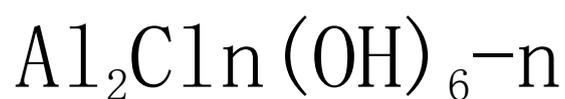




Lee & Man Chemical

## **Safety data sheet for chemical product**

Polyaluminum Chloride (liquid)



# Safety data sheet for chemical products

## Polyaluminum Chloride (liquid)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product name:**

Polyaluminum Chloride (liquid).

**Company name:**

Jiangxi Lee & Man Chemical Company Limited

**Address:**

Dock Industrial City, Jiujiang City, Jiangxi Province

**Post code:**

332207

**Business phone:**

0792-8996998

**Enterprise emergency number:**

0532-83889090

**Fax number:**

0792-8996988

**Email address:**

haifeng\_sun@leemanchemical.com

**Recommended use:**

Polyaluminum chloride is a flocculant, mainly used to purify drinking water, and also used for special water quality treatment of water supply, iron removal, cadmium removal, fluorine removal, radioactive pollution removal, oil slick removal, etc. It is also used for industrial wastewater treatment, such as printing and dyeing wastewater, etc. It is also widely used in foundry, papermaking, medicine, tanning, etc.

**Restricted use:** \No relevant information was found.

### SECTION 2: Hazards identification

**Emergency Overview:** May corrode metals. Causes serious eye damage.

**Label elements:**

**Pictograms:**



Signal word: Danger

Hazard Statements: May be corrosive to metals. Causes skin irritation. Causes serious eye irritation.

Precautionary Statements:

·Precaution

- Thoroughly wash the body contact area after operation. Contaminated work clothes should also be washed thoroughly.

- Do not eat, drink or smoke in the workplace or when using this product.

- Avoid inhalation of fumes, gases, mists, vapors, sprays. Avoid contact with eyes, skin or clothing.

——Wear protective gloves, protective clothing, protective goggles, and protective masks.

· Incident response

- IF INHALED: Remove victim to fresh air and rest in a position comfortable for breathing. Get medical attention immediately. IF exposed: Get medical attention.

- IF ON SKIN (HAIR) CONTACT: Take off immediately all contaminated clothing. Wash skin with plenty of water and shower. Contaminated clothing should be cleaned before reuse.

- IF INGESTED: Get medical attention immediately. Gargle. Do not induce vomiting.

- IF IN EYES: Rinse cautiously with water for several minutes, remove contact lenses if they are present and easily accessible. Continue rinsing. Eye irritation, seek medical attention.

· **Safe storage**

- Store in a cool, ventilated warehouse.

·**Disposal**

- Dispose of this product and its contents and containers in accordance with national and local regulations.

Physical and chemical hazards: non-flammable, no special explosive properties. May corrode metals.

Routes of entry: inhalation, ingestion.

Health Hazards: This product is irritating to the skin and mucous membranes. Inhalation of high concentrations can cause bronchitis, and individual people can cause bronchial asthma. When a large amount is taken by mistake, it can cause oral erosion, gastritis, gastric bleeding and mucosal necrosis. Chronic effects: Long-term exposure can cause headache, dizziness, loss of appetite, cough, nasal congestion, chest pain and other symptoms.

Environmental hazards: No relevant information was found.

### SECTION 3: Composition/information on ingredients

Substance: ✓

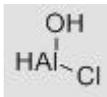
Mixture: ✕

Main ingredient: Aluminum chloride (polymerized)

relative molecular mass: 174.45

Structural formula:

CAS-No. : 1327-41-9



Formula :  $Al_2Cl_n(OH)_{6-n}$

### SECTION 4: First aid measures

Inhalation: quickly leave the scene to fresh air, keep the airway open. If breathing is difficult, give oxygen. If breathing or heartbeat stops, give artificial respiration immediately. Seek medical attention.

Skin Contact: Immediately remove contaminated clothing and rinse with plenty of running water for at least 15 minutes. Seek medical attention.

Eye Contact: Immediately lift the eyelids and rinse thoroughly with plenty of running water or saline for at least 5 to 10 minutes. Seek medical attention.

Ingestion: Rinse mouth with water, drink milk or egg white. Seek medical attention. Get medical attention immediately. If the patient is unconscious, do not induce vomiting or give any fluids.

### SECTION 5: Firefighting measures

Fire-fighting precautions: Firefighters must wear full-body acid-alkali-resistant fire-fighting suits, wear self-contained breathing masks, and put out fires in the upwind direction.

Extinguishing agent: This product is not flammable. Choose the appropriate extinguishing agent according to the cause of the fire.

Hazardous characteristics: This product is not flammable, and high temperature is the decomposition of chlorine gas.

Hazardous combustion products: ———

### SECTION 6: Accidental release measures

Protective measures, protective equipment and emergency procedures for operators: Delineate a warning area according to the area affected by the spread, and evacuate unrelated personnel to a safe area from the crosswind and upwind directions. Avoid contact with eyes, skin and respiratory tract. It is recommended that emergency responders wear dust masks (full face masks)

and work clothes for acid-base work. Do not come into direct contact with spillage. Cut off sources of leaks as much as possible.

**Environmental protection measures:** Cut off the source of leakage as much as possible. Prevent entry into restricted spaces such as sewers and flood drains.

**Containment and removal of leaked chemicals:** For a small amount of leakage, use sand or other absorbents to collect the leaked material, and place it in a sealed, leak-proof container for disposal. Large spills, covered with plastic sheeting, canvas. Remove under expert guidance. Contaminated areas are cleaned up and wastewater is discharged into the wastewater system. Build embankments or dig pits for collection to ensure that they do not pollute rivers and drinking water sources and minimize soil pollution. Dispose of spilled material in appropriate containers.

