

**DIMETHYLDICHLOROTIN**

## Safety Data Sheet SND4200

Date of issue: 12/18/2015

Revision date: 02/13/2017

Version: 2.0

**SECTION 1: Identification****1.1. Product identifier**

|                 |  |
|-----------------|--|
| Product name    | : DIMETHYLDICHLOROTIN                                |
| Product code    | : SND4200  |
| Product form    | : Substance  |
| Physical state  | : Solid  |
| Formula         | : C <sub>2</sub> H <sub>6</sub> Cl <sub>2</sub> Sn   |
| Synonyms        | : DIMETHYLTIN DICHLORIDE<br>DIMETHYLDICHLOROSTANNANE |
| Chemical family | : ORGANOTIN  |

**1.2. Recommended use of the chemical and restrictions on use**

|                 |   |
|-----------------|---|
| Recommended use | : Chemical intermediate<br>For research and industrial use only |
|-----------------|---|

**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](mailto:info@gelest.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: Hazard(s) identification****2.1. Classification of the substance or mixture****GHS-US classification**

|  |      |
|--|------|
| Acute toxicity (oral) Category 3                               | H301 |
| Acute toxicity (dermal) Category 3                             | H311 |
| Acute toxicity (inhalation:dust,mist) Category 2               | H330 |
| Skin corrosion/irritation Category 1B                          | H314 |
| Serious eye damage/eye irritation Category 1                   | H318 |
| Reproductive toxicity Category 2                               | H361 |
| Specific target organ toxicity (repeated exposure) Category 1  | H372 |
| Hazardous to the aquatic environment - Acute Hazard Category 2 | H401 |
| Full text of H statements : see section 16                     |      |

**2.2. Label elements****GHS-US labeling**

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H301+H311 - Toxic if swallowed or in contact with skin  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H330 - Fatal if inhaled  
H361 - Suspected of damaging fertility or the unborn child  
H372 - Causes damage to organs (nervous system, immune system) through prolonged or repeated exposure  
H401 - Toxic to aquatic life

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P284 - [In case of inadequate ventilation] wear respiratory protection  
P310 - Immediately call a doctor  
P260 - Do not breathe dust  
P264 - Wash hands thoroughly after handling

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P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P273 - Avoid release to the environment  
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting  
P301+P310 - If swallowed: Immediately call a POISON CENTER  
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P308+P313 - If exposed or concerned: Get medical advice/attention  
P320 - Specific treatment is urgent (see first aid instructions on this label)  
P361 - Take off immediately all contaminated clothing  
P363 - Wash contaminated clothing before reuse  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P405 - Store locked up  
P501 - Dispose of contents/container to licensed waste disposal facility

### 2.3. Hazards not otherwise classified (HNOC)

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Substance type : Multi-constituent  
Name : DIMETHYLDICHLOROTIN  
CAS No : 753-73-1

| Name                | Product identifier | %        | GHS-US classification   |
|---------------------|--------------------|----------|---|
| Dimethyldichlorotin | (CAS No) 753-73-1  | 95 - 100 | Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 2 (Inhalation:dust,mist), H330<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Repr. 2, H361<br>STOT RE 1, H372<br>Aquatic Acute 2, H401 |
| Other Organotins    |                    | 0 - 5    | Not classified  |

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

### 3.2. Mixtures

Not applicable

### 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. Immediately call a poison center or doctor/physician.

First-aid measures after skin contact : Wash with plenty of soap and water. Get immediate 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 immediate medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Immediately call a poison center or doctor/physician.

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

Symptoms/injuries : Causes severe skin burns and eye damage. Suspected of damaging fertility or the unborn child. Causes damage to organs.

Symptoms/injuries after inhalation : Fatal if inhaled. May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact : Toxic in contact with skin. Causes (severe) skin burns. Organotins may be absorbed through the skin.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries 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.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.  
Unsuitable extinguishing media : Do not use straight streams.

#### 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

Avoid release to the environment. 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 : 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 : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 : Bases. Direct sunlight. Reducing agents.  
Storage area : Store in a well-ventilated place. Store away from heat.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

| Dimethyldichlorotin (753-73-1) |                                     |                              |
|--------------------------------|-------------------------------------|------------------------------|
| ACGIH                          | ACGIH TWA (mg/m <sup>3</sup> )      | 0.1 mg/m <sup>3</sup> as tin |
| ACGIH                          | ACGIH STEL (mg/m <sup>3</sup> )     | 0.2 mg/m <sup>3</sup> as tin |
| Other Organotins               |                                     |                              |
| ACGIH                          | ACGIH TWA (mg/m <sup>3</sup> )      | 0.1 mg/m <sup>3</sup> as tin |
| OSHA                           | OSHA PEL (TWA) (mg/m <sup>3</sup> ) | 0.1 mg/m <sup>3</sup> as tin |

#### 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.

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|                          |  |
|--------------------------|--|
| Hand protection          | : Neoprene or nitrile rubber gloves.   |
| Eye protection           | : Chemical goggles or face shield. 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                              | : Solid                  |
| Appearance                                  | : Crystalline solid.     |
| Molecular mass                              | : 219.67 g/mol           |
| Color                                       | : White.                 |
| Odor  | : characteristic. Acrid. |
| Odor threshold                              | : No data available      |
| Refractive index                            | : No data available      |
| pH  | : No data available      |
| Relative evaporation rate (butyl acetate=1) | : No data available      |
| Melting point                               | : 103 - 105 °C           |
| Freezing point                              | : No data available      |
| Boiling point                               | : 185 - 190 °C           |
| Flash point                                 | : No data available      |
| Auto-ignition temperature                   | : No data available      |
| Decomposition temperature                   | : No data available      |
| Flammability (solid, gas)                   | : No data available      |
| Vapor pressure                              | : No data available      |
| Relative vapor density at 20 °C             | : > 1                    |
| Relative density                            | : > 1                    |
| Solubility                                  | : Reacts with 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      |
| 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

Direct sunlight causes degradation to an inorganic tin salt.

#### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

#### 10.5. Incompatible materials

Bases. Direct sunlight. Reducing agents.

#### 10.6. Hazardous decomposition products

Organic acid vapors. Tin oxides.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation:dust,mist: Fatal if inhaled.

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| DIMETHYLDICHLOROTIN (753-73-1) |                           |
|--------------------------------|---------------------------|
| ATE US (oral)                  | 100.000 mg/kg body weight |
| ATE US (dermal)                | 404.000 mg/kg body weight |
| ATE US (dust, mist)            | 0.115 mg/l/4h             |

| Dimethyldichlorotin (753-73-1) |   |
|--------------------------------|---|
| LD50 oral rat                  | 73.9 mg/kg ; 90 mg/kg; RTECS: WH7245000 |
| LD50 dermal rabbit             | 404 mg/kg (OECD Test Guideline 402)     |
| LD50 intravenous mouse         | 56 mg/kg                                |
| ATE US (oral)                  | 73.900 mg/kg body weight                |
| ATE US (dermal)                | 404.000 mg/kg body weight               |
| ATE US (dust, mist)            | 0.115 mg/l/4h                           |

|  |   |
|--|---|
| Skin corrosion/irritation                          | : Causes severe skin burns and eye damage.  |
| Serious eye damage/irritation                      | : Causes serious eye damage.  |
| Respiratory or skin sensitization                  | : Not classified  |
| Germ cell mutagenicity                             | : Not classified  |
| Carcinogenicity                                    | : Not classified<br>None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen |
| Reproductive toxicity                              | : Suspected of damaging fertility or the unborn child.  |
| Specific target organ toxicity – single exposure   | : Not classified  |
| Specific target organ toxicity – repeated exposure | : Causes damage to organs (nervous system, immune system) through prolonged or repeated exposure.   |
| Aspiration hazard                                  | : Not classified  |
| Symptoms/injuries after inhalation                 | : Fatal if inhaled. May cause irritation to the respiratory tract.  |
| Symptoms/injuries after skin contact               | : Toxic in contact with skin. Causes (severe) skin burns. Organotins may be absorbed through the skin.                                    |
| Symptoms/injuries after eye contact                | : Causes serious eye damage.  |
| Symptoms/injuries 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 : Toxic to aquatic life.

| Dimethyldichlorotin (753-73-1) |   |
|--------------------------------|---|
| LC50 fish 1                    | 320 mg/l (Exposure time: 96 h - Species: Pimephales promelas) |
| EC50 Daphnia 1                 | 6 mg/l (orange red killifish Oryzias latipes)                 |

### 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 ozone layer        | : No additional information available                 |
| Effect on the global warming | : No known effects from this product.                 |
| GWPmix comment               | : No known effects from this product.                 |

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|                                 |  |
|---------------------------------|--|
| Sewage disposal recommendations | : Do not dispose of waste into sewer.  |
| Waste 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.  |

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### SECTION 14: Transport information

#### 14.1. UN number

UN-No.(DOT) : 2928  
DOT NA no. UN2928

#### 14.2. UN proper shipping name

Transport document description : UN2928 Toxic solids, corrosive, organic, n.o.s. (DIMETHYLDICHLOROTIN), 6.1 (8), II  
Proper Shipping Name (DOT) : Toxic solids, corrosive, organic, n.o.s.  
(DIMETHYLDICHLOROTIN)  
Class (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132  
Packing group (DOT) : II - Medium Danger  
Hazard labels (DOT) : 6.1 - Poison  
8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 212  
DOT Packaging Bulk (49 CFR 173.xxx) : 242  
DOT Packaging Exceptions (49 CFR 173.xxx) : 153  
DOT Symbols : G - Identifies PSN requiring a technical name

#### 14.3. Additional information

Emergency Response Guide (ERG) Number : 154  
Other information : No supplementary information available.

#### Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded  
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

#### Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 15 kg  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 50 kg

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Dimethyldichlorotin (753-73-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

##### CANADA

##### Dimethyldichlorotin (753-73-1)

Listed on the Canadian DSL (Domestic Substances List)

##### EU-Regulations

##### Dimethyldichlorotin (753-73-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

##### National regulations

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### Dimethyldichlorotin (753-73-1)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Japanese Pollutant Release and Transfer Register Law (PRTR Law)

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

Full text of H-phrases::

|      |  |
|------|--|
| H301 | Toxic if swallowed   |
| H311 | Toxic in contact with skin                                     |
| H314 | Causes severe skin burns and eye damage                        |
| H318 | Causes serious eye damage                                      |
| H330 | Fatal if inhaled   |
| H361 | Suspected of damaging fertility or the unborn child            |
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H401 | Toxic to aquatic life  |

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.

### HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given  
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 : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Prepared by safety and environmental affairs.

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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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