

**AERCHEM INC.**  
**320 North Walnut**  
**Bloomington, IN 47408**

**Tel: 812.334.9996      Fax: 812.334.1960      Emergency: 800.424.9300**

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**SECTION 1: IDENTIFICATION**

**Effective Date:** 12/8/96  
**Product Name:** **MAGNESIUM SULFATE HEPTAHYDRATE**, Epsom salts; sulfuric acid, magnesium salt, heptahydrate; magnesium sulfate, 7-hydrate  
**Molecular Formula:**  $MgSO_4 \cdot 7H_2O$   
**CAS No.:** 7487-88-9 (anhydrous)

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**SECTION 2: HAZARDOUS INGREDIENTS:**

Caution! May be harmful if swallowed.

*Inhalation:* Dust may be slightly irritating. Sore throat or coughing may occur

*Ingestion:* Since magnesium salts are slowly absorbed, abdominal pain, vomiting and diarrhea may be the only symptoms. However, if elimination is blocked by bowel blockage or other reasons, CNS depression, lack of reflexes, hypocalcemia may occur

*Skin contact:* No adverse effects expected but may cause minor skin irritation.

*Eye contact:* No adverse effects expected but dust may cause mechanical irritation.

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**SECTION 3: PHYSICAL DATA**

Odor:	odorless
Appearance:	transparent crystals or white powder
Melting point.:	1124°C (2055°F) decomposes, loses all waters of hydration @ 250°C
Boiling point:	n/a
Decomposition temperature:	see melting point
pH (depends on quality):	aqueous solution is neutral or slightly acidic
Solubility in water:	very soluble in water
Density:	1.67 g/mL @ 4°C
Vapor density:	no info found
Vapor pressure:	no info found

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**SECTION 4: FIRE AND EXPLOSION DATA**

Flammable limit:	not considered to be a fire hazard
Extinguishing media:	use any means suitable for extinguishing surrounding fire
Fire fighting procedures:	use protective clothing and breathing equipment appropriate for surrounding fire
Unusual fire and explosions hazards:	not considered to be an explosion hazard

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**SECTION 5: REACTIVITY DATA**

Stable   X                        Unstable \_\_\_\_\_

**Decomposition byproducts:** Oxides of sulfur and the contained metals. Loses some moisture on exposure to dry air at room temperatures.

**Incompatibilities/Condition to Avoid:** ethoxy ethyl alcohols, arsenates, phosphates, tartrates, lead, barium, strontium, and calcium, heat, moisture

**Hazardous Polymerization:** will not occur

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**SECTION 6: HEALTH HAZARD DATA**

**Toxicity:** no info found relating to normal routes of occupational exposure; investigated as a mutagen, reproductive effector

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**SECTION 7: SPILLAGE AND DISPOSAL PROCEDURES**

**Spillage:** Ventilate area of leak or spill. Wear appropriate personal protective equipment. Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

**Disposal:** Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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**SECTION 8: FIRST AID PROCEDURES**

**Eye Contact:** Wash thoroughly with running water. Get medical advice if irritation develops.  
**Skin Contact:** Remove any contaminated clothing. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.  
**Inhalation:** Remove to fresh air. Get medical attention for any breathing difficulty.  
**Ingestion:** Give several glasses of water to drink to dilute. If large amount were swallowed, get medical advice.  
**Note to physician:** IV administration of calcium gluconate will partially reverse the effects of acute magnesium toxicity. Ventricular support with calcium chloride infusion and mannitol forced diuresis has also been successful.

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**SECTION 9: HANDLING AND STORAGE INFORMATION:**

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product

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**SECTION 10: SPECIAL PROTECTION INFORMATION:**

**Ventilation:** A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, a Manual of Recommended Practices, most recent edition, for details  
**Skin Protection:** Wear protective gloves and clean body covering clothing.  
**Eye Protection:** Use chemical safety goggles. Maintain eye wash fountain and quick drench facilities in work area  
**Respiratory Protection:** For conditions of use where exposure to dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where exposure levels are not known, use a full face positive pressure, air supplied respirator. Warning: air purifying respirators do not protect workers in oxygen deficient atmospheres.

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**SECTION 11: TRANSPORT INFORMATION**

**DOT Classification:** not regulated

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**SECTION 12: OTHER REGULATORY INFORMATION**

for magnesium sulfate anhydrous

<b>Federal and State regulations:</b>	SARA 302 - RQ & TPQ = no	CERCLA = No	RCRA 261.33 = No
	TSCA 8(d) = no	SARA313 list & chem catg = no	
<b>Chemical Inventory status:</b>	TSCA = yes    EC=yes	Japan = yes	Australian = yes
<b>NFPA ratings</b>	Health = 1	Flammability = 0	Reactivity = 0