Right to Know Hazardous Substance Fact Sheet

Emergency Responders Quick Reference

Common Name: **ZINC CHLORIDE**

Synonyms: Butter of Zinc; Tinning Flux; Zinc Dichloride
CAS No: 7646-85-7
Molecular Formula: $ZnCl_2$
RTK Substance No: 2030
Description: Odorless, white, crystalline granule or powder

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
3 - Health **0 - Fire** **0 - Reactivity** **DOT#:** UN 2331 **ERG Guide #:** 154 **Hazard Class:** 8 (Corrosive)	Extinguish fire using an agent suitable for type of surrounding fire. **Zinc Chloride** itself does not burn. POISONOUS GASES ARE PRODUCED IN FIRE, including *Hydrogen Chloride* and *Zinc Oxide fumes*.	**Zinc Chloride** may react violently or explosively with POTASSIUM. **Zinc Chloride** is not compatible with CYANIDES; SULFIDES; OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE) and STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE). **Zinc Chloride** is corrosive to METALS.

SPILL/LEAKS

Isolation Distance:

Spill: 25 meters (75 feet)

Fire: 800 meters (1/2 mile)

Collect powdered material in the most convenient and safe manner and place into sealed containers for disposal.

DO NOT wash into sewer.

Zinc Chloride is a severe marine pollutant that may cause long term adverse effects to the aquatic environment.

PHYSICAL PROPERTIES

Odor Threshold:	Odorless
Flash Point:	Noncombustible
Vapor Density:	4.7 (air = 1)
Vapor Pressure:	0 mm Hg at 68°F (20°C)
Specific Gravity:	2.9 (water = 1)
Water Solubility:	Soluble
Boiling Point:	1,349.6°F (732°C)
Melting Point:	554°F (290°C)
Molecular Weight:	136.3

EXPOSURE LIMITS

OSHA: 1 mg/m^3, 8-hr TWA
NIOSH: 1 mg/m^3, 10-hr TWA; 2 mg/m^3, STEL
ACGIH: 1 mg/m^3, 8-hr TWA; 2 mg/m^3, STEL
IDLH: 50 mg/m^3
(All the above are for **Zinc Chloride** *fume*)

The Protective Action Criteria values are:
PAC-1 = 2 mg/m^3 PAC-2 = 50 mg/m^3 PAC-3 = 50 mg/m^3

PROTECTIVE EQUIPMENT

Gloves: Butyl

Coveralls: Tyvek®

Respirator: >1 mg/m^3 - full facepiece APR with High efficiency filters
>10 mg/m^3 - Supplied Air or SCBA
>50 mg/m^3 - SCBA

HEALTH EFFECTS

Eyes: Severe irritation, burns and possible eye damage

Skin: Irritation and burns

Inhalation: Nose, throat and lung irritation with coughing and severe shortness of breath (pulmonary edema)

FIRST AID AND DECONTAMINATION

Remove the person from exposure.
Flush eyes with large amounts of water for at least 30 minutes. Remove contact lenses if worn. Seek medical attention immediately.
Quickly remove contaminated clothing and wash contaminated skin with large amounts of water. Seek medical attention immediately.
Begin artificial respiration if breathing has stopped and CPR if necessary.
Transfer promptly to a medical facility. Medical observation is recommended as symptoms may be delayed.