

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** Stannous chloride, dihydrate

**Other means of identification**

**Synonyms:** Tin chloride, dihydrate  
**Product No.:** 3980, 8176

**Recommended use and restriction on use**

**Recommended use:** For Laboratory, Research or Manufacturing Use.  
**Restrictions on use:** Not determined.

**Details of the supplier of the safety data sheet**

Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200  
Radnor, PA 19087

Telephone: Customer Service: 855-282-6867

Fax: Product Information Compliance  
Contact Person: info@avantormaterials.com  
E-mail:

**Emergency telephone number:**

CHEMTREC: 1-800-424-9300 within US and Canada (24 hrs/day, 7 days/week)

## 2. Hazard identification

**Hazard Classification**

**Health Hazards**

Acute toxicity (Oral)	Category 4
Skin Corrosion/Irritation	Category 1B
Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1

**Unknown toxicity - Health**

Acute toxicity, dermal 100 %

**Label Elements**

**Hazard Symbol:**



<b>Signal Word:</b>	Danger
<b>Hazard Statement:</b>	Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction.
<b>Precautionary Statements</b>	
<b>Prevention:</b>	Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
<b>Response:</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. 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. IF INHALED: Remove person to fresh air and keep comfortable for breathing.
<b>Storage:</b>	Store locked up.
<b>Disposal:</b>	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
<b>Other hazards which do not result in GHS classification:</b>	None.

### 3. Composition/information on ingredients

#### Substances

Chemical name	Common name and synonyms	CAS number	Content in percent (%)*
Stannous chloride, dihydrate	Tin chloride, dihydrate	10025-69-1	98 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>General information:</b>	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
<b>Ingestion:</b>	Rinse mouth. Never give liquid to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without advice from poison control center.
<b>Inhalation:</b>	Move to fresh air. Call a physician or poison control center immediately. Apply artificial respiration if victim is not breathing. If breathing is difficult, give oxygen.
<b>Skin Contact:</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** None known.

**Hazards:** None known.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Treat symptomatically. Symptoms may be delayed.

**5. Fire-fighting measures**

**General Fire Hazards:** The product is non-combustible.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** None known.

**Specific hazards arising from the chemical:** Fire may produce irritating, corrosive and/or toxic gases.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ventilate closed spaces before entering them. Avoid inhalation of dust.

**Methods and material for containment and cleaning up:** Sweep up and place in a clearly labeled container for chemical waste. Avoid dust formation. Clean surface thoroughly to remove residual contamination.

**Notification Procedures:** Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

**7. Handling and storage**

**Precautions for safe handling:** Observe good industrial hygiene practices. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Avoid generation and spreading of dust. See Section 8 of the SDS for Personal Protective Equipment.

**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed. Store in cool, dry place. Store in a well-ventilated place.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Stannous chloride, dihydrate - as Sn	TWA	2 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Stannous chloride, dihydrate - as Sn	TWA	2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Stannous chloride, dihydrate - as Sn	TWA	2 mg/m3	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Stannous chloride, dihydrate - as Sn	TWA	2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	TWA	2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Stannous chloride, dihydrate - as Sn	8 HR ACL	2 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	4 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Stannous chloride, dihydrate - as Sn	TWA	2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Stannous chloride, dihydrate - as Sn	TWA	2 mg/m3	US. ACGIH Threshold Limit Values (2011)

**Appropriate Engineering Controls** No data available.

**Individual protection measures, such as personal protective equipment**

**General information:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

**Eye/face protection:** Wear safety glasses with side shields (or goggles) and a face shield. Use tight fitting goggles if dust is generated.

**Skin Protection**

**Hand Protection:** Chemical resistant gloves

**Other:** Wear suitable protective clothing and gloves.

<b>Respiratory Protection:</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
<b>Hygiene measures:</b>	Do not eat, drink or smoke when using the product. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	Solid
<b>Form:</b>	Crystals or powder.
<b>Color:</b>	White
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	37 - 38 °C
<b>Initial boiling point and boiling range:</b>	623 °C
<b>Flash Point:</b>	Not applicable
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Density:</b>	2,71 g/cm <sup>3</sup> (20 °C)
<b>Relative density:</b>	2,71 (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	178 g/l (20 °C)
<b>Solubility (other):</b>	ethyl acetate: Soluble acetic acid: Soluble pyridine: Soluble xylene: Practically insoluble
<b>Partition coefficient (n-octanol/water):</b>	-2,15
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>Other information</b>	
<b>Molecular weight:</b>	225,65 g/mol (SnCl <sub>2</sub> ·2H <sub>2</sub> O)

## 10. Stability and reactivity

<b>Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.

