

## Safety Data Sheet ZINC CHLORIDE

SDS no. XPZ0ZH8N • Version 1.0 • Date of issue: 2025-12-02

### SECTION 1: Identification

#### GHS Product identifier

Product name ZINC CHLORIDE

Product number ZL005

#### Recommended use of the chemical and restrictions on use

Catalyst, dehydrating agent and condensing agent in organic synthesis, fireproofing and preserving food, soldering fluxes, burnishing and polishing compounds for steel, electroplating, antiseptic and deodorant preparations (up to 2% solution), textiles (mordant, carbonising agent, mercerizing, sizing and weighting compositions, resist for sulfur colours, albumin colours and para red), adhesives, dental cements, glass etching, petroleum refining, parchment, dentrifices, embalming and taxidermists' fluids, additive for use with acrylic latex paints, animal feeds, dietary supplement, medicine (astringent), antistatic, denaturant for alcohols and laboratory reagent.

Additional information: If this compound is used for human internal use, then it may acquire a poison schedule of S4. When used for laboratory chemical analysis, it has a poison schedule of S6.

#### Supplier's details

Name ChemSupply Australia Pty Ltd  
Address 38-50 Bedford Street  
5013 Gillman South Australia  
Australia

Telephone 08 8440 2000  
email [www.chemsupply.com.au](http://www.chemsupply.com.au)

#### Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

### SECTION 2: Hazard identification

#### General hazard statement

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.

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

#### Classification of the substance or mixture

#### GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, oral, Cat. 4

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- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1
- Skin corrosion/irritation, Cat. 1B

### GHS label elements, including precautionary statements

#### Pictograms



#### Signal word

**Danger**

#### Hazard statement(s)

H302  
H314  
H410

Harmful if swallowed  
Causes severe skin burns and eye damage  
Very toxic to aquatic life with long lasting effects

#### Precautionary statement(s)

P260  
P264  
P270  
P273  
P280  
P301+P312  
P301+P330+P331  
P303+P361+P353  
  
P304+P340  
P305+P351+P338  
  
P310  
P363  
P391  
P405  
P501

Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell,  
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 INHALED: Remove person to fresh air and keep comfortable for breathing.  
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/physician  
Wash contaminated clothing before reuse.  
Collect spillage.  
Store locked up.  
Dispose of contents/container to an approved waste disposal facility

## SECTION 3: Composition/information on ingredients

#### Mixtures

<b>Molecular weight</b>	136.3
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<b>Component</b>	<b>Identification</b>	<b>Weight %</b>
Zinc chloride	CAS no.: 7646-85-7 EC no.: 231-592-0 Index no.: 030-003-00-2	<= 100 %

## SECTION 4: First-aid measures

#### Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.  
Move out of dangerous area.

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First Aid Facilities: Maintain eyewash fountain in work area.

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician

In case of eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

If swallowed

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

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

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## SECTION 5: Fire-fighting measures

### Suitable extinguishing media

Small fire: Use dry chemical, CO<sub>2</sub> or water spray. If safe to do so, move undamaged containers from fire area.

Large fire: Use dry chemical, CO<sub>2</sub>, foam or water spray - Do not use water jets.

Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers.

### Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire including zinc/zinc oxides and hydrogen chloride gas.

### Special protective actions for fire-fighters

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.

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## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

### Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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## SECTION 7: Handling and storage

### Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

### Conditions for safe storage, including any incompatibilities

Unsuitable Materials: Metal equipment or containers.

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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## SECTION 8: Exposure controls/personal protection

### Control parameters

#### CAS: 7646-85-7

Zinc chloride

AU/SWA (Australia): 2 mg/m<sup>3</sup> STEL inhalation [Zinc chloride (fume)]; 1 mg/m<sup>3</sup> TWA inhalation [Zinc chloride (fume)]

### Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

### Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face 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.

#### Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

#### Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

#### Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/ NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

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## SECTION 9: Physical and chemical properties

### Basic physical and chemical properties

Physical state	Solid
Appearance	White deliquescent crystals or powder.
Color	No data available.
Odor	Slightly pungent.
Odor threshold	No data available.
Melting point/freezing point	283 °C
Boiling point or initial boiling point and boiling range	732 °C
Flammability	No data available.
Lower and upper explosion limit/ flammability limit	No data available.

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Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	pH 5 (10% solution)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Very soluble. Solubility in Organic Solvents: Soluble in alcohol, glycerol and ether.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	1 mm @ 428 °C
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 2.91 @ 25 °C
Relative vapor density	No data available.
Particle characteristics	No data available.

