

# SAFETY DATA SHEET



MUL = 250 mg/L

Revision date 01-Jul-2025

Revision Number 9

## 1. Identification

### Product identifier

**Product Name** Aluminum Chlorohydrate Solution

### Other means of identification

**Product Code(s)** 3204H

**Synonyms** Water and Wastewater Treatment Coagulant/Flocculant.

### Recommended use of the chemical and restrictions on use

**Recommended use** Coagulating and Flocculating agent.

**Restrictions on use** None known.

### Details of the supplier of the safety data sheet

#### Supplier Address

USALCO, LLC  
2601 Cannery Ave.  
Baltimore, MD 21226  
+1-800-453-2586 Hours: Monday - Friday  
9:00 - 5:00 CST (Central Standard Time)

#### Manufacturer Address

USALCO, LLC  
2601 Cannery Ave.  
Baltimore, MD 21226

**Contact Point** sds@usalco.com

**Emergency Telephone** CHEMTREC: (800) 424-9300  
Outside USA - +1 (703) 527-3887 collect calls accepted

## 2. Hazard(s) identification

### Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Corrosive to metals.	Category 1

### Hazards not otherwise classified (HNOC)

Not applicable.

### Label elements

**WARNING****Hazard statements**

Causes skin irritation and serious eye irritation.  
May be corrosive to metals.

**Appearance** Clear**Physical state** Liquid**Odor** No appreciable odor**Precautionary Statements - Prevention**

Keep in original packaging.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash hands, face and any exposed skin thoroughly after handling. Do not touch eyes.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Statements - Response**

IF ON SKIN: Wash with plenty of soap and water.  
If skin irritation occurs: Get medical help.  
Specific treatment (See Section 4. First aid measures – Skin contact).  
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 help.  
Take off contaminated clothing and wash it before reuse.  
Absorb spillage to prevent material damage.

**Precautionary Statements - Storage**

Store in corrosive resistant container with a resistant inner liner.

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

**Other information**

May be harmful if swallowed. Harmful to aquatic life with long lasting effects.

**3. Composition/information on ingredients****Substance**

Not applicable.

**Synonyms**

Water and Wastewater Treatment Coagulant/Flocculant.

Chemical name	CAS No	Weight-%	Trade secret
Aluminum Chlorohydrate	12042-91-0	30 - 60%	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret. While some components are claimed as trade secret in accordance with the provision of OSHA 29 CFR 1910.1200(i), all known hazards are clearly communicated within this document.

**4. First-aid measures****Description of first aid measures****Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult,

	(trained personnel should) give oxygen. Call physician immediately.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Eye and skin contact may cause irritation, including redness, itching, and rashes.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	Contact with metals may evolve flammable hydrogen gas. Sealed containers may rupture when heated. Cool containers with water spray.
<b>Hazardous combustion products</b>	Thermal decomposition (as may be experienced in a fire) may release toxic and/or hazardous gases such as HCl and Cl <sub>2</sub> .
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation.

**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.
<b>Prevention of secondary hazards</b>	Do not permit run-off to get into sewers or surface waterways.

**7. Handling and storage****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

**Packaging materials** Store in corrosion resistant container with a resistant inner liner.

**8. Exposure controls/personal protection****Control parameters****Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Aluminum Chlorohydrate 12042-91-0	TWA: 1 mg/m <sup>3</sup> respirable particulate matter	-	-

**Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering controls** Showers.  
Eyewash stations.  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses or goggles to protect against exposure.

**Hand protection** Wear suitable protective gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Environmental exposure controls** Do not allow liquid to enter streams or waterways.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

**Physical state** Liquid  
**Appearance** Clear  
**Color** Colorless to yellow  
**Odor** No appreciable odor  
**Odor threshold** Not applicable.

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	3.5 - 4.5	As is
<b>Melting point / freezing point</b>	< -9.4 °C / (15 °F)	
<b>Boiling point / boiling range</b>	~ 104 °C / (220 °F)	
<b>Flash point</b>	Not applicable.	
<b>Evaporation rate</b>	Not determined.	
<b>Flammability (solid, gas)</b>	Not applicable.	
<b>Flammability Limit in Air</b>		
<b>Upper flammability or explosive limits</b>	Not applicable.	

Lower flammability or explosive limits	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Relative density	1.330 - 1.350
Water solubility	Soluble below pH 4
Solubility(ies)	
Partition coefficient	Not determined.
Autoignition temperature	Not applicable.
Decomposition temperature	Not determined.
Kinematic viscosity	Not determined.
Dynamic viscosity	<50 cps Brookfield @ 25 °C
<b>Other information</b>	
Explosive properties	Not an explosive.
Oxidizing properties	Not expected to be oxidizing based on the chemical structure.
VOC Content (%)	No information available
Liquid Density	11.09 - 11.34 lbs./gal.

## 10. Stability and reactivity

Reactivity	Stable under normal conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	No.
Conditions to avoid	High temperatures.
Incompatible materials	Metals.
Hazardous decomposition products	Thermal decomposition (as may be experienced in a fire) may release toxic and/or hazardous gases such as HCl and Cl <sub>2</sub> .

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May be harmful in contact with skin.
Ingestion	Specific test data for the substance or mixture is not available.

### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Eye contact: Adverse symptoms may include the following: watering, redness. and irritation. Skin contact: Adverse symptoms may include the following: irritation and redness.
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### Acute toxicity

### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	18,374.0000 mg/kg
ATEmix (dermal)	4,004.00 mg/kg

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum Chlorohydrate 12042-91-0	= 9187 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-

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

<b>Skin corrosion/irritation</b>	May cause skin irritation.
<b>Serious eye damage/eye irritation</b>	May cause eye irritation.
<b>Respiratory or skin sensitization</b>	No data available.
<b>Germ cell mutagenicity</b>	No data available.
<b>Carcinogenicity</b>	This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.
<b>Reproductive toxicity</b>	No data available.
<b>Developmental toxicity</b>	No data available.
<b>STOT - single exposure</b>	No data available.
<b>STOT - repeated exposure</b>	No data available.
<b>Aspiration hazard</b>	No data available.
<b>Other adverse effects</b>	None known.
<b>Interactive effects</b>	None known.

**12. Ecological information**

**Ecotoxicity** May cause long lasting harmful effects to aquatic life.

Method	Species	Endpoint type	Effective dose	Exposure time	Results
EPA-821-R-02-012 and EPA-821-R-02-023	Pimephales promelas (Fathead Minnow)	LC50	400 mg/L	48 hr, 3-brood, static, renewal	
EPA-821-R-02-012 and EPA-821-R-02-023	Pimephales promelas (Fathead Minnow)	IC25	29.57 mg/L	48 hr, 3-brood, static, renewal	
EPA-821-R-02-012 and EPA-821-R-02-023	Pimephales promelas (Fathead Minnow)	IC50	39.10 mg/L	48 hr, 3-brood, static, renewal	
EPA-821-R-02-012 and EPA-821-R-02-023	Ceriodaphnia dubia (Water Flea)	LC50	> 400 mg/L	96 hr, static, renewal	
EPA-821-R-02-012 and EPA-821-R-02-023	Ceriodaphnia dubia (Water Flea)	IC25	8.61 mg/L	96 hr, static, renewal	
EPA-821-R-02-012 and EPA-821-R-02-023	Ceriodaphnia dubia (Water Flea)	IC50	17.22 mg/L	96 hr, static, renewal	

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Aluminum Chlorohydrate 12042-91-0	--	LC50 (96 h static) 100 - 500 mg/L (Brachydanio rerio)	-	-

**Persistence and degradability** Not determined.

Bioaccumulation	No information available.
Mobility	Not determined.
Other adverse effects	No information available.

### 13. Disposal considerations

#### Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

### 14. Transport information

<u>DOT</u>	This product is exempted from DOT regulations under 49 CFR 173.154(d) when shipped by road or railway in bulk packaging constructed of materials that will not react dangerously with or be degraded by the corrosive material. The product exception is referenced in 49 CFR 172.101 Table.
Notes	<b>When shipping in non-bulk packaging such as drums or pails the above exception does not apply. The product must be shipped as Regulated UN3264, Corrosive liquid, acidic, inorganic, N.O.S. (Polyaluminum chloride solution), 8, III, ERG#154</b>
<u>TDG</u>	Regulated
UN number or ID number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, N.O.S. (Polyaluminum chloride solution)
Transport hazard class(es)	8
Packing group	III
Technical Name	
Description	Poyaluminum chloride solution.
<u>IATA</u>	Regulated
UN number or ID number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, N.O.S. (Polyaluminum chloride solution)
Transport hazard class(es)	8
Packing group	III
ERG Code	8L
<u>IMDG</u>	Regulated
UN number or ID number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, N.O.S. (Polyaluminum chloride solution)
Transport hazard class(es)	8
Packing group	III
EmS-No	F-A, S-B

### 15. Regulatory information

#### International Inventories

TSCA	All ingredients are on the inventory or exempt from listing.
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Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Aluminum Chlorohydrate	12042-91-0	Present	Active
Water	7732-18-5	Present	Active

<b>DSL/NDSL</b>	All ingredients are on the DSL inventory or exempt from listing. None of the ingredients are on the NDSL inventory.
<b>EINECS/ELINCS</b>	All ingredients are on the EINECS inventory or are exempt from listing. None of the ingredients are on the ELINCS inventory.
<b>ENCS</b>	All ingredients are on the inventory or exempt from listing.
<b>IECSC</b>	All ingredients are on the inventory or exempt from listing.
<b>KECL</b>	All ingredients are on the inventory or exempt from listing.
<b>PICCS</b>	All ingredients are on the inventory or exempt from listing.
<b>AICS</b>	All ingredients are on the inventory or exempt from listing.

**Legend:****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

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

This product does not contain any substances regulated under applicable state right-to-know regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X

**U.S. EPA Label Information**



EPA Pesticide Registration Number Not applicable.

## 16. Other information

<b>NFPA</b>	<b>Health hazards</b>	<b>1</b>	<b>Flammability</b>	<b>0</b>	<b>Instability</b>	<b>0</b>	<b>Special hazards</b>
<b>HMIS</b>	<b>Health hazards</b>	<b>1</b>	<b>Flammability</b>	<b>0</b>	<b>Physical hazards</b>	<b>0</b>	<b>Personal protection</b>
							<b>B</b>

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### **Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

### **Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGL(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

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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**