



MATERIAL SAFETY DATA SHEET

CONTACT : **LEONID CHEMICALS**
Leonid Chemicals Pvt Ltd
62/A-2 1st Stage, Yeshwanthpur Industrial Suburb
Ashokpuram School Road
Bangalore-560 022, Karnataka, INDIA
Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

Tin (II) Chloride Dihydrate

ACC# 21850

Section 1 - Chemical Product and Company Identification

MSDS Name: Tin (II) Chloride Dihydrate

Catalog Numbers: S091

Synonyms: Stannous chloride dihydrate; Stannochlor; Stannous chloride dihydrate

Company Identification:

LEONID CHEMICALS

62/A-2 2nd Stage, Industrial Suburb

Yeshwanthpur, Bangalore -22, INDIA

Ph- +91-80-23378354

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
10025-69-1	Tin (II) Chloride Dihydrate	>98	unlisted

Hazard Symbols: C

Risk Phrases: 22 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless to white. **Danger!** Corrosive. May cause liver damage. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns. Possible sensitizer. Moisture sensitive. May be harmful if swallowed.

Target Organs: Blood, liver, lungs, bone.

Potential Health Effects

Eye: Causes eye burns. May cause chemical conjunctivitis and corneal damage.

Skin: Causes skin burns. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

Ingestion: May cause severe and permanent damage to the digestive tract. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Causes gastrointestinal tract burns. May cause perforation of the digestive tract. Ingested inorganic tin exhibits only moderate toxicity due to poor absorption and rapid tissue turnover. Ingestion of large amounts may cause gastrointestinal irritation, nausea, cramps, vomiting and diarrhea. May interfere with various enzyme systems. Inorganic tin salts may cause systemic effects on the central nervous system, heart and liver. May be harmful if swallowed. May cause systemic effects.

Inhalation: Irritation may lead to chemical pneumonitis and pulmonary edema. Causes chemical burns to the respiratory tract. May cause effects similar to those described for ingestion. Aspiration may lead to pulmonary edema. May cause systemic effects.



Chronic: Effects may be delayed. Repeated or prolonged exposure may cause allergic reactions in sensitive individuals.

Section 4 - First Aid Measures

Eyes: Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

Skin: Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician: 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Do NOT get water inside containers.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation. Do not get water inside containers.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Use with adequate ventilation. Do not allow contact with water. Discard contaminated shoes. Keep from contact with moist air and steam.

Storage: Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Store protected from moisture.

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 ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Tin (II) Chloride Dihydrate	none listed	none listed	none listed

OSHA Vacated PELs: Tin (II) Chloride Dihydrate: 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 minimize contact with skin.

Respirators: A respiratory protection program that meets OSHA's 29 CFR §1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: colorless to white

Odor: none reported

pH: Not available.

Vapor Pressure: Negligible.

Vapor Density: Not applicable.

Evaporation Rate: negligible

Viscosity: Not available.

Boiling Point: decomposes

Freezing/Melting Point: 100 deg F

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Decomposition Temperature: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Reactivity: 0

Explosion Limits, Lower: Not available.

Upper: Not available.

Solubility: decomposes in water

Specific Gravity/Density: 2.7

Molecular Formula: SnCl₂.2H₂O

Molecular Weight: 225.6228

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: High temperatures, incompatible materials, moisture, exposure to air.

Incompatibilities with Other Materials: Moisture.

Hazardous Decomposition Products: Hydrogen chloride, chlorine, irritating and toxic fumes and gases, tin/tin oxides.

Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

RTECS#:

CAS# 10025-69-1: XP8850000

LD50/LC50:

Not available.

Carcinogenicity:

CAS# 10025-69-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No data available.**Teratogenicity:** Oral, rat: TDLo = 3 gm/kg (female 7-12 day(s) after conception) Effects on Embryo or Fetus - fetal death.; Oral, rat: TDLo = 3 gm/kg (female 7-12 day(s) after conception) Specific Developmental Abnormalities - craniofacial (including nose and tongue).**Reproductive Effects:** Oral, rat: TDLo = 3 gm/kg (female 7-12 day(s) after conception) Maternal Effects - other effects and Fertility - post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants). Reproductive - Effects on Embryo or Fetus - fetal death**Neurotoxicity:** No data available.**Mutagenicity:** DNA Damage: Human, Leukocyte = 10 umol/L.; DNA Damage: Hamster, Ovary = 50 umol/L.**Other Studies:** No data available.

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	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	CORROSIVE SOLID, N.O.S. (STANNOUS CHLORIDE)				CORROSIVE SOLID NOS (STANNOUS CHLORIDE)
Hazard Class:	8				8(9.2)
UN Number:	UN1759				UN1759
Packing Group:	III				III

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 10025-69-1 is not on the TSCA Inventory. It is a hydrate and exempt from TSCA Inventory requirements (40CFR720.3(u)(2)).

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.

SARA

Section 302 (RQ)

None of the chemicals in this material have an RQ.

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 10025-69-1: acute, chronic, flammable.

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# 10025-69-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

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 22 Harmful if swallowed.

R 34 Causes burns.

Safety Phrases:

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

WGK (Water Danger/Protection)

CAS# 10025-69-1: No information available.

Canada

Canada

None of the chemicals in this product are listed on the DSL or NDSL list. This product has a WHMIS classification of E, D2A.

CAS# 10025-69-1 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 10025-69-1: OEL-AUSTRALIA:TWA 2 mg(Sn)/m3 OEL-BELGIUM:TWA 2 mg (Sn)/m3 OEL-DENMARK:TWA 2 mg(Sn)/m3 OEL-FINLAND:TWA 2 mg(Sn)/m3 OEL -GERMANY:TWA 2 mg(Sn)/m3 OEL-HUNGARY:TWA 1 mg(Sn)/m3;STEL 2 mg(Sn)/m3 ;Skin OEL-THE NETHERLANDS:TWA 2 mg(Sn)/m3 OEL-THE PHILIPPINES:TWA 2 mg(Sn)/m3 OEL-SWITZERLAND:TWA 2 mg(Sn)/m3;STEL 4 mg(Sn)/m3 OEL-THAIL AND:TWA 2 mg(Sn)/m3 OEL-UNITED KINGDOM:TWA 5 mg(Sn)/m3;STEL 10 mg(Sn) /m3 OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 6/25/1999

Revision #1 Date: 8/02/2000

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