



理 文 化 工 有 限 公 司

*Lee & Man Chemical Company Limited*

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# Material Safety Data Sheet

**Polyaluminium Chloride**

**$\text{Al}_2\text{Cl}(\text{OH})_5$**

# Material Safety Data Sheet

## Chloroform MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Polyaluminium Chloride

**Chinese name:** Polyaluminium chloride basic aluminium chloride: polyaluminium chloride; hydroxyl aluminium chloride; water purifier

**English name:** Polyaluminium Chloride

**Molecular formula:**  $Al_2Cl(OH)_5$

**Relative molecular weight:** 174.45

**Hazardous Categories:** Non-Hazardous Chemicals

### Section 2: Composition and Information on Ingredients

**Main Components:**  $Al_2Cl(OH)_5$

**CAS:**1327-41-9

### Section 3: Overview of Risk

**Invasive pathway:** ingestion

**Health hazards:** This product has irritating effect on skin and mucosa. Inhalation of high concentrations can cause bronchitis. Other people can cause bronchial asthma. When the dosage is large, it can cause oral erosion, gastritis, gastric bleeding and mucosal Death. Chronic effects: Long-term exposure can cause headache, dizziness, loss of appetite, cough, nasal obstruction, chest pain and other symptoms.

### Section 4: First Aid Measures

**Skin contact:** Take off contaminated clothes immediately and rinse with a large amount of flowing water for at least 15 minutes. Seek medical advice.

**Eye contact:** Lift the eyelids immediately and rinse thoroughly with plenty of flowing water or saline for at least 15 minutes . Seek medical advice.

**Inhalation:** Quickly leave the scene to the fresh air. Keep the respiratory tract open. If breathing is difficult, give oxygen. If breathing stops, artificial respiration should be carried out immediately. Seek medical advice.

**Intake:** Gargle with water and drink milk or egg white. Seek medical advice.

## **Section 5: Fire and Explosion Data**

**Flash point:** meaningless

**Burning and Explosion Lower Limit:** meaningless

**Ignition Temperature:** meaningless

**Explosion cap:** meaningless

**Fire extinguishing methods:** Firefighters must wear acid and alkali resistant fire suits.

**Fire extinguishing agent:** dry sand

**Part VI:** Emergency response to leakage

**Leakage emergency treatment:** Isolate leaking contaminated areas and restrict access. Emergency handlers are advised to wear dust masks (full cover) and wear acid-alkali overalls. Do not touch the leak directly. Small leakage: Avoid dust and collect it in a closed container with a clean shovel. A large number of leaks: covered with plastic sheets and canvas. Clear under the guidance of experts.

## **Section 6: Operational Disposal and Storage**

Cautions for storage and transportation: Store in a cool, dry, well-ventilated storeroom. Stay away from fire, heat source. The relative humidity remains below 75%. Packaging must be sealed, do not be damp. Should be stored separately from easy (CAN) combustible, alkali, alcohols, etc., and avoid mixing. It is not appropriate to save for a long time to avoid spoilage. Storage areas should be equipped with suitable materials to accommodate leaks. Rail transport should be carried out in strict accordance with the dangerous goods distribution table in the Ministry of Railways's "rules for the transport of dangerous Goods". Packaging should be complete at the time of shipment, loading should be safe. In the transport process to ensure that the container does not leak, do not collapse, do not fall, do not damage. Mixing with flammable or

combustible objects, alkalis, alcohols, edible chemicals and other mixed transport is strictly prohibited. Transport vehicles should be equipped with leak emergency treatment equipment during transport. In transit should be anti-exposure, rain, anti-high temperature.

## **Section 7: Contact Control/Personal Protection**

**China Mac:** No standards set

**Former Soviet Mac:** 2[A1]

**Detection methods:** Titration method

**Engineering control:** Closed operation, local air exhaust. Safe showers and eye-washing equipment are available.

**Respiratory protection:** may be exposed to its dust, should wear self-priming filter Dust mask, emergency rescue or evacuation, it is recommended to wear air respirator.

**Eye protection:** Wear chemical safety protective glasses

**Body Protection:** Wear rubber acid and alkali resistant clothing

**Hand protection:** Wear rubber acid and alkali resistant gloves

**Other protective:** Smoking, eating and drinking are prohibited at the work site. Finish your work and shower and dress. Store the clothes contaminated by poison separately and spare them after washing. Maintain Good hygiene practices.

## **Section 8: Physical and chemical characteristics**

**Appearance & traits:** Liquid polymeric aluminum chloride, salt base degree at 40%-60%; for light yellow transparent liquid, at more than 60%, for colorless transparent liquid.

**Main applications :** Polyaluminum chloride is a flocculant, mainly used to purify drinking water, but also used for special water treatment of water supply, iron removal, cadmium removal, fluorine removal, in addition to radioactive pollution, in addition to oil slick and so on. Also used in industrial wastewater treatment, such as printing and dyeing wastewater, in casting, paper, medicine, tanning and other aspects are also widely used.

**Melting point** : 190 (253kpa)

**Boiling point** : No information available

**Relative density (water =1)** : 2.44

**Relative density (air =1)** : No information available

**Saturated vapor pressure** : 0.13 (100°C)

**The pair value of the bitterness/water distribution coefficient** : No information available

**Combustion value** : Meaningless

**Critical** : No information available

**Critical pressure** : No information available

**Solubility** : Easily soluble in water, alcohol, chloroform, carbon tetrachloride, slightly soluble in benzene

**Part x:** Stability and reactive activity

**Stability** : Stable

**Aggregation hazards** : No information available

**Taboo objects** : Flammable or combustible objects, alkalis, water, alcohols.

## **Section 9: Toxicological information**

**Acute toxicity** :  $LD_{50}$ :3730mg/kg (rat warp mouth)

**Irritation** : No information available

**Subacute and Chronic toxicity** : No information available

**Reproductive toxicity** : No information available

**Carcinogenicity** : No information available

**Mutagenicity** : No information available

## **Section 10: Ecological information**

**Environmental information** : No information available

## **Section 11: Waste disposal**

**Waste Treatment Method** : Disposed of in accordance with the requirements of

relevant national and local regulations. or contact the manufacturer or manufacturer to determine the disposal method.

## **Section 12: Transport information**

**Danger Gauge Number** : 81045

**United Nations No** : UN marking 1726

**Packaging categories** : O52

**Packaging methods** : Tankers

## **Section 13: Regulatory information**

**Regulatory information** : Regulations on the safety management of Chemical Dangerous Goods (issued by the State Council on February 17, 1987), regulations on the safety regulations for chemical Dangerous Goods (1992]677), provisions on the safe use of chemicals in the Workplace ([1996] Lloyd's No. No. 423), etc., for the safe use, production and storage of chemical dangerous goods , transportation, loading and unloading and other aspects of the corresponding provisions.