

Material Safety Data Sheet

Date Printed: 31/MAY/2005
Date Updated: 16/MAR/2004
Version 1.5
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 | TIN(II) CHLORIDE, 99.99+% |
| Product Number | 204722 |
| Company | Sigma-Aldrich Pty, Ltd Unit 2, 14 Anella Avenue Castle Hill NSW 1765 Australia |
| Technical Phone # | +61 2 9841 0555 |
| Fax | +61 2 9841 0500 |
| Emergency Phone # | +61 2 9841 0566 |

2 - Composition/Information on Ingredients

| | | | |
|-------------------|--|-----------|-------------------------|
| Product Name | CAS # | EC no | Annex I Index Number |
| STANNOUS CHLORIDE | 7772-99-8 | 231-868-0 | None |
| Formula | SnCl ₂ | | |
| Molecular Weight | 189.6 AMU | | |
| Synonyms | C.I. 77864 * Dichlorotin * NCI-C02722 * Stannous chloride * Stannous dichloride * Tin dichloride * Uniston CR-HT 200 | | |

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Harmful if swallowed. Causes burns. Irritating to respiratory system.

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 EYE CONTACT

Assure adequate flushing of the eyes by separating the eyelids with fingers.

AFTER INGESTION

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

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Dry chemical powder.

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

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

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

STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

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

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse. Discard contaminated shoes.

EXPOSURE LIMITS - DENMARK

| Source | Type | Value |
|--------|------|---------------------|
| OEL | TWA | 2 mg/m ³ |

EXPOSURE LIMITS - UNITED KINGDOM

| Source | Type | Value |
|--------|------|-------------|
| OEL | TWA | 2MG(SN)/M3 |
| OEL | STEL | 4 mg(Sn)/m3 |

PERSONAL PROTECTIVE EQUIPMENT

Special Protective Measures: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing. Faceshield (8-inch minimum).

9 - Physical and Chemical Properties

| | |
|------------|---|
| Appearance | Physical State: Solid Color: White Form: Crystals |
|------------|---|

| | | |
|----------|-------|----------------------------|
| Property | Value | At Temperature or Pressure |
|----------|-------|----------------------------|

| | | |
|-----------------------|-------------------------------|----------|
| pH | N/A | |
| BP/BP Range | 652 °C | 760 mmHg |
| MP/MP Range | 246 °C | |
| Flash Point | N/A | |
| 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 | 3.95 g/cm ³ | |
| Partition Coefficient | N/A | |
| Viscosity | N/A | |
| Vapor Density | N/A | |
| Saturated Vapor Conc. | N/A | |
| Evaporation Rate | N/A | |
| Bulk Density | 3.95 kg/l | |
| Decomposition Temp. | N/A | |
| Solvent Content | N/A | |
| Water Content | N/A | |
| Surface Tension | N/A | |
| Conductivity | N/A | |
| Miscellaneous Data | N/A | |
| Solubility | Solubility in Water: Soluble. | |

10 - Stability and Reactivity

STABILITY

Conditions of Instability: Moisture.

Conditions to Avoid: Moisture.

Materials to Avoid: Strong bases, Strong oxidizing agents, Sodium, Potassium, Hydrogen peroxide.

HAZARDOUS DECOMPOSITION PRODUCTS

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

HAZARDOUS EXOTHERMIC REACTIONS

Conditions of Hazardous Exothermic Reactions: Exothermic in contact with water

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: XP8700000

ACUTE TOXICITY

LD50

Oral

Rat

*

LD50

Oral

Rat

700 mg/kg

LD50

Intraperitoneal

Rat
316 MG/KG
Remarks: Behavioral: Somnolence (general depressed activity).
Behavioral: Convulsions or effect on seizure threshold.

LD50
Intravenous
Rat
17 MG/KG

LD50
Oral
Mouse
250 mg/kg

LD50
Intraperitoneal
Mouse
65598 UG/KG

LD50
Intravenous
Mouse
17800 UG/KG

LD50
Oral
Rabbit
10000 mg/kg

IRRITATION DATA

Eyes
Rabbit
Remarks: Severe irritation effect
Skin
Rabbit
4 HR
Remarks: Mild 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 Absorption: May be harmful if absorbed through the skin.
Inhalation: May be harmful if inhaled.
Ingestion: Harmful if swallowed.

CHRONIC EXPOSURE - MUTAGEN

Mouse
150 MG/KG
Intraperitoneal
Cytogenetic analysis

Hamster
25 MG/L
Cell Type: ovary
Cytogenetic analysis

Hamster
25 MG/L
Cell Type: ovary
Sister chromatid exchange

CHRONIC EXPOSURE - TERATOGEN

Species: Rat
Dose: 300 MG/KG
Route of Application: Oral
Exposure Time: (7-15D PREG)
Result: Effects on Embryo or Fetus: Other effects to embryo.

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat
Dose: 15167 UG/KG
Route of Application: Intratesticular
Exposure Time: (1D MALE)
Result: Paternal Effects: Testes, epididymis, sperm duct.

12 - Ecological Information

N/A

ECOTOXICOLOGICAL EFFECTS

Test Type: EC50 Daphnia
Species: Daphnia
Time: 48 h
Value: 31 - 88 mg/l

Test Type: EC50 Algae
Value: 19 - 22 mg/l

Test Type: LC50 Fish
Species: Onchorhynchus mykiss (Rainbow trout)
Value: 0.9 mg/l

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR
UN#: 3260
Class: 8
PG: I
Proper Shipping Name: Corrosive solid, acidic, inorganic, n.o.s.

IMDG

UN#: 3260
Class: 8

PG: I
Proper Shipping Name: CORROSIVE SOLID, ACIDIC,
INORGANIC, N.O.S.
Marine Pollutant: No
Severe Marine Pollutant: No
Technical Name: Required

IATA

UN#: 3260
Class: 8
PG: I
Proper Shipping Name: Corrosive solid, acidic,
inorganic, n.o.s.
Inhalation Packing Group I: No
Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: C
Corrosive.

R-PHRASES: 22 34 37

Harmful if swallowed. Causes burns. Irritating to respiratory system.

S-PHRASES: 26 36/37/39 45

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1

SWITZERLAND

SWISS POISON CLASS: 2

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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