Material Safety Data Sheet
Zinc chloride

Section 1 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white solid.

**Danger!** Causes eye and skin burns. Causes digestive and respiratory tract burns. Harmful if swallowed. Corrosive to metal in aqueous solution.

**Target Organs:** Lungs, eyes, skin, mucous membranes.

**Potential Health Effects**

**Eye:** May cause irreversible eye injury. Contact with eyes may cause severe irritation, and possible eye burns.

**Skin:** Causes skin burns. Not expected to cause an allergic skin reaction.

**Ingestion:** Harmful if swallowed. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract.

**Inhalation:** May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). Irritation may lead to chemical pneumonitis and pulmonary edema. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. Causes respiratory tract irritation with possible burns.

**Chronic:** Chronic exposure may cause effects similar to those of acute exposure.

Section 2 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

**Ingestion:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

Section 3 - Personal Protection

**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 prevent skin exposure.

**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 respirator use.

### Section 4 - Physical and Chemical Properties

**Physical State:** Solid  
**Appearance:** white  
**Odor:** odorless  
**pH:** 4 (100 g/l)  
**Boiling Point:** 732 deg C  
**Freezing/Melting Point:** 293 deg C  
**Decomposition Temperature:** Not available.  
**Solubility:** Soluble in water.

### Section 5 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Deliquescent (tending to absorb atmospheric water vapor and become liquid).  
**Conditions to Avoid:** Moisture, excess heat.  
**Incompatibilities with Other Materials:** Strong bases.  
**Hazardous Decomposition Products:** Hydrogen chloride, toxic fumes of zinc oxide.  
**Hazardous Polymerization:** Will not occur.