



# SAFETY DATA SHEET

## 1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Magnesium Sulfate, Anhydrous, USP  
PRODUCT NUMBER: M635  
COMPANY INFO: *PhytoTechnology Laboratories*®  
PO Box 12205, Shawnee, KS 66282-2205  
Phone: 1-888-749-8682 or 1-913-341-5343; Fax: 1-888-449-8682 or 1-913-341-5442  
www.phytotechlab.com

EMERGENCY PHONE NUMBER: 1-800-535-5053 - US Only  
1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by *PhytoTechnology Laboratories*® are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

## 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a hazardous substance or mixture.

GHS Label elements, including hazard and precautionary statements:

Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS - None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Magnesium sulphate  
CAS No.: 7487-88-9  
Formula: MgSO<sub>4</sub>  
Molecular Weight: 120.37 g/mol  
EC No.: 231-298-2

| Ingredient                   | CAS Number | Percent | Hazardous                                       |
|------------------------------|------------|---------|---|
| Magnesium Sulfate, Anhydrous | 7487-88-9  | ≥ 99%   | No exposure limits established by OSHA or ACGIH |

## 4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

| Route of Entry | Symptoms                                  | First Aid Procedures  |
|----------------|---|---|
| Ingestion      | May cause irritation if swallowed         | If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. <b>Get medical attention.</b>   |
| Inhalation     | May cause irritation to respiratory tract | Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. <b>Get medical attention.</b> |

|              |   |  |
|--------------|---|--|
| Eye Contact  | Direct contact may cause irritation. May cause redness, tearing, or blurred vision. | Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. <b>Get medical attention if irritation persists.</b> |
| Skin Contact | Irritating. May cause reddening, itching or inflammation.                           | Wash area thoroughly with soap and water. Remove and wash contaminated clothing. <b>Get medical attention if irritation persists.</b>  |

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

## 5. FIRE FIGHTING MEASURES

|   |   |
|---|---|
| Suitable Extinguishing Media:                                 | Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.                                       |
| Special Protective Equipment and Precaution for Firefighters: | In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance. |
| Hazardous Combustion Products:                                | May emit toxic fumes under fire conditions.   |
| Toxic Gases Produced:   | Sulfur oxides, magnesium oxides   |

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas. Avoid breathing dust.

|                                    |   |
|------------------------------------|---|
| Environmental Precautions:         | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.  |
| Method of Containment and Cleanup: | Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water. Do not let products enter drains. |

## 7. HANDLING AND STORAGE

|                                  |  |
|----------------------------------|--|
| Precaution for Safe Handling:    | Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Wash thoroughly after use. |
| Conditions for Safe Storage:     | Keep in a tightly closed container and store in a cool, dry, and well-ventilated area.   |
| Incompatibilities:               | Strong oxidizing agents  |
| Recommended Storage Temperature: | Room Temperature   |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

|  |  |
|--|--|
| OSHA's Permissible Exposure Limits (PELs): | No data available  |
| Threshold Limit Values (TLVs):             | No data available  |
| Engineering Controls:                      | Handle in accordance to general industrial hygiene and safety practice.  |
| Personal Protective Equipment (PPE):       |  |
| Eye/Face Protection:                       | Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur. |
| Skin Protection:                           | Protective gloves  |
| Body Protection:                           | Lab coat   |

Respiratory Protection: Use N95 (US) or type P1 (EN 143) dust mask.  
A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to off-white powder  
pH (5% @ 25° C): 5.0 – 9.2  
Solubility: Soluble in Water  
Melting Point: Dec below mp 1124 C  
Vapor Density: No data available  
Vapor Pressure: < 0.1 hPa (< 0.1 mmHg) at 20 °C (68 °F)  
Odor: Odorless  
Odor Threshold: No data available  
Viscosity: No data available  
Relative Density: 1.070 g/cm<sup>3</sup>  
Evaporation Rate: No data available  
Initial Boiling Point and Boiling Range: No data available  
Flammability (solid, gas): No data available  
Partition coefficient: No data available  
n-octanol/water): No data available  
Auto-ignition Temperature: No data available  
Decomposition Temperature: No data available  
Flash Point (Closed Cup): No data available  
Flammable Limits: Upper (%) – No data available Lower (%) – No data available

