Infosafe No™	1CH74	Issue Date : July 2018	RE-ISSUED by CHEMSUPP

Product Name : **TIN (II) CHLORIDE Dihydrate**

Classified as hazardous

1. Identification

GHS Product Identifier	TIN (II) CHLORIDE Dihydrate
Company Name	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia
Telephone/Fax Number	Tel: (08) 8440-2000 Fax: (08) 8440-2001
Recommended use of the chemical and restrictions on use	Reducing agent in manufacture of chemicals, intermediates, dyes, polymers, phosphors, tin glavanising, silvering mirrors, antisludging agent for lubricating oils, food preservative, stabiliser for perfume in soap, catalyst, soldering flux, sensitising agent for glass, paper and plasitcs, manufacture of lakes, textiles (reducing agent in dyeing, discharge in printing), reagent in analytical chemistry, revivication of yeast sown in must (accelerator) and laboratory reagent.

Other Names

Name	Product Code
TIN(II) CHLORIDE Dihydrate AR	SA060
Tin dichloride, Tin protochloride, Stannous chloride dihydrate	

Other Information

EMERGENCY CONTACT NUMBER: +61 08 8440 2000
Business hours: 8:30am to 5:00pm, Monday to Friday.

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture

Acute Toxicity - Oral: Category 4
Skin Corrosion/Irritation: Category 1
Eye Damage/Irritation: Category 1
Sensitization - Respiratory: Category 1
Germ Cell Mutagenicity: Category 2
Toxic to Reproduction: Category 2
Specific Target Organ Toxicity Single Exposure Category 3 (respiratory tract irritation)
Specific Target Organ Toxicity Repeated Exposure Category 2 (Cardio-vascular system)
Hazardous to the Aquatic Environment - Acute Hazard: Category 1
Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

Signal Word (s)

DANGER

Hazard Statement (s)

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs (Cardo-vascular system)through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Pictogram (s)

Health hazard, Corrosion, Exclamation mark, Environment

Precautionary statement – Prevention

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Precautionary statement – Response	P264 Wash thoroughly after handling. 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. P281 Use personal protective equipment as required. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P332+P313 If skin irritation occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/attention.
Precautionary statement – Storage	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Chemical Characterization	Solid
Information on Composition	Formed by dissolving tin in hydrochloric acid.

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase
Tin (II) Chloride Dihydrate	10025-69-1	98-100 %		

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately, avoid becoming a casualty. Make patient comfortable, keep warm and at rest until fully recovered. If breathing is difficult (or develops a bluish skin discolouration), supply oxygen by a qualified person. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Immediately medical attention is required.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
Skin	Wash with plenty of soap and water. Remove contaminated clothing and wash before re-use. Seek medical attention.
Eye contact	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek medical attention.
First Aid Facilities	Maintain eyewash fountain and drench facilities in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Hazards from Combustion Products	When heated to decomposition it emits toxic fumes of hydrogen chloride.
Specific Methods	Use extinguishing media most appropriate for the surrounding fire. No limitations to the type of extinguishing media.
Specific hazards arising from the chemical	Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases.
Hazchem Code	2X

Precautions in connection with Fire	Wear SCBA and chemical splash suit. Fully encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

6. Accidental release measures

Personal Precautions	Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.
Environmental Precautions	Prevent from entering into drains, ditches or rivers.

7. Handling and storage

Precautions for Safe Handling	Avoid generation or accumulation of dusts. Avoid prolonged or repeated contact with skin, eyes and clothing . Only use in well-ventilated areas. Wash hands and face thoroughly after working with material.
Conditions for safe storage, including any incompatabilities	Prevent all contact with water and with moist atmosphere. Keep container tightly closed and in a cool, well-ventilated place
Storage Regulations	Refer Australian Standard AS 3780-1994 'The storage and handling of corrosive substances'.

8. Exposure controls/personal protection

Occupational exposure limit values	These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Other Exposure Information	A time weighted average (TWA) has been established for Tin, oxide and inorganic compounds (as Sn) (Safe Work Australia) of 2 mg/m3. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. These methods should be used in preference to personal protective equipment.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Rubber or plastic gloves recommended. Hand protection should comply with AS 2161 Industrial Safety Gloves and Mittens (Excluding Electrical and Medical Gloves).
Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210 Safety Footwear.
Body Protection	Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

9. Physical and chemical properties

Form	Solid
Appearance	White to yellow, crystalline mass.

