



Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name Aluminum Sulfate, Octadecahydrate **Product Code** AX0745

Manufacturer EMD Chemicals Inc.
P.O. Box 70
480 Democrat Road
Gibbstown, NJ 08027
Prior to January 1, 2003 EMD Chemicals
Inc. was EM Industries, Inc. or EM Science,
Division of EM Industries, Inc.

Effective Date 11/1/2005

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym ALUM; PEARL ALUM

Material Uses Analytical reagent.

Chemical Family Metal salt.

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Aluminum Sulfate	7784-31-8	100

+ Section 3. Hazards Identification

Physical State and Appearance Solid. (Crystals solid.)

Emergency Overview CAUTION!
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
MAY BE HARMFUL IF INHALED OR SWALLOWED.

Routes of Entry Inhalation. Ingestion.

Potential Acute Health Effects

- Eyes** Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.
- Skin** Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
- Inhalation** Hazardous in case of inhalation (lung irritant). May be hazardous in case of inhalation.
- Ingestion** May be hazardous in case of ingestion.

Potential Chronic Health Effects

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Additional information See Toxicological Information
(section 11)

Medical Conditions Aggravated by Overexposure: Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Auto-ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	Some metallic oxides.
Fire Hazards in Presence of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of static discharge: No. Risks of explosion of the product in presence of mechanical impact: No.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Protective Clothing (Fire)	Be sure to use an approved/certified respirator or equivalent.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill and Leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill and Leak	Use a shovel to put the material into a convenient waste disposal container. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Spill Kit Information	No specific spill kit required for this product.

Section 7. Handling and Storage

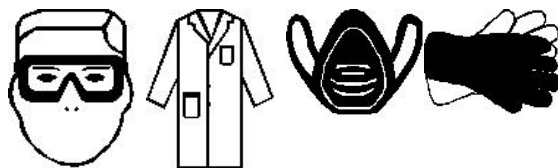
Handling	Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing dust. Keep container closed.
Storage	Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	
Eyes	Splash goggles.
Body	Lab coat.
Respiratory	Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves.

Feet Not applicable.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

Exposure Limits

Aluminum Sulfate

Tyterveyslaitos (Finland, 1998).

TWA: 2 mg/m³ 8 hour(s).

INRS (France, 1996).

VME: 2 mg/m³ 8 hour(s).

AFS (Sweden, 1996).

NGV: 1 mg/m³ 8 hour(s).

Section 9. Physical and Chemical Properties

Odor	Odorless.
Color	White.
Physical State and Appearance	Solid. (Crystals solid.)
Molecular Weight	Not available.
Molecular Formula	Al ₂ O ₃ ·xH ₂ O
pH	Not available.
Boiling/Condensation Point	Not available.
Melting/Freezing Point	Not available.
Specific Gravity	Not available.
Vapor Pressure	Not available.
Vapor Density	Not available.
Odor Threshold	Not available.
Evaporation Rate	Not available.
LogKow	Not available.
Solubility	Soluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Reactive with acids, alkalis.
Rem/Incompatibility	Not available.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

RTECS Number:

Aluminum Sulfate, Octadecahydrate, GR WS5697000

Toxicity LD50: Not available.
LC50: Not available.

Chronic Effects on Humans Not available.

Acute Effects on Humans	Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Hazardous in case of inhalation (lung irritant). May be hazardous in case of inhalation. May be hazardous in case of ingestion.
Synergetic Products (Toxicologically)	Not available.
Irritancy	Draize Test: Not available.
Sensitization	Not available.
Carcinogenic Effects	This material is not known to cause cancer in animals or humans.
Toxicity to Reproductive System	Not available.
Teratogenic Effects	Not available.
Mutagenic Effects	Tests on laboratory animals for mutagenic effects are cited in Registry of Toxic Effects of Chemical Substances (RTECS).

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

EPA Waste Number	Not available.
Treatment	Material does not have an EPA Waste Number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

Section 14. Transport Information

DOT Classification	Not available.
TDG Classification	Not available.
IMO/IMDG Classification	Not available.
ICAO/IATA Classification	Not available.

+ Section 15. Regulatory Information

U.S. Federal Regulations	TSCA 8(b) inventory: ALUMINUM SULFATE SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: Aluminum Sulfate SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Aluminum Sulfate: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard SARA 313 toxic chemical notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.
WHMIS (Canada)	Class D-2B: Material causing other toxic effects (TOXIC). No products were found. This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.
International Regulations	
EINECS	Not available.

DSCL (EEC) R37/38- Irritating to respiratory system and skin.
R41- Risk of serious damage to eyes.
International Lists Australia (NICNAS): ALUMINUM SULFATE

Japan (MITI): ALUMINUM SULFATE
China: No products were found.

State Regulations No products were found.
California prop. 65: No products were found.

Section 16. Other Information

**National
Fire
Protection
Association
(U.S.A.)** **0** **Fire
Hazard**
Health **10** **Reactivity**
**Specific
Hazard**

**Changed Since Last
Revision** +
Notice to Reader

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