

# SAFETY DATA SHEET



Certified to  
NSF/ANSI/CAN 60

MUL = 250 mg/L

Revision date 24-Feb-2023

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** DelPAC® 2500

### Other means of identification

**Product Code(s)** 3250A

**UN number or ID number** UN1760

**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** No information available None known

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

#### Supplier Address

G2O Technologies LLC  
1 Riverside Way,  
Phillipsburg, NJ 08865  
+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  
Causes serious eye irritation  
May be corrosive to metals

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

Keep only in original packaging.  
Wash hands, face and any exposed skin thoroughly after handling. Do not touch eyes.  
Wear protective gloves/protective clothing/eye protection/face protection.

**IF IN EYES:** Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

If eye irritation occurs: Get medical help.

**IF ON SKIN (or hair):** Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.

If skin irritation occurs: Get medical help.

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

**Precautionary Statements - Storage**

Store in corrosive resistant container with a resistant inner liner.

**Other information**

May be harmful if swallowed.

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

Water and Wastewater Treatment Coagulant/Flocculant.

Chemical name	CAS No	Weight-%	Trade secret
Aluminum Chloride Hydroxide Sulfate	39290-78-3	15 - 45%	*

\*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****General advice**

Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.

**Inhalation**

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

(trained personnel should) give oxygen. Call physician immediately.

<b>Eye contact</b>	Immediately flush with plenty of water for at least 20 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek immediate medical attention.
<b>Skin contact</b>	Immediately wash thoroughly with soap and water, remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention if irritation should develop.
<b>Ingestion</b>	Seek medical attention immediately. Give large amounts of water to drink. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person.

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

<b>Symptoms</b>	Skin, eye and respiratory tract irritation. May cause redness and tearing of the eyes. Itching. Burning sensation. Rashes. Redness. Dermatitis. Coughing and/ or wheezing. Difficulty in breathing. Stomach pains.
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#### **Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	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.
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## **5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Not combustible. Use appropriate extinguishing media for material that is supplying fuel. Use water spray to cool the surrounding area and maintain fire temperature below decomposition temperature. Water Spray, Carbon Dioxide, Foam, Dry Chemical. CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Large Fire</b>	
<b>Unsuitable extinguishing media</b>	No information available.
<b>Specific hazards arising from the chemical</b>	May produce hazardous fumes or hazardous decomposition products.
<b>Hazardous combustion products</b>	Thermal decomposition (as may be experienced in a fire) may produce toxic and/or hazardous gases such as HCl and Cl <sub>2</sub> as well as oxides of sulfur and carbon.
<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>	Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.

## **6. Accidental release measures**

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

<b>Personal precautions</b>	Wear suitable protective clothing and gloves.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

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

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so. Soak up small spills with inert absorbent
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	material and place in a labeled waste container for disposal. Build dikes as necessary to contain flow of large spills. Do not allow liquid to enter streams or waterways.
<b>Methods for cleaning up</b>	Stop leaks. Clean up spill immediately. Build dikes as necessary to contain flow of large spills. Do not allow liquid to enter stream or waterways. 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. Wear adequate personal protective clothing and equipment. Caution: The use of soda ash may generate carbon dioxide gas. Provide adequate ventilation to spill area. Approved breathing apparatus may be necessary. Clean up large spills with vacuum truck.
<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

<b>Advice on safe handling</b>	Keep container closed when not in use. Keep away from heat and open flame. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wear chemical splash goggles, gloves, and protective clothing when handling. Avoid breathing vapors or mists. Use with adequate ventilation and employ respiratory protection where mist or vapors may be generated. FOR INDUSTRIAL USE ONLY.
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### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Store in corrosive resistant stainless steel container with a resistant inner liner. Product may slowly corrode iron, brass, copper, aluminum, mild steel, and stainless steel. Store in a cool, dry place away from direct heat. Keep in tightly closed container. Store locked up.
<b>Packaging materials</b>	Store in corrosion resistant container with a resistant inner liner.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

##### **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

<b>Engineering controls</b>	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. Ensure that eyewash stations and safety showers are close to the workstation location.
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### Individual protection measures, such as personal protective equipment

<b>Eye/face protection</b>	Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).
<b>Hand protection</b>	Appropriate chemical resistant gloves should be worn.
<b>Skin and body protection</b>	Standard work clothing and work shoes.

