

# MATERIAL SAFETY DATA SHEET



For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night: 1-800-424-9300  
For Medical Emergencies Only, Call: 1-877-325-1840

Voluntary Purchasing Groups, Inc.  
230 FM 87  
Bonham, Texas 75418

## Hi-Yield® Magnesium Sulfate

Effective Date: March 15, 2010

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT:** Hi-Yield® Magnesium Sulfate

#### COMPANY IDENTIFICATION:

Voluntary Purchasing Groups, Inc.  
230 FM 87  
Bonham, TX. 75418

### 2. COMPOSITION/INFORMATION ON INGREDIENTS:

CHEMICAL AND COMMON NAME	CAS No.	Wt. %	OSHA PEL	ACGIH TLV
Magnesium Sulfate, heptahydrate; Epsom salt	10034-99-8*	100%	NE	NE

NE: Not Established

\*Under the Toxic Substances Control Act (TSCA), hydrates are considered as mixtures of their anhydrous salt and water. Accordingly, the CAS numbers 7487-88-9, 7732-18-5 are used for purposes on TSCA.

### 3. HAZARDOUS IDENTIFICATION:

**Emergency Overview:** White or transparent crystalline odorless powder. Noncombustible. At very high temperatures, magnesium oxide, sulfur dioxide, and sulfur trioxide may be generated. Causes mild eye irritation.

**Eye Contact:** Causes mild irritation to the eyes.

**Skin Contact:** No known adverse effects.

**Inhalation:** Causes nausea, vomiting, abdominal cramps, and diarrhea.

**Ingestion:** Causes nausea, vomiting, abdominal cramps, and diarrhea.

**Chronic Hazards:** No known chronic hazards. Not listed by NTP, IARC, or OSHA as a carcinogen.

**Physical Hazards:** Spilled material can be slippery.

### 4. FIRST AID MEASURES:

**Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

**Skin:** Not applicable.

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

**Ingestion:** If large quantities of this material are swallowed, call a physician immediately. Do NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

### 5. FIRE FIGHTING MEASURES:

**Flammable Limits:** This material is noncombustible.

**Extinguishing Media:** This material is compatible with all extinguishing media.

**Hazards to Fire-Fighters:** See Section 3 for information on hazards when this material is present in the area of a fire.

**Fire-Fighting Equipment:** The following protective equipment for fire fighters is recommended when this material is present in the area of a fire: chemical goggles, body-covering protective clothing, self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES:

**Personal Protection:** Wear chemical goggles, See section 8

**Environmental Hazards:** Sinks and mixes with water. No adverse effects known. Not a listed toxic chemical under Sara

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Title III, § 313 40CFR Part 372. Not a CERCLA Hazardous Substance under 40 CFR Part 302.

**Small Spill Clean Up:** Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE).

**Large Spill Clean Up:** Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE)

**CERCLA RQ:** There is no CERCLA Reportable Quantity for this material.

### 7. HANDLING AND STORAGE:

**Handling:** Avoid breathing dust. Promptly clean up spills.

**Storage:** Keep containers closed. Protect from extremes of temperature and humidity during storage. Recommend storage conditions 68-110°F and 54-87% relative humidity.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

**Engineering Controls:** Use with adequate ventilation. Safety shower and eyewash fountain should be within direct access.

**Respiratory Protection:** Use a NIOSH-approved dust respirator where dust occurs. Observe OSHA regulations for Respirator use (29 CFR § 1910.134)

**Skin Protection:** Wear gloves if abrasion or irritation occurs.

**Eye Protection:** Wear chemical goggles.

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

**Appearance:** Crystalline odorless powder.

**Color:** White or transparent.

**Odor:** Odorless.

**pH:** Approximately 6-7

**Specific Gravity:** 1.76 g/cm<sup>3</sup>, Bulk Density approximately 1.05 g/cm<sup>3</sup>.

**Solubility in Water:** 71g/100ml at 20°C, 91g/100ml at 40°C.

### 10. STABILITY AND REACTIVITY:

**Stability:** This material is stable under all conditions of use and storage.

**Conditions to Avoid:** None.

**Materials to Avoid:** Metal hydrides and other water reactive materials.

**Hazardous Decomposition Products:** At very high temperatures, magnesium oxide, sulfur dioxide, and sulfur trioxide may be generated.

### 11. TOXICOLOGICAL INFORMATION:

**Acute Data:** When tested for primary irritation potential, this material caused mild eye irritation. RTECS reports Oral TDLo=428 mg/kg in men 351 mg/kg in women.

### 12. ECOLOGICAL INFORMATION:

**Eco toxicity:** Data not available.

**Environmental Fate:** This material is not persistent in aquatic systems and does not contribute to BOD. It does not bioconcentrate up the food chain.

**Physical/Chemical:** Sinks and mixes with water.

### 13. DISPOSAL CONSIDERATIONS:

**Classification:** Disposed material is not a RCRA hazardous waste.

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**Disposal Method:** Dispose in accordance with local, state, and Federal regulations.

### 14. TRANSPORTATION INFORMATION:

**DOT UN Status:** This material is not regulated hazardous material for transportation.

### 15. REGULATORY INFORMATION:

**CERCLA:** No CERCLA Reportable Quantity has been established for this material.

**SARA TITLE III:** Not an Extremely Hazardous Substance under §302. Not a Toxic Chemical under §313. Hazard Categories under §311/312: Acute

**TSCA:** All ingredients of this material are listed on the TSCA inventory.

**FDA:** Magnesium sulfate is an FDA GRAS substance pursuant to 21 CFR 184.1443. Epsom salt, Agricultural grade is not a suitable grade of magnesium sulfate for pharmaceutical uses.

### 16. OTHER INFORMATION:

THE INFORMATION ON THIS SAFETY DATA SHEET IS BELIEVED TO BE ACCURATE AND IT IS THE BEST INFORMATION AVAILABLE TO VOLUNTARY PURCHASING GROUPS, INC. THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONS FOR HANDLING A CHEMICAL BY A PERSON TRAINED IN CHEMICAL HANDLING. VOLUNTARY PURCHASING GROUPS, INC. MAKES NO WARRANTY OR MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED WITH RESPECT TO SUCH INFORMATION OR THE PRODUCT TO WHICH IT RELATES, AND WE ASSUME NO LIABILITY RESULTING FROM THE USE OR HANDLING OF THE PRODUCT TO WHICH THIS SAFETY DATA SHEET RELATES. USERS AND HANDLERS OF THIS PRODUCT SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION PROVIDED HEREIN FOR THEIR OWN PURPOSES.