

Material Safety Data Sheet

Poly Aluminium Chloride

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name (SuperKlar): **Aluminium Polychloride**

Chemical Name: Poly Aluminium Chloride

Molecular formula: $[Al_2(OH)_nCl_{6-n} \cdot XH_2O]_m$ ($m \leq 10$, $n=1 \sim 5$)

Use of substance preparation.

Industry sector: Water treatment

Type of use: Water treatment agent

Manufacturer: BEIJING CHEMICAL CO., LTD

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity	CAS NO.	Percent(%)	Hazardous
POLY ALUMINIUM CHLORIDE	[1327-41-9]	$Al_2O_3: \geq 29\%$	None listed

3. HAZARDS IDENTIFICATION

The powder product on the skin, mucous membranes have a stimulating effect. Inhalation of high concentrations can cause bronchitis; individuals can cause asthma. Wrongly heavy, can cause oralerosions, gastritis, gastric bleeding and mucosal necrosis. Chronic effects: Long-term exposure can cause headache, dizziness, anorexia, cough, nasal congestion, chest pain and other symptoms.

Hazard statements:

H290 May be corrosive to metals.

Precautionary statements:

Prevention: P264 Wash face, hands and any exposed skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

Response: P390 Absorb spillage to prevent material damage.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage: P406 Store in corrosive resistant container with a resistant inner liner.

Disposal: P501 Dispose of contents/container as special waste in compliance with local and national regulations

4. FIRST AID MEASURES SKIN:

General advice Show this safety data sheet to the doctor in attendance.

Inhalation: Move to fresh air.

Skin contact: Wash well with water and soap. In case of persistent skin irritation, consult a physician.

Eye contact: Rinse thoroughly with plenty of water, also under the eyelids for at least 10 minutes. In case of persistent eye irritation, consult a physician.

Ingestion: Rinse mouth with plenty of water. Drink 1 or 2 glasses of water. If symptoms persist, call a physician.

5. FIRE-FIGHTING MEASURES

Not combustible. Firefighters must wear breathing apparatus and fire suit. Extinguishing agent: Dry sand.

Special hazards arising from the substance or mixture - small amounts of hydrogen chloride may be released at temperatures above the boiling point. Heating above the decomposition temperature can cause formation of hydrogen chloride.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: No special precautions required.

Environmental precautions: Do not contaminate water.

Methods for cleaning up: Do not flush with water. Clean up promptly by scoop or vacuum. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Wash hands before breaks and at the end of workday.

Storage: Keep in a dry, cool place (0 – 35. C).

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering measures to reduce exposure: Use local exhaust if dusting occurs. Natural ventilation is adequate in absence of dusts.

Personal protection equipment:

- Respiratory protection: Dust safety masks are recommended where concentration of total dust is more than 10 g/m³.
- Hand protection: Rubber gloves.
- Eye protection: Safety glasses with side-shields. Do not wear contact lenses.
- Skin and body protection: Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely.

Wash hand before breaks and the end of workday. Handle in accordance with good Industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Powder Colour:
White Odour:	Odourless
PH:	3-5, 5% water solution
Melting point:	190 (253kPa) Boiling
Point:	No information Relative
density (water = 1):	About 2.44-3.15
Relative density (Air = 1):	No information Saturated
vapor pressure:	0.13 (100 °C) Bitter /
water partition coefficient values:	No information
Heat of Combustion:	Meaningless Critical
Temperature:	Not available
Critical Pressure:	Not available

Soluble in water, alcohol, chloroform, Carbon tetrachloride, slightly should be in benzene.

10. STABILITY AND REACTIVITY

Stability Product is stable, no hazardous polymerization will occur.

Materials to avoid: Oxidizing agents may cause exothermic reactions.

Hazardous decomposition Thermal decomposition may produce: Nitrogen oxides(NO_x), carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

-Oral: Low order. LD 50 / oral / rat > 5000 mg/kg

-Dermal: The results of testing on rabbits showed this material to be non-toxic even at high dose levels.

-Inhalation: The product is not expected to be toxic by inhalation.

Irritation:

-Skin: The results of testing on rabbits showed this material to non - irritating to the skin.

-Eyes: Testing conducted according to the Draize technique showed the material produces no corneal or iridial effects and only slight transitory conjunctival effects similar to those which all granular materials have on conjunctivae.

Sensitization: The results of testing on guinea pigs showed this material to be non-sensitizing.

Chronic toxicity: A two – year feeding study on rats did not reveal adverse health. A one – year feeding study on dogs did not reveal adverse health effects.

12. Ecological Information

Acute aquatic toxicity

-Fish: LC 50 / Danio rerio / 96 hours >100 mg/l (OECD 203)

-Daphnids: EC50 / Daphnia magna / 48 hours > 100mg/l (OECD 202)

-Algae: IC50 / Scenedesmus subspicatus /72hours > 100mg/l (OECD 201)

-Hydrolysis: Does not hydrolyse.

-Biodegradation: Not readily biodegradable.

-Log_{pow}: 0

-Bioaccumulation: Does not bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused:

Products: In accordance with local and national regulations.

Contaminated package: Rinse empty containers with water and use rinse water to prepare the working solution. Can be landfilled or incinerated, when in compliance with local regulations.

14. TRANSPORT INFORMATION

Remarks: Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

This product is not a hazardous article and need not to be labelled according to EC-Directives as amended.

16. OTHER INFORMATION

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properness of the product.