



GRASIM INDUSTRIES LIMITED
(CHEMICAL DIVISION)

SAFETY DATA SHEET

Poly Aluminium Chloride, Powder

Ref: SDS/GRCD/PAC

Revision-0/ Date: Feb 2017

SECTION 1:- IDENTIFICATION

Trade Mark	VIKRAM PAC
Chemical Name	Polyaluminium Chloride, Polyaluminium hydrochloride, Polyaluminium hydrochloride sulphate, Polyaluminium Chloride Hydroxide.
Substance Detail	
i) Aluminium chloride basic Grade	PAC SAB18
Molecular Formula	$[Al(OH)_aCl_b]_n$ here $a+b=3$ and $a>1.05$, $n\approx 15$
CAS Name	Aluminium chloride basic
CAS No.	1327-41-9
EC No.	215-477-2
ii) Aluminium chloride Hydroxide Sulphate Grade	PAC AC100S & ARYAPAC
Molecular Formula	$(Al(OH)_aCl_b(SO_4)_c)_n$ here $a+b+2c=3$ and $a>1.05$, $n\approx 15$
CAS name& No.	Aluminium chloride Hydroxide Sulphate
CAS No.	39290-78-3
EC No.	254-400-7
Manufacturer/Supplier	Grasim Industries Ltd. (Chemical Division) www.adityabirlachemicals.com

Manufacturing location

Location 1:- Vilayat, Tah.- Vagra, Dist.- Bharuch
(Gujarat) 392140, INDIA
Tel.: 91-08347007094

Location 2:- Birlagram, Nagda, Dist. Ujjain
(MP) 456331, INDIA
Tel.: 91-7366-245848/248080

Information Dept.: Marketing Dept., Grasim Industries Ltd.
(Chemical Division)

Emergency No. Telephone: +91-022-24399110

Identified uses Use of Aluminium salts in the treatment of raw water in
the supply of either potable water or industrial process
water
Use of Aluminium salts to treat waste water and in sludge
treatment at waste water treatment plants (WWTP's)

SECTION 2:- INFORMATION OF MAJOR INGREDIENTS

Chemical Name/ CAS No.	Polyaluminium chloride (1327-41-9 or 39290-78-3)
Purity (Proportion)	100 %

SECTION 3:- HAZARD IDENTIFICATION**3.1 Classification and labelling according to CLP / GHS**

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

3.2 Label Elements

Signal Word	None
Hazard Pictogram	None
Potential Hazard	May be harmful if swallowed. Slight Irritation to exposed tissue.
3.3 Other Hazards	None

SECTION 4:- FIRST AID MEASURES

Skin Contact	Remove contaminated clothing and wash affected area with sufficient quantity of water for 15-20 minutes. Seek medical aid
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Eye Contact	Immediately irrigate with water for at least 15 minutes. Seek medical assistance immediately
Inhalation	Remove from contaminated area. Obtain medical attention.
Ingestion	Provided patient is conscious, wash out with water. Do not induce vomiting and give 5% sodium bicarbonate solution Followed by a demulcent such as milk. If in doubt, seek medical Attention.

SECTION 5:- FIRE AND EXPLOSION HAZARD DATA

Fire Extinguishing Data	Poly Aluminium chloride is non-inflammable. On burning will emit fumes. Water spray, foam, carbon dioxide or dry powder may be used. Keep containers cool with copious amounts of water.
Would any material saturated with this product be subject to spontaneous combustion?	No
Fire Fighting Protective equipment	Wear full protective clothing, goggles, masks
Unusual Fire and explosive hazards	In contact with metals, poly Aluminium chloride may liberate the flammable gas hydrogen

SECTION 6:- ACCIDENTAL RELEASE MEASURES

Spillage or other release	Dike area to contain spill. Neutralize spilled material with Alkali such as soda ash. When using soda ash and other carbonates for neutralization, adequate precautions should be taken to minimize hazards from carbon dioxide gas generation. Collect liquid and or residue and dispose of in accordance with applicable regulations.
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SECTION 7:- HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes, and clothing. Avoid breathing dust or mist. Use with adequate ventilation. Use appropriate Personal Protective Equipment. Do not smoke or eat while handling. Use good housekeeping and personal hygiene. Wash thoroughly after handling.
Storage	Store in cool and dry, well-ventilated area or cabinet. Protect from physical damage and from freezing. Keep containers tightly closed.

