Material Safety Data Sheet
Tin(IV) Chloride Pentahydrate

ACC# 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
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
10026-06-9	Stannic chloride pentahydrate	>98	unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white to yellow solid.
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 a t 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: No specific antidote exists. 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. 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.
Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) 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

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

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

OSHA Vacated PELs: Stannic chloride pentahydrate: No OSHA Vacated PELs are listed for this chemical. Stannic chloride, anhydrous: No OSHA Vacated PELs are listed for this chemical.
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: Solid
Appearance: 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
Decomposition Temperature: Not available.
Solubility: 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# 10026-06-9: XP8870000
CAS# 7646-78-8: XP8750000
LD50/LC50:
Not available.

CAS# 7646-78-8:
Inhalation, rat: LC50 = 2300 mg/m3/10M;
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Carcinogenicity:
CAS# 10026-06-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 7646-78-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Mutagenicity: See actual entry in RTECS for complete information.
Neurotoxicity: No information available.
Other Studies:

Section 12 - Ecological Information

No information available.

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	Canada TDG
Shipping Name:	STANNIC CHLORIDE, PENTAHYDRATE	STANNIC CHLORIDE PENTAHYDRATE
Hazard Class:	8	8
UN Number:	UN2440	UN2440
Packing Group:	III	III

Section 15 - Regulatory Information

US FEDERAL

TSCA

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)).

CAS# 7646-78-8 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 # 10026-06-9: immediate, delayed.

CAS # 7646-78-8: immediate, delayed, reactive.

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:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 10026-06-9 can be found on the following state right to know lists: New Jersey.

CAS# 7646-78-8 can be found on the following state right to know lists: New Jersey, Pennsylvania, 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 34 Causes burns.

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

Safety Phrases:

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 7/8 Keep container tightly closed and dry.
S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

WGK (Water Danger/Protection)

CAS# 10026-06-9: No information available.
CAS# 7646-78-8: 1

Canada - DSL/NDSL

CAS# 7646-78-8 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of 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.

Canadian Ingredient Disclosure List

CAS# 10026-06-9 is not listed on the Canadian Ingredient Disclosure List.
CAS# 7646-78-8 is not listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 6/21/1999
Revision #6 Date: 2/15/2008