

## **MATERIAL SAFETY DATA SHEET**

ZINC SULFATE  
CAROLINA BIOLOGICAL

Revised: 16/07/04  
Replaces: 09/05/00  
Printed: 20/05/08

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### **1. PRODUCT DESCRIPTION**

Product Name: Zinc Sulfate, Sp gr 1.180  
Product Code(s): 89-9703  
Size: 500 ml  
Chemical Name: Zinc Sulfate  
CAS Number: See section 2  
Formula: Zinc Sulfate 38.6 g  
Synonyms: None  
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**

Principle Hazardous Components: Zinc Sulfate(cas#7733-02-0)38.6%  
TLV and PEL units: None established

### **3. HAZARD IDENTIFICATION**

Emergency Overview: DO NOT INGEST!! Zinc Sulfate is moderately toxic by ingestion. Zinc sulfate is an experimental tumorigen and teratogen.  
Human

systemic effects by ingestion of Zinc Sulfate: increased pulse rate without blood pressure decrease, acute pulmonary edema, normocytic anemia and hypermotility.

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 and induce vomiting immediately as directed by medical personnel. 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, quiet, and get medical attention.

### **5. FIREFIGHTING PROCEDURES**

Flash Point(Method Used): No data available

NFPA Rating: Health: 1  
Fire: 0  
Reactivity: 0

Extinguisher Media:

Use media suitable to extinguish surrounding fire.

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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: When Zinc Sulfate is heated to decomposition it emits toxic fumes of SO<sub>x</sub> and ZnO.

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

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

Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

### **7. SPECIAL PRECAUTIONS**

Precautions to be Taken in Handling or Storing: Store container tightly closed in a cool, dry, well-ventilated area. Wear proper protective clothing and equipment when handling this material.  
Other Precautions: Avoid breathing vapors. Do not get in eyes or on skin.

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

Respiratory Protection(Specify Type):

A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is 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:	N/A
Melting Point:	N/A
Boiling Point:	N/A
Vapor Pressure:	N/A
Vapor Density(Air=1):	N/A
Specific Gravity(H <sub>2</sub> O=1):	N/A
Percent Volatile by Volume:	N/A
Evaporation Rate(H <sub>2</sub> O=1):	N/A
Solubility in Water:	Complete, product is an aqueous solution
Appearance and Odor:	Clear, odorless solution

### **10. REACTIVITY DATA**

Stability: Stable

Conditions to Avoid: No data available

Incompatibility(Materials to Avoid): Water reactive materials and acids.

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Hazardous Decomposition Products: When heated to decomposition Zinc Sulfate emits toxic fumes of SO<sub>x</sub> and ZnO  
Hazardous Polymerization: Will not occur

## 11. TOXICITY DATA

Toxicity Data: Zinc Sulfate: orl-hmn TDLo: 106 mg/m<sup>3</sup>; ipr-rat LD50: 258 mg/m<sup>3</sup>

Effects of Overexposure:

Acute: See section 3

Chronic: Zinc Sulfate: Mutation data cited. Reproductive effects

data cited. Tumorigenic data cited. Not listed as causing cancer by IARC,

NTP or OSHA.

Conditions Aggravated by Overexposure: No data available

Target Organs: No data available

Primary Route(s) of Entry: Ingestion, 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

Environmentally hazardous substances. liquid, n.o.s. (contains Zinc Sulfate), 9, UN3082, III, CLASS 9

## 15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Product or Components	SARA EHS Sec. 302 TPQ	SARA Sec. 313 Chemicals Name List	CERCLA Sec. 103 RQ lbs.	RCRA Sec.
261.33		Zinc	1000	No

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Zinc Sulfate	No	No	Zinc	1000	No
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## 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

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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