annex XVII (Restriction List)

###### EU restriction list (REACH Annex XVII)

|                             |                     |
|-----------------------------|---------------------|
| 20. Organostannic compounds | Di-t-butyltin oxide |
|-----------------------------|---------------------|

###### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

###### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

###### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

###### PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

###### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

###### VOC Directive (2004/42)

VOC content : No additional information available

###### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

###### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

##### 15.1.2. National regulations

###### Germany

Water hazard class (WGK) : Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV).  
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

###### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed  
SZW-lijst van mutagene stoffen : The substance is not listed  
SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed  
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed  
SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

###### Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

###### Switzerland

Storage class (LK) : LK 11/13 - Solids

#### 15.2. Chemical safety assessment

No additional information available

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### 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:

|               |                                                                                            |
|---------------|--------------------------------------------------------------------------------------------|
| Eye Irrit. 2  | Serious eye damage/eye irritation, Category 2                                              |
| H315          | Causes skin irritation.                                                                    |
| H319          | Causes serious eye irritation.                                                             |
| H335          | May cause respiratory irritation.                                                          |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2                                                      |
| STOT SE 3     | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation |

SDS EU (REACH Annex II) - Custom v22 Test

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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