



ELRASA - PyAC™ (Poly Aluminium Chloride)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Yellow powder or liquid
Physical Form	Yellow powder or liquid
Odor	Odorless. Little or no odour.
Molecular Weight	174.45 g/mol (for Al ₂ Cl(OH) ₅).
Density / Specific Gravity	1.15-1.20 g/cm ³ (Liquid Form).
pH (1% aqueous solution)	3.5-5.0.
Assay / Purity (as Al ₂ O ₃)	≥ 30%.
Authoritative Data	
Molecular Formula	Al _n (OH) _m Cl(3n-m)
CAS Number	1327-41-9
Description	Used extensively as a flocculant/coagulant in drinking- and industrial wastewater treatment, as well as in paper, textile, and leather industries.
Known Applications	Water Treatment, Wastewater Treatment, Paper Manufacturing, Textile Industry, Chemical Manufacturing
Chemical Properties	
Ionic Nature	Cationic polymer.
Incompatibilities	Avoid contact with bases, chlorides, sulphites, hypochlorites. Long term contact with aluminum & alloys, zinc & alloys, carbon & steel.
Hazardous Reactions / Decomposition Products	On burning will emit fumes. Hazardous Decomposition Products: Hydrogen chloride.
Thermal Properties	
Melting Point	Not applicable.
Boiling Point	Not applicable.
Flash Point	Not pertinent / Non-flammable.
Thermal Stability	Stable at normal temperature & pressure. May become unstable when stored for a long time at temperatures higher than 40°C.



Property	Specification
Solubility	
Solubility in Water	Highly soluble.
Solubility in Organic Solvents	Not soluble.

2. Dosing by Application

Application	Recommended / Max Dosage
Drinking / Domestic Water Treatment	2.5-25 kg per 1,000 tons of water (2.5 - 25 ppm).
Industrial Water Treatment	2.5-25 kg per 1,000 tons of water (2.5 - 25 ppm).
Municipal Wastewater Treatment	15-50 kg per 1,000 tons of water (15 - 50 ppm).
Papermaking (Packaging/Board)	1.5-4.0 kg per ton of dry fiber.
Dyeing Wastewater Treatment	100-300 kg per 1,000 tons of water (100 - 300 ppm).
Leather Wastewater Treatment	100-300 kg per 1,000 tons of water (100 - 300 ppm).
Food Processing Wastewater	50-150 kg per 1,000 tons of water (50 - 150 ppm).
Swimming Pool Circulation (Liquid PAC)	0.1 ml/m ³ of the circulation flow.

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

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