




I. Product and Company Information

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|---|---|--------------------|-----------|
| 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

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|--|--|---|--|
| 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: | Precautionary Statement(s): | | |
| Danger | Prevention: | Wear eye / face protection. | |
| Symbol(s):  | | 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: Take off immediately all contaminated clothing. Rinse skin with water. | |
| 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 Chloride AlCl ₃ | 7446-70-0 | 23-30 |
| Water | 7732-18-5 | Balance |

IV. First Aid Measures

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| 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

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| 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

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| 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

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| 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. Consult the appropriate SII 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

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|---|---|--------------------|--------------------------|--------------|
| Component Workplace Control Parameters: | | | | |
| Components | CAS-No. | 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 chemically resistant protective clothing and boots are required. Ensure that eyewash stations and safety showers are proximal to the work-station location. | | | |
| HMS 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

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|--|--------------------------------------|--------------------------------|-----------------------------------|
| Physical State: | Liquid | pH: | Less than 1 |
| Appearance: | Clear to water white to pale liquid. | Molecular Weight: | 133.3 for AlCl ₃ |
| Odor: | No Odor | Odor Threshold: | No Data Available |
| Specific Gravity:(H₂O=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

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| 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

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|---------------------------------------|--|------------|-------------|------------|--------------|----------------|
| 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 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: | NPT | Not Listed | IARC | Not Listed | OSHA | Not Regulated |
| Ingredient Name: | Species | | Test | | Route | Results |
| Aluminum Chloride Solution | Rat | | 3450 mg/kg | | oral | LD 50 |
| Comments: | | | | | | |

XII. Ecological Information

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| Ingredient Name: | Species | Test | Period | Results |
| Aluminum Chloride Solution | Mosquitofish | 133mg/l | 96 hours | LC50 |
| Comments: | | | | |

XIII. Disposal Considerations

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

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| 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 characteristic of Corrosively |
| Philippines PICCS | Yes | | |
| Australian AICS | Yes | | |
| | | 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 | E | Corrosive material (Corrosive to Skin) | California PROP 65 Not Listed |
| EINECS | 231-208-1 | | |

XVI. Other Information

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| NSF Certification: | Aluminum Chloride manufactured at Baton Rouge, LA and Chickasaw, AL are NSF-60 Certified. Maximum use in potable water is 200mg/l. |
| Other: | _____ |
| Revision Notes: | _____ |
| MSDS Replacements | <u>SII MSDS 005 Aluminum Chloride Solution</u> |

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

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