



Zinc Chloride

Section 1: Chemical Product and Company Identification

Product Name: Zinc chloride

Catalog Codes: 686

Synonym: Zinc dichloride

Chemical Name: Zinc Chloride

Chemical Formula: ZnCl₂

Contact Information:

Expresolv Ltd.

Plot No.54 Survey No.108/P Ozon Industrial Park

Phase-2, Bavla-Bagodara highway, Village: Bhayla

Ta: Bavla, Dist.: Ahmedabad, Gujarat, PIN:382220

Phone: +91-7069552255, email: info@expresolv.com

CIN No.: U51909GJ2016PLC092972

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS No.	% by Weight
Zinc chloride	7646-85-7	100

Toxicological Data on Ingredients: Zinc chloride: ORAL (LD50): Acute: 350 mg/kg [Rat]. 329 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive). Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive). CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged inhalation of vapours may lead to chronic respiratory irritation.

Section 4: First Aid Measures

Eye Contact: Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.

Skin Contact:

If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical got on the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation:

Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage**Precautions:**

Do not breathe dust. Wear suitable protective clothing in case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes.

Storage:

No specific storage is required. Use shelves or cabinets sturdy enough to bear the weight of the chemicals. Be sure that it is not necessary to strain to reach materials, and that shelves are not overloaded.

Section 8: Exposure Controls/Personal Protection**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 1 STEL: 2 (mg/m³) [United Kingdom (UK)] TWA: 1 STEL: 2 (mg/m³) from ACGIH (TLV) [United States]
TWA: 1 STEL: 2 (mg/m³) from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Deliquescent solid.)

Odour: Odourless.

Taste: Not available.

Molecular Weight: 136.29 g/mole

Colour: White.

pH (1% soln/water): Not available.

Boiling Point: 732°C (1349.6°F)

Melting Point: 290°C (554°F)

Critical Temperature: Not available.

Specific Gravity: 2.907 (Water = 1)

Vapor Pressure: Not applicable.
Vapor Density: 4.7 (Air = 1)
Volatility: Not available.
Odour Threshold: Not available.
Water/Oil Dist. Coeff.: Not available.
Ionicity (in Water): Not available.
Dispersion Properties: See solubility in water.
Solubility: Soluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Highly reactive with moisture.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Decomposes in water.
Special Remarks on Corrosivity: Not available.
Polymerization: No.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Inhalation. Ingestion.
Toxicity to Animals: Acute oral toxicity (LD50): 329 mg/kg [Mouse].
Chronic Effects on Humans:
MUTAGENIC EFFECTS: Classified POSSIBLE for human. Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, pancreas.
Other Toxic Effects on Humans:
Very hazardous in case of skin contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive).
Special Remarks on Toxicity to Animals: Lowest Published Lethal Dose [Rat] - Route: Inhalation; Dose: 1960 mg/m³/10M
Special Remarks on Chronic Effects on Humans:
May cause adverse reproductive effects (paternal effects, effects on fertility (post-implantation mortality, toxicity) and birth defects based on animal data. May cause cancer based on animal data. May affect genetic material. Animal: passes through placental barrier, excreted in maternal milk.
Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Causes skin irritation with possible burns, especially if skin is wet or moist. May be absorbed by the skin. Eyes: May cause severe irritation with possible eye burns and irreversible eye injury. May cause corneal ulceration, and opacification, and glaucoma and severe iritis. Eye or skin contact may result in mild, moderate, or severe irritation and burns depending on the concentration and duration of exposure. Inhalation: May cause severe respiratory tract irritation, and may affect behaviour. Symptoms may include sore throat, coughing, shortness of breath, dyspnoea, chest tightness, headache, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), delayed lung enema, bronchial asthma. Inhalation of fumes may cause metal fume fever. It is

characterized by flu-like symptoms (fever, chills, cough, muscle pain, weakness), chest pain. Ingestion: Harmful if swallowed. May cause severe digestive tract irritation with nausea, vomiting, diarrhoea abdominal pain, possible burns (corrosion and permanent tissue destruction) of the exophages and digestive tract and perforation of the stomach and possible death. It may also affect behaviour/Central nervous system (central nervous system depression), the urinary system (kidney damage - haematuria, oliguria, renal failure), cardiovascular system, respiration (dyspnoea), metabolism, pancreas (elevated amylase, and glucose levels), liver enzymes, and blood (changes in white and red blood cell count, changes in serum composition). Zinc chloride is irritating or caustic depending on the concentration ingested. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause defatting and dermatitis.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations

Section 14: Transport Information

DOT Classification: Class 8: Corrosive material

Identification: Zinc Chloride, anhydrous UNNA: 2331 PG: III

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:

Connecticut hazardous material survey.: Zinc chloride Illinois toxic substances disclosure to employee act: Zinc chloride Illinois chemical safety act: Zinc chloride New York release reporting list: Zinc chloride Rhode Island RTK hazardous substances: Zinc chloride Pennsylvania RTK: Zinc chloride Minnesota: Zinc chloride Massachusetts RTK: Zinc chloride Massachusetts spill list: Zinc chloride New Jersey: Zinc chloride New Jersey spill list: Zinc chloride Louisiana spill reporting: Zinc chloride California Director's List of Hazardous Substances: Zinc chloride TSCA 8(b) inventory: Zinc chloride CERCLA: Hazardous substances.: Zinc chloride: 1000 lbs. (453.6 kg)

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):

CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC). CLASS E: Corrosive solid.

DSCL (EEC):

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 0

Personal Protection: j

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall *Expresolv Ltd* be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages.

Updated On: Updated On: 01st June 2023.