




Water Guard Inc. (WGI)
SAFETY DATA SHEET

Effective Date: May 22, 2015
Revision Date:

I. Product and Company Information

Product Name(s):	Aluminum Sulfate Solution (48%)	Synonym:	Alum
Chemical Name:	Aluminum Sulfate Solution	CAS Number:	10043-01-3
Manufacturer's Name: Water Guard Inc. P.O. Box 2226 Wilson, N.C. 27894 Customer Service: 1-800-872-7665 Web Site www.waterguardinc.com	Emergency Contacts: Afterhours (PERS)1-800-633-8253		

II. Hazard Identification

OSHA HCS / GHS Classification(s):		Hazard Statement(s):	
Corrosive to Metals, Category 1		May be corrosive to metals.	
Serious Eye Damage, Category 1		Causes serious eye damage.	
Signal Word:	Precautionary Statement(s):		
Danger	Prevention:	Keep in original container. Wear eye / face protection.	
Symbol(s): 	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 First Aid section IV.	

III. Composition / Information on Ingredients

Chemical Name:	CAS Reg #'s	%
Aluminum Sulfate $Al_2(SO_4)_3 \cdot 14 H_2O$	10043-01-3	48
Water	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

NFPA Hazard Rating:	Health (Blue)	Fire (Red)	Reactivity (Yellow)	Special Instructions (White)
	1	0	0	None
NFPA Hazard Classification: 0 = Least 1=Slight 2= Moderate 3= High 4= Extreme				
Extinguishing Media:	Use extinguishing media appropriate for surrounding fire.			
Special Firefighting Procedure:	Wear NIOSH-approved self-contained breathing apparatus (SCBA). Use water spray to keep containers cool and to knock down fumes. CAUTION: when subject to excess heat, product releases additional sulfur dioxide gas.			

VI. Accidental Release Measures

Precaution if Spilled or Released:	Steps should be taken to contain spilled liquids and prevent discharges to streams or sewer systems.
Neutralizing Chemicals:	Neutralize with appropriate alkali such as soda ash or slaked lime.

VII. Handling and Storage

Handling:	Handle all chemicals with respect. 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.
Storage:	Store at appropriate temperature to protect from freezing or crystallization. Consult the appropriate WGI Product Bulletin for temperature recommendations. Do not store this material near food, animal feed or drinking water. Store in well ventilated area. Store away from excessive heat (e.g. steam pipes, radiators), and from reactive materials. Keep container tightly closed when not in use.

VIII. Exposure Control / Personal Protective Equipment

Component Workplace Control Parameters:				
Components:	CAS-No.	Value	Parameters	Basis
Aluminum Sulfate	10043-01-3	TWA	5 mg/m ³	aluminum in the form of soluble salts
Engineering Controls:	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.			
General Hygiene:	Practice good personal hygiene after using this material, especially before eating, drinking, smoking or using the toilet.			
Personal Protection Equipment:				
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:	None 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 work-station location.			
HMIS Classification:	Health (Blue)	Flammability (Red)	Physical Hazard (Yellow)	PPE (White)
	1	0	0	See PPE
Hazard Classification: 0 = Minimal 1=Slight 2= Moderate 3= Serious 4= Severe				

IX. Physical and Chemical Properties

Physical State:	Liquid	pH:	Approximately 2
Appearance:	Clear to slightly amber liquid or green depending on grade)	Molecular Weight:	594 for Al ₂ (SO ₄) ₃ · 14H ₂ O
Odor:	No Odor	Odor Threshold:	Data Not Available
Specific Gravity: (H₂O=1)	1.29 to 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 Estimated	Freezing/Melting Point:	4°F/-16°C
Lower Explosive Limit:	Not Applicable	Upper Explosive Limit:	Not Applicable
Flash Point:	Not Applicable	Autoignition Temp:	Not Applicable
Solubility in water:	Soluble	:	
Other:			

X. Stability and Reactivity Data

Chemical Stability:	Product is stable under normal or expected use.
Conditions To Avoid:	Avoid exposure to excessive heat.
Incompatible Materials:	Avoid contact with the following: acids and oxidizing agents.
Hazardous Products of Decomposition:	Thermal decomposition may yield the following: toxic oxides of sulfur.

XI. Toxicological Information

Routes of Entry:	<input checked="" type="checkbox"/> Eyes <input checked="" type="checkbox"/> Skin <input checked="" type="checkbox"/> Ingestion <input checked="" type="checkbox"/> Inhalation					
Sign and symptoms of Exposure:	May cause irritation to eyes, skin and respiratory passages					
Eye Contact:	Causes serious eye damage.					
Ingestion:	May be harmful if swallowed.					
Skin Contact:	May cause irritation.					
Inhalation:	May be harmful if inhaled. May cause respiratory tract irritation.					
Carcinogenicity:	NPT	Not Listed	IARC	Not Listed	OSHA	Not Regulated
Ingredient Name:	Species		Test		Route	Results
Aluminum Sulfate	Rat		>5000 mg/kg		oral	LD50
Comments:						

XII. Ecological Information

Ingredient Name:	Species	Test	Period	Results
Aluminum Sulfate	Mosquitofish	235 ppm	96 hours	LC50
Comments:				

XIII. Disposal Considerations

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

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

XV. Regulatory Information

Inventory Status:		US Regulations:	
U. S. TSCA	Yes	SARA 302 TPQ	Not Listed
Europe EINECS	Yes	SARA 304 RQ	Not Listed
Canadian DSL	Yes	SARA 313 List	Not Listed
Japan ENCS	Yes	CERCLA (RQ)	5,000 lbs.
Korean TCCL	Yes	RCRA 261.33	Not Listed
Philippines PICCS	Yes	CWA 117	5,000 lbs.
Australian AICS	Yes	CAA 112r (RMP)	Not Listed
		SARA 311/312	<input checked="" type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Fire <input type="checkbox"/> Release of Pressure <input type="checkbox"/> Reactive
International Regulations:		Other Regulations:	
Canada WHMIS	D-2B	Toxic material causing other toxic effects	California PROP 65 Not Listed
			FDA GRAS 21 CFR 182.1125
EINECS	233-135-0		

XVI. Other Information

NSF Certification:	Yes
Other:	
Revision Notes:	_____
MSDS Replacements	

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