



Aluminum Chlorohydrate Solution

PRODUCT DESCRIPTION

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Aluminum Chlorohydrate Solution (ACH) is a highly concentrated solution of polyaluminum hydroxychloride. It is characterized by having the highest aluminum concentration (23% Al_2O_3) of any commercially available aluminum based solution. The basicity of ACH at 83% is also the highest available for any polyaluminum based solution. Basicity refers to the degree of acid neutralization and also represents a measure of how highly polymerized the aluminum in ACH is.

The highly polymerized aluminum species in ACH have much higher cationic charges than the aluminum in standard salts such as alum or aluminum chloride, and even other polyaluminum products. Therefore, ACH can offer both a higher level of performance and lower overall dosages. The high degree of acid neutralization (basicity) also means that the effect on pH when applying ACH will be negligible. ACH also effectively coagulates over a broader pH range (as high as 9.5) versus traditional metal salts and lower basicity PACl.

APPLICATIONS AND BENEFITS

Municipal and Industrial Water Treatment

Aluminum Chlorohydrate Solution is generally 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. ACH is often employed in an environment where the pH of the receiving stream is higher than 7.5.

Consistently recognized benefits of converting to Aluminum Chlorohydrate Solution are:

- Improved turbidity removal
- Improved color removal
- Increased TOC (Total Organic Carbon) removal
- Lower filter turbidities

- Increased filter run length
- Sludge reduction of over 50%
- Simplified operations by eliminating pH and secondary polyelectrolyte feed
- Lower overall treatment costs

Municipal and Industrial Wastewater Treatment

Aluminum Chlorohydrate Solution is also used in wastewater treatment applications for:

- TSS (Total Suspended Solids) removal
- Metals 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

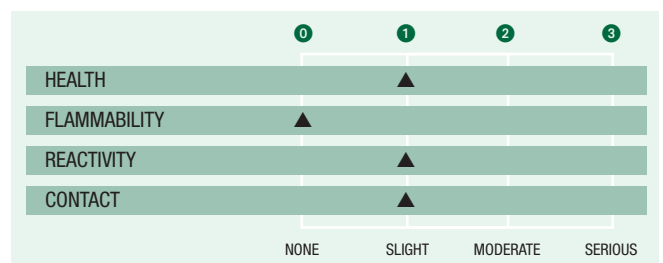
Pulp and Paper (On-Machine Applications)

Aluminum Chlorohydrate Solution is also used in several on machine applications as a:

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

SAFETY

Aluminum Chlorohydrate Solution is a slightly corrosive mineral acid that has the following ratings:



Protective Equipment: Goggles, Long Sleeves and Gloves

