

Date of Issue: 7/20/17
Version: 1.0

SECTION 1. IDENTIFICATION

Product Name: Zinc Sulfate
Recommended Use: Corrects alkaline soil Fertilizer Product
Chemical Description: Zinc Sulfate Monohydrate
Company: Southern Agricultural Insecticides, Inc
P.O. Box 218
Palmetto, FL 34220
(941) 722-3285 Chemtrec (800) 424-9300 (24 hour transportation spill response)

SECTION 2. HAZARDS IDENTIFICATION**Classification of the Substance or Mixture**

Eye Irritation Category 2A; Acute Oral Toxicity Category 4

Label Elements**Pictograms**

Signal Word **Warning**
Hazard Statements **Causes serious eye irritation**
 Harmful if swallowed

POTENTIAL HEALTH EFFECTS:

Eyes: Exposure to dust causes moderate eye irritation.
Skin: Contact may cause brief irritation.
Inhalation: Inhalation of dust may cause temporary irritation of the upper respiratory tract.
Ingestion: Harmful if swallowed. Ingestion may cause strong stomach cramps and diarrhea and may induce spontaneous vomiting.

Preexisting Conditions: Preexisting respiratory conditions may be aggravated by exposure to dusts.

Chronic Health Effects:**Precautionary Statements**

Prevention: Wash hands thoroughly after handling. Wear eye and face protection. Do not eat, drink or smoke when using this product.
Response: **If in eyes:** Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
If Swallowed: Immediately call a poison control center (1-877-424-7452) or doctor for treatment advice. Rinse mouth.
Storage: See Section 7 for storage information.
Disposal Dispose of contents/container in accordance with Federal, state and local regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respirator conditions.

Unknown Acute Toxicity Not available

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS No.	% W
Zinc Sulfate monohydrate	7446-19-7	100

SECTION 4. FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.

Ingestion: Seek medical attention or call a poison control center for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eyes: Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention if eye irritation persists.

Skin: Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention if skin irritation persists.

Most Important Symptoms and Effects Both Acute and Delayed

Eye Contact: Causes serious eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Zinc sulfate does not burn or support combustion. Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Water spray may be ineffective in fighting fire

Special Fire Fighting Procedures: Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind.

Hazardous Combustion Products: Toxic fumes of sulfur dioxide and zinc may result from combustion.

Unusual Fire and Explosion Hazards: None known

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (dust, vapor, mist, gas).

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Refer to Section 8.

Emergency Procedures: Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

Environmental Precautions Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. This product can pose a threat to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Contain and collect as any solid.

Methods for Cleaning Up: Avoid generation of dust during clean-up of spills. Vacuum, scoop or sweep up material and place in a container for disposal. If product is uncontaminated, spilled material may be applied at the rate recommended on the label. After removal of spilled product, flush contaminated area thoroughly with water.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Good housekeeping is needed during storage, transfer, handling, and use of this material to avoid excessive dust accumulation. Protect from moisture. Avoid breathing dust. Use only outdoors or in a well-ventilated area.

Conditions for Safe Storage

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

Minimum Storage Temperature: 70°F (Below this temperature crystallization can occur)

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component:	OSHA PEL	ACGIH TLV
Particulates Not Otherwise Regulated	15 mg/m ³ (total dust) 5 mg/m ³ (respirable)	10 mg/m ³ (inhalable) 3 mg/m ³ (respirable)

Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment:	Protective goggles. Gloves. Protective clothing.
Materials for Protective Clothing:	Chemically resistant materials and fabrics.
Hand Protection:	Wear chemically resistant protective gloves.
Eye Protection:	Chemical goggles or safety glasses.
Skin and Body Protection:	Wear suitable protective clothing.
Respiratory Protection:	Use NIOSH-approved dust mask if dust has the potential to become airborne.
Environmental Exposure Controls:	Do not allow the product to be released into the environment.
Consumer Exposure Controls:	Do not eat, drink or smoke during use