<b>Respiratory protection</b>	If exposures exceed the PEL or TLV, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134.
<b>Environmental exposure controls</b>	Do not allow liquid to enter streams or waterways.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. Ensure that eyewash stations and safety showers are close to the workstation location. Do not eat, drink or smoke when using this product.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear to slightly hazy
<b>Color</b>	Colorless to yellow
<b>Odor</b>	No appreciable odor
<b>Odor threshold</b>	No information available

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>pH</b>	2.1 - 2.7	As is
<b>Melting point / freezing point</b>	< -32.2 °C (-26 °F)	None known
<b>Boiling point / boiling range</b>	~ 110 °C (230 °F)	No information available
<b>Flash point</b>	Not applicable	No information available
<b>Evaporation rate</b>	No information available	No information available
<b>Flammability (solid, gas)</b>	Not applicable	No information available
<b>Flammability Limit in Air</b>	No data available	None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	No information available
<b>Relative vapor density</b>	No data available	No information available
<b>Relative density</b>	1.26 - 1.32	None known
<b>Water solubility</b>	Soluble below pH 4	No information available
<b>Solubility(ies)</b>	No information available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	Not applicable	No information available
<b>Decomposition temperature</b>	No information available	None known
<b>Kinematic viscosity</b>	No data available	No information available
<b>Dynamic viscosity</b>	No data available	None known
<b>Other information</b>		
<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>VOC Content (%)</b>	No information available	
<b>Liquid Density</b>	10.5 - 11.0 lbs./gal.	
<b>Bulk density</b>	No information available	

## 10. Stability and reactivity

<b>Reactivity</b>	No data available.
<b>Chemical stability</b>	Stable.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	No.
<b>Conditions to avoid</b>	Avoid contact with metals such as iron, brass, copper, aluminum and mild steel.

**Incompatible materials** Alkalies.

**Hazardous decomposition products** Thermal decomposition (as may be experienced in a fire) may produce toxic and/or hazardous gases such as HCl and Cl<sub>2</sub> as well as oxides of sulfur and carbon.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Product Information</b>	Specific test data for the substance or mixture is not available.
<b>Inhalation</b>	Inhalation of mist or vapor may cause respiratory tract irritation.
<b>Eye contact</b>	May cause moderate eye irritation that can become severe with prolonged contact. Prolonged exposure to Aluminum salts may cause conjunctivitis.
<b>Skin contact</b>	Prolonged and/or repeated contact may cause skin irritation.
<b>Ingestion</b>	May cause irritation of the mouth, throat and stomach. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

<b>Symptoms</b>	Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing. Eye contact: Adverse symptoms may include the following: watering, redness, and irritation. Skin contact: Adverse symptoms may include the following: irritation and redness. Ingestion: Adverse symptoms may include the following: stomach pains, gastrointestinal irritation, nausea, vomiting and diarrhea.
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### Acute toxicity

#### **Numerical measures of toxicity**

No information available

<b>ATEmix (oral)</b>	18374 mg/kg
<b>ATEmix (dermal)</b>	4004 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum Chloride Hydroxide Sulfate 39290-78-3	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	> 5 mg/L ( Rat ) 4 h

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

<b>Skin corrosion/irritation</b>	Irritating to skin.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information 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 information available.
<b>Developmental toxicity</b>	No information available.

<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.
<b>Other adverse effects</b>	No information available.
<b>Interactive effects</b>	No information available.

## 12. Ecological information

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

**Persistence and degradability** Not determined. No information available.

**Bioaccumulation** No information available.

Chemical name	Partition coefficient
Aluminum Chloride Hydroxide Sulfate 39290-78-3	<3

**Mobility** Not determined. No information available.

**Other adverse effects** No information available.

## 13. Disposal considerations

### Waste treatment methods

**Waste from residues/unused products** Dispose of product in an approved chemical waste landfill or incinerate in accordance with applicable Federal, state and local regulations.

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

## 14. Transport information

### DOT

<b>UN number or ID number</b>	Regulated UN1760
<b>Proper shipping name</b>	Corrosive liquid, N. O. S. (Aluminum chloride hydroxide sulfate)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	III
<b>Emergency Response Guide Number</b>	154

### TDG

<b>UN number or ID number</b>	Regulated UN1760
<b>UN proper shipping name</b>	Corrosive liquid, N. O. S. (Aluminum chloride hydroxide sulfate)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	III

### **Technical Name**

**Description** Aluminum chloride hydroxide sulfate

**IATA**

**UN number or ID number** UN1760  
**UN proper shipping name** Corrosive liquid, N. O. S. (Aluminum chloride hydroxide sulfate)  
**Transport hazard class(es)** 8  
**Packing group** III  
**ERG Code** 8L

**IMDG**

**UN number or ID number** UN1760  
**UN proper shipping name** Corrosive liquid, N. O. S. (Aluminum chloride hydroxide sulfate)  
**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.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Water	7732-18-5	Present	Active
Aluminum Chloride Hydroxide Sulfate	39290-78-3	Present	Active

**DSL/NDSL**

All ingredients are on the DSL inventory or exempt from listing. None of the ingredients are on the NDSL inventory.

**EINECS/ELINCS**

All ingredients are on the EINECS inventory or are exempt from listing. None of the ingredients are on the ELINCS inventory.

**ENCS**

All ingredients are on the inventory or exempt from listing.

**IECSC**

All ingredients are on the inventory or exempt from listing.

**KECL**

All ingredients are on the inventory or exempt from listing.

**PICCS**

All ingredients are on the inventory or exempt from listing.

**AICS**

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

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 2	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards</b> CORR
<b>HMIS</b>	<b>Health hazards</b> 2	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</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

**Revision date**

24-Feb-2023

**Revision Note**

No information available.

**Disclaimer**

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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