<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Heat, sparks, flames. Moisture. Contact with incompatible materials.
<b>Incompatible Materials:</b>	Strong oxidizing agents. Strong alkalis. Nitrates. Sodium. Potassium.
<b>Hazardous Decomposition Products:</b>	Hydrogen chloride.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Dust may irritate respiratory system.
<b>Skin Contact:</b>	Causes severe skin burns.
<b>Eye contact:</b>	Causes serious eye damage.
<b>Ingestion:</b>	Harmful if swallowed.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	LD 50 (Rat): 1.910 mg/kg
<b>Dermal Product:</b>	No data available.
<b>Inhalation Product:</b>	LC 50 (Rat): 2 mg/l

#### Repeated dose toxicity

**Product:** No data available.

#### Skin Corrosion/Irritation

**Product:** Causes severe skin burns.

#### Serious Eye Damage/Eye Irritation

**Product:** Causes serious eye damage.

#### Respiratory or Skin Sensitization

**Product:** May cause allergic skin reaction.

#### Carcinogenicity

**Product:** This substance has no evidence of carcinogenic properties.

#### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

#### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

#### ACGIH Carcinogen List:

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No mutagenic components identified

**In vivo**

**Product:** No mutagenic components identified

**Reproductive toxicity**

**Product:** No components toxic to reproduction

**Specific Target Organ Toxicity - Single Exposure**

**Product:** None known.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** None known.

**Aspiration Hazard**

**Product:** Not classified

**Other effects:** None known.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** There are no data on the degradability of this product.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available on bioaccumulation.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** Log Kow: -2,15 20 °C

**Mobility in soil:** No data available.

**Other adverse effects:** Large amounts of the product may affect the acidity (pH-factor) in water with possible risk of harmful effects to aquatic organisms.

**13. Disposal considerations**

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Do not allow to enter drains, sewers or watercourses. Since emptied containers retain product residue, follow label warnings even after container is emptied.

**Contaminated Packaging:** No data available.

**14. Transport information**

**TDG**

UN Number: UN 3260  
 UN Proper Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(STANNOUS CHLORIDE)  
 Transport Hazard Class(es)  
     Class: 8  
     Label(s): 8  
 Packing Group: III  
 Marine Pollutant: No  
 Special precautions for user: Keep away from alkalis.

**IMDG**

UN Number: UN 3260  
 UN Proper Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(STANNOUS CHLORIDE)  
 Transport Hazard Class(es)  
     Class: 8  
     Label(s): 8  
     EmS No.: F-A, S-B  
 Packing Group: III  
 Marine Pollutant: No  
 Special precautions for user: Keep away from alkalis.

**IATA**

UN Number: UN 3260  
 UN Proper Shipping Name: Corrosive solid, acidic, inorganic, n.o.s.(Stannous chloride)  
 Transport Hazard Class(es):  
     Class: 8  
     Label(s): 8  
 Packing Group: III  
 Marine Pollutant: No  
 Special precautions for user: Keep away from alkalis.  
     Cargo aircraft only: Allowed.

**Transport in bulk according to Annex II of MARPOL and the IBC Code:** Not applicable

**15. Regulatory information**



**Canada Federal Regulations**

**List of Toxic Substances (CEPA, Schedule 1)**

Not Regulated

**Export Control List (CEPA 1999, Schedule 3)**

Not Regulated

**National Pollutant Release Inventory (NPRI)**

**Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**

NPRI PT5    Not Regulated

**Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4)**

NPRI    Not Regulated

**Greenhouse Gases**

Not Regulated

**Controlled Drugs and Substances Act**

CA CDSI    Not Regulated

CA CDSII     Not Regulated

CA CDSIII     Not Regulated

CA CDSIV     Not Regulated

CA CDSV     Not Regulated

CA CDSVII     Not Regulated

CA CDSVIII    Not Regulated

**Precursor Control Regulations**

Not Regulated

**International regulations**

**Montreal protocol**

Not applicable

**Stockholm convention**

Not applicable

**Rotterdam convention**

Not applicable

**Kyoto protocol**

Not applicable

**Inventory Status:**

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Mexico INSQ:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory

<b>16. Other information</b>
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**Revision Date:** 14.06.2021

**Version #:** 1.2

**Source of information:** Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, information from the Toxicology Data Network (TOXNET), European Chemical Agency (ECHA) substance dossiers, IARC Monographs, US National Toxicology Program data, the Agency for Toxic Substances and Disease Registry, other manufacturer's SDSs and other sources, as appropriate.

**Further Information:** No data available.

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