

MSDS# 21800

Section 1 - Chemical Product and Company Identification

MSDS Name: Tin(IV) Chloride Pentahydrate
Catalog Numbers: T137-100, T137-500
Synonyms: Stannic chloride pentahydrate; Tetrachlorostannane pentahydrate .

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

Risk Phrases:

CAS#: 10026-06-9
Chemical Name: Stannic chloride pentahydrate
%: >98
EINECS#: unlisted
Hazard Symbols:

Text for R-phrases: see Section 16

Hazard Symbols: C



Risk Phrases: 34 52/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns. Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

- Eye: Contact with eyes may cause severe irritation, and possible eye burns.
Skin: May cause severe skin irritation with possible burns, especially if skin is wet or moist.
Ingestion: May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract.
Inhalation: Irritation may lead to chemical pneumonitis and pulmonary edema. May cause severe irritation of the upper respiratory tract with pain, burns, and inflammation.
Chronic: Prolonged or repeated skin contact may cause dermatitis. Chronic exposure to tin oxide dusts and fumes may result in stannosis (benign pneumoconiosis).

Section 4 - First Aid Measures

- Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.
Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

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. Use water spray to keep fire-exposed containers cool. Not combustible, but if involved in a fire, decomposes to produce hydrogen chloride.

Extinguishing Media: Do NOT use water directly on fire. Use extinguishing media most appropriate for the surrounding fire.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

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: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Use water spray to cool and disperse vapors and protect personnel.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only with adequate ventilation.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from metals. Corrosives area. Do not get water inside containers.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Stannic chloride, anhydrous	2 mg/m3 TWA (except Tin hydride, as Sn) (listed under Tin inorganic compounds).	2 mg/m3 TWA (as Sn, except Tin oxide) (listed under Tin inorganic compounds).100 mg/m3 IDLH (as Sn, except Tin oxides) (listed under Tin inorganic compounds).	2 mg/m3 TWA (as Sn, except Tin oxides) (listed under Tin inorganic compounds).
Stannic chloride pentahydrate	2 mg/m3 TWA (except Tin hydride, as Sn) (listed under Tin inorganic compounds).	2 mg/m3 TWA (as Sn, except Tin oxide) (listed under Tin inorganic compounds).100 mg/m3 IDLH (as Sn, except Tin oxides) (listed under Tin inorganic compounds).	2 mg/m3 TWA (as Sn, except Tin oxides) (listed under Tin inorganic compounds).

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

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

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.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a

Respirators: 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: Solid

Color: white to yellow

Odor: hydrochloric odor - slight odor

pH: Acidic in solution.

Vapor Pressure: 10 mm Hg @ 10 deg C

Vapor Density: Not available

Evaporation Rate: Not applicable.

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 56 deg C (132.80°F)

Decomposition Temperature: Not available

Solubility in water: Freely Soluble

Specific Gravity/Density: 2.2 (water=1)

Molecular Formula: SnCl₄·5H₂O

Molecular Weight: 350.57

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. May decompose on exposure to moist air or water.

Conditions to Avoid: High temperatures, exposure to moist air or water.

Incompatibilities with Other Materials: Strong bases, alcohols, amines, ethylene oxide, potassium, sodium, alkyl nitrates, turpentine.

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

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7646-78-8: XP8750000
CAS# 10026-06-9: XP8870000

RTECS:

CAS# 7646-78-8: Inhalation, rat: LC50 = 2300 mg/m³/10M;

LD50/LC50:

RTECS:

CAS# 10026-06-9:

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

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: STANNIC CHLORIDE, PENTAHYDRATE

Hazard Class: 8

UN Number: UN2440

Packing Group: III

Canada TDG

Shipping Name: STANNIC CHLORIDE PENTAHYDRATE

Hazard Class: 8

UN Number: UN2440

Packing Group: III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 34 Causes burns.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 7/8 Keep container tightly closed and dry.

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

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

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 7646-78-8: 1

CAS# 10026-06-9: Not available

Canada

CAS# 7646-78-8 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# 7646-78-8 is not listed on Canada's Ingredient Disclosure List.

CAS# 10026-06-9 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 7646-78-8 is listed on the TSCA Inventory.

CAS# 10026-06-9 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory (40CFR720.3(u)(2)).

Section 16 - Other Information

MSDS Creation Date: 6/21/1999

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.
