Section I - Product Identification

A solution of aluminum chloride in water.

Section II - Hazards Identification

Danger, causes skin burns and eye damage. Wash thoroughly after handling. Wear protective clothing, eye and face protection. If swallowed: rinse mouth but do not induce vomiting. Immediately contact a poison control center. Remove contaminated clothing and rinse skin with water. Wash clothing before reuse.

Safety Ratings

- **Health:** Slight
- **Flammability:** None
- **Reactivity:** None
- **Contact:** Slight

Recommended safety equipment: safety goggles, lab coat and proper gloves

Storage: General storage

NFPA Ratings

- Health = 2
- Flammability = 0
- Reactivity = 0

Potential Health Effects

The toxicology of this compound has not been completely examined. It is presumed that the toxicity of this item is similar to other aluminum compounds. Aluminum chloride is a denaturer of protein and is corrosive to skin and eyes.

- **Inhalation:** Aluminum chloride is corrosive and irritating to the respiratory tract.
- **Ingestion:** While the toxicity of this compound is low, large doses will cause nausea, vomiting, diarrhea, etc.
- **Skin contact:** Irritating and corrosive.
- **Eye contact:** Irritating and corrosive.

Chronic Exposure: Unknown.

Aggravation of preexisting conditions: Preexisting skin conditions may be aggravated.

Section III - Composition/Information on Components

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>OSHA Pel</th>
<th>ACGIH TLV</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chloride, 6H₂O</td>
<td>7446-70-0</td>
<td>2 mg(Al)/m³ TWA</td>
<td>2 mg(Al)/m³ TWA</td>
<td>20% w/v</td>
</tr>
</tbody>
</table>

Section IV - First Aid Measures

**Inhalation:** Unlikely to be a problem because of the low vapor pressure but aspiration of aerosol drops may be a problem. Remove from source of exposure and get immediate medical attention.

**Ingestion:** Do not induce vomiting. If the victim is conscious, administer large volumes of fluids. Never give anything by mouth to an unconscious person.

**Skin Contact:** Wash affected area with soap and water. Get medical advice if irritation develops.

**Eye Contact:** Rinse thoroughly with running water. Get medical advice.
Section V - Fire Fighting Measures

Flash point: Not applicable.
Flammable Limits: Not applicable.
Fire: Not normally a fire hazard.
Explosion: Not normally an explosion hazard.
Fire Extinguishing Media: Any means suitable for surrounding fire.
Special information: Pyrolysis will release corrosive aluminum oxides.

Section VI - Accidental Release Measures
Absorb with a suitable absorbent (such as paper towels) and store in a suitable container for disposal.

Section VII - Handling and Storage
Store in a closed container, protected from freezing.

Section VIII - Exposure Control/Personal Protection
Airborne Exposure Limits: See section III.
Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.
Skin protection: Protective gloves are recommended as part of good laboratory practice.
Eye Protection: Laboratory safety goggles or similar products are recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>101°C</td>
</tr>
<tr>
<td>Density</td>
<td>1.2 g/ml</td>
</tr>
<tr>
<td>Evaporation Rate (water = 1)</td>
<td>1</td>
</tr>
<tr>
<td>Solubility</td>
<td>Infinitely miscible with water</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>A clear, colorless liquid.</td>
</tr>
</tbody>
</table>

Section X - Stability and Reactivity

Stability: Freezes at low temperature.
Hazardous Decomposition Products: Nothing unusual.
Hazardous polymerization: Will not occur.
Incompatibilities: Nothing unusual.
Conditions to avoid: Excessive cold/heat and light.

Section XI - Toxicological Information

Aluminum chloride is an experimental teratogen

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known Carcinogenicity?</th>
<th>Anticipated?</th>
<th>IARC Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chloride, hexahydrate</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

Section XII - Ecological Information

Environmental Fate: Not biodegradable.
Environmental Toxicity: None expected.

Section XIII - Disposal Considerations
Waste disposal is usually not restricted but local ordinances vary. Dispose of contents and container in accordance with all government regulations.
Section XIV - Transportation Information

**DOT/IATA Shipping name:** Aluminum chloride solution  
**Hazard Class:** 8  
**Packing Group:** III  
**Hazard Label:** Corrosive  
**Identification Number:** UN2581  

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under ORM-D or limited quantity exemptions [49 CFR section 173.154(b), 173.154(C) and IATA Y841].

Section XV - Regulatory Information

### Chemical Inventory Status

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chloride, hexahydrate</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Federal, State and International Regulations

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>SARA 302</th>
<th>SARA 313</th>
<th>RCRA</th>
<th>TSCA</th>
<th>Ca. Prop 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chloride, hexahydrate</td>
<td>RQ No</td>
<td>TPQ No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Chemical Weapons Convention: No</td>
<td>TSCA 12(b): No</td>
<td>CDTA: No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 311/312: Acute: Yes, Chronic: No, Fire: No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section XVI - Other Information

This information is believed to be correct but is not waranteed as such, nor does it purport to be all inclusive.  

Revision Date: Nov. 2, 2017