



Polyaluminum Chloride Solution

PRODUCT DESCRIPTION

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Polyaluminum Chloride Solution includes a series of products that range in the degree of their acid neutralization, polymerization and Al_2O_3 concentration. As the acid is neutralized in the manufacturing process, the aluminum portion of the product becomes more polymerized, resulting in a higher cationic charge and increased performance capability. The degree of acid neutralization is measured by basicity. Basicity can range from 0% (aluminum chloride solution) to 83% (aluminum chlorohydrate solution). Typically available Polyaluminum Chloride solution products have basicities ranging from 10-70%.

APPLICATIONS AND BENEFITS

The Polyaluminum Chloride Solution product line offers a broad range of formulations that have unique performance characteristics when compared to the more conventional products like alum, aluminum chloride, ferric chloride, ferric sulfate, etc. Polyaluminum Chloride Solution is often the product of choice in the following applications.

Municipal and Industrial Water Treatment

Polyaluminum Chloride Solution is often employed as the primary coagulant in potable water and industrial water treatment plants, replacing the need for other coagulants such as alum, and in many cases also eliminating or at least greatly reducing the need for pH adjustment chemicals, coagulant aids and filter aids. Consistently recognized benefits of converting to a Polyaluminum Chloride are:

- Improved turbidity removal
- Improved color removal
- Increased TOC (Total Organic Carbon) removal
- Lower filter turbidities
- Increased filter run length
- Sludge reduction of 25-75%
- Simplified operations by eliminating pH and secondary polyelectrolyte feed
- Lower overall treatment costs

Municipal and Industrial Wastewater Treatment

Polyaluminum Chloride Solution is also used in wastewater treatment applications for:

- TSS (Total Suspended Solids) removal
- Phosphate removal
- COD (Chemical Oxygen Demand) reduction in industrial wastewater treatment
- BOD (Biological Oxygen Demand) and TOC (Total Organic Carbon) removal in municipal wastewater treatment

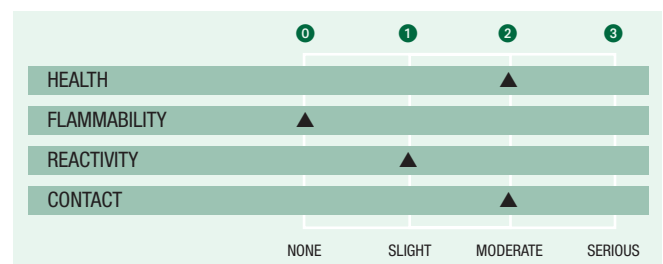
Pulp and Paper (On-Machine Applications)

Polyaluminum Chloride Solution is used extensively in several on machine applications as a:

- Size bonding agent
- Anionic trash scavenger
- Retention and drainage aid
- Pitch and stickies control additive

SAFETY

Polyaluminum Chloride Solution is a corrosive mineral acid that has the following ratings:



Protective Equipment: Goggles, Long Sleeves and Gloves

Thoroughly read and understand the information presented in the Material Safety Data Sheet prior to using Polyaluminum Chloride Solution in laboratory, pilot plant and/or full plant applications.

