

# Safety Data Sheet

## 1. IDENTIFICATION

### Polyaluminum Chloride Liquid

**Use:** Coagulant / Clarification Aid  
**Company:** Chemical Research Products Industrial Sales Incorporated  
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**Telephone No.:** (044) 703 6998  
**Website:** [www.chemicalresearchph.com](http://www.chemicalresearchph.com)

Emergency Information

Chemical Research Technical Tel. No.: (02) 687-6541

## 2. HAZARD(s) IDENTIFICATION

**GHS Classification:** Skin irritation (category 2)

Serious eye damage/ irritation (category 2)

Corrosive to metals (category 1)

**Label Element:**



**Signal Word:** Warning

**Hazard Statement:** Causes skin irritation  
Causes serious eye irritation  
Maybe corrosive to metals

**Precautionary Statements**

**- Prevention:** Wash face, hands and any exposed skin thoroughly after handling.

Wear protective gloves, clothing, eye protection and face protection.

Keep only in original container.

**- 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.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable breathing.

**- Storage:**

Store in corrosive resistant container with a resistant inner liner.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Percentage
Polyaluminium Chloride	(1327-41-9)	9 - 10%
Water	(7732-18-5)	Balance

### 4. FIRST-AID MEASURES

<b>Eyes:</b>	Immediately flush eyes gently with warm water at least 15 minutes. Washing with in one minute is essential to achieve maximum effectiveness. Seek immediate medical attention.
<b>Skin:</b>	Promptly wash with mild soap and water at least 15 minutes. Remove contaminated clothing and shoes. If skin irritation occurs; Get medical advice/attention.
<b>Swallowing:</b>	Do NOT induce vomiting. Rinse mouth with water. Drink 1 or 2 glasses of water or milk. If symptoms persist, call a physician. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Inhalation:</b>	Remove patient to fresh air. Keep patient warm and at rest. Apply oxygen or artificial respiration if need. Call a physician.

### 5. FIRE-FIGHTING MEASURES

<b>Extinguishing Media:</b>	Water spray, dry chemical, CO <sub>2</sub> or class B extinguishing agent.
<b>Special Hazard:</b>	May produce hazardous fumes or hazardous decomposition products.
<b>Protective Equipment:</b>	Wear full protective clothing and self-contained breathing apparatus exposed to vapors or products of combustion.

**Advice for Firefighters:** 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. Avoid breathing mists or spray.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precaution:** Avoid contact with skin, eyes and clothing. Wear adequate personal protective clothing and equipment. Approved breathing apparatus may be necessary.

**Environmental Precaution:** Cover the drains to prevent the product from entering the environment. If product contaminates rivers and lakes or drains inform respective authorities.

**Clean up Methods:** Absorb with clay, sawdust on other absorbent material

**Additional Information:** Product is water-soluble and compatible with water treatment plants. Product reacts with soap forming a hydroxide gel.

## 7. HANDLING and STORAGE

**Handling:** Use good personal hygiene practice. Wash after handling; Wear chemical splash goggles, gloves, and protective clothing when handling; Avoid breathing vapors or mists.

**Storage:** Store in closed containers in a dry, ventilated area. Do not store near extreme heat, open flame, source of ignition. Do not store in unlined metal containers. Product may slowly corrode iron, brass, copper, aluminum, mild steel, and stainless steel.

**Incompatible Material:** Organic materials, nitrates, chlorates, and carbades.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**Personal Protection:** Avoid contact, wear gloves, safety boots, safety glasses and overalls

**Respiratory Protection:** NIOSH/MSHA approved respiratory protection equipment is recommended.

**Eye Protection:** Chemical splash goggles and face shield

**Skin Protection:** Wear resistance gloves and impervious clothing and boots.

**Other Personal Protection**

**Data:** Eyewash fountains and safety showers must be easily accessible.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL and CHEMICAL PROPERTIES

Appearance:	Opaque to yellowish solution
Odor:	Mild
pH :	2.0 – 4.0 (10% solution)
Specific Gravity:	1.16 - 1.20 @ 25°C
Vapor Pressure:	Not established
Boiling Point:	104 °C (220 °F)
Freezing Point:	-12 °C (10 °F)
Evaporation Rate:	Not established
Solubility in Water:	Completely miscible
Viscosity:	Not established
Relative Density:	Not established

## 10. STABILITY and REACTIVITY

<b>Conditions to Avoid:</b>	Excessive heating after water evaporation for long period of time can result in the evolution of HCL and Cl <sub>2</sub> .
<b>Materials to Avoid:</b>	Will react with caustic to form aluminum hydroxides. Can corrode ordinary grades of steel.
<b>Hazardous Decomposition Products:</b>	HCL can be evolved during high temperature heating for extend periods of time.

## 11. TOXICOLOGICAL INFORMATION

Product is not classified under either the dangerous Substance Directive or GHS/CLP regulation.

**Acute dermal LD50:** Not classified

**Oral LD50:** Not classified

**Inhalation LC50:** Not classified

## 12. ECOLOGICAL INFORMATION

**Ecological Information:** No information available

## 13. DISPOSAL CONSIDERATION

**Disposal of wastes:** DO NOT mix with other chemical wastes. Do not put solutions containing this product into sewer systems. Dispose of product in an approved chemical waste

landfill or incinerate in accordance with applicable Federal, state and local regulation. Do not re-use empty containers.

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

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. TRANSPORT INFORMATION

Land Transport (ADR / RID)

Class 4

UN Number: 3264

Sea Transport (IMDG)

Class 4

UN Number: 3264

Marine Pollutant: None

Air Transport (IATA)

Class 4

UN Number: 3264

## 15. REGULATORY INFORMATION

### EU Legislation

This product has been approved as a chemical used for the treatment of drinking water, under the appropriate BS EN Standard (see Sales Specification), and so it is also approved by the British Drinking Water Inspectorate.

### National Regulations

Workplace Exposure Limits 2005 (EH40)

## 16. OTHER INFORMATION

### HMIS

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>REACTIVITY</b>	<b>0</b>
<b>PERSONAL PROTECTION</b>	<b>X</b>

### NFPA



0 = Minimal    1 = Slight    2 = Moderate    3 = High/ Serious    4 = Extreme/ Severe

### General Information

Notes on storage conditions and product stability:

Polyaluminum Chloride white Liquid (PACL) solutions are stable indefinitely when stored under benign conditions (sealed vessel, constant temperature). However, some users may experience product instability, which can arise from two potential problems:

- 1) The product is designed to break down on contact with water, to allow water treatment to occur. As a result, water vapor condensing on inside tank surfaces may lead to colorless crystals forming when the water drops back into the bulk liquid. These crystals can only be dissolved using hot water.

Condensation should thus be minimized by tank design and location. If possible, avoid tanks that are dark in color, in direct sunlight, and off the ground, as these factors will lead to large day/night temperature fluctuations.

- 2) Long-term storage in open/vented vessels may result in evaporation of water, leading to over concentration of the PACL, and formation of a very fine, cream-colored deposit. This deposit is easily dissolved in water.