



Certified to  
NSF/ANSI/CAN 60

MUL = 250 mg/L

# SAFETY DATA SHEET

Revision date 2020-Dec-18

Revision number 2

## 1. IDENTIFICATION

### Product identifier

**Product name** Polyaluminum chloride solution

### Other means of identification

**Product code** 3204J  
**Synonyms** Aluminum chloride hydroxide; Aluminum hydroxychloride; Aluminum chloride oxide

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

**Recommended use [RU]** No information available  
**Uses advised against** None known

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

**Supplier** G2O Technologies LLC  
9213 Arch Street Pike  
Little Rock, AR 72206  
+1-800-453-2586  
Hours: Monday-Friday 9:00-5:00 CST (Central Standard Time)

**Contact Point** sdsinfo@g2otech.com

### Emergency telephone number

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

## 2. HAZARDS IDENTIFICATION

### Classification

**Canadian HPR Regulatory Status**  
This chemical is considered hazardous by the Hazardous Products Regulation (WHMIS 2015)

<b>Skin corrosion/irritation</b>	Category 2
<b>Serious eye damage/eye irritation</b>	Category 2
<b>Corrosive to metals</b>	Category 1

### EMERGENCY OVERVIEW

<b>Physical state</b> liquid	<b>Color</b> colorless to yellow	<b>Appearance</b> clear	<b>Odor</b> no appreciable odor
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GHS Label elements, including precautionary statements**WARNING****Hazard statements**

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

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Keep only in original container.

**Precautionary Statements - Response**

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 advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Absorb spillage to prevent material damage.

**Precautionary Statements - Storage**

Store in corrosive resistant container with a resistant inner liner.

Other information

- Not applicable

**3. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous ingredients**4. FIRST AID MEASURES**First Aid Measures**Eye contact**

Remove contact lenses, if worn. Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Get medical attention if irritation develops and persists.

**Skin contact**

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

**Ingestion**

Do NOT induce vomiting. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person. Get medical attention.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

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

Possible eye, skin and respiratory tract irritation.

**Chronic effects**

May aggravate existing skin, eye, and lung conditions. Persons with kidney disorders have an increased risk from exposure based on general information found on aluminum salts.

**Indication of any immediate medical attention and special treatment needed****Note to physicians**

Aluminum soluble salts may cause gastroenteritis if ingested. Treatment includes the use of demulcents. Note: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing media****Suitable extinguishing media**

Water fog, carbon dioxide, foam, dry chemical.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture****Special Hazard**

May produce hazardous fumes or hazardous decomposition products.

**Advice for firefighters****Firefighting measures**

Product is a water solution and nonflammable. In a fire, this product may build up pressure and rupture a sealed container; cool exposed containers with water spray. Use self-contained breathing apparatus in confined areas; avoid breathing mist or spray.

**Special protective equipment for firefighters**

Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.

**Explosion data****Sensitivity to Mechanical Impact**

None.

**Sensitivity to Static Discharge**

None.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Wear adequate personal protective clothing and equipment. Approved breathing apparatus may be necessary.

**Environmental precautions****Environmental precautions**

Do not allow liquid to enter streams or waterways.

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

Prevent further leakage or spillage if safe to do so. Build dikes as necessary to contain flow of large spills.

**Methods for cleaning up**

Clear spills immediately. For small spills, use soda ash to neutralize, an inert material to absorb. Place contaminated materials into containers and store in a safe place to await proper disposal. Caution: Use of soda ash may generate carbon dioxide gas. Provide adequate ventilation to spill area.

## 7. HANDLING AND STORAGE

**Precautions for safe handling****Advice on safe handling**

Keep container closed when not in use  
Keep away from heat and open flame.  
Avoid contact with eyes, skin and clothing  
Wear chemical splash goggles, gloves, and protective clothing when handling.  
Wash thoroughly after handling  
Avoid breathing vapors or mists  
Use with adequate ventilation and employ respiratory protection where mist or spray may be generated.  
FOR INDUSTRIAL USE ONLY.

**Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

Store in a cool, dry place away from direct heat.  
Keep container closed when not in use  
Do not store in unlined metal containers.  
Product may slowly corrode iron, brass, copper, aluminum, mild steel, and stainless steel.

**Incompatible products**

Alkalis.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure Guidelines****Appropriate engineering controls****Engineering controls**

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

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

Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

**Hand Protection**

Appropriate chemical resistant gloves should be worn

**Skin and body protection**

Standard work clothing and work shoes.

**Respiratory protection**

If exposures exceed the PEL or TLV, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134. If there are no applicable or established exposure limit requirements or guidelines,

general ventilation should be sufficient.

#### Other personal protection data

Eyewash fountains and safety showers must be easily accessible.

#### Hygiene measures

Take off contaminated clothing and wash before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	liquid
<b>Color</b>	colorless to yellow
<b>Appearance</b>	clear
<b>Odor</b>	no appreciable odor
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks / Method</u>
pH	2.0 - 3.0	as is
Melting / freezing point	-12 °C / 10 °F	No information available
Boiling point / boiling range	104 °C / 220 °F	No information available
Flash point	Not applicable	No information available
Evaporation rate	No information available	No information available
Flammability (solid, gas)	Not applicable	No information available
Flammability Limit in Air		
Upper flammability limit	Not applicable	No information available
Lower flammability limit	Not applicable	No information available
Vapor pressure	No information available	No information available
Vapor density	No information available	No information available
Specific gravity	1.19 - 1.21	No information available
Solubility (water)	Soluble below pH 4	No information available
Solubility in other solvents	No information available	No information available
Partition coefficient: n-octanol/water	No information available	No information available
Autoignition temperature	Not applicable	No information available
Decomposition temperature	No information available	No information available
Kinematic viscosity	No information available	No information available
Dynamic viscosity	< 20 cps @ 25 °C	No information available

### Other information

Density	9.92 - 10.09 lb/gal
Bulk Density	No information available

<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>Volatile Organic Compound (VOC) content, wt.%</b>	No information available
<b>Percent Volatile, wt.%</b>	65 - 80%

## 10. STABILITY AND REACTIVITY

### Reactivity

**Reactivity**

No data available.

