

# **MATERIAL SAFETY DATA SHEET**

ZINC CHLORIDE  
CAROLINA BIOLOGICAL

Revised: 09/12/07  
Replaces: 07/16/04  
Printed: 08/18/08

---

## **1. PRODUCT DESCRIPTION**

Product Name: Zinc Chloride  
Product Code(s): 89-9518, 89-9540  
Size: 100 g, 500 g  
Chemical Name: Zinc Chloride  
CAS Number: 7646-85-7  
Formula: ZnCl<sub>2</sub>  
Synonyms: Zinc Dichloride  
Distributor: Carolina Biological Supply Company  
2700 York Road  
Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)  
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

## **2. COMPOSITION/INFORMATION ON INGREDIENTS**

Principal Hazardous Components: Zinc Chloride(CAS#7646-85-7)100%  
TLV and PEL units: ACGIH-TLV 1 mg/m<sup>3</sup> TWA (fume), 2 mg/m<sup>3</sup> STEL (fume)  
OSHA-PEL 1 mg/m<sup>3</sup> TWA (fume)

## **3. HAZARD IDENTIFICATION**

Emergency Overview: Harmful if inhaled or swallowed. Causes burns to area of contact. May cause cardiovascular damage.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

## **4. FIRST AID MEASURES**

Emergency and First Aid Procedures:

Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.

Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.

Ingestion - If swallowed, if conscious, give plenty of water. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.

Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm and quiet, and get medical attention.

## **5. FIREFIGHTING PROCEDURES**

Flash Point(Method Used): Noncombustible

NFPA Rating: Health: 3

Fire: 0

Reactivity: 0

Extinguisher Media:

Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures:

Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Corrosive to most metals when dissolved

## **MATERIAL SAFETY DATA SHEET**

ZINC CHLORIDE  
CAROLINA BIOLOGICAL

Revised: 09/12/07  
Replaces: 07/16/04  
Printed: 08/18/08

---

in water. Thermal decomposition produces toxic fumes.

### **6. SPILL OR LEAK PROCEDURES**

Steps to be Taken in Case Material is Released or spilled:

Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

### **7. SPECIAL PRECAUTIONS**

Precautions to be Taken in Handling or Storing: Keep container tightly closed. Store in a cool, dry, well-ventilated area.

Other Precautions: Do not breathe dust or vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution!

### **8. SPECIAL PROTECTION INFORMATION**

Respiratory Protection(Specify Type):

None needed under normal conditions of use with adequate ventilation. NIOSH approved equipment should be worn if PELs are exceeded.

Ventilation:

Local Exhaust:	Yes
Mechanical(General):	Yes
Special:	No
Other:	No

Protective Gloves:

Rubber, neoprene, PVC, or equivalent.

Eye Protection:

Splash proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment:

Lab apron, eye wash, and safety shower.

### **9. PHYSICAL DATA**

Molecular Weight:	136.29
Melting Point:	283°C
Boiling Point:	732°C
Vapor Pressure:	1.33 hPa @ 428°C
Vapor Density(Air=1):	N/A
Specific Gravity(H2O=1):	2.91
Percent Volatile by Volume:	N/A
Evaporation Rate(H2O=1):	N/A
Solubility in Water:	Soluble
Appearance and Odor:	White crystals or granules; odorless.

### **10. REACTIVITY DATA**

Stability: Stable

Conditions to Avoid: Moisture

Incompatibility(Materials to Avoid): Potassium

Hazardous Decomposition Products: ZnO, HCl, Cl

Hazardous Polymerization: Will not occur

### **11. TOXICITY DATA**

Toxicity Data: Oral Rat LD50: 350 mg/kg

Effects of Overexposure:

Acute: See section 3

Chronic: Investigated as a tumorigen, mutagen, reproductive effector.

Not listed as causing cancer by IARC, NTP, or OSHA.

# MATERIAL SAFETY DATA SHEET

ZINC CHLORIDE  
CAROLINA BIOLOGICAL

Revised: 09/12/07  
Replaces: 07/16/04  
Printed: 08/18/08

Conditions Aggravated by Overexposure: Harmful if swallowed or inhaled. Vapor irritating to eyes and respiratory passages. Ingestion can damage throat and esophagus. Contact can cause burns. Prolonged contact causes severe burns and ulceration. Possible lung damage.

Target Organs: Eyes, respiratory passages, skin, lung

Primary Route(s) of Entry: Inhalation, ingestion, eye and skin contact.

## 12. ECOLOGICAL DATA

EPA Waste Numbers: None

## 13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

## 14. TRANSPORT INFORMATION

Description: Zinc Chloride, Anhydrous, 8, UN2331, III

## 15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Product or Components	SARA EHS	SARA Sec. 313		CERCLA	RCRA
	Sec. 302	Name	Chemical	Sec. 103	Sec.
	TPQ	List	Category	RQ lbs.	261.33
Zinc Chloride	Yes	No	Zinc Cpd	1000	No

## 16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

### Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists

CAS Number..Chemical Abstracts Service Number

CERCLA.....Comprehensive Environmental Response, Compensation, and Liability Act

DOT.....U.S. Department of Transportation

IARC.....International Agency of Research on Cancer

mppcf.....million particles per cubic foot

N/A.....Not Available

NTP.....National Toxicology Program

OSHA.....Occupational Safety and Health Administration

PEL.....Permissible Exposure Limit

ppm.....parts per million

RCRA.....Resource Conservation and Recovery Act

SARA.....Superfund Amendments and Reauthorization Act

TLV.....Threshold Limit Value

TSCA.....Toxic Substances Control Act