

Material Safety Data Sheet

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Version 1.1

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

1 - Product and Company Information

Product Name	TRIMETHYLTIN CHLORIDE
Product Number	146498
Company	Sigma-Aldrich Pty, Ltd Unit 2, 14 Anella Avenue Castle Hill NSW 1765 Australia
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2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
TRIMETHYLTIN CHLORIDE	1066-45-1	213-917-8	050-005-00-7
Formula	C3H9ClSn		
Molecular Weight	199.25 AMU		
Synonyms	Chlorotrimethylstannane * Chlorotrimethyltin * M&T chemicals 1222-45 * Trimethylchlorostannane * Trimethylchlorotin * Trimethylstannyl chloride * Trimethyltin chloride		

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Very toxic by inhalation, in contact with skin and if swallowed.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.

SPECIAL REQUIREMENTS: Moisture sensitive.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Use only in a chemical fume hood.

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling.

EXPOSURE LIMITS - DENMARK

Source	Type	Value
OEL	TWA	0.1 mg/m3

Remarks: SKIN

EXPOSURE LIMITS - UNITED KINGDOM

Source	Type	Value
OEL	TWA	0.1MG(SN)/M3
OEL	STEL	0.2 mg(Sn)/m3

Remarks: Skin

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Solid Color: White Form: Crystalline	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	37 °C	
Flash Point	97 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	N/A	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions of Instability: Moisture sensitive.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, Tin/tin oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: WH6850000

ACUTE TOXICITY

LD50

Oral

Rat

12.6 mg/kg

Remarks: Behavioral:Tremor. Behavioral:Excitement.
Behavioral:Aggression.

LD50

Intraperitoneal

Rat

7450 UG/KG

Remarks: Gastrointestinal:Other changes. Nutritional and Gross
Metabolic:Weight loss or decreased weight gain.

LD50

Intravenous

Mouse

1800 UG/KG

IRRITATION DATA

Eyes

Rabbit

100 mg

Remarks: Severe irritation effect

SIGNS AND SYMPTOMS OF EXPOSURE

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

ROUTE OF EXPOSURE

Skin Contact: Causes burns.

Skin Absorption: May be fatal if absorbed through skin. Readily absorbed through skin.

Eye Contact: Causes burns.

Inhalation: May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: May be fatal if swallowed.

TARGET ORGAN INFORMATION

Brain. Central nervous system. Liver. Kidneys. Cardiovascular system. Lungs.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

CHRONIC EXPOSURE - MUTAGEN

Human

100 UG/L

Cell Type: lymphocyte

Micronucleus test

Human

100 UG/L

Cell Type: lymphocyte

Cytogenetic analysis

Human
3 UMOL/L
Cell Type: lymphocyte
SLN

Rabbit
10 UG/L
Cell Type: Other cell types
DNA inhibition

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat
Dose: 9066 UG/KG
Route of Application: Oral
Exposure Time: (14D PRE-21D POST)
Result: Effects on Newborn: Behavioral.

Species: Rat
Dose: 9 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (17D PREG)
Result: Effects on Newborn: Live birth index (# fetuses per litter; measured after birth). Effects on Newborn: Weaning or lactation index (e.g., # alive at weaning per # alive at day 4).

Species: Rat
Dose: 9 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (12D PREG)
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Species: Rat
Dose: 5 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (12D PREG)
Result: Effects on Newborn: Behavioral.

Species: Rat
Dose: 9 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (17D PREG)
Result: Maternal Effects: Other effects. Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth). Effects on Embryo or Fetus: Fetal death.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

UN#: 3146
Class: 6.1
PG: II
Proper Shipping Name: Organotin compound, solid, n.o.s.

IMDG

UN#: 3146
Class: 6.1
PG: II
Proper Shipping Name: ORGANOTIN COMPOUND, SOLID, N.O.S.
Marine Pollutant: No
Severe Marine Pollutant: Yes
Technical Name: Required

IATA

UN#: 3146
Class: 6.1
PG: II
Proper Shipping Name: Organotin compound, solid, n.o.s.
Inhalation Packing Group I: No
Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 050-005-00-7

NOTA: A

INDICATION OF DANGER: T+ N

Very toxic. Dangerous for the environment.

R-PHRASES: 26/27/28 50/53

Very toxic by inhalation, in contact with skin and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-PHRASES: 26 27 28 45 60 61

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of soap-suds. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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