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## Section I - Product Identification

*Product:* An aqueous solution of Aluminum Chloride, hexahydrate.

*Intended Uses:* Normally used as a general laboratory reagent.

*Uses advised against:* For laboratory use only.

### Manufacturer Identification

Medical Chemical Corp.  
19430 Van Ness Ave.  
Torrance, CA 90501

Customer Service: Phone (310)787-6800  
Email: Christinaavena@med-chem.com  
FAX (310)787-4464

### Emergency Telephone Number

CHEMTREC Emergency Response Telephone Number: (800)424-9300. Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.



## Section II - Hazard Identification

This item is considered hazardous by 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Causes severe skin burns and eye damage on contact.

**Corrosive to metals:** Category 1 (H290). May be corrosive to metals.

**Acute toxicity (Oral):** Category 4 (H302). Harmful if swallowed.

**Skin corrosion/irritation/irritation:** Category 2 (H315). Causes skin irritation.

**Eye damage/eye irritation:** Category 2A (H319). Causes serious eye irritation.

**Specific target organ toxicity, single exposure;** Category 3 (H335). May cause respiratory Irritation.

**Signal word:** Warning.

### Hazard statements

Aluminum Chloride is corrosive to metals and irritating to the skin. Fire may produce irritating, corrosive and/or toxic gases.

- P102 Keep out of reach of children.
- P233 Keep container tightly closed.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P281 Use personal protective equipment as required.

### Safety Ratings

*Health:* Hazardous *Flammability:* None *Reactivity:* Stable *Contact:* Slight  
*Recommended safety equipment:* safety goggles, lab coat and proper gloves.

### 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:* Corrosive to mucous membranes and other structures in the respiratory tract. Inhaling droplets of the solution will cause irritation of the respiratory tract and can cause pulmonary edema.

*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:* Repeated or prolonged contact with skin will cause ulceration.

Aggravation of preexisting conditions: Unknown.

### Section III - Composition/Information on Components

Ingredient	CAS#	EC/List No.	%
Aluminum chloride, hexahydrate	7784-13-6	616-520-1	20% w/v

### Section IV - First Aid Measures

*Inhalation:* Remove from source of exposure and get immediate medical attention.

*Ingestion:* Rinse mouth with water but do not induce vomiting. Get immediate medical attention.

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

*Eye Contact:* Remove contact lenses if possible and rinse well with water. Get medical attention.

### 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:* Decomposes when heated to form hydrochloric acid

### Section VI - Accidental Release Measures

Absorb with a suitable absorbent and store in a suitable container for disposal.

### Section VII - Handling and Storage

P403+P233+P102; Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children. Store away from foodstuffs.

### Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum chloride, hexahydrate	2 mg(Al)/m <sup>3</sup> TWA	2 mg(Al)/m <sup>3</sup> TWA	Not Applicable

#### Legend

**ACGIH:** American Conference of Governmental Industrial Hygienists.

**OSHA:** Occupational Safety and Health Administration.

**NIOSH:** National Institute for Occupational Safety and Health.

**IDLH:** Immediately dangerous to life or health.

*Ventilation System:* Usually not required. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.

*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 required.

*Eye Protection:* Laboratory safety goggles or similar products are required.

### Section IX - Physical and Chemical Properties

Boiling Point: 101 °C

Vapor pressure (mm Hg): 18 @ 20 °C

Vapor Density (air = 1): 0.6

*Appearance and Odor:* A clear, colorless solution. The solution will darken as it ages.

*Density:* About 1.2 g/ml

*Evaporation Rate (water = 1):* 1

*Solubility:* Infinitely miscible with water

### Section X - Stability and Reactivity

*Stability:* Stable under normal conditions.

*Hazardous Decomposition Products:* Decomposes when heated to form hydrochloric acid.

*Hazardous polymerization:* Will not occur.

*Incompatibilities:* Strong oxidizing reagents.

*Conditions to avoid:* Excessive cold and heat.

## Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Aluminum chloride, hexahydrate	3311 mg/kg [Rat]	No Data	No Data

### Cancer lists

<i>Ingredient</i>	<i>Known Carcinogenicity?</i>	<i>NTP?</i>	<i>Anticipated?</i>	<i>IARC Category</i>
Aluminum Chloride, Hexahydrate	No	No	No	None

## Section XII - Ecological Information

This product is expected to bioaccumulate. The product does not contain endocrine disrupters, persistent organic pollutants or ozone depleters.

**Soil Mobility:** Expected to be high.

**Environmental Fate:** Biodegradable

**Environmental Toxicity:** Toxic to aquatic life with long lasting effects

Component	Freshwater Fish	Water Flea	Freshwater algae
Aluminum chloride, hexahydrate	LC50 27 mg/l 96 h	EC50 48 h	No Data

## 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 Shipping name:* Aluminum Chloride Solution

*Hazard Class:* 8 *Packing Group:* II

*DOT Hazard Label:* Corrosive

*DOT Identification Number:* UN2581

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under limited quantity exemptions [49 CFR section 173.154(b) and 173.154(C)].

## Section XV - Regulatory Information

### Chemical Inventory Status

<i>Ingredient</i>	<i>TSCA</i>	<i>EC</i>
Aluminum Chloride, Hexahydrate	Yes	Yes

### Federal and State Regulations

<i>Ingredient</i>	<i>SARA 302 RQ</i>	<i>SARA 302 TPQ</i>	<i>SARA 313 List</i>	<i>SARA 313 Category</i>	<i>RCRA 261.33</i>	<i>TSCA 8(D)</i>	<i>Ca. Prop 65</i>
Aluminum Chloride, hexahydrate	No	No	No	No	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

SARA 311/312: *Reactive:* Yes, *Acute:* Yes, *Chronic:* Yes, *Fire:* No, *Pressure:* No

## Section XVI - Other Information

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Medical Chemical Corp. assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

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