



MATERIAL SAFETY DATA SHEET
Tin (II) Chloride Anhydrous

Section 1 - Chemical Product and Company Identification

MSDS Name: Tin (II) Chloride Anhydrous
Catalog Numbers: T/1645/48
Synonyms: Stannous Chloride Anhydrous; Tin Dichloride; Tin Protochloride.
Company Identification: Fisher Scientific UK
 Bishop Meadow Road, Loughborough
 Leics. LE11 5RG
For information in Europe, call: (01509) 231166
Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
7772-99-8	Stannous chloride	>98	231-868-0

Hazard Symbols: C



Risk Phrases: 22 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful if swallowed. Causes burns. Hygroscopic (absorbs moisture from the air).

Potential Health Effects

Eye: Causes eye burns.
Skin: Causes skin burns. Causes redness and pain. May be harmful if absorbed through the skin.
Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns. Exposure may cause anemia and other blood abnormalities. May cause headache, nausea, fatigue, and dizziness.
Inhalation: Irritation may lead to chemical pneumonitis and pulmonary edema. Causes chemical burns to the respiratory tract. May cause effects similar to those described for ingestion. May be harmful if inhaled.
Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause liver and kidney damage. Adverse reproductive effects have been reported in animals. Chronic exposure may cause effects similar to those of acute exposure.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. Do NOT allow victim to rub eyes or keep eyes closed.
Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

- Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.
- Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
- Notes to Physician:** Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

- General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
- Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Section 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

- Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Do not breathe dust, mist, or vapor. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Discard contaminated shoes.
- Storage:** Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure Limits

CAS# 7772-99-8:

United Kingdom, WEL - TWA: (tin inorganic compounds): 2 mg/m³ TWA (except SnH₄, as Sn)
United Kingdom, WEL - STEL: (tin inorganic compounds): 4 mg/m³ STEL (except SnH₄, as Sn)

United States OSHA: 2 mg/m³ TWA (as Sn, except oxides) (Tin inorganic compounds).

Belgium - TWA: (tin inorganic compounds): 2 mg/m³ VLE (as Sn)

Malaysia: (tin inorganic compounds): 2 mg/m³ TWA (as Sn, except tin hydride)

Netherlands: (tin inorganic compounds): 2 mg/m³ MAC (as Sn)

Spain: (tin inorganic compounds): 2 mg/m³ VLA-ED (as Sn)

Personal Protective Equipment

- Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- Skin:** Wear appropriate protective gloves to prevent skin exposure.
- Clothing:** Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder
Color: white
Odor: weak odor
pH: Not available
Vapor Pressure: Negligible.
Viscosity: Not available
Boiling Point: 652 deg C (1,205.60°F)
Freezing/Melting Point: 246 deg C (474.80°F)
Autoignition Temperature: Not applicable
Flash Point: Not applicable.
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature: Not available
Solubility in water: Soluble
Specific Gravity/Density: 2.700 (water=1)
Molecular Formula: Cl₂Sn
Molecular Weight: 189.596

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Hygroscopic: absorbs moisture or water from the air.

Conditions to Avoid: High temperatures, dust generation, moisture.

Incompatibilities with Other Materials Metals, strong oxidizing agents, strong bases, bromine trifluoride, ethylene oxide, nitrates, potassium, hydrogen peroxide, sodium, azo, diazo, and hydrazines (e.g. dimethyl hydrazine, hydrazine, methyl hydrazine), water reactive substances (e.g. acetic anhydride, alkyl aluminum chloride, calcium carbide, ethyl dichlorosilane), metal nitrates.

Hazardous Decomposition Products Hydrogen chloride, tin/tin oxides.

Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 7772-99-8: XP8700000

LD50/LC50: RTECS:
CAS# 7772-99-8: Oral, mouse: LD50 = 250 mg/kg;
Oral, rabbit: LD50 = 10 gm/kg;
Oral, rat: LD50 = 700 mg/kg;
.

Carcinogenicity: Stannous chloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Water flea Daphnia: EC50 = 19.5 mg/L; 48 Hr; Unspecified
Fish: Pseudomonas putida:

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
Hazard Class:	8	8	8
UN Number:	3260	3260	3260
Packing Group:	III	III	III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 22 Harmful if swallowed.

R 34 Causes burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 7772-99-8: 1

Canada

CAS# 7772-99-8 is listed on Canada's DSL List

US Federal

TSCA

CAS# 7772-99-8 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 6/24/1999

Revision #6 Date 3/16/2007

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