DI-n-PROPYLDICHLOROTIN

Safety Data Sheet SND4592

Issue date: 12/10/2015 Revision date: 03/14/2022 Version: 1.2

SECTION 1: Identification

1.1. Identification

Product name	:	DI-n-PROPYLDICHLOROTIN
Product code	:	SND4592
Product form	:	Substance
Physical state	:	Solid
Formula	:	C6H14Cl2Sn
Synonyms	:	DIPROPYLTINDICHLORIDE; DIPROPYLDICHLOROSTANNANE
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

Acute toxicity (oral) Category 2	H300	Fatal if swallowed
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)	:	Danger
Hazard statements (GHS US)	:	H300 - Fatal if swallowed H315 - Causes skin irritation H319 - Causes serious eye irritation
Precautionary statements (GHS US)	:	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. P330 - Rinse mouth. P301+P310 - If swallowed: Immediately call a POISON CENTER. P302+P352 - If on skin: Wash with plenty of soap and 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.
P321 - Specific treatment (see first aid instructions on this label).
P362+P364 - Take off contaminated clothing and wash it before reuse.
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)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent
Name : DI-n-PROPYLDICHLOROTIN
CAS-No. : 867-36-7

Name	Product identifier	%	GHS US classification
Di-n-propyldichlorotin	CAS-No.: 867-36-7	95 – 100	Acute Tox. 2 (Oral), H300 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of hazard classes and 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 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. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
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 : Fatal if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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.
Unsuitable extinguishing media : None known.

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 : 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 : 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 contact with skin and eyes. Do not breathe dust. Avoid dust formation. Provide local exhaust or general room ventilation to minimize exposure to dust.
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

Di-n-propyldichlorotin (867-36-7)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.1 mg/m³ as tin

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

Physical state	:	Solid
Appearance	:	Crystals.
Molecular mass	:	275.77 g/mol
Color	:	White.
Odor	:	characteristic.
Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	82 – 83 °C
Freezing point	:	No data available
Boiling point	:	120 – 110 °C @ 10 mm Hg
Flash point	:	> 110 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	< 0.1 mm Hg @ 25°C
Relative vapor density at 20°C	:	> 1
Relative density	:	> 1.4
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

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 slow 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) : Fatal if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

DI-n-PROPYLDICHLOROTIN (867-36-7)	
ATE US (oral)	5 mg/kg body weight

Di-n-propyldichlorotin (867-36-7)	
LDLo oral rat	160 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
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.
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 : Fatal 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

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

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 DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
3146	Not applicable	3146	3146
14.2. Proper Shipping Name			
Organotin compounds, solid, n.o.s. ((DI-n-PROPYLDICHLOROTIN))	Not applicable	ORGANOTIN COMPOUND, SOLID, N.O.S. (DI-n-PROPYLDICHLOROTIN)	Organotin compound, solid, n.o.s. (DI-n-PROPYLDICHLOROTIN)
Transport document description			
UN3146 Organotin compounds, solid, n.o.s. (DI-n-PROPYLDICHLOROTIN), 6.1, II	Not applicable	UN 3146 ORGANOTIN COMPOUND, SOLID, N.O.S. (DI-n-PROPYLDICHLOROTIN), 6.1, II, MARINE POLLUTANT	UN 3146 Organotin compound, solid, n.o.s. (DI-n-PROPYLDICHLOROTIN), 6.1, II
14.3. Transport hazard class(es)			
6.1	Not applicable	6.1	6.1
 Not applicable	Not applicable		

DOT	TDG	IMDG	IATA
14.4. Packing group			
II	Not applicable	II	II
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: Yes	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN3146

DOT Special Provisions (49 CFR 172.102) : IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2).
IP2 - When IBCs other than metal or rigid plastics IBCs are used, they must be offered for transportation in a closed freight container or a closed transport vehicle.
IP4 - Flexible, fiberboard or wooden IBCs must be sift-proof and water-resistant or be fitted with a sift-proof and water-resistant liner.
T3 - 2.65 178.274(d)(2) Normal..... 178.275(d)(2)
TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.

DOT Packaging Exceptions (49 CFR 173.xxx) : 153

DOT Packaging Non Bulk (49 CFR 173.xxx) : 212

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 25 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 100 kg

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’’

TDG

Emergency Response Guide (ERG) Number : 153

IMDG

Special provision (IMDG) : 43, 274

Limited quantities (IMDG) : 500 g

Excepted quantities (IMDG) : E4

Packing instructions (IMDG) : P002

IBC packing instructions (IMDG) : IBC08

IBC special provisions (IMDG) : B2, B4

Tank instructions (IMDG) : T3

Tank special provisions (IMDG) : TP33

EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-A - SPILLAGE SCHEDULE Alfa - TOXIC SUBSTANCES
Stowage category (IMDG)	:	A
Stowage and handling (IMDG)	:	SW2
Properties and observations (IMDG)	:	A wide variety of toxic solids. Toxic if swallowed, by skin contact or by inhalation.

IATA

PCA Excepted quantities (IATA)	:	E4
PCA Limited quantities (IATA)	:	Y644
PCA limited quantity max net quantity (IATA)	:	1kg
PCA packing instructions (IATA)	:	669
PCA max net quantity (IATA)	:	25kg
CAO packing instructions (IATA)	:	676
CAO max net quantity (IATA)	:	100kg
Special provision (IATA)	:	A3, A4, A6
ERG code (IATA)	:	6L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

DI-n-PROPYLDICHLOROTIN (867-36-7)	
TSCA Exemption/Exclusion	CAUTION: This material is supplied for research and development purposes subject to the RD 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.

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Di-n-propyldichlorotin	867-36-7	Not present	-	

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

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::

H300	Fatal if swallowed
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.: Chemcial 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	:	4 Severe Hazard - Life-threatening, major or permanent damage may result from single or repeated overexposures
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	:	0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

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