




SOUTHERN IONICS INCORPORATED (SII)
SAFETY DATA SHEET

SDS NO. 200
Effective Date: April 30, 2015
Revision Date: September 25, 2020

I. Product and Company Information

SII Product Name(s):	Aluminum Sulfate Solution Commercial Grade, Low Iron, Technical Grade- Low Iron	Synonym:	Alum
Chemical Name:	Aluminum Sulfate Solution	CAS Number:	10043-01-3
Manufacturer's Name: Southern Ionics Incorporated 579 Commerce Street West Point, MS 39773 Customer Service: 1-800-953-3585 Web Site: www.southernionics.com	Emergency Contacts: Afterhours (Southern Ionics): 1-888-610-2379 For Chemical Emergency, Spill, or Accident Call CHEMTREC at 1-800-424-9300 CHEMTREC CCN - 20596		

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: Danger	Precautionary Statement(s):		
Symbol(s): 	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(s):	CAS Number(s):	%
Aluminum Sulfate ($\text{Al}_2(\text{SO}_4)_3 \cdot 14 \text{H}_2\text{O}$)	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 subjected 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. Store away from excessive heat (e.g., steam pipes, radiators), and from reactive materials. Do not store this material near food, animal feed or drinking water. Store in well-ventilated area. Keep container tightly closed when not in use.

VIII. Exposure Control / Personal Protective Equipment

Component Workplace Control Parameters:				
Components:	CAS Numbers	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:	Chemical-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 chemical-resistant protective clothing and boots are required. Ensure that eyewash stations and safety showers are proximal to the work 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:	~ 2
Appearance:	Clear, colorless to amber liquid	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 acids and oxidizing agents.
Hazardous Products of Decomposition:	Thermal decomposition may yield 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:	Not listed	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.
------------------------	--

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
Comments:					

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:	
EINECS	233-135-0	California PROP 65	Not Listed
		FDA GRAS	21 CFR 182.1125
Comments:			

XVI. Other Information

Other:	
Revision Notes:	<p>04.12.18 Section I. Product and Company Information, SII Product Name: added all products covered under the SDS. Section XV. Regulatory Information, International Regulations: removed Canada information.</p> <p>10.30.18 Section IX. Physical and Chemical Properties, Appearance: revised wording.</p> <p>09.25.20 Reviewed as part of a 3-year review process. Updated logo and formatting.</p>
MSDS Replacements:	SII MSDS 002 Aluminum Sulfate Solution and SII MSDS 071 Aluminum Sulfate Solution, Industrial Grade Low Iron.

SALES OFFICE

For Product Information:

TEL: 662-494-3055
FAX: 662-494-2828

Post Office Drawer 1217
West Point, MS 39773

To Place an Order:

TEL: 800-953-3585
FAX: 800-953-3588

IMPORTANT

Although the information contained is offered in good faith, SUCH INFORMATION IS EXPRESSLY GIVEN WITHOUT ANY WARRANTY (EXPRESS OR IMPLIED) OR ANY GUARANTEE OF ITS ACCURACY OR SUFFICIENCY and is taken at the user's sole risk. User is solely responsible for determining the suitability of use in each particular situation. SII specifically DISCLAIMS ANY LIABILITY WHATSOEVER FOR THE USE OF SUCH INFORMATION, including without limitation any recommendation which user may construe and attempt to apply which may infringe or violate valid patents, licenses, and/or copyright.