



DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95

Safety Data Sheet SND3340SND3340
Date of issue: 02/16/2017 Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product name	: DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95
Product code	: SND3340
Product form	: Substance
Physical state	: Liquid
Formula	: C ₂₈ H ₅₆ O ₄ S ₂ Sn
Synonyms	: DI-N-BUTYLTIN STABILIZER DIBUTYLTIN BIS(2-ETHYLHEXYL THIOGLYCOLATE) DIBUTYLTIN BIS(2-ETHYLHEXYL MERCAPTOACETATE) ACETIC ACID, [(DIBUTYLSTANNYLENE)DITHIO]DI-, BIS(2-ETHYLHEXYL) ESTER 2-ETHYLHEXYL 4,4-DIBUTYL-10-ETHYL-7-OXO-8-OXA-3,5-DITHIA-4-STANNATETRADECANOATE 8-OXA-3,5-DITHIA-4-STANNATETRADECANOIC ACID, 4,4-DIBUTYL-10-ETHYL-7-OXO-, 2-ETHYLHEXYL ESTER
Chemical family	: TIN COMPOUND

1.2. Recommended use of the chemical and restrictions on use

Recommended use	: Chemical intermediate 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 - 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 4	H302
Skin corrosion/irritation Category 2	H315
Serious eye damage/eye irritation Category 2A	H319
Specific target organ toxicity (single exposure) Category 3	H335
Hazardous to the aquatic environment - Acute Hazard Category 1	H400

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS07

GHS09

Signal word (GHS-US)

: Warning

Hazard statements (GHS-US)

: H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life

Precautionary statements (GHS-US)

: P280 - Wear protective gloves/protective clothing/eye protection/face protection
P261 - Avoid breathing mist, vapors
P264 - Wash hands thoroughly after handling
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
P330 - Rinse mouth

DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95

Safety Data Sheet

P301+P312 - If swallowed: Call a doctor if you feel unwell
P302+P352 - If on skin: Wash with plenty of soap and water
P332+P313 - If skin irritation occurs: Get medical advice/attention
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P337+P313 - If eye irritation persists: 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
P321 - Specific treatment (see first aid instructions on this label)
P362+P364 - Take off contaminated clothing and wash it before reuse
P391 - Collect spillage
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 : Mono-constituent
Name : DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95
CAS No : 10584-98-2

Name	Product identifier	%	GHS-US classification
Di-n-butyl-S,S'-bis(2-ethylhexylmercaptoacetate)tin	(CAS No) 10584-98-2	95 - 100	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400

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. 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, both acute and delayed

Symptoms/injuries after inhalation : May cause respiratory irritation.
Symptoms/injuries after skin contact : Causes skin irritation.
Symptoms/injuries after eye contact : Causes serious eye irritation.
Symptoms/injuries after ingestion : Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
Chronic symptoms : Exposure to dust or fumes of inorganic tin compounds is known to cause a benign pneumoniosis. (stannosis).

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam. Carbon dioxide.
Unsuitable extinguishing media : None known.

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.

DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95

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 vapor 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

Avoid release to the environment. 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.

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 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 : Peroxides. Chlorine. Strong oxidizers.

Storage area : Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Di-n-butyl-S,S'-bis(2-ethylhexylmercaptoacetate)tin (10584-98-2)		
ACGIH	ACGIH TWA (mg/m ³)	0.1 mg/m ³ as tin
ACGIH	ACGIH STEL (mg/m ³)	0.2 mg/m ³ (skin) 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

Physical state : Liquid

Appearance : Liquid.

Molecular mass : 639.56 g/mol

Color : Pale yellow.

Odor : Disagreeable.

DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95

Safety Data Sheet

Odor threshold	: No data available
Refractive index	: 1.506
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: -25 °C
Freezing point	: No data available
Boiling point	: > 200 °C
Flash point	: 140 °C
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	: No data available
Relative density	: 1.12
VOC content	: < 0.3 %
Solubility	: Insoluble in 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

Avoid contact with strong oxidizers such as peroxides and chlorine.

10.4. Conditions to avoid

Open flame. Heat. Sparks.

10.5. Incompatible materials

Peroxides. Chlorine. Strong oxidizers.

10.6. Hazardous decomposition products

Organic acid vapors. Tin oxides. Oxides of sulfur.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95 (10584-98-2)	
ATE US (oral)	510.000 mg/kg body weight
Di-n-butyl-S,S'-bis(2-ethylhexylmercaptoacetate)tin (10584-98-2)	
LD50 oral rat	510 mg/kg RTECS Number: WH7125000
ATE US (oral)	510.000 mg/kg body weight

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

None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen

DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95

Safety Data Sheet

Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause respiratory irritation.
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
Chronic symptoms	: Exposure to dust or fumes of inorganic tin compounds is known to cause a benign pneumoniosis. (stannosis).
Reason for classification	: Expert judgment

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life.

Di-n-butyl-S,S'-bis(2-ethylhexylmercaptoacetate)tin (10584-98-2)

LC50 fish 1	11.7 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	0.035 mg/l (Exposure time: 48 h - Species: Daphnia magna Straus)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Di-n-butyl-S,S'-bis(2-ethylhexylmercaptoacetate)tin (10584-98-2)

Log Pow	1.49
---------	------

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

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	: May be incinerated with scrubbers for metallic oxides and sulfur dioxide. 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

UN-No.(DOT)	: 3082
DOT NA no.	UN3082

14.2. UN proper shipping name

Transport document description	: UN3082 Environmentally hazardous substances, liquid, n.o.s. (DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN), 9, III
Proper Shipping Name (DOT)	: Environmentally hazardous substances, liquid, n.o.s. (DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN)
Class (DOT)	: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT)	: III - Minor Danger

DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95

Safety Data Sheet

Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



Dangerous for the environment : Yes

Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Packaging Exceptions (49 CFR 173.xxx) : 155

DOT Symbols : G - Identifies PSN requiring a technical name

14.3. Additional information

Emergency Response Guide (ERG) Number : 171

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

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No limit

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No limit

SECTION 15: Regulatory information

15.1. US Federal regulations

Di-n-butyl-S,S'-bis(2-ethylhexylmercaptoacetate)tin (10584-98-2)

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

15.2. International regulations

CANADA

Di-n-butyl-S,S'-bis(2-ethylhexylmercaptoacetate)tin (10584-98-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Di-n-butyl-S,S'-bis(2-ethylhexylmercaptoacetate)tin (10584-98-2)

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

National regulations

Di-n-butyl-S,S'-bis(2-ethylhexylmercaptoacetate)tin (10584-98-2)

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)

15.3. US State regulations

No additional information available

SECTION 16: Other information

DI-n-BUTYL-S,S'-BIS(2-ETHYLHEXYLMERCAPTOACETATE)TIN, tech-95

Safety Data Sheet

Full text of H-phrases::

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H400	Very 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 : 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 : 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.

Date of issue: 02/16/2017 Version: 1.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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.

© 2017 Gelest Inc. Morrisville, PA 19067