



PURIFY


SAFETY DATA SHEET

ALUMINUM SULFATE SOLUTION

I. IDENTIFICATION

Product Name: Aluminum Sulfate Solution	Distributor: Purify 1707 Townhurst Drive Houston, TX 77043
Synonym: Alum	Phone: 713-463-1929
CAS #: 10043-01-3	Website: www.purifywt.com
Recommendations / Restrictions on Use: Use only for proper and legal purposes.	Emergency Contact: 1-800-424-9300 (CHEMTREC)

II. HAZARDS IDENTIFICATION

Classifications: Corrosive to metals, Category 1 Serious eye damage, Category 1	Hazard Statements: May be corrosive to metals. Causes serious eye damage.	Signal Word: Danger Symbol:
Precautionary Statements: Prevention Keep in original container. Wear eye/face protection. Response IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Absorb spillage to prevent material damage. For specific treatment, see Section IV. First Aid Measures.		

III. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Formula	CAS Number	%
Aluminum Sulfate	$Al_2(SO_4)_3$	10043-01-3	48
Water	H_2O	7732-18-5	Balance

IV. FIRST AID MEASURES

Eyes:	Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Remove any contact lenses.	Seek medical attention.
Dermal / Skin:	Remove contaminated clothing and wash exposed area thoroughly with soap and water for at least 15 minutes.	Seek medical attention if you feel unwell.
Inhalation:	Move to fresh air immediately. If breathing is difficult, give oxygen.	Seek medical attention if you feel unwell.
Ingestion:	If swallowed, DO NOT induce vomiting. Rinse mouth.	Seek medical attention if you feel unwell.

V. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Use extinguishing media appropriate for surrounding fire.

Special Protective Equipment and Firefighter Precautions:
None

NFPA Hazard Rating:

Health (Blue):	1
Fire (Red):	0
Reactivity (Yellow):	0
Special Instructions (White):	None

NFPA Hazard Classification:

0=Least 1=Slight 2=Moderate 3=High 4=Extreme

VI. ACCIDENTAL RELEASE MEASURES

Procedures if Released: Steps should be taken to contain spilled liquids and prevent discharges to streams or sewer systems.

Containment / Cleaning: Neutralize with appropriate alkali such as soda ash or slaked lime.

VII. HANDLING AND STORAGE

Precautions for Safe Handling: Keep separated from incompatible substances. Handle only with equipment, materials, and supplies specified by their manufacturer as being compatible and appropriate for use with this product.

Conditions for Safe Storage: Store at appropriate temperature to protect from freezing or crystallization. Consult the appropriate SII Product Bulletin for temperature recommendations. Do not store this material near food, animal feed, or drinking water. Store in a well-ventilated area. Store away from excessive heat (ex: steam pipes, radiators) and reactive materials. Keep container tightly closed when not in use.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

COMPONENT WORKPLACE CONTROL PARAMETERS

Components: Aluminum Sulfate
CAS #: 10043-01-3
Value: TWA
Parameters: 5 mg/m³
Basis: Aluminum in the form of soluble salts

HMIS Rating:

Health (Blue): 1
Flammability (Red): 0
Physical Hazard (Yellow): 0
PPE (White): See PPE

Hazard Classification:

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit values.

INDIVIDUAL PROTECTION MEASURES:

Eye: Use chemical splash goggles and face shield. Eye protection worn must be compatible with respiratory protection system employed.

Skin: Chemically-resistant gloves should be worn whenever this material is handled. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Respiratory: No protection equipment required under normal conditions. When conditions warrant a respirator, use NIOSH-approved respirator.

Other Protective Items: Where splash is possible, full chemically-resistant protective clothing and boots are required. Ensure that eyewash stations and safety showers are proximal to the workstation location.

General Hygiene: Practice good personal hygiene after using this material, especially before eating, drinking, smoking, or using the toilet.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	pH:	~ 2
Appearance:	Clear to slightly amber liquid or green depending on grade	Molecular Weight:	594 g/mol for Al ₂ (SO ₄) ₃ • 14H ₂ O
Odor:	None	Odor Threshold:	Data Not Available
Specific Gravity: (H ₂ O = 1)	1.29 - 1.34 @ 77°F / 25°C	Weight per Gallon:	11.1 lbs. @ 77°F / 25°C
Vapor Density: (Air = 1)	Similar to Water	Vapor Pressure:	Similar to Water
Boiling Point:	~ 214°F / 101°C	Freezing/Melting Point:	4°F / -16°C
Lower Explosive Limit:	Not Applicable	Upper Explosive Limit:	Not Applicable
Flash Point:	Not Applicable	Autoignition Temperature:	Not Applicable
Solubility in Water:	Soluble	Other:	Not Applicable

X. STABILITY AND REACTIVITY

Reactivity:	N/A
Chemical Stability:	Stable under normal or expected use.
Hazardous Reactions:	N/A
Conditions to Avoid:	Avoid exposure to excessive heat.
Incompatible Materials:	Avoid contact with acids and oxidizing agents.
Hazardous Decomposition Products:	Thermal decomposition may yield toxic oxides of sulfur.

XI. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eyes, Skin, Ingestion, and Inhalation	Carcinogeny:
Symptoms of Exposure:	NPT: Not listed.
Eye Contact: Causes serious eye damage.	IARC: Not listed.
Ingestion: May be harmful if swallowed.	OSHA: Not regulated.
Skin Contact: May cause skin irritation.	Experimental Results:
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.	Ingredient: Aluminum Sulfate
Comments:	Species: Rat
None	Test: >5000 mg/kg
	Route: Oral
	Results: LD50

XII. ECOLOGICAL INFORMATION

Ecotoxicity Experimental Results:	Ingredient: Aluminum Sulfate
	Species: Mosquitofish
	Test: 253 ppm
	Period: 96 hours
	Results: LC50

XIII. DISPOSAL CONSIDERATIONS

Waste Disposal: Always dispose of material in accordance with local, state, and federal regulations.

XIV. TRANSPORT INFORMATION

Proper Shipping Name:	Corrosive Liquid, Acidic, Inorganic, n.o.s. (contains Aluminum Sulfate Solution)		
DOT Classification:	8	Packing Group:	3
Identification Number:	3264	Other Labels:	Corrosive

XV. REGULATORY INFORMATION

Inventory Status:	U. S. TSCA: Yes	Korean TCCL: Yes
	Europe EINECS: Yes	Philippines PICCS: Yes
	Canadian DSL: Yes	Australian AICS: Yes
	Japan ENCS: Yes	

U. S. Regulations:

SARA 302 TPQ:	Not Listed
SARA 304 RQ:	Not Listed
SARA 313 List:	Not Listed
CERCLA (RQ):	5,000 lbs.
RCRA 261.33:	Not Listed
CWA 117:	5,000 lbs.
CAA 112r (RMP):	Not Listed
SARA 311/312:	Acute

International Regulations:

Canada WHMIS:	D-2B	Toxic material causing other toxic effects.
EINECS:	233-135-0	

Other Regulations:

California PROP 65:	Not Listed
FDA GRAS:	21 CFR 182.1125

XVI. OTHER INFORMATION

NSF Certification: Aluminum sulfate manufactured at Baton Rouge, LA; Calhoun, TN; Chickasaw, AL; Lake Charles, LA; Pasadena, TX; and West Point, MS is NSF-60 Certified. Maximum use in potable water is 150 mg/L.

Revision Notes: Rev. 12/14/2018



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