Precautions to prevent secondary hazards: No information available.

## SECTION 7: Handling and storage

**Handling precautions:** closed operation, local exhaust. Operators must undergo special training and strictly abide by operating procedures. It is recommended that operators wear hood-type electric air-supplied filtering dust respirators, protective clothing and rubber gloves. Avoid generating dust. Avoid contact with oxidants and active metal powders. Light loading and unloading during transportation to prevent damage to packaging and containers. Equipped with leakage emergency treatment equipment. Empty containers may be harmful residues.

**Storage Precautions:** Store in a cool, ventilated warehouse. Keep away from fire and heat sources. Package is sealed. It should be stored separately from oxidants and active metal powders, and should not be mixed. The storage area should be equipped with leakage emergency treatment equipment.

## SECTION 8: Exposure controls/personal protection

Occupational exposure limits:

China (PC-TWA) No standard

United States (TLV-TWA) No standard set

Monitoring method: titration method.

Engineering Controls: Closed operation, local exhaust. Safety showers and eye wash facilities are provided.

Respiratory protection: When you may come into contact with its dust, you must wear a hood-type powered air-purifying dust respirator. Wear self-contained breathing apparatus when necessary.

Hand Protection: Wear rubber gloves.

Eye Protection: Respiratory protection has been covered.

Skin and body protection: Wear protective clothing.

Other protection: Smoking, eating and drinking are strictly prohibited at the work site. After work, shower and change. Store poison-contaminated clothes separately and wash them for later use. Pay attention to personal hygiene. Practice good hygiene.

## SECTION 9: Physical and chemical properties

Appearance and Properties: Colorless or pale yellow transparent liquid

Odor:---

pH value (1% aqueous solution): 3.5-5.0

Melting point (°C): 190 (253kPa)

Boiling point (°C): No data available

Flash point (°C): No data available

Upper explosion limit [% (V/V)]: meaningless

Lower explosion limit [% (V/V)]: meaningless

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

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

Relative density (water=1): 1.36 (20°C)

Decomposition temperature (°C): No information available

Octanol/water partition coefficient: No information

Ignition temperature (°C): No significance

Critical temperature (°C): No information available

Critical pressure (MPa): No information available

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

## SECTION 10: Stability and reactivity

Stability: Stable Polymerization

Hazard: No information available.

Conditions to avoid: Moist air Materials to avoid

Flammable or combustible substances, alkalis, water, alcohols

## SECTION 11: Toxicological information

Acute toxicity: LD50: 3730mg/kg (rat oral).

Skin irritation or corrosion: Irritating.

Eye irritation or corrosion: Irritating.

Respiratory or Skin Sensitization: On skin contact, it can cause redness and itching.

Germ cell mutagenicity: No relevant data found.

Carcinogenicity: No relevant information was found.

Reproductive toxicity: No relevant information was found.

Specific target organ toxicity - single exposure: No relevant information was found.

Specific target organ toxicity - repeated exposure: No relevant information was found.

Aspiration Hazards: Prolonged inhalation of acid gases can affect the respiratory system.

## SECTION 12: Ecological information

Ecotoxicity: No information available.

Persistence and Degradability: Hydrolyzable.

Bioaccumulative potential: No relevant data found.

Mobility in soil: No relevant information found.

Other harmful effects: No relevant information was found.

## SECTION 13: Disposal considerations

**Waste chemicals:** Dispose of in accordance with relevant national and local regulations. Or contact the manufacturer or manufacturer to determine disposal methods.

**Contaminated Packaging:** Return container to manufacturer or dispose of in accordance with national and local regulations.

**Disposal precautions:** Take a safe method to collect and recycle the leaked material or transport it to a waste disposal site for further disposal according to the nature of the chemical.

## SECTION 14: Transport information

United Nations Dangerous Goods Number (UN Number): No information available

UN Shipping Name: No information available

UN Hazard Class: 8 Chemical Class:

Packaging Category:-

Packaging sign



Marine Pollutants: No

**Transportation Precautions:** The packaging should be complete and the loading should be secure at the time of departure. During transportation, make sure that the container does not leak, collapse, fall or be damaged. It is strictly forbidden to mix and transport with flammable or combustible materials, alkalis, alcohols, etc. Transport vehicles should be equipped with leakage emergency treatment equipment and fire-fighting equipment during transportation. During transportation, it should be protected from exposure to sunlight, rain, and high temperature. When transporting by road, it is necessary to drive according to the prescribed route, and do not stop in residential areas and densely populated areas.

## SECTION 15: Regulatory information

The following laws, regulations and standards provide corresponding provisions on the safe use, storage, transportation, handling, classification and marking of chemicals:

Production Safety Law of the People's Republic of China;

Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases

The Environmental Protection Law of the People's Republic of China;

Hazardous Chemical Safety Management Regulations;

Dangerous goods classification and product name number.

## SECTION 16: Other information

### References:

- (1) The latest practical manual for chemical dangerous goods;
- (2) Complete book on safety technology of hazardous chemicals;

### Disclaimer:

The information in this SDS applies only to the specified product, unless otherwise specified, all substances in this product have unknown hazards and should be used with care. While certain hazards are described in this SDS, we do not guarantee that these are the only hazards. This SDS provides information on the safety of product use only for those users of this product who

have received appropriate professional training. The relevant data is only used as a guide for safe handling, use, processing, storage, disposal and leakage, etc., and cannot be used as an indicator of guarantee and quality.