SECTION 8:- PERSONAL PROTECTION

General Precautions	Eye and skin protection should be used.
Respiratory Protection	Not normally required

Protective Clothing	Protective overall, rubber gloves, hard hat, acid resistant boots.
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Eye Protection	Goggles or full face mask
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SECTION 9:- STABILITY AND REACTIVITY

Stability	As supplied it is stable at normal temperature & pressure.
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Conditions to avoid	Avoid contact with bases, chlorides, sulphites, hypochlorite's, sodium hydroxide & potassium hydroxide.
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Material to avoid	Long term contact with aluminum & alloys, zinc & alloys, carbon & steel
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Reactivity:-

Air	No reaction
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Water	Coagulates substances suspended or dispersed in water to settle quickly to form a filterable sludge.
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Acids	With mineral acids bulk precipitation of solid occurs
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Alkalis	Bulk precipitation with evolution of heat occurs
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Hazardous Decomposition Products	Hydrogen chloride
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SECTION 10:- PHYSICAL AND CHEMICAL PROPERTIES

Chemical family	Inorganic Salt
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Appearance	White to pale yellow powder and free from organic contaminants
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Odour	Slight chlorine odor
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pH (5% aqueous solution)	3.0-4.0
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Bulk density	0.65 gms /ml
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Flash Point	Not pertinent
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Melting Point	No data
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Flammable Limit	Non-flammable
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Solubility in Water	All Polyaluminium chloride hydroxides and Polyaluminium chloride hydroxide sulfates are fully miscible with water. Depending on the particular product, dilute solutions can hydrolyze and form a precipitate.
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Solubility in Organic Solvents	Not soluble
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Oxidizing /Explosive Properties	None
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SECTION 11:- TOXICITY DATA

(Routes of Entry)	
In contact with skin	Irritant-after prolonged contact with skin produces sores and possible dermatitis.
In contact with eyes	Irritates immediately and could cause severe damage.
Inhalation	Irritation to mucous membranes.
Ingestion	Very astringent to mouth, throat & stomach.
Acute Toxicity	LD ₅₀ >2000 mg/Kg
Chronic Toxicity	Not available
Carcinogenic Toxicity	No evidence
Mutagenic Toxicity	No evidence
Teratogenic Toxicity	Not available

SECTION 12:- ENVIRONMENTAL INFORMATION

Eco toxicity	Not specified.
Persistence and degradability:	The chemical is decomposed into aluminum hydroxide (Al(OH) ₃) and hydrochloric acid (HCl) by hydrolysis.
Bio-accumulative potential:	Not Available.
Mobility in soil:	Not Available.
Other adverse effects:	This Material Contains No Hazardous Air Pollutants Under The Clean Air Act.

SECTION 13:- WASTE DISPOSAL

Waste Disposal	Neutralize with lime and landfill in accordance with Local Regulations.
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SECTION 14:- TRANSPORT INFORMATION**Shipping Information:**

Not regulated as a Hazardous material by DOT, IMO or IATA

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for Transport by sea; NON-DANGEROUS GOODS.

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS

UN No.	Not available
Proper shipping Name	Polyaluminium Chloride
Hazard class:	Not available
Hazard label:	Not available
Packaging group	Not available
Environmental Hazard	Not available

SECTION 15:- REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Legislation**

This product has been approved as a chemical used for the treatment of drinking water, under the appropriate BS EN Standard (see Sales Specification), and so it is also approved by the British Drinking Water Inspectorate.

National Regulations

Workplace Exposure Limits 2005 (EH40)

15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out.

15.3 Poisons Schedule (Aust) Not scheduled

SECTION 16:- OTHER INFORMATION

Maximum use limit (MUL) 200 mg/l for potable water treatment

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

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