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

1.1. Product identifier

Product form: Substance
Physical state: Solid
Substance name: DIPHENYLDICHLOROTIN, tech-95
Product code: SND4520
Formula: C12H10Cl2Sn
Synonyms: DIPHENYL TINDICHLORIDE; DIPHENYLDICHLOROSTANNANE; DICHLORODIPHENYLSTANNANE
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]
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]
Hazard pictograms (CLP): GHS07

Signal word (CLP): Warning
Hazard statements (CLP): H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
Precautionary statements (CLP): P280 - Wear protective gloves/protective clothing/eye protection/face protection.
DIPHENYLDICHLOROTIN, tech-95
Safety Data Sheet

P264 - Wash hands thoroughly after handling. 
P302+P352 - IF ON SKIN: Wash with plenty of water. 
P332+P333 - 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. 
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Substance type: Multi-constituent  
Name: DIPHENYLDICHLOROTIN, tech-95  
CAS-No.: 1135-99-5  
EC-No.: 214-496-3

<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>Dichlorodiphenylstannane</td>
<td>(CAS-No.) 1135-99-5</td>
<td>&gt; 95</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2, H319</td>
</tr>
<tr>
<td>Other Organotins</td>
<td>(EC-No.) 214-496-3</td>
<td>&lt; 5</td>
<td>Not classified</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
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. Overexposure may cause: Cough. Headache. Nausea.
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: May be harmful if swallowed.

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

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 vapour 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
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 hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep container tightly closed. Keep out of reach of children.
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>Other Organotins</th>
<th>ACGIH TWA (mg/m³)</th>
<th>USA OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy - Portugal - USA ACGIH</td>
<td>0.1 mg/m³ as tin</td>
<td></td>
</tr>
<tr>
<td>USA OSHA</td>
<td>0.1 mg/m³ as tin</td>
<td></td>
</tr>
</tbody>
</table>

**Dichlorodiphenylstannane (1135-99-5)**

| Italy - Portugal - USA ACGIH                         | 0.1 mg/m³ as tin  |
| USA OSHA                                             | 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/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>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Solid.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>343.81 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>White.</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 (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>41 - 43 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>333 - 337 °C decomposes</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 150 °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>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>&gt; 1</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

No additional information available

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Acids. Oxidizing agent.

10.6. Hazardous decomposition products

Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>LDLo oral rat</td>
<td>410 mg/kg</td>
</tr>
</tbody>
</table>

DIPHENYLDICHLOROTIN, tech-95 (1135-99-5)

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          |
DIPHENYLDICHLOROTIN, tech-95
Safety Data Sheet

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. Overexposure may cause: Cough. Headache. Nausea.
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: May be harmful if swallowed.
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
Other adverse effects: This substance may be hazardous to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.
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) : 2786
UN-No. (IMDG) : 2786
UN-No. (IATA) : 2786
UN-No. (ADN) : 2786
UN-No. (RID) : 2786

14.2. UN proper shipping name
Proper Shipping Name (ADR) : ORGANOTIN PESTICIDE, SOLID, TOXIC
Proper Shipping Name (IMDG) : ORGANOTIN PESTICIDE, SOLID, TOXIC
Proper Shipping Name (IATA) : Organotin pesticide, solid, toxic
Proper Shipping Name (ADN) : ORGANOTIN PESTICIDE, SOLID, TOXIC
Proper Shipping Name (RID) : ORGANOTIN PESTICIDE, SOLID, TOXIC
Transport document description (ADR) : UN 2786 ORGANOTIN PESTICIDE, SOLID, TOXIC (DIPHENYLDICHLOROTIN), 6.1, III, (E)
Transport document description (IMDG) : UN 2786 ORGANOTIN PESTICIDE, SOLID, TOXIC (DIPHENYLDICHLOROTIN), 6.1, III, MARINE POLLUTANT
Transport document description (IATA) : UN 2786 Organotin pesticide, solid, toxic (DIPHENYLDICHLOROTIN), 6.1, III
Transport document description (ADN) : UN 2786 ORGANOTIN PESTICIDE, SOLID, TOXIC (DIPHENYLDICHLOROTIN), 6.1, III
Transport document description (RID) : UN 2786 ORGANOTIN PESTICIDE, SOLID, TOXIC (DIPHENYLDICHLOROTIN), 6.1, III

14.3. Transport hazard class(es)
ADR
DIPHENYLDICHLOROTIN, tech-95
Safety Data Sheet

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) : III
Packing group (IMDG) : III
Packing group (IATA) : III
Packing group (ADN) : III
Packing group (RID) : III

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

Print date: 11/04/2019 EN (English) SDS ID: SND4520
## 14.6. Special precautions for user

