SECTION 1: Identification

1.1. Identification

Product name: DIPHENYLDICHLOROTIN, tech-95
Product code: SND4520
Product form: Substance
Physical state: Solid
Formula: C12H10Cl2Sn
Synonyms: DIPHENYLTINDICHLORIDE; DIPHENYLDICHLOROSTANNANE; DICHLORODIPHENYLSTANNANE
Chemical family: ORGANOTIN

1.2. Recommended use and restrictions on use

Recommended use: Chemical intermediate

1.3. Supplier

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

1.4. Emergency telephone number

Emergency number: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification
Skin corrosion/irritation Category 2 - H315 Causes skin irritation
Serious eye damage/eye irritation Category 2A - H319 Causes serious eye irritation
Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling
Hazard pictograms (GHS US):

Signal word (GHS US): Warning
Hazard statements (GHS US):
H315 - Causes skin irritation
H319 - Causes serious eye irritation
Precautionary statements (GHS US):
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P584 - Wash hands thoroughly after handling.
P302+P352 - If on skin: Wash with plenty of water.
P332+P313 - 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.
P362 - Take off contaminated clothing and wash before reuse.

2.3. Hazards not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type: Multi-constituent
Name: DIPHENYLDICHLOROTIN, tech-95
CAS-No.: 1135-99-5
Name | Product identifier | % | GHS-US classification
--- | --- | --- | ---
Dichlorodiphenylstannane | (CAS-No.) 1135-99-5 | > 95 | Skin Irrit. 2, H315
Other Organotins | < 5 | Not classified

Full text of hazard classes and H-statements: see section 16

### 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 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. 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 (acute and delayed)

**Symptoms/effects after inhalation**
May cause irritation to the respiratory tract. Overexposure may cause: Coughing. 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. Immediate medical attention and special treatment, if necessary

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: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media
- Water spray.
- Foam.
- Carbon dioxide.
- Dry chemical.

#### 5.2. Specific hazards arising from the chemical

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

#### 5.3. Special protective equipment and precautions for fire-fighters

**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**

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 vapor 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.
DIPHENYLDICHLOOROTIN, tech-95
Safety Data Sheet

SECTION 7: 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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Other Organotins</th>
<th>ACGIH TWA (mg/m³)</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>0.1 mg/m³ as tin</td>
<td>0.1 mg/m³ as tin</td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls

Appropriate engineering controls: Provide local exhaust or general room ventilation.

8.3. Individual protection measures/Personal protective 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.

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>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>characteristic</td>
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<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
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</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>
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</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>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor 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>
</tbody>
</table>
DIPHENYL DICHLOROTIN, tech-95
Safety Data Sheet

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

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

Acute toxicity : Not classified

**DIPHENYL DICHLOROTIN, tech-95 (1135-99-5)**

LDLo oral rat 410 mg/kg

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

Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified
Symptoms/effects after inhalation : May cause irritation to the respiratory tract. Overexposure may cause: Coughing. 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
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 the ozone layer : No additional information available

SECTION 13: Disposal considerations
13.1. Disposal 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
UN-No.(DOT) : 2786
DOT NA no. : UN2786

14.2. UN proper shipping name
Transport document description : UN2786 Organotin pesticides, solid, toxic (DIPHENYLDICHLOROTIN), 6.1, III
Proper Shipping Name (DOT) : Organotin pesticides, solid, toxic (DIPHENYLDICHLOROTIN)
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 6.1 - Poison

Marine pollutant : Yes (IMDG only)

DOT Packaging Non Bulk (49 CFR 173.xxx) : 213
DOT Packaging Bulk (49 CFR 173.xxx) : 240
DOT Packaging Exceptions (49 CFR 173.xxx) : 153

14.3. Additional information
Emergency Response Guide (ERG) Number : 153
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) : 100 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 200 kg

SECTION 15: Regulatory information
15.1. US Federal regulations
DIPHENYLDICHLOROTIN, tech-95 (1135-99-5)
TSCA Exemption/Exclusion : CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA. 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States.
DIPHENYLDICHLOROTIN, tech-95

Safety Data Sheet

**15.2. International regulations**

**CANADA**

No additional information available

**EU-Regulations**

No additional information available

<table>
<thead>
<tr>
<th>Compound:</th>
<th>Dichlorodiphenylstannane (1135-99-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on:</td>
<td>EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
</tbody>
</table>

**National regulations**

<table>
<thead>
<tr>
<th>Compound:</th>
<th>Dichlorodiphenylstannane (1135-99-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on:</td>
<td>AICS (Australian Inventory of Chemical Substances)</td>
</tr>
<tr>
<td>Listed on:</td>
<td>IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)</td>
</tr>
</tbody>
</table>

**15.3. US State regulations**

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

**SECTION 16: Other information**

Full text of H-phrases:

- **H315** Causes skin irritation
- **H319** Causes serious eye irritation

**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.

**Hazard Rating**

- **Health**: 2 Moderate Hazard - Temporary or minor injury may occur
- **Flammability**: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
- **Physical**: 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

Prepared by safety and environmental affairs.

Date of issue: 06/10/2015

Version: 1.0

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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