SOUTHERN IONICS INCORPORATED (SII)
SAFETY DATA SHEET

SDS NO. 203
Effective Date: April 30, 2015
Revision Date: September 25, 2020

I. Product and Company Information

SII Product Name(s):	Aluminum Chloride Solution; Aluminum Chloride – Technical Grade	**Synonym:**	ACS
Chemical Name:	Aluminum Chloride, Aqueous	**CAS Number:**	7446-70-0

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.
Skin Corrosion, Category 1	Causes severe skin burns.
Serious Eye Damage, Category 1	Causes serious eye damage.

Signal Word:
Danger

Symbol(s):

Precautionary Statement(s):	
Prevention:	Wear eye / face protection.
	Wear protective gloves and clothing.
	Wash affected body part thoroughly after handling.
	Keep in original container.
Response:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
	IF ON SKIN: Immediately remove all contaminated clothing. Rinse skin with water.
	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 Chloride ($AlCl_3$)	7446-70-0	23-30
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)
	2	0	1	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:	May decompose to HCl in a fire. Wear NIOSH-approved, self-contained breathing apparatus (SCBA). Use water spray to keep containers cool and to knock down fumes.			

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:	DO NOT store in unlined metal containers. 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 Number	Value	Parameters	Basis
Aluminum Chloride	7446-70-0	TWA	2 mg/m^3	as aluminum

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 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)
	2	0	1	See PPE
Hazard Classification: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe				

IX. Physical and Chemical Properties

Physical State:	Liquid	**pH:**	< 1
Appearance:	Clear to hazy yellow liquid	**Molecular Weight:**	133.3 for $AlCl_3$
Odor:	No Odor	**Odor Threshold:**	No Data Available
Specific Gravity: (H_2O=1)	1.2 to 1.3 @ 77°F / 25°C	**Weight per Gallon:**	10.0 to 10.8 lbs @ 77°F / 25°C
Vapor Density: (Air=1)	Similar to water	**Vapor Pressure:**	Similar to Water
Boiling Point:	230°F / 110°C	**Freezing/Melting Point:**	-31°F / -35°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:	Will react with metals to form flammable hydrogen gas.
Incompatible Materials:	Avoid contact with metals and strong alkalis.
Hazardous Products of Decomposition:	Thermal decomposition may yield hazardous or toxic chloride gases.

XI. Toxicological Information

Routes of Entry:	☒ Eyes ☒ Skin ☒ Ingestion ☒ Inhalation
Sign and Symptoms of Exposure:	May cause irritation to eyes, skin, and respiratory passages.
Eye Contact:	Causes severe eye damage.
Ingestion:	May be harmful if swallowed.
Skin Contact:	Causes severe skin burns.
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 Chloride Solution	Rat		3450 mg/kg		Oral		LD50
Comments:							

XII. Ecological Information

Ingredient Name:	**Species**	**Test**	**Period**	**Results**
Aluminum Chloride Solution	Mosquitofish	133 mg/L	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:	Aluminum chloride solution				
DOT Classification:	8				
Identification Number:	2581	**Packing Group:**	III	**Other Labels:**	Corrosive
Comments:	DO NOT transport in unlined metal containers.				

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)	Not Listed
Korean KECI	Yes	RCRA 261	D002 (Corrosive) if the pH is ≤2. May exhibit the characteristics of corrosivity.
Philippines PICCS	Yes		
Australian AICS	Yes	SARA 311/312	☒ Acute ☐ Chronic ☐ Fire ☐ Release of Pressure ☐ Reactive

International Regulations:			**Other Regulations:**	
Canada WHMIS	E	Corrosive material (Corrosive to Skin)	California PROP 65	Not Listed
EINECS	231-208-1			
Comments:				

XVI. Other Information

Other:	
Revision Notes:	10.30.18 Section IX. Physical and Chemical Properties, Appearance, revised wording. 09.25.20 Reviewed as part of a 3-year review process. Updated logo and formatting.
MSDS Replacements:	SII MSDS 005 Aluminum Chloride Solution

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

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