

MATERIAL SAFETY DATA SHEET

ZINC SULFATE POWDER

Common Name Zinc Sulfate
Manufacturer Old Bridge Chemicals, Inc.
P.O. Box 194
Old Bridge, New Jersey 08857
Telephone (732) 727-2225
Emergency Telephone 1(800) 275-3924
CHEMTREC 1(800) 424-9300

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SECTION I. MATERIAL IDENTIFICATION

Common Name Zinc Sulfate
Trade Name Zinc Sulfate Monohydrate
Molecular Formula $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$
Molecular Weight 179
CAS Number 7733-02-0

SECTION II. HAZARDS

This material or the components of this material are included in the Toxic Chemical Inventory as required in Section 8 (b) of the Toxic Substance Control Act (Public Law 94-469) and is codified in 40 CFR 720.

Superfund Amendments and Reauthorization Act - Title II Applicability

Section 312 - 40 CFR 370.40:

Health Acute

Hazard Chronic

Section 313 Zinc Compounds - 40 CFR 372.85

SECTION III. PHYSICAL DATA

Physical State	White powder or granules
Boiling Point	NA
Melting Point	No data
Crystallization Point	70° F
Vapor Density	0 (water = 1)
Specific Gravity	3.28
Solubility in H ₂ O	30% at 70° F
Evaporation Rate	NA
Appearance	White powder or granules

SECTION IV. FIRE AND EXPLOSION DATA

Flash Point	Not flammable
Extinguishing Media	Dry chemical, Carbon Dioxide or Foam. Water may be ineffective, but water spray or fog may be used as a cooling agent.
Fire and Explosion Hazards	May release toxic Oxides of Zinc and Sulfur in a fire.

SECTION V. REACTIVITY DATA

Stability	Stable at normal temperatures and pressures.
Thermal Decomposition	May release toxic and hazardous Oxides of Zinc and Sulfur.
Polymerization	Will not occur.

SECTION VI. HEALTH AND HAZARD INFORMATION

Route of Entry	Ingestion or inhalation
Target Organs	Respiratory system, eyes and skin
Acute Exposure	May cause skin irritation May cause eye irritation, possible corneal burn May cause gastrointestinal disturbance May cause irritation to nose and throat
Chronic Exposure	May cause skin dermatitis May cause eye conjunctivitis No know ingestion reaction anticipated May cause inhalation reflex bronchoconstriction

SECTION VII. FIRST AID PROCEDURES

Swallowing	If person is conscious induce vomiting. Call Poison Control Center or a physician. Do not give anything by mouth to an unconscious person.
Skin	Immediately wash skin with soap and plenty of water. Remove contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse.
Eyes	Immediately flush eyes with plenty of water for 15 minutes. Hold eyelids apart during irrigation. Call a physician.
Inhalation	Immediately remove person to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, administer artificial respiration. Keep person warm and calm. Call a physician.
Carcinogenicity	None

SECTION VIII. HANDLING PRECAUTIONS

Personal Protective Equipment

Respirators	If exposure cannot be maintained at or below established OSHA guidelines, respiratory protection must be provided in accordance with 29 CFR 1910.134 requirements.
Skin Protection	Wear appropriate protective clothing and chemical resistant gloves as needed to prevent skin contact. Consult manufacturer to determine appropriate type of gloves or clothing for your particular application. Clean contaminated clothing and protective equipment before reuse. Wash thoroughly after handling material.
Ventilation	Provide local exhaust or process enclosing ventilation to maintain exposures below OSHA guidelines 29 CFR 1910.1000 subpart 7.

GENERAL GUIDELINES

Known concentrations <PEL* with oxygen levels >19.5%. No respirator is required. Known concentrations >PEL* <IDLH* with oxygen levels >19.5%. Air purifying full-face piece respirator with high-efficient particulate filters.

Unknown concentration and/or IDLH* and/or oxygen levels <19.5%. Self-contained breathing apparatus with full face piece operated in pressure-demand or other positive pressure mode. Supplied-air respirator with full-face piece operated in pressure demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive pressure mode.

SECTION IX. SPILL OR LEAK PROCEDURES

Spills and Leaks	Comply with Federal, State and local regulations on reporting spills. Confine spill or leak to as small an area as possible. Vacuum or shovel spilled material into clean, dry containers and dispose of according to Federal, State and local regulations. Zinc Sulfate Solutions should be flushed with plenty of water to an approved chemical sewer.
Waste Disposal	Comply with Federal, State and local regulations. Zinc Sulfate Solutions can be carefully reacted with Sodium Carbonate to form an insoluble Zinc Carbonate solid that can be scooped up and sent to a disposal contractor.

SECTION X. SPECIAL PRECAUTIONS

Storage	Store in a cool dry place.
Other Precautions	Do not take internally.

SECTION XI. REGULATORY INFORMATION

NOTICE: The information herein is presented in good faith and believed to be accurate. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with Federal, State and local laws.

U.S. REGULATIONS: SARA 313 Information. This product contain the following substance subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: **ZINC COMPOUND** 40.5%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following category: **AN IMMEDIATE HEALTH HAZARD.**

SECTION XII. SHIPPING INFORMATION

Containers Weighing Less Than 1000 Pounds

Exempted from DOT Regulations. Each package contains less than RQ

Containers Weighing 1000 Pounds or More

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (ZINC SULFATE), 9, UN3077, PGIII, RQ

GUIDE NUMBER 31

SECTION XIII. MSDS PREPARATION INFORMATION

Prepared by	Joel L. Goldschmidt, Vice President
Updated	March 16, 1999