### - Overland transport

<table>
<thead>
<tr>
<th>Classification code (ADR)</th>
<th>: T7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special provisions (ADR)</td>
<td>: 61, 274, 648</td>
</tr>
<tr>
<td>Limited quantities (ADR)</td>
<td>: 5kg</td>
</tr>
<tr>
<td>Excepted quantities (ADR)</td>
<td>: E1</td>
</tr>
<tr>
<td>Packing instructions (ADR)</td>
<td>: P002, IBC08, LP02, R001</td>
</tr>
<tr>
<td>Portable tank and bulk container instructions (ADR)</td>
<td>: T1</td>
</tr>
<tr>
<td>Portable tank and bulk container special provisions (ADR)</td>
<td>: TP33</td>
</tr>
<tr>
<td>Tank code (ADR)</td>
<td>: SGAH, L4BH</td>
</tr>
<tr>
<td>Tank special provisions (ADR)</td>
<td>: TU15, TE19</td>
</tr>
<tr>
<td>Vehicle for tank carriage</td>
<td>: AT</td>
</tr>
<tr>
<td>Transport category (ADR)</td>
<td>: 2</td>
</tr>
<tr>
<td>Special provisions for carriage - Bulk (ADR)</td>
<td>: VC1, VC2, AP7</td>
</tr>
<tr>
<td>Special provisions for carriage - Loading, unloading and handling (ADR)</td>
<td>: CV13, CV28</td>
</tr>
<tr>
<td>Special provisions for carriage - Operation (ADR)</td>
<td>: S9</td>
</tr>
<tr>
<td>Hazard identification number (Kemler No.)</td>
<td>: 60</td>
</tr>
<tr>
<td>Orange plates</td>
<td></td>
</tr>
</tbody>
</table>

| Tunnel restriction code (ADR) | : E           |
| EAC code                     | : 2X          |

### - Transport by sea

<table>
<thead>
<tr>
<th>Special provisions (IMDG)</th>
<th>: 61, 223, 274</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited quantities (IMDG)</td>
<td>: 5 kg</td>
</tr>
<tr>
<td>Excepted quantities (IMDG)</td>
<td>: E1</td>
</tr>
<tr>
<td>Packing instructions (IMDG)</td>
<td>: P002, LP02</td>
</tr>
<tr>
<td>IBC packing instructions (IMDG)</td>
<td>: IBC08</td>
</tr>
<tr>
<td>IBC special provisions (IMDG)</td>
<td>: B3</td>
</tr>
<tr>
<td>Tank instructions (IMDG)</td>
<td>: T1</td>
</tr>
<tr>
<td>Tank special provisions (IMDG)</td>
<td>: TP33</td>
</tr>
<tr>
<td>EmS-No. (Fire)</td>
<td>: F-A</td>
</tr>
<tr>
<td>EmS-No. (Spillage)</td>
<td>: S-A</td>
</tr>
<tr>
<td>Stowage category (IMDG)</td>
<td>: A</td>
</tr>
<tr>
<td>Stowage and handling (IMDG)</td>
<td>: SW2</td>
</tr>
<tr>
<td>Properties and observations (IMDG)</td>
<td>: Solid pesticides present a very wide range of toxic hazard. Toxic if swallowed, by skin contact or by inhalation.</td>
</tr>
</tbody>
</table>

### - Air transport

| PCA Excepted quantities (IATA) | : E1          |
| PCA Limited quantities (IATA)  | : Y645        |
| PCA limited quantity max net quantity (IATA) | : 10kg       |
| PCA packing instructions (IATA) | : 670         |
| PCA max net quantity (IATA)    | : 100kg       |
| CAO packing instructions (IATA) | : 677         |
| CAO max net quantity (IATA)    | : 200kg       |
| Special provisions (IATA)      | : A3, A5      |
| ERG code (IATA)                | : 6L          |

### - Inland waterway transport

| Classification code (ADN) | : T7          |
| Special provisions (ADN)  | : 61, 274, 648, 802 |
| Limited quantities (ADN)  | : 5 kg        |
DIPHENYLDICHLOROTIN, tech-95
Safety Data Sheet

**Exempted quantities (ADN)**: E1
**Equipment required (ADN)**: PP, EP
**Number of blue cones/lights (ADN)**: 0

**- Rail transport**
**Classification code (RID)**: T7
**Special provisions (RID)**: 61, 274, 648
**Limited quantities (RID)**: 5kg
**Excepted quantities (RID)**: E1
**Packing instructions (RID)**: P002, IBC08, LP02, R001
**Special packing provisions (RID)**: B3
**Mixed packing provisions (RID)**: MP10
**Portable tank and bulk container instructions (RID)**: T1
**Portable tank and bulk container special provisions (RID)**: TP33
**Tank codes for RID tanks (RID)**: SGAH, L4BH
**Special provisions for RID tanks (RID)**: TU15
**Transport category (RID)**: 2
**Special provisions for carriage – Bulk (RID)**: VC1, VC2, AP7
**Special provisions for carriage - Loading, unloading and handling (RID)**: CW13, CW28, CW31
**Colis express (express parcels) (RID)**: CE11, CE12
**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**
DIPHENYLDICHLOROTIN, tech-95 is not on the REACH Candidate List
DIPHENYLDICHLOROTIN, tech-95 is not on the REACH Annex XIV List
DIPHENYLDICHLOROTIN, tech-95 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

**15.2. Chemical safety assessment**
No additional information available

**SECTION 16: Other information**

Abbreviations and acronyms:
DIPHENYL Dichlorotin, tech-95
Safety Data Sheet

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 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |

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.