### Supplemental information regarding physical hazard classes

No data available.

### Further safety characteristics (supplemental)

No data available.

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## SECTION 10: Stability and reactivity

### Reactivity

Stable under normal conditions of storage and handling.

Reacts with incompatible materials

### Chemical stability

Stable under recommended storage conditions.

Hygroscopic.

### Possibility of hazardous reactions

Contact with acids or acid fumes will evolve highly toxic chloride fumes. Can react violently with potassium.

### Conditions to avoid

Moisture. Hygroscopic.

### Incompatible materials

Strong oxidizing agents, potassium, acids and acid fumes. Do not use metal equipment or containers.

### Hazardous decomposition products

Chloride fumes, zinc oxide fumes, zinc/zinc oxides, hydrogen chloride gas.

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

Acute Toxicity - Oral: LD50 Oral - Rat - male - 1,100 mg/kg  
(OECD Test Guideline 401)

Ingestion: Harmful if swallowed. May cause nausea, vomiting, inflammation, and burns of mucous membranes of the mouth, pharynx, and oesophagus, and stomach, ulceration of the stomach. Symptoms include pain, metallic taste, vomiting, diarrhoea, drop in blood pressure, tachycardiovascular disorders collapse, and disturbed electrolyte balance. Risk of perforation in the oesophagus and stomach. Damage to kidneys.

Inhalation: Harmful if inhaled, causes burns. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May cause nausea, vomiting, dizziness, conjunctivitis, irritation of the nose and throat, coughing, copious sputum, dyspnoea, chest pain, damage to the mucous membranes of the nasopharynx and respiratory tract, fever, cyanosis, tachypnoea, pulmonary edema, bronchopneumonia, pulmonary fibrosis, lung damage and death.

#### Skin corrosion/irritation

Causes burns. May be harmful if absorbed through the skin. Avoid contact with skin.

Skin corrosion/irritation: Skin Corrosion/Irritation: Category 1A  
H314 Causes severe skin burns and eye damage.

#### Serious eye damage/irritation

Causes burns. Major exposure may lead to inflammation of the cornea. Avoid contact with eyes.

Serious eye damage/irritation: H314 Causes severe skin burns and eye damage.

#### Respiratory or skin sensitization

Not classified based on available information.

#### Germ cell mutagenicity

Not classified based on available information.

#### Carcinogenicity

Not classified based on available information.

#### Reproductive toxicity

Not classified based on available information.

#### Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

#### Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

#### Aspiration hazard

Not classified based on available information.

#### Additional information

Chronic Effects: Chronic inhalation may lead to asthma. Chronic ingestion may cause disordered digestion and constipation.

Inhalation of dust or fumes of zinc salts or metal cause 'metal fume fever', which is characterised by chills, fever, tightness of the chest and coughing.

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## SECTION 12: Ecological information

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#### Toxicity

Acute Toxicity - Fish: static test LC50 - Oncorhynchus mykiss (rainbow trout) - 0.169 mg/l - 96 h

Acute Toxicity - Daphnia: static test EC50 - Ceriodaphnia dubia (water flea) - 0.67 mg/l - 48 h (OECD Test Guideline 202)

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## SECTION 13: Disposal considerations

#### Disposal methods

#### Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

#### Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

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## SECTION 14: Transport information

#### ADG (Road and Rail)

UN Number: 2331

Class: 8

Packing Group: III

Proper Shipping Name: ZINC CHLORIDE, ANHYDROUS

#### Hazchem emergency action code (EAC)

2X

#### IMDG

UN Number: 2331

Class: 8

Packing Group: III

EMS Number:

Proper Shipping Name: ZINC CHLORIDE, ANHYDROUS

#### IATA

UN Number: 2331

Class: 8

Packing Group: III

Proper Shipping Name: ZINC CHLORIDE, ANHYDROUS

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## SECTION 15: Regulatory information

#### Safety, health and environmental regulations specific for the product in question

#### Australia SUSMP

Poison Schedule: S6

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## SECTION 16: Other information

#### Further information/disclaimer

ChemSupply Australia 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 ChemSupply Australia 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 ChemSupply Australia 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.

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#### Preparation information

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. ChemSupply Australia Pty Ltd 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.

Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), [hcis.safeworkaustralia.gov.au](http://hcis.safeworkaustralia.gov.au)

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)