



# PURIFY


## SAFETY DATA SHEET

### ALUMINUM SULFATE SOLUTION

#### I. IDENTIFICATION

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

#### II. HAZARDS IDENTIFICATION

<b>Classifications:</b> Corrosive to metals, Category 1 Serious eye damage, Category 1	<b>Hazard Statements:</b> May be corrosive to metals. Causes serious eye damage.	<b>Signal Word:</b> Danger <b>Symbol:</b> 
<b>Precautionary Statements:</b>		
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	$\text{Al}_2(\text{SO}_4)_3$	10043-01-3	48
Water	$\text{H}_2\text{O}$	7732-18-5	Balance

## IV. FIRST AID MEASURES

<b>Eyes:</b>	Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Remove any contact lenses.	Seek medical attention.
<b>Dermal / Skin:</b>	Remove contaminated clothing and wash exposed area thoroughly with soap and water for at least 15 minutes.	Seek medical attention if you feel unwell.
<b>Inhalation:</b>	Move to fresh air immediately. If breathing is difficult, give oxygen.	Seek medical attention if you feel unwell.
<b>Ingestion:</b>	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

<b>Procedures if Released:</b>	Steps should be taken to contain spilled liquids and prevent discharges to streams or sewer systems.
<b>Containment / Cleaning:</b>	Neutralize with appropriate alkali such as soda ash or slaked lime.

## VII. HANDLING AND STORAGE

<b>Precautions for Safe Handling:</b>	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.
<b>Conditions for Safe Storage:</b>	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/m<sup>3</sup>

**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

<b>Physical State:</b>	Liquid	<b>pH:</b>	~ 2
<b>Appearance:</b>	Clear to slightly amber liquid or green depending on grade	<b>Molecular Weight:</b>	594 g/mol for $\text{Al}_2(\text{SO}_4)_3 \cdot 14\text{H}_2\text{O}$
<b>Odor:</b>	None	<b>Odor Threshold:</b>	Data Not Available
<b>Specific Gravity:</b> ( $\text{H}_2\text{O} = 1$ )	1.29 - 1.34 @ 77°F / 25°C	<b>Weight per Gallon:</b>	11.1 lbs. @ 77°F / 25°C
<b>Vapor Density:</b> (Air = 1)	Similar to Water	<b>Vapor Pressure:</b>	Similar to Water
<b>Boiling Point:</b>	~ 214°F / 101°C	<b>Freezing/Melting Point:</b>	4°F / -16°C
<b>Lower Explosive Limit:</b>	Not Applicable	<b>Upper Explosive Limit:</b>	Not Applicable
<b>Flash Point:</b>	Not Applicable	<b>Autoignition Temperature:</b>	Not Applicable
<b>Solubility in Water:</b>	Soluble	<b>Other:</b>	Not Applicable

## X. STABILITY AND REACTIVITY

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

## XI. TOXICOLOGICAL INFORMATION

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

## XII. ECOLOGICAL INFORMATION

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

## XIII. DISPOSAL CONSIDERATIONS

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

## XIV. TRANSPORT INFORMATION

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

## XV. REGULATORY INFORMATION

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

### U. S. Regulations:

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

### International Regulations:

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

### Other Regulations:

<b>California PROP 65:</b>	Not Listed
<b>FDA GRAS:</b>	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



### PURIFY

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[www.purifywt.com](http://www.purifywt.com)

**24 Hour Emergency Phone: 1-800-424-9300**

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