

## Material Safety Data Sheet Polyaluminium Chloride

### Section 1: Chemical Product and Company Identification

Product Name : Polyaluminium Chloride  
Chemical Formula :  $[Al_2(OH)_nCl_{6-n} \cdot xH_2O]_m$  ( $m \leq 10$ ,  $n = 3 \sim 5$ )  
Company Identification : Tradeasia International Pte Ltd  
Email : contact@chemtradeasia.com

### Section 2: Composition and Information on Ingredients

Composition:

Name	CAS#	% by Weight
Polyaluminium Chloride	1327-41-9	100

### Section 3: Hazards Identification

**Most important hazard:** Milk irritant.

**Safety phrases:** Keep out of reach of children. In case of contact with skin wash immediately with plenty of water.

### Section 4: First Aid Measures

**Skin Contact:** Remove affected clothing including footwear and wash affected area with a gentle stream of water for 15 minutes. If irritation occurs seek medical advice.

**Eye Contact:** Immediately flush eyes with plenty of water holding eyelids open. If irritation persists, seek medical attention.

**Inhalation:** Remove from contaminated area. Obtain medical attention.

**Ingestion:** Do not induce vomiting. Administer a 5% solution of Sodium bicarbonate followed by milk. Obtain medical attention.

### Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Fire Hazards in Presence of Various Substances:** Not available.

**Fire Fighting Media and Instructions:** Fire-fighters should wear full protective clothing including self-contained breathing apparatus. Use water spray, foam, dry agent (carbon dioxide, dry chemical powder). Material is non-flammable. Severe overheating may produce hydrogen chloride gas. Reacts with alkaline products. Corrosive to metals. Releases acidic vapors upon decomposition. Hazardous polymerization has not been reported.

### Section 6: Accidental Release Measures

**Environmental Precautions:** Where a spillage or contaminated washings causes contamination of water courses, drains or vegetation inform relevant authorities.

**Clean up procedure:** Contain all spillage of PAC. Dispose of using licensed waste disposal contractors.

### Section 7: Handling and Storage

**Precautions:** Wear Protective clothing. Safety showers and eye wash facilities should be provided in areas where an accidental exposure is possible. Once diluted it should be used as soon as possible.

**Storage:** Poly Aluminum Chloride becomes unstable when stored or transported for some time at temperatures higher than 40°C. PAC tends to hydrolyse to a white turbid solution and loses effectiveness when it is kept long a diluted solution of less than approximately 3% (as Al<sub>2</sub>O<sub>3</sub>)

**Compatible Materials:** Lead, Ebonite coated Steel (4 mm Thickness, min.), Rubber, Glass Fibre, Glass HDPE, PVC.

**Incompatible Materials:** Mild Steel, Copper, Zinc, Silver.

## Section 8: Exposure Controls/Personal Protection

**Personal Protective Equipment:** Protective overalls, Rubber gloves, Eye goggles / Face shield, Hard hat, Acid resistant boots.

## Section 9: Physical and Chemical Properties

Physical state and appearance	: Powder
Odor	: Odorless.
Taste	: Not available.
Molecular Weight	: 136.15 g/mole
Color	: Amber – Light Pale Yellow
pH	: 2.3 ± 0.3 (3.5 ± 0.5 of 5 % aqueous solution), (at g/l H <sub>2</sub> O) at 20°C
Boiling Point	: Decomposes.
Melting Point	: -
Freezing Point	: -10°C
Critical Temperature	: Not available.
Density	: 1.2 ± 0.05 g/cm <sup>3</sup> at 20°C
Volatility	: Not available.
Viscosity	: 4 ± 0.4 cSt at 20°C
Water/Oil Dist. Coeff.	: Not available.
Ionicity (in Water)	: Not available.
Dispersion Properties	: See solubility in water
Solubility	: Not available.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable under recommended storage conditions.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Water:** Coagulates substances suspended or dispersed in water to settle quickly to form a filterable sludge.

**Incompatibility with various substances:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Basis / Alkalis:** Bulk precipitation occurs with evolution of heat.

**Skin/Eye:** Causes Irritation

**Skin absorption:** Repeated skin exposure may cause Dermatitis

**Ingestion:** Irritation of mucous membrane brought into direct contact.

**Toxicity:** Acute oral toxicity in mice 34.5 g/kg.

## **Section 12: Ecological Information**

The product undergone tests with various concentrations, proved to be entirely harmless to aquatic life up to concentration of 200 mg/l expressed as  $\text{Al}_2\text{O}_3$  (corresponding to 2 g/l of PAC AC/100 S).

## **Section 13: Disposal Considerations**

**Waste Disposal:**

## **Section 14: Transport Information**

UN No. / GGVE / GGVS: See IMDG Code ICAO / IATA – DGR: Class 8 UN 1760 IMDG Code: IMDG Code Class N degree 8UN 1760 IMDG Code Page 8070 RID / ADR : Class 8.5°C

## **Section 15: Other Regulatory Information**

Symbol(s): Mild Irritant

R-Phrases(s): R38 – Irritating to skin

S-Phrases(s): S26 – Keep out of reach of children In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice. S2 – Keep out of reach of children.

## **Section 16: Other Information**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Tradeasia International Pte. Ltd. Be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Tradeasia International Pte. Ltd. has been advised of the possibility of such damages.