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

## 1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Substance name</td>
<td>TRI-n-PROPYLCHLOROTIN</td>
</tr>
<tr>
<td>Product code</td>
<td>SNT8708</td>
</tr>
<tr>
<td>Formula</td>
<td>C9H21ClSn</td>
</tr>
<tr>
<td>Synonyms</td>
<td>TRIPROPYL Tin CHLORIDE; CHLOROTRIPROPYLSTANNANE; TRIPROPYL STANNIUM CHLORIDE</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

### 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

Full text of H statements: see section 16

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

No additional information available

## 2.2. Label elements

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

<table>
<thead>
<tr>
<th>Hazard pictograms (CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="GHS06" /></td>
</tr>
</tbody>
</table>

Signal word (CLP): Danger

**Hazard statements (CLP):**

- H301 - Toxic if swallowed.
- H315 - Causes skin irritation.
TRI-n-PROPYLCHLOROTIN
Safety Data Sheet

Precautionary statements (CLP)
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P264 - Wash hands thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P301+P310 - IF SWALLOWED: Immediately call a doctor.
- P302+P352 - IF ON SKIN: Wash with plenty of water.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

### 3.1. Substances

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mono-constituent</td>
<td>TRI-n-PROPYLCHLOROTIN</td>
<td>2279-76-7</td>
<td>218-910-3</td>
</tr>
</tbody>
</table>

<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>Tri-n-propylchlorotin</td>
<td>(CAS-No.) 2279-76-7 (EC-No.) 218-910-3</td>
<td>95 - 100</td>
<td>Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

### 3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of 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. The related compound, triethylchlorotin, has been reported to cause cerebral edema as a result of inhalation. |
| Symptoms/effects after skin contact | Causes skin irritation. Organotins may be absorbed through the skin. The related compound, triethylchlorotin, has been reported to cause cerebral edema as a result of skin contact. |
| 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 | Water. |

#### 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. |

Print date: 11/04/2019
SDS ID: SNT8708
TRI-n-PROPYLCHLOROTIN
Safety Data Sheet

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. Sweep or shovel spills into appropriate container for disposal.

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. Use only in well ventilated areas.
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. Keep out of reach of children. Store locked up.
Incompatible materials: Direct sunlight. Oxidizing agent.
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>Tri-n-propylchlorotin (2279-76-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy - Portugal - USA ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
</tr>
<tr>
<td>Italy - Portugal - USA ACGIH</td>
<td>ACGIH STEL (mg/m³)</td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>283.41 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>Pale yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No additional information available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>-23 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>123 °C @ 13 mm Hg</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 110 °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>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 1 mm Hg @ 60°C</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.268</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>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</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.

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

Direct sunlight. Oxidizing agent.

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.

**Tri-n-propylchlorotin (2279-76-7)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>~ 100 mg/kg estimated from other tripropyltin compounds</td>
</tr>
<tr>
<td>LD50 oral mouse</td>
<td>4 mg/kg</td>
</tr>
<tr>
<td>ATE CLP (oral)</td>
<td>100 mg/kg bodyweight</td>
</tr>
</tbody>
</table>
TRI-n-PROPYLCHLOROTIN
Safety Data Sheet

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
Reproductive toxicity: Not classified
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified
Symptoms/effects after inhalation: May cause irritation to the respiratory tract. The related compound, triethylchlorotin, has been reported to cause cerebral edema as a result of inhalation.
Symptoms/effects after skin contact: Causes skin irritation. Organotins may be absorbed through the skin. The related compound, triethylchlorotin, has been reported to cause cerebral edema as a result of skin contact.
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.
Reason for classification: Expert judgment

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: This material is acutely toxic to aquatic life if released to open waters. This material is toxic to wildlife and fish.
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.
14.3. Transport hazard class(es)

