



80 Northwest Blvd.  
Nashua, NH 03063  
(800) 225-3739

# MATERIAL SAFETY DATA SHEET

MSDS No.: ZZ0120  
Revision Date: December 22, 2008  
Approved by: James A. Bertsch

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## Section 1 Chemical Product and Company Information

<b>Product</b>	<b>ZINC SULFATE, MONOHYDRATE</b>
<b>Synonyms</b>	Sulfuric Acid Zinc Salt (1:1) Monohydrate

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300

## Section 2 Hazards Identification

Emergency Overview

**WARNING!**  
HARMFUL IF SWALLOWED. CAUSES IRRITATION TO EYES, SKIN AND MUCOUS MEMBRANES. Avoid contact with skin, eyes and clothing. Use with adequate ventilation. Target organs: None known.

0 = Minimal  
1 = Slight  
2 = Moderate  
3 = Serious  
4 = Severe

<b>Health</b>	2
<b>Fire</b>	0
<b>Reactivity</b>	1
<b>Contact</b>	3

HMIS \*

## Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	TLV Units (ACGIH 2001)
Zinc sulfate, monohydrate	7446-19-7	100%	None established.

## Section 4 First Aid Measures

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN CONTACT:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire Fighting Measures

**General information:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool.

**Extinguishing Media:** Carbon dioxide, dry chemical, water spray, alcohol foam.

**Flash Point:** Non-flammable.

**Autoignition temperature:** N/A

**Explosion Limits: Lower:** N/A **Upper:** N/A

## Section 6 Accidental Release Measures

Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation. Recover for use if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water. Avoid runoff into storm sewers and ditches which lead to waterways.

NFPA

0 = Minimal  
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None listed.

## Section 7 Handling & Storage GENERAL STORAGE CODE GREEN

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

**Handling:** Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale dusts. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 Exposure Controls / Personal Protection

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical & Chemical Properties

**Physical state:** Solid.

**Appearance:** White powder.

**Odor:** No odor.

**pH:** N/A

**Vapor pressure (mm Hg):** N/A

**Vapor Density (Air = 1):** N/A

**Evaporation rate (Butyl acetate = 1):** N/A

**Viscosity:** N/A

**Boiling point:** N/A

**Freezing / Melting point:** Decomposes.

**Decomposition temperature:** N/A

**Solubility:** Soluble.

**Specific gravity (H<sub>2</sub>O = 1):** 3.35 @ 77°F

**Percent volatile (%):** N/A

**Molecular formula:** ZnSO<sub>4</sub>•H<sub>2</sub>O

**Molecular weight:** 179.45

## Section 10 Stability & Reactivity

**Chemical stability:** Stable

**Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Excessive temperatures and heat.

**Incompatibilities with other materials:** None known.

**Hazardous decomposition products:** Oxides of zinc and sulfur.

## Section 11 Toxicological Information

**Effects of overexposure:** May be harmful by ingestion. May cause irritation by inhalation. Contact with skin may cause irritation with redness, burning, drying and cracking of the skin. Contact with eyes may cause irritation with stinging, tearing and redness. Signs and symptoms of exposure to this material through inhalation, ingestion or absorption through skin may include stomach or intestinal upset (nausea, vomiting, diarrhea) and irritation of the nose, throat and respiratory tract.

RTECS NO.: ZH5270000

ORL-RAT LD50: 1710 mg/kg

IHL-RAT LC50: N/A

SKN-RBT LD50: N/A

## Section 12 Ecological Information

Data not yet available.

## Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport Information

**UN/NA number:** N/A

**Shipping name:** Not Regulated.

**Hazard class:** N/A

**Packing group:** N/A

**Exceptions:** N/A

## Section 15 Regulatory Information

All as anhydrous CAS # 7733-02-0: TSCA-listed, EINECS-listed (231-793-3)

## Section 16 Additional Information

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.