

SAFETY DATA SHEET

Section 1: Identification

Product name: Tin(II) chloride
Product use: For laboratory research purposes.
Supplier: Trace Sciences International
40 Vogell Rd Suite 42
Richmond Hill, ON L4B 3N6
CANADA
Telephone: +1 905-770-1100
Fax: +1 905-770-1160
Emergency Phone: CANUTEC +1-613-996-6666

Section 2: Hazard(s) Identification

2.1 GHS Classification

Corrosive to Metals (Category 1), H290
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318
Skin sensitization (Category 1), H317
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
Specific target organ toxicity - repeated exposure, Oral (Category 2), Cardio-vascular system, H373
Short-term (acute) aquatic hazard (Category 3), H402
Long-term (chronic) aquatic hazard (Category 3), H412

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s):

H290 May be corrosive to metals.
H302 + H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H373 May cause damage to organs (Cardio-vascular system) through prolonged or repeated exposure if swallowed.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s):

P234 Keep only in original packaging.
P260 Do not breathe dust.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P314	Get medical advice/ attention if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material damage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Section 3: Composition/ Information on Ingredients

Formula : SnCl₂
Molecular Weight : 189.62 g/mol

Material	CAS-No.	EC-No.	Index-No.	Concentration
Tin(II) Chloride	7772-99-8	231-868-0	-	<=100%

Section 4: First-Aid Measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move person out of dangerous area if safe to do so.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water for at least 15 minutes. Use chemical shower if available. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contacts if possible.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5: Fire-Fighting Measures

5.1 Conditions of flammability

No data available

5.2 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.3 Hazardous combustion products

Hazardous decomposition products formed under fire conditions; Hydrogen chloride gas, tin/tin oxides

5.4 Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.5 Further information

No data available

Section 6: Accidental Release Measures

6.1 Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage

Moisture sensitive. Store under inert gas.
 Keep container tightly closed in a dry and well-ventilated place.

Section 8: Exposure Controls/Personal Protection

8.1 Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Tin(II) chloride	7772-99-8	TWA	2 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWAEV	2 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	2 mg/m ³	Canada. British Columbia OEL
		TWA	2 mg/m ³	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.

8.2 Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Specific engineering controls

Use mechanical exhaust or laboratory fume hood to avoid exposure.

Section 9: Physical and Chemical Properties

Appearance

Form	Powder
Colour	White

Safety Data

pH	2.18 at 20 °C (68 °F)
Melting point/freezing point	246 °C (475 °F)
Boiling point	652 °C (1206 °F)
Flash point	No data available
Flammability (solid, gas)	No data available
Ignition temperature	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	33 hPa at 429 °C (804 °F)
Density	3.9 g/cm ³ at 20 °C (68 °F)
Water solubility	178 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Relative vapour density	No data available
Odour	No data available
Odour Threshold	No data available
Evaporation rate	No data available

Section 10: Stability and Reactivity

10.1 Chemical stability

Stable under recommended storage conditions

10.2 Possibility of hazardous reactions

Violent reactions possible with:
Strong acids, hydrogen peroxide

Risk of ignition or formation of inflammable gases or vapours with:
Halogen-halogen compounds, carbides

Risk of explosion with:
Hydrazine and derivatives, nitrates, alkali metals, strong oxidizing agents

10.3 Conditions to avoid

Avoid moisture.

10.4 Materials to avoid

No data available

10.5 Hazardous decomposition products

See section 5

Section 11: Toxicological Information

Acute toxicity

Oral

LD50 Oral - Rat - male - 1,910 mg/kg
(OECD Test Guideline 423)

Inhalation

LC50 Inhalation - Rat - male and female - 4 h - 2 mg/l - dust/mist
(OECD Test Guideline 436)

Dermal

No data available

Other information on acute toxicity

No data available

Skin corrosion/irritation

Skin - Rabbit
Result: Corrosive - 4 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Patch test: - Human
Result: positive
Remarks: (ECHA)

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test
Test system: Mouse lymphoma test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: Mutagenicity (mammal cell test): micronucleus.
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative
Remarks: (National Toxicology Program)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

Oral – May cause damage to organs through prolonged or repeated exposure. – Cardio-vascular system

Aspiration hazard

No data available

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin, cough, shortness of breath, headache, nausea

Additional Information

RTECS: XP8700000

Section 12: Ecological Information

12.1 Toxicity

Toxicity to fish	Static test LC50 - other fish - 9 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia - 31 - 88 mg/l - 48 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	Static test NOEC - Daphnia magna (Water flea) - 0.18 mg/l - 21 d (OECD Test Guideline 211)

12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

Section 13: Disposal Considerations

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

Section 14: Transport Information

IATA

UN number: UN3260 Class: 8 Packing group: II
Proper shipping name: Corrosive solid, acidic, inorganic, n.o.s. (Tin chloride)

Section 15: Regulatory Information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

Section 16: Other Information

Further information

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for his or her particular purpose(s).

Trace Sciences International.

See <https://www.tracesciences.com/> for additional terms and conditions of sale.

Date Prepared: February 10, 2025