**ADR**
Transport hazard class(es) (ADR): 6.1
Danger labels (ADR): 6.1

**IMDG**
Transport hazard class(es) (IMDG): 6.1
Danger labels (IMDG): 6.1

**IATA**
Transport hazard class(es) (IATA): 6.1
Hazard labels (IATA): 6.1

**ADN**
Transport hazard class(es) (ADN): 6.1
Danger labels (ADN): 6.1

**RID**
Transport hazard class(es) (RID): 6.1
Danger labels (RID): 6.1

14.4. Packing group

Packing group (ADR): II
Packing group (IMDG): II
14.5. Environmental hazards

Dangerous for the environment: No
Marine pollutant: Yes (IMDG only)
Other information: No supplementary information available

14.6. Special precautions for user

- Overland transport
  Classification code (ADR): T3
  Special provisions (ADR): 43, 274
  Limited quantities (ADR): 100ml
  Excepted quantities (ADR): E4
  Packing instructions (ADR): P001, IBC02
  Mixed packing provisions (ADR): MP15
  Portable tank and bulk container instructions (ADR): T11
  Portable tank and bulk container special provisions (ADR): TP2, TP27
  Tank code (ADR): L4BH
  Tank special provisions (ADR): TU15, TE19
  Vehicle for tank carriage: AT
  Transport category (ADR): 2
  Special provisions for carriage - Loading, unloading and handling (ADR): CV13, CV28
  Special provisions for carriage - Operation (ADR): S9, S19
  Hazard identification number (Kemler No.): 60
  Orange plates: 60
  Tunnel restriction code (ADR): D/E
  EAC code: 2X
  APP code: B

- Transport by sea
  Special provisions (IMDG): 43, 274
  Limited quantities (IMDG): 100 ml
  Excepted quantities (IMDG): E4
  Packing instructions (IMDG): P001
  IBC packing instructions (IMDG): IBC02
  Tank instructions (IMDG): T11
  Tank special provisions (IMDG): TP2, TP13, TP27
  EmS-No. (Fire): F-A
  EmS-No. (Spillage): S-A
  Stowage category (IMDG): A
  Stowage and handling (IMDG): SW2
  Properties and observations (IMDG): A wide variety of toxic liquids. Toxic if swallowed, by skin contact or by inhalation.

- Air transport
  PCA Excepted quantities (IATA): E4
  PCA Limited quantities (IATA): Y641
  PCA limited quantity max net quantity (IATA): 1L
  PCA packing instructions (IATA): 654
  PCA max net quantity (IATA): 5L
  CAO packing instructions (IATA): 661
  CAO max net quantity (IATA): 60L
TRI-n-PROPYLCHLOROTIN
Safety Data Sheet

Special provisions (IATA) : A3, A4, A6
ERG code (IATA) : 6L

- Inland waterway transport
Classification code (ADN) : T3
Special provisions (ADN) : 43, 274, 802
Limited quantities (ADN) : 100 ml
Excepted quantities (ADN) : E4
Equipment required (ADN) : PP, EP, TOX, A
Ventilation (ADN) : VE02
Number of blue cones/lights (ADN) : 2

- Rail transport
Classification code (RID) : T3
Special provisions (RID) : 43, 274
Limited quantities (RID) : 100ml
Excepted quantities (RID) : E4
Packing instructions (RID) : P001, IBC02
Mixed packing provisions (RID) : MP15
Portable tank and bulk container instructions (RID) : T11
Portable tank and bulk container special provisions (RID) : TP2, TP27
Tank codes for RID tanks (RID) : L4BH
Special provisions for RID tanks (RID) : TU15
Transport category (RID) : 2
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW28, CW31
Colis express (express parcels) (RID) : CE5
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
TRI-n-PROPYLCHLOROTIN is not on the REACH Candidate List
TRI-n-PROPYLCHLOROTIN is not on the REACH Annex XIV List
TRI-n-PROPYLCHLOROTIN 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-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark
TRI-n-PROPYLCHLOROTIN
Safety Data Sheet

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

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>H301</th>
<th>Toxic if swallowed.</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>
</tbody>
</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.

© 2019 Gelest Inc. Morrisville, PA 19067