
MATERIAL SAFETY DATA SHEET

Hazardous according to criteria of Worksafe

1. IDENTIFICATION

General

Product Name : ZINC CHLORIDE, ANHYDROUS

Other Names : ZINC CHLORIDE BUTTER OF ZINC; ZINC DICHLORIDE

UN No. : 2331

Dangerous Goods Class : 8

Subsidiary Risk : None Allocated

Hazchem Code : 2X

Pack Group : III

EPG : 37

Poisons Schedule : 6

Uses :

Up to a 2% solution in deodorant and antiseptic preparations. With ammonium chloride as a flux for soldering. For fire-proofing and preserving wood. Etching metals and glass. In the galvanising of iron. As a dehydrating and condensing agent in organic synthesis. For vulcanising rubber.

1.1 Physical Description / Properties

Appearance : White to off-white coarse powder.

Formula : $ZnCl_2$

Boiling Point : 732 deg C

Melting Point : 283 deg C

Vapour Pressure : <0.75 mm Hg (1 atmosphere)

Specific Gravity : 2.9 (water = 1)

Flash Point : N/A

pH : 1-2 (soln)

Solubility in water : 4320 g/l (25 deg C)

Flammability Limits (as percentage volume in air)

Lower Explosion Limit : N/A

Upper Explosion Limit : N/A

1.2 Other Properties

No data available

1.3 Ingredients

Chemical Entity	CAS No.	Proportions (%)
ZINC CHLORIDE	[7646-85-7]	> 98

2. HEALTH HAZARD INFORMATION

2.1 Health Effects - Acute

Swallowed

Harmful if swallowed. Causes nausea, vomiting and purging pain.

Eye

Very irritating and painful. Can cause conjunctivitis.

Skin

Irritating and may cause ulceration, dermatitis and boils.

Inhaled

Fumes can cause nausea, vomiting and chest pains.

2.2 Health Effects - Chronic

Prolonged or repeated skin contact may cause defatting and dermatitis.

2.3 First Aid

Swallowed

Rinse mouth, give plenty of water to drink. Transport to medical attention.

Eye

Wash out with plenty of water. Get urgent medical attention.

Skin

Wash off with water then soap and water. Launder contaminated clothing before reuse. If irritation occurs, seek medical attention.

Inhaled

Remove to fresh air. Give first aid if necessary. Obtain medical attention.

First Aid Facilities

Ensure an eye bath and safety shower are available and ready for use.

2.5 Advice to Doctor

Treat symptomatically based on judgement of doctor and individual reactions of patient.

2.6 Toxicity Data

Oral LD50 = 350 mg/kg (Rat) ; 350 mg/kg (Mouse) ; 200 mg/kg (Guinea pig) Dermal LD50 = not available
Inhalation LC50 = not available

3. PRECAUTIONS FOR USE

3.1 Exposure Standards

Worksafe recommend the following exposure standards : Zinc Chloride (fume) : TWA 1 mg/m³ STEL 2 mg/m³

3.2 Engineering Controls

Ensure adequate ventilation to maintain the airborne concentrations below the recommended exposure standards, including the use of local and/or general exhaust ventilation.

3.3 Personal Protection

For fumes, wear a full face mask with cannister or with air supplied respirator. Wear PVC or rubber gloves, chemical goggles and PVC or rubber aprons and foot- wear. Wear other general industrial clothing to minimise exposure. Wash hands and face thoroughly after handling and before work breaks, eating, drinking, smoking and using toilet facilities.

3.4 Flammability

Material is non-flammable.

SAFE HANDLING INFORMATION

4.1 Storage / Transport

Zinc chloride absorbs water from air very rapidly. Keep containers tightly closed at all times. Store in a cool, dry place. Zinc chloride is corrosive to mild steel and most metals.

4.2 Packaging / Labelling

UN No. 2331

Class 8

Sub Risk None Allocated

Hazchem Code 2X

Pack Group III

EPG No. 37

Shipping Name ZINC CHLORIDE, ANHYDROUS

Hazard CORROSIVE

Risk Phrases

R34 Causes burns.

Safety Phrases

S7/8 Keep container tightly closed and dry.

S28:ZICHLO After contact with skin, wash immediately with plenty of soap and water.

4.3 Spills and Disposal

Spills

Clean-up personnel should wear full protective clothing including breathing protection. Avoid generating dusty conditions.

Collect all solids and store for disposal. Wash away minor quantities with water. Can be absorbed in sand or earth.

Disposal

Dispose of in accordance with all Local, State and Federal regulations at an approved waste disposal facility.

4.4 FIRE AND EXPLOSION HAZARD

Fire / Explosion

Material is non-flammable and non-explosive. May cause oxidisable materials to burn/explode. Evolves toxic gases on decomposition. Hazardous polymerisation has not been reported.

Extinguishing Media

Fire-fighters should wear full protective clothing including self-contained breathing apparatus. DO NOT get water inside containers. For small fires use dry chemical, carbon dioxide or water spray. For large fires use dry chemical, carbon dioxide, alcohol-resistant foam or water spray extinguishers.