



MATERIAL SAFETY DATA SHEET
Tin(IV) Chloride Pentahydrate

Section 1 - Chemical Product and Company Identification

MSDS Name: Tin(IV) Chloride Pentahydrate
Catalog Numbers: T/1562, T/1564, T/1661/48, T/1661/53
Synonyms: Stannic chloride pentahydrate; Tetrachlorostannane pentahydrate .
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#	Hazard Symbols:	Risk Phrases:
10026-06-9	Stannic chloride pentahydrate	>98	unlisted		

Text for R-phrases: see Section 16

Hazard Symbols: C



Risk Phrases: 34 52/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Causes burns. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

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

CAS# 7646-78-8:

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 TWA (except SnH₄, as Sn)

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

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

CAS# 10026-06-9:

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 TWA (except SnH₄, as Sn)

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

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: Solid

Color: white to yellow

Odor: hydrochloric odor - slight odor

pH: Acidic in solution.

Vapor Pressure: 10 mm Hg @ 10 deg C

Viscosity: Not available

Boiling Point: Not available

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

LD50/LC50: RTECS:
CAS# 7646-78-8: Inhalation, rat: LC50 = 2300 mg/m³/10M;

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

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:	STANNIC CHLORIDE PENTAHYDRATE	STANNIC CHLORIDE PENTAHYDRATE	STANNIC CHLORIDE PENTAHYDRATE
Hazard Class:	8	8	8
UN Number:	2440	2440	2440
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 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

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

Text for R-phrases from Section 2

MSDS Creation Date: 6/21/1999

Revision #6 Date 2/15/2008

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.