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Solid
Appearance	White to off-white
Odor	odorless
Odor Threshold	Not available
pH	5.0
Relative Evaporation Rate (butylacetate=1)	Not available
Melting Point	86°C (186.8°F)
Freezing Point/Boiling Point	70°F (21°F) (crystallization)
Flash Point	Non flammable
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Flammability (solid, gas)	Non flammable
Lower Flammable Limit	Not available
Upper Flammable limit	Not available
Vapor Pressure	Negligible @ 68°F (20°C)
Relative Vapor Density at 20 °C	Not available
Relative Density	Not applicable
Specific Gravity (H₂O=1):	3.28 - 3.54
Solubility (wt %)	53.8 g/100 ml @ 68°F (20°C)
Partition coefficient: n-octanol/water	Not available
Viscosity	Not applicable
Explosion Data -	

Sensitivity to Mechanical Impact Not expected to present an explosion hazard due to mechanical impact.
Sensitivity to Static Discharge Not expected to present an explosion hazard due to static discharge.

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.
Chemical Stability: Stable under recommended handling and storage conditions (see section 7).
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: Direct sunlight. Excessive heat which may lead to decomposition.
Incompatible Materials: None known.
Hazardous Decomposition Products: In a fire, toxic sulfur dioxide and zinc compounds may be released.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Eye Effects: Exposure to dust causes moderate eye irritation. Eye contact with solutions (>1) may cause the appearance of white flecks on the lens of the eye.
Skin Effects: LD50 >2,000 mg/kg; Not a skin sensitizer.
Acute Inhalation Effects: LC50 is not determined. Acute inhalation may result in irritation but is not expected to cause significant harmful effects. Symptoms may include discomfort, coughing, tingling sensation, sneezing and/or shortness of breath and wheezing.
Acute Oral Effects: LD50 = 1,538 mg/kg (rat)
Specific Target Organ Toxicity: None known

CHRONIC TOXICITY

Chronic Effects: None known
Carcinogenicity: No components are anticipated to have carcinogenic effects.
Mutagenicity: No components are anticipated to have mutagenic effects.
Teratogenicity: No components are anticipated to have teratogenic effects.
Reproductive Toxicity: No components are anticipated to have effects on the reproductive system or fertility

POTENTIAL HEALTH EFFECTS:

Eyes: Exposure to dust causes moderate eye irritation.
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SECTION 12. ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Very toxic to aquatic life with long lasting effects.

ECOTOXICITY DATA:

Fish Acute and Prolonged Toxicity: Not available
Aquatic Invertebrate Acute Toxicity: Not available
Aquatic Plant Toxicity: Not available
Bird Acute and Prolonged Toxicity: Not available
Honeybee Toxicity: Not available

ENVIRONMENTAL EFFECTS:

Soil Absorption/Mobility: Not available
Persistence and degradability: Not available
Bioaccumulative Potential: Not available
Other adverse effects: Not available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.
Ecology - Waste Materials: Avoid release to the environment.

SECTION 14. TRANSPORT INFORMATION

DOT Not regulated for transport in quantities less than 1,000 lbs.
(Ground) quantities 1,000 lbs. or greater: UN3077, Environmentally Hazardous Substance, Solid, N.O.S. (zinc sulfate), 9, PG III, RQ

IATA Not determined
IMOG Not determined **TDG** **Not determined**

SECTION 15. REGULATORY INFORMATION

TSCA Inventory: All components are listed or are exempt from listing on the TSCA inventory.

SARA Title III Information:

Section 302 • Extremely hazardous substances: None listed

Section 311/312 - Hazard Categories: Immediate (Acute), Delayed (Chronic)

Section 313 - The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:

Zinc sulfate (CAS # 7446-19-7)

CERCLA• This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

Zinc sulfate (CAS # 7446-19-7) has an RQ of 1,000 lbs.

California Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer and/or reproductive harm.

U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):

Chemical Name	CAS #	State(s)
Zinc sulfate	7446-19-7	MA, NJ, PA

Canadian Domestic Substances List: All components are on the DSL.

WHMIS Classification: This product is not registered for use in Canada. WHMIS Classification is not determined.

SECTION 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Preparation date 7/20/ 2017

While this company believes that the data contained herein are factual and the opinions expressed are based on tests and data believed to be reliable, it is the user's responsibility to determine the safety, toxicity, and suitability for his or her own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by this company as to the effects of such use, the results to be obtained, or the safety and toxicity of the product, nor does this company assume any liability arising out of use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or governmental regulations.