

DeIPAC 2000, 2020, 2500



SDS No. 102
1/31/2019

Safety Data Sheet

1. IDENTIFICATION

Product Identifier

Product Name Aluminum Chloride Hydroxide Sulfate Solution

Other means of identification

SDS # 102

UN/ID No UN1760

Manufacturer

USALCO, LLC
2601 Cannery Ave
Baltimore, MD 21226

Recommended use of the chemical and restrictions on use

Recommended Use Water treatment chemical.

Emergency Telephone Number

Company Phone Number 410-918-2230

Emergency Telephone (24 hr) 800-282-5322

2. HAZARDS IDENTIFICATION

Appearance Clear, Colorless to amber **Physical State** Liquid **Odor** Negligible
Liquid

Classification

Irritating to eyes	Category 2
Corrosive to metals	Category 1

Signal Word

Warning

Hazard Statements

Causes skin and eye irritation
May be corrosive to metals



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, and eye protection. Keep only in original container.

Precautionary Statements - Response

If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Precautionary Statements - Storage

Store in corrosive resistant plastic or FRP container or a container with corrosive resistant inner liner.

Precautionary Statements - Disposal

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): May be D002 under §261.22(a)(2) due to the rate of corrosion of metal.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms Polyaluminum chloride, solution

Chemical Name	CAS No	Weight-%
Water	7732-18-5	55-85
Aluminum Chloride Hydroxide Sulfate	39290-78-3	15-45

4. FIRST-AID MEASURES
First Aid Measures

General Advice	After first aid, get appropriate in-plant, paramedic, or community medical support.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical advice/attention.
Skin Contact	Wash off immediately with plenty of water. Take off contaminated clothing.
Inhalation	(mist or spray) Remove from exposure; seek medical treatment if any symptoms occur.
Ingestion	If conscious give large amounts of water. Seek medical attention immediately.

Most important symptoms and effects

Symptoms Causes serious eye damage. May cause skin irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None identified.

Specific Hazards Arising from the Chemical Negligible fire hazard. Decomposition products may be toxic.

Hazardous Decomposition Products Hydrogen chloride. Sulfur dioxide.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Do not release runoff from fire control methods to sewers or waterways.

6. ACCIDENTAL RELEASE MEASURES
Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protection recommended in Section 8. Keep unnecessary people away, isolate hazard area and restrict entry.
Environmental Precautions	Do not release into sewers or waterways. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up

Small Spills: If directed to an industrial sewer, wash down with large volumes of water. Spills can be neutralized and absorbed with soda ash or lime, but neutralization will release carbon dioxide, which can generate a breathing hazard. For large spills, dike far ahead of spill for later disposal. Contain large spills and pump into a suitable tank for disposal. Neutralize with soda ash or lime if necessary. Adequate ventilation is required due to release of Carbon Dioxide.

7. HANDLING AND STORAGE

Precautions for safe handling
Advice on Safe Handling

Ensure that all containers are labeled in accordance with OSHA regulations. Treat as a dilute acid. Avoid contact with metal, as product will slowly corrode iron, brass, copper, aluminum and mild steel. Avoid contact with skin and eyes. Use personal protection recommended in Section 8. Wash thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities
Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep storage temperature below 30°C/86°F. Store away from incompatible materials. Keep only in original container.

Packaging Materials

Store in rubber-lined, plastic or FRP vessels.

Incompatible Materials

Metals such as aluminum, tin, and zinc. Strong alkalis.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

No exposure limits noted for ingredient(s)

Appropriate engineering controls
Engineering Controls

Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment
Eye/Face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.

Skin and Body Protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection

Seek professional advice prior to respirator selection and use. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. **WARNING!** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

General Hygiene Considerations

Contaminated Equipment: Separate contaminated work clothes from street clothes. Remove this material from your shoes and clean personal protective equipment. Do not eat, drink, smoke, or apply cosmetics while handling this product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES
Information on basic physical and chemical properties

Appearance	Liquid, clear, colorless to amber color
Odor	Negligible
Odor threshold	Not determined
pH	>2 to 3.5
Relative density; (specific gravity)	1.2 ± 0.1 (1=Water) @ 4°C
Melting point/freezing point	< -17.8°C / <0°F
Initial boiling point and boiling range	> 110°C / >230°F
Decomposition temperature	±120°C / 250°F
Viscosity	5-50 centipoise @ 25 °C (77 °F)
Auto-ignition temperature	Not flammable
Evaporation rate;	Similar to water
Flammability (solid, gas)	Not flammable
Flash point	Will not burn
Upper/lower flammability or explosive limits	Will not burn
Partition coefficient: n-octanol/water	Not relevant
Solubility	Soluble in water
Vapor density	Similar to water
Vapor pressure	Similar to water

10. STABILITY AND REACTIVITY
Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Reacts with Zinc and Aluminum to form Hydrogen gas. Contact with strong alkalis (e.g. Ammonia and its solutions, Sodium hydroxide (caustic), Potassium hydroxide, chlorites) may generate heat, splattering or boiling and toxic vapors.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Contact with incompatible materials.

Incompatible Materials

Metals such as aluminum, tin, and zinc. Strong alkalis.

Hazardous Decomposition Products

Hydrogen chloride. Sulfur dioxide.

11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure
Product Information

Eye Contact	Causes serious eye irritation.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum Chloride Hydroxide Sulfate 39290-78-3	> 5000 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION
Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Aluminum Chloride Hydroxide Sulfate 39290-78-3		1460 - 1500: 48 h Leuciscus idus melanotus mg/L LC50 static		

Persistence/Degradability

Not determined

Bioaccumulation

Not determined

Mobility

Chemical Name	Partition Coefficient
Aluminum Chloride Hydroxide Sulfate 39290-78-3	3

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS
Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): May be D002 under §261.22(a)(2) due to the rate of corrosion of metal.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1760
Proper Shipping Name Corrosive liquid, n.o.s. (Aluminum chloride hydroxide sulfate)
Hazard Class 8
Packing Group III

IATA

UN/ID No	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s. (Aluminum chloride hydroxide sulfate)
Hazard Class	8
Packing Group	III

IMDG

UN/ID No	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s. (Aluminum chloride hydroxide sulfate)
Hazard Class	8
Packing Group	III
Marine Pollutant	This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Not determined

US Federal Regulations
Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Not listed

CWA (Clean Water Act)

Not listed

US State Regulations
U.S. State Right-to-Know Regulations

Not determined

16. OTHER INFORMATION

NFPA
Health Hazards

1

Flammability

0

Instability

0

Special Hazards

Not determined

HMIS
Health Hazards

1

Flammability

0

Physical Hazards

0

Personal Protection

Not determined

Issue Date

2/1/2012

Revision Date:

3/3/2015 New format; 1/31/2019 Review

Revision Note
Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet