

Material Safety Data Sheet

Product Group: Poly Aluminum Chloride %30

1. Identification of the substance / preparation and of the company / undertaking

Product name	Poly Aluminum Chloride (30% as Al ₂ O ₃)			
Symbol(s)	(Al _n (OH) _m Cl _(3n-m)) _x			
Synonyms	Aluminum Chlorohydrate; Poly (aluminum hydroxy) Chloride; Aluminium polychloride; Aluminum chloride, Aluminum hydroxy-chloride; PAC			
Producer/Distributor	Golgah Co. No.42, Alvand Ave., Argentina Sq., 15166 18113, Tehran, Iran. Tel.: +98 21 887 99 199 Fax.: +98 21 888 80 381 email: info@golgah.com www.golgah.com			
Identification of product	Solid-Powder			
Use	Chemical applications			
Emergency phone number	Local emergency center (Iran): 115 or +98 21 887 98 459			

2. Composition* / Information on ingredients

Substance name	Value(s)	CAS No. / HS Code	R-Phrase(s)	S-Phrase(s)
Poly Aluminum Chloride 30%	99.5%	1327-41-9** / 2827 32	R36, R38	S2, S7, S8, S9, S24, S25, S26, S36, S37, S39
Other	0.50%			

* For additional information on composition and technical specification, refer to our product catalogue.

** CAS No. 390290-78-3 is also referred to in some references.

CAS No. 7784-13-6 is used for polyaluminum chloride hexahydrate.

3. Hazards identification

Health Effects

Skin May cause slight irritation.

Eyes May cause slight irritation with redness and swelling.

Ingestion Low toxicity product.

Physical/chemical properties Corrosive, but not classified as hazardous.

4. First Aid measures

Inhalation Move victim to fresh air. Give artificial respiration if breathing has stopped.

Skin contact Immediately remove contaminated clothing and wash contaminated area on skin with soap or mild detergent and running water. Contaminated clothing should be washed before re-use.

Eye contact Immediately flush eyes with running water for at least 15 minutes. If there is any irritation obtain medical attention immediately.

Ingestion Provided patient is conscious, wash out with water. Do not induce vomiting and give 5% sodium bicarbonate solution or large quantities of water followed by a demulcent such as milk. If in doubt, seek medical attention. Never give anything by mouth to an unconscious person.

5. Fire-Fighting measures

Fire extinguishing data Not flammable, not combustable, does not burn.

Extinguishing media Foam, dry powder, carbon dioxide and Sand.

**Special protective equipment
For firefighters** As for all fires involving chemicals: chemical protection suit, gloves and boots, and self-contained breathing apparatus.

Combustion and thermal decomposition products Hydrogen chloride, aluminum oxides.
In contact with metals, may liberate the flammable gas hydrogen

6. Accidental release measures

- Personal precautions** Use personal protective equipment/effective dust mask.
- Methods for cleaning up** Residues or small spillages shall be rubbed by cloth and washed by clean water.
- Spills** For very small leaks wash away with large quantities of water. For other leaks collect liquid either by pumping into an emergency tank or by absorption in dry sand. Absorb spill with sand or non-combustible dry material and collect in appropriate container for disposal. Flush area with water.
- Deactivating chemicals** Lime, liming agents, sodium carbonate (soda ash), and sodium bicarbonate.
- Waste disposal** Neutralize with deactivating chemicals and landfill in accordance with Local regulations.

7. Handling and storage

- Handling precautions** Avoid contact with skin, eyes, and clothing. Avoid breathing dust or mist. Keep away from metals, organic materials, nitrates, chlorates and carbides. It is compatible with lead, rubber, glass, fiber, glass, HDPE, PVC & FRP. Keep containers closed when not in use. Empty containers may contain hazardous residues.
- Package** Solid PAC is packed in inner plastic bags and furtherly in polypropylene woven bags, with each bag containing 25kg. Liquid PAC is packed in PE plastic drum and our company will provides special tanks for transportation and storage for the liquid product to the users.
- Storage** Bulk quantities should be stored in ebonite coated, steel, rubberlined mild steel, FRP or plastic tanks. For small packages, polyethylene or double skinned polyethylene containers are acceptable. Store indoors away from direct heat or sunlight. Avoid wet, damp and humid conditions. Avoid extreme temperatures. PAC may become unstable when stored for long time at temperatures higher than 40°C. PAC tends to hydrolyze to a white turbid solution and loses effectiveness when it is kept long as a diluted solution of less than approximately 3% (as Al₂O₃). The storage area should have a non-combustible and corrosion resistant floor.

8. Exposure controls and personal protection

Engineering measures to reduce exposure Ensure adequate ventilation. Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.
HTP(8h)=2mg/M3 (Al) Finland
TVL=2mg/M3 (Al) (TWA) USA
MAK=6(F)mg/M3 (Al) Germany

Recommended Protective Material Neoprene or rubber

Personal protection equipment

Respiratory Protection For exposures under 20 mg/m³, a NIOSH/MSHA approved air-purifying respirator with high efficiency particulate cartridge(s) may be used.

Hand protection PVC or other plastic material gloves.

Eye protection Safety glasses with side-shields. Do not wear contact lenses.

Skin and body protection Chemical resistant apron or protective suits if splashing or repeated contact with solution is likely.

Hygiene measures Wash hands and face before breaks and immediately after handling the product. When using do not eat drink or smoke. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Form yellow or light yellow powder

pH (1% solution) 3.5-5.0

Boiling point above 100°C

Odor Pungent chlorine odor

Water solubility Miscible in water

Additional information Refer to producer/distributor technical specification data.

10. Stability and reactivity

Stability Stable at ambient temperatures

Materials to avoid Acid, strong alkali

hazardous decomposition No decomposition if stored and applied as directed.

11. Toxicological information

Acute toxicity

Oral The product is not expected to be toxic.

Inhalation The product is not expected to be toxic.

Irritation

Skin Prolonged skin contact may cause skin irritation.

Eyes May cause eye irritation with susceptible persons.

12. Ecological information

Ecotoxicity LC50/96h/algae=1.5-2mg/l (Al-Cl)
Toxicity to bacteria=12mg/l (Al-Cl)
LC50/48h/daphnia=3.9mg/l (Al-Cl)

13. Disposal considerations

Waste from residues/unused Use or contamination of PAC may change the waste management options.
Dispose of as special waste in compliance with local and national regulations.

Contaminated packaging Dispose of as special waste in compliances with local and national regulations.

14. Transport information

Road, rail and ship Not classified as dangerous in the meaning of transport regulations.
Not a hazardous material for transportation.

15. Regulatory information

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

Accute N

Chronic N

Fire N

Reactive N

Sudden Release N

16. Other information

Notes: The information contained in this safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and represents the most up to date information. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation.

Prepared by Golgah Co.

Date 7/14/2017

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