

Safety Data Sheet

Aluminum Chloride Solutions

Revision Date 1/1/2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Aluminum Chloride Solutions, 20 to 70%
Product code: 400455, 400456, 400454, 400459, 400463, 400464, 400465, 400471, 400472, 400474, 400527, 400649, 400695, 400712, 400723, 400734, 400765

Supplier: EDM 3, LLC
3611 St Johns Bluff Road, Suite 1
Jacksonville, FL 32224
800-638-2625
Monday-Friday: 8:00 -5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 1/1/2020

In case of a medical emergency or a spill, call: INFOTRAC at 1-800-535-5053 (Domestic within the USA and Canada) or 1-352-323-3500 (International callers may call collect), 24

hours/day,

7 days/week.

2. HAZARDS IDENTIFICATION

GHS Classification

Skin Corrosion (Category 1A), H314
Serious Eye Damage (Category 1), H318
May Cause Respiratory Irritation

GHS Label Elements

Pictogram



Signal Word Danger!

Hazard statement(s)

H225: Highly flammable liquid and vapor (Cat 2).

H315: Causes skin irritation (Cat 2)

H319: Causes serious eye irritation (Cat 2/2A).

H332: Harmful if inhaled.

H371: May cause damage to organs (Cat2)

Precautionary statement(s):

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P260: Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P305+351+338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

GHS Classification

Flammable liquids (Category 2)

Acute toxicity, Oral (Category 5)

Eye irritation (Category 2B)

Specific target organ toxicity - single exposure (Category 1)

Potential Acute Health Effects:

Hazardous in case of contact with eye, skin, ingestion and inhalation. Liquid or spray mist may produce tissue damage especially mucous membranes of eyes, mouth and respiratory tract. Will burn eyes and skin on contact. Respiratory track characterized by coughing, choking and shortness of breath. Inflammation of eyes results in redness, watering and itching. Skin contact results in scaling, redness or blistering.

Target Organs

Respiratory Tract

NFPA Rating

Health hazard: 3

Fire: 0

Reactivity Hazard: 0

HMIS Classification

Health hazard: 3

Flammability: 0

Physical hazards: 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by volume
Aluminum Chloride Hexahydrate	7784-13-6	~ 20 – 70%
Water	7732-18-5	~ 80 – 30%

4. FIRST AID MEASURES

Eye contact:	Check for and remove any contact lenses. Immediately flush eyes with water for 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin contact:	Flush skin with water for 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation:	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Ingestion:	Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammability of the product: Non-flammable

Extinguishing media: Use suitable media for surrounding materials.

Special exposure hazards: Not available

Decomposition products: Not available

Special protective equipment for fire-fighters: Use self-contained breathing apparatus if necessary.

Explosion hazards: Not-applicable

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Keep unnecessary and unprotected personnel from entering area. Avoid breathing vapors. Provide adequate ventilation. Do not touch or walk through spilled material.

Environmental precautions: Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Contain spill area.

Spill: Prevent runoff. Contain and collect spillage with absorbent material e.g. sand, earth, vermiculite etc and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Dilute with water and mop-up or absorb with an inert dry material and place in an appropriate waste disposal container. Avoid contact with strong oxidizers.

7. HANDLING AND STORAGE

Handling: Avoid breathing vapors or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store in ventilated areas. Keep from alkalis.

Storage: Store in a well-ventilated, cool area. Keep container tightly closed and sealed until ready for use. Corrosive material should be stored separately.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

ACGIH TLV: TWA, No exposure limits listed

OSHA PEL: TWA: No exposure limits listed

NIOSH REL: TWA: 2 mg/m³

Engineering measures: Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne concentrations below any recommended threshold limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating and using the lavatory. Wash contaminated clothing before reusing.

Personal protection

Respiratory: If used in poorly ventilated areas, use a properly fitted, air-purifying or air-fed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels.

Hands: Chemical-resistant neoprene gloves

Eyes: Safety eyewear; splash goggles, face shield

Skin: Lab coats for personal protective equipment and should be approved by a specialist before handling this product.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	Color:	Clear
Flash Point:	NA	Odor:	NA
pH:	~2.5	Boiling/condensation point:	NA
Melting/freezing point:	NA	Relative density:	NA
Vapor pressure:	NA	Vapor density:	NA
Odor threshold:	NA	Evaporation rate:	NA
VOC:	NA		
Solubility:	Soluble in water		

10. STABILITY AND REACTIVITY

Chemical stability: The product is stable under normal conditions.

Possibility of hazardous reactions: Not available

Hazardous polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid: Strong alkaline solutions

Materials to avoid: Strong alkaline solutions/oxidizing materials

Hazardous decomposition products: Not available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral: LD50-Rat 3,311 mg/kg

Inhalation: Not available

Dermal: Not available

Other information on acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

Eyes: Rabbit, severe eye irritation – 5s

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

Aspiration hazard

No data available

Potential health effects

Inhalation Liquid or spray mist may produce tissue damage especially mucous membranes of eyes, mouth and respiratory tract. Toxic to lungs.

Ingestion May cause burns/tissue destruction.

Skin Will burn skin on contact.

Eyes Will burn eyes on contact.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

Not readily biodegradable

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT: (US) UN 2581, Aluminum Chloride Solution, Corrosive Liquid, Class 8, PG III, Ship as LTDQTY

TDG: UN 2581, Aluminum Chloride Solution, Corrosive Liquid, Class 8, PG III

IATA: UN 2581, Aluminum Chloride Solution, Corrosive Liquid, Class 8, PG III

IMDG/IMP: UN 2581, Aluminum Chloride Solution, Corrosive Liquid, Class 8, PG III

15. REGULATORY INFORMATION

SARA 302: No components are subject to reporting of Title III

SARA 313: No components are subject to reporting of Title III

WHMIS (Canada): Not listed on the Canadian Ingredient Disclosure List.

DEA List I Chemicals

Precursor Chemicals): Not listed

DEA List II Chemicals

Essential Chemicals):

RTK: Aluminum Chloride Solutions, CAS 7784-13-6

California, Minnesota, New Jersey, Pennsylvania, Rhode Island

WHMIS (Canada):

Class B-2:
Class D-1A: Material causing immediate and serious toxic effects (Very toxic).

Canadian lists:

Class D-2B: Material causing other toxic effects (Toxic).
CEPA Toxic substances: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed:
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.)



Notice to reader

This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labeling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall EDM3 be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.