

# MATERIAL SAFETY DATA SHEET

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** Tin (II) Chloride Anhydrous  
**Catalog Numbers:** AC196980000, AC196980250, AC196981000, AC196985000, T141-100, T141-500  
**Synonyms:** Stannous Chloride Anhydrous; Tin Dichloride; Tin Protochloride.  
**Company Identification:** Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
**For information in the US, call:** 201-796-7100  
**Emergency Number US:** 201-796-7100  
**CHEMTREC Phone Number, US:** 800-424-9300

## Section 2 - Composition, Information on Ingredients

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

**Hazard Symbols:** C



**Risk Phrases:** 22 34

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

Danger! Hygroscopic (absorbs moisture from the air). Harmful if swallowed. Causes eye and skin burns. Causes digestive and respiratory tract burns. May cause liver and kidney damage. May cause blood abnormalities. Target Organs: Respiratory system, eyes, skin.

### 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.

**Autoignition:** Not applicable.

**Temperature:**

**Flash Point:** Not applicable.

**Explosion Limits:** Not available

**Lower:**

**Explosion Limits:** Not available

**Upper:**

**NFPA Rating:** health: 3; flammability: 0; instability: 1;

### 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, vapor, mist, or gas. 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**

Chemical Name	ACGIH	NIOSH	OSHA -
Final PELs			
Stannous chloride	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA (as	2 mg/m <sup>3</sup>
TWA (as	(except tin	Sn, except Tin	Sn)
(listed			

Tin	hydride, as Sn)	oxide) (listed	under
inorganic	(listed under	under Tin	
compounds).	Tin inorganic	inorganic	
	compounds).	compounds).	

OSHA Vacated PELs: Stannous chloride: 2 mg/m3 TWA (as Sn, except oxides) (listed under Tin inorganic compounds)

#### 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.  
**Vapor Density:** Not applicable.  
**Evaporation Rate:** Negligible.  
**Viscosity:** Not available  
**Boiling Point:** 652 deg C ( 1,205.60°F)  
**Freezing/Melting Point:** 246 deg C ( 474.80°F)  
**Decomposition Temperature:** Not available  
**Solubility in water:** Soluble  
**Specific Gravity/Density:** 2.700 (water=1)  
**Molecular Formula:** Cl<sub>2</sub>Sn  
**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.  
**Epidemiology:** Not available  
**Teratogenicity:** Not available  
**Reproductive:** Adverse reproductive effects have occurred in experimental animals.  
**Neurotoxicity:** Not available  
**Mutagenicity:** Mutagenic effects have occurred in experimental animals.  
**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

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.

### Section 14 - Transport Information

US DOT  
Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O. (Tin (II) chloride)  
Hazard Class: 8  
UN Number: UN3260  
Packing Group: III  
Canada TDG  
Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O. (TIN CHLORIDE)  
Hazard Class: 8  
UN Number: UN3260  
Packing Group: III

### Section 15 - Regulatory Information

#### US Federal

##### TSCA

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

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

**SARA Codes** CAS # 7772-99-8: acute, chronic, flammable.  
**Section 313** No chemicals are reportable under Section 313.  
**Clean Air Act:** This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:** None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**  
**STATE** Stannous chloride can be found on the following state right to know lists:  
New Jersey, Minnesota, (listed as Tin inorganic compounds),  
Massachusetts.

**California Prop 65**  
**California No Significant Risk Level:** None of the chemicals in this product are listed.

**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  
Canadian WHMIS Classifications: E  
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.  
CAS# 7772-99-8 is listed on Canada's Ingredient Disclosure List

#### Section 16 - Other Information

**MSDS Creation Date:** 6/24/1999

**Revision #5 Date** 8/30/2004

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such

damages.