## 10. STABILITY AND REACTIVITY

Reactivity: No data available  
Chemical Stability: Stable under normal conditions of use – Material is hygroscopic  
Possibility of Hazard Reactions: Will not occur  
Conditions to Avoid: Moisture, dust generation  
Incompatibles Materials: Strong oxidizing agents  
Hazardous Decomposition Products: Sulfur oxides, magnesium oxides

## 11. TOXICOLOGICAL INFORMATION

Toxicity: LD<sub>50</sub> (Oral-Rat)(mg/Kg): >2000  
LD<sub>50</sub> (Inhalation-Rabbit)(mg/L): >2000  
LD<sub>50</sub> (IP-Mouse)(mg/Kg): 1029  
Carcinogenicity: NTP: No  
IARC: No  
Z List: No  
OSHA Reg: No  
Reproductive Toxicity: No data available

Symptoms Associated with Overexposure: Diarrhea, Vomiting, depression

Specific Target Organ Toxicity: Single Exposure: No data available  
 Repeated Exposure: No data available

Target Organs: Central nervous system, liver, stomach

Medical Conditions Aggravated By Exposure: None identified

Routes of Entry: Ingestion, inhalation, skin and eye contact

NIOSH/RTECS NO: OM4500000

***The toxicological properties of this product have not been thoroughly investigated***

**12. ECOLOGICAL INFORMATION**

Ecotoxicity: Toxicity to fish - LC50 - Pimephales promelas (fathead minnow) - 2,820 mg/l - 96 h  
 Toxicity to daphnia - EC50 - Daphnia magna (Water flea) - 343.56 mg/l - 48 h  
 Toxicity to algae - EC50 - Desmodesmus subspicatus (green algae) - 2,700 mg/l - 72 h (ISO 8692)

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

**13. DISPOSAL CONSIDERATION**

Disposal Procedure: Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: No data available

**14. TRANSPORT INFORMATION**

Domestic (D.O.T.): Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)  
 Hazard Class: N/A  
 UN/NA: N/A  
 Labels: N/A

International:

IMDG: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)  
 Hazard Class: N/A  
 UN/NA: N/A  
 Labels: N/A

IATA: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)  
 Hazard Class: N/A  
 UN/NA: N/A  
 Labels: N/A

**15. REGULATORY INFORMATION**

TSCA: Yes

SARA TITLE III:  
 Section 302 (EHS) Ingredients: No

Section 313 Ingredients: No

Section 304 (EHS/CERCLA) Ingredients: No

Section 311/312 Hazard: Chronic Health Hazard

Massachusetts Right to Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components: CAS No.: 7487-88-9 Magnesium sulphate

New Jersey Right to Know Components: CAS No.: 7487-88-9 Magnesium sulphate

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## 16. OTHER INFORMATION

|              |                      |                              |                          |                        |
|--------------|----------------------|------------------------------|--------------------------|------------------------|
| HMIS Rating: | <b>Health Hazard</b> | <b>Chronic Health Hazard</b> | <b>Flammability</b>      | <b>Physical Hazard</b> |
|              | 0                    | *                            | 0                        | 0                      |
| NFPA Rating: | <b>Health Hazard</b> | <b>Fire Hazard</b>           | <b>Reactivity Hazard</b> | <b>Special Hazard</b>  |
|              | 0                    | 0                            | 0                        |                        |

\*Chronic Hazard: Chronic (long-term) health effects may result from repeated overexposure.

***PhytoTechnology Laboratories®* provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The above information is intended to be used only as a guide to the appropriate precautionary handling of this material by a properly trained person. *PhytoTechnology Laboratories®* shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.**

Revision Date: 5 May 15