### Chemical stability

**Chemical stability**

Stable.

### Possibility of hazardous reactions

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous polymerization**

No.

### Conditions to avoid

**Conditions to avoid**

None known.

### Incompatible materials

**Materials to avoid**

Alkalis.

### Hazardous decomposition products

**Hazardous decomposition products**

Thermal decomposition may release toxic and/or hazardous gases such as aluminum, Cl<sub>2</sub>, and HCl.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Eye contact**

May cause moderate eye irritation that can become severe with prolonged contact. Prolonged exposure to Aluminum salts may cause conjunctivitis.

**Skin contact**

Prolonged and/or repeated contact may cause skin irritation.

**Ingestion**

May cause irritation of the mouth, throat and stomach. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Inhalation**

Inhalation of mist or vapor may cause respiratory tract irritation.

### Acute toxicity - Product Information

<b>Oral LD50</b>	No information available
<b>Dermal LD50</b>	No information available
<b>Inhalation LC50</b>	No information available

**Information on toxicological effects****Symptoms**

No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

No information available

**Serious eye damage/eye irritation**

No information available

**Sensitization**

No information available

**Germ cell mutagenicity**

No information available

**Carcinogenicity**

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.

**Reproductive toxicity**

No information available

**Specific target organ toxicity - Single exposure**

No information available.

**Specific target organ toxicity - Repeated exposure**

No information available

**Aspiration hazard**

No information available.

**Other information**

Conclusions are drawn from sources other than direct testing.

**12. ECOLOGICAL INFORMATION****Ecotoxicity****Acute aquatic toxicity - Product Information**

<b>Fish</b>	LD (24 hr, static, Fresh Water) 10 mg/L <i>Oncorhynchus kisutch</i> , Coho salmon, Silver salmon <sup>1</sup> LD (24 hr, static, Fresh Water) 10 mg/L <i>Ptychocheilus oregonensis</i> , Northern squawfish <sup>1</sup> LD (24 hr, static, Fresh Water) 10 mg/L <i>Oncorhynchus tshawytscha</i> , Chinook salmon <sup>1</sup>
<b>Crustacea</b>	LC50 (48 Hour, static) 33.2 mg/L <i>Ceriodaphnia dubia</i> <sup>2</sup>
<b>Algae/aquatic plants</b>	No information available

**Persistence and degradability****Persistence and degradability**

No information available

**Bioaccumulative potential****Bioaccumulative potential**

No information available

**Mobility****Mobility**

No information available

**Results of PBT and vPvB assessment****PBT and vPvB assessment**

No information available

**Other adverse effects****Other information**

<sup>1</sup> Data from USEPA ECOTOX database search, reference: Lethal Effects of 1888 Chemicals upon Four Species of Fish From Western North America, MacPhee, C. and R. Ruelle, Univ. of Idaho Forest, Wildlife Range Experimental Station Bull. No. 3, Moscow, ID, 112p.

<sup>2</sup> Generated from tests conducted by SEAUS Testing Laboratories Nov., 1993 using EPA/600-4-90/027

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal of wastes**

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

**Contaminated packaging**

Since empty containers retain product residue, follow label warnings even after container is emptied.

**14. TRANSPORT INFORMATION**

<b><u>TDG</u></b>	Regulated
<b>UN number</b>	UN3264
<b>Proper shipping name</b>	Corrosive Liquid, Acidic, Inorganic, N.O.S. (Polyaluminum Chloride Solution)
<b>Hazard class</b>	8
<b>Packing group</b>	III
<b><u>DOT</u></b>	Regulated
<b>DOT UN/NA Number</b>	UN3264
<b>Proper shipping name</b>	Corrosive Liquid, Acidic, Inorganic, N.O.S. (Polyaluminum Chloride Solution)
<b>Hazard class</b>	8
<b>Packing group</b>	III
<b>ERG Number</b>	154
<b><u>ICAO/IATA</u></b>	Regulated
<b>UN number</b>	UN3264
<b>Proper shipping name</b>	Corrosive Liquid, Acidic, Inorganic, N.O.S. (Polyaluminum Chloride Solution)
<b>Hazard class</b>	8
<b>Packing group</b>	III



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<b>ERG Code</b>	8L
<b>IMDG</b>	Regulated
<b>UN number</b>	UN3264
<b>Proper shipping name</b>	Corrosive Liquid, Acidic, Inorganic, N.O.S. (Polyaluminum Chloride Solution)
<b>Hazard class</b>	8
<b>Packing group</b>	III
<b>EmS</b>	F-A; S-B

## 15. REGULATORY INFORMATION

### National Regulations

**Canada (DSL)**

Not determined

**Canada (NDSL)**

Not determined

### International Inventories

**Australia (AICS)**

Not determined

**China (IECSC)**

Not determined

**European Union (EINECS)**

Not determined

**European Union (ELINCS)**

Not determined

**Japan (ENCS)**

Not determined

**South Korea (KECL)**

Not determined

**Philippines (PICCS)**

Not determined

**United States (TSCA)**

Not determined

### Legend

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

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**16. OTHER INFORMATION**

Product code	3204J
Revision date	2020-Dec-18
Revision number	2

**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