# Technical Data Sheet

## AlcoPAS™ 1000

In our continued efforts to improve the effectiveness and costs of treating potable water across the United States, a new type of coagulant has been developed, which has been shown to outperform Aluminum Sulfate while generating significantly less sludge, rapidly forming floc, requiring less pH adjustment, while contributing negligible amounts of Chloride.

AlcoPAS 1000 is a pre-hydrolyzed form of aluminum sulfate, also known as polyaluminum sulfate (PAS) or aluminum hydroxide sulfate. Polyaluminum sulfates are characterized by their basicity which is the degree of hydrolyzation in percent. AlcoPAS 1000 is a polyaluminum sulfate with 50% basicity and contains only trace levels of chloride, which limits the impact on the chloride-to-sulfate mass ratio (CSMR) of the treated water.

The effect of the pre-hydrolysis is to reduce by 50% the amount of alkalinity consumed during the coagulation process and to lower subsequent requirements of pH adjustment chemicals such as lime or caustic, which is very important in raw water sources of low alkalinity. It also has the effect of increasing the rate at which the coagulation step occurs, reducing the amount of coagulant required. This, in turn, impacts the amount of aluminum hydroxide produced and the pH adjustment requirements, significantly lowering the amount of residual settled solids (sludge) in the process. The combined effect is an overall improvement in treatment and treatment costs for the plant.

On an equal alumina dosage basis, AlcoPAS 1000 outperforms aluminum sulfate at removing