Odour	Odourless.
Melting Point	38 °C
Boiling Point	Decomposes.
Solubility in Water	Very soluble (1187 g/L @ 20 °C). In dilute aqueous solutions it will form insoluble oxychloride.
Solubility in Organic Solvents	Soluble in methanol.
Specific Gravity	2.71
Flammability	Non combustible material.
Molecular Weight	225.63
Other Information	Absorbs oxygen form air and forms the insoluble oxychloride.

10. Stability and reactivity

Chemical Stability	Stable under normal use conditons. Moisture sensitive.
Conditions to Avoid	Moisture. Exposure to air. High temperatures. Incompatibles.
Incompatible Materials	Strong oxidizing agents, strong acids, halogen-halogen compounds (i.e. bromine trifluoride), calcium carbide, nitrates, alkali metals, hydrogen peroxide, ethylene oxide, hydrazine hydrate, potassium and sodium.
Hazardous Decomposition Products	Decomposition products include of hydrogen chloride, chloride and tin/tin oxides.
Possibility of hazardous reactions	May react violently with strong oxidizing agents, hydrogen peroxide, bromine trifluoride, calcium carbide, ethylene oxide, hydrazine hydrate, potassium and sodium.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	Harmful if swallowed. Symptoms include of headache, nausea, fatigue, dizziness, vomiting. May cause irritation and or burning to the mucous membranes in the lips, mouth, pharynx, oesophagus and gastrointestinal tract causing abdominal pain (cramps), diarrhea, reduced blood pressure, stomach bleeding, collapse and convulsions. Followed by diarrhea and respiratory distress, liver and kidney damage. Material is extremely desctructive to tissue of the mucous membranes and gastrointestinal tract.
Inhalation	Harmful if swallowed. Irritating to mucous lining and respiratory system. May cause sore throat, coughing, laboured breathing, headache, burns or burning sensation, wheezing, laryngitis, nausea and diziness. Further irritation may lead to spasms, inflammation, larynx and bronchi edema, chemical pneumonitits and pulmonary edema. Material is extremely desctructive to tissue of the mucous membranes and upper respiratory tract.
Skin	Irritating to skin. Symptoms may include of redness, pain, irritation, inflammation, blistering and dermatitis. Risk of sensitisation. May be harmful if absorbed through the skin. Material is extremely desctructive to tissue of the mucous membranes and skin.
Eye	Irritating to eyes. Inflammation is characterized by redness, pain, watering and itching. Material is desctructive to tissue of the mucous membranes and eyes which may in turn cause blindess or corneal damage.
Germ cell mutagenicity	Germ Cell Mutagenicity: Category 2 H341 Suspected of causing genetic defects.
Carcinogenicity	No evidence of carcinogenic properties.
Reproductive Toxicity	Adverse reproductive effects have occurred in experimental animals. H361 Suspected of damaging fertility or the unborn child.
STOT-single exposure	Specific Target Organ Toxicity Single Exposure Category 3 (respiratory tract irritation)
STOT-repeated exposure	H373 May cause damage to organs (Cardo-vascular system)through prolonged or repeated exposure.
Chronic Effects	Prolonged inhalation of dust or fumes may result in a benign pneumoconiosis, producing distinctive changes in the lungs with no apparent disability or complications. Prolonged or repeated ingestion may affect the blood system, liver and kidneys. Repeated or prolonged skin contact may cause chronic dermatitis.

	H341 Suspected of causing genetic defects.
Mutagenicity	No evidence of mutagenic properties.
Other Information	When in contact with moisture or mucous membranes (i.e. skin, eyes, nose, mouth, respiratory and gastrointestinal tract), the stannous chloride forms hydrochloric acid which may in turn increase toxicity.

12. Ecological information

Ecotoxicity	No ecological data available for this product.
Persistence and degradability	Methods for the determination of biodegradability are not applicable to inorganic substances.
Mobility	No mobility data available for this product.
Biological Properties	Harmful due to pH shift.
Environmental Protection	Do not allow product to enter drains, waterways or sewers.
Other Information	Hazardous to the Aquatic Environment - Acute Hazard: Category 1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following: Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids, Class 7; and are incompatible with food and food packaging in any quantity.
U.N. Number	3260
UN proper shipping name	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
Transport hazard class(es)	8
Hazchem Code	2X
Packaging Method	3.8.8
Packing Group	III
IERG Number	37

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	Not Scheduled

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007. Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010. Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'. Safe Work Australia, 'Hazardous Substances Information System, 2005'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best

knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

Empirical Formula & Structural Formula $SnCl_2.2H_2O$

...End Of MSDS...