



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. ZZ 60  
Effective Date October 23, 1998

## SECTION V HEALTH HAZARD DATA

ZZ 60

### Threshold Limited Value

Zinc Chloride fume; TWA - 1 mg/m<sup>3</sup> (AIR)  
STEL 2 mg/m<sup>3</sup> (ACGIH 1992-93). Oral LD50 (rat) 1100 mg/kg.

### Effects of Overexposure

**INHALATION:** Fumes, mist or dust may cause injury to respiratory tract. Headache, coughing, difficult breathing, chest pains, severe lung irritation, pulmonary edema. **SKIN:** Severe irritation or burns. **EYES:** Severe irritation or burns. **INGESTION:** Nausea, vomiting, gastrointestinal irritation, burns to mouth and throat.

### Emergency and First Aid Procedures

**EYES:** Immediately flush with water for 15 minutes, lifting upper and lower eyelids occasionally. See physician immediately. **SKIN:** Immediately flush with plenty of water. If irritation occurs and persists, obtain medical attention. **INHALATION:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call physician immediately. **INGESTION:** If conscious, give large amounts of water. **DO NOT** induce vomiting. Do not give anything by mouth to an unconscious person. Call physician immediately.

## SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Excessive temperature and heat. Moisture - very deliquescent.
	Stable	X	

**Incompatibility (Materials to Avoid)** Potassium, cyanides, sulfides. Reacts exothermically with alkaline materials. It can be corrosive to metals, especially when hot.

**Hazardous Decomposition Products** Thermal decomposition or burning may produce chlorine gas, zinc oxide, hydrogen chloride gas, zinc chloride fumes.

Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Wear self-contained breathing apparatus and full protective clothing. With clean shovel, carefully place material into clean, dry container and cover. Remove from area. Flush spill area with water.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

**Large quantities:** Dispose of in an approved chemical landfill or contract with a licensed waste disposal service.

## SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)		None needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.			
Ventilation	Local Exhaust	Recommended.	Special	No.	
	Mechanical (General)	Recommended.	Other	No.	
Protective Gloves		Rubber.		Eye Protection	Chemical safety glasses.
Other Protective Equipment	Goggles, smock, apron, eye wash station, proper gloves, ventilation hood.				

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry place out of direct sunlight. Keep container tightly sealed. Wash thoroughly after handling.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.

Do not breathe dust. Do not get in eyes, on skin, on clothing. Use with adequate ventilation. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	No. 5	Date	10/23/98	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards. Printed on recycled paper.

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	ZINC CHLORIDE	<p>CHEMTREC 800-424-9300 Day 716-226-6177</p> <p>NFPA HAZARD RATING</p> <p>LEAST SLIGHT MODERATE HIGH EXTREME</p> <p>0 1 2 3 4</p> <p>HMIS * 3 4</p>
<b>Chemical Synonyms</b>	Butter of Zinc	
<b>Formula</b>	ZnCl <sub>2</sub>	
<b>Unit Size</b>	up to 2.5 Kg.	
<b>C.A.S. No.</b>	7646-85-7	

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Zinc Chloride	100%	See Section V.
<b>DANGER! CORROSIVE! MAY BE FATAL IF SWALLOWED.</b>		
<b>HARMFUL IF INHALED. CAUSES SEVERE BURNS. AVOID</b>		
<b>CONTACT WITH SKIN, EYES, AND MUCOUS MEMBRANES.</b>		

## SECTION III PHYSICAL DATA

Melting Point (°F)	290°C (554°F)	Specific Gravity (H <sub>2</sub> O = 1)	2.907 at 20°C
Boiling Point (°F)	732°C (1350°F)	Percent Volatile by Volume (%)	Non-volatile (NA).
Vapor Pressure (mm Hg)	1 mm at 428°C (802°F)	Evaporation Rate ( )	Non-volatile (NA).
Vapor Density (Air=1)	4.72		
Solubility in Water	81% @ 25°C (77°F)		
Appearance & Odor	White to off-white crystals or granules; no odor. Hygroscopic.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	Non-flammable (NA).	<b>Flammable Limits in Air % by Volume</b>	NA	Lower	Upper
<b>Extinguisher Media</b>	Use any media suitable for extinguishing supporting fire.				

### SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Use water to keep fire exposed containers cool.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 154)

### UNUSUAL FIRE AND EXPLOSION HAZARDS

See Section VI. Closed containers exposed to heat may explode. Fire or excessive heat may produce hazardous decomposition products of zinc and chlorine. May release fumes of zinc oxide and zinc chloride and hydrogen chloride gas in a fire.

D.O.T. ZINC CHLORIDE, ANHYDROUS, 8, UN 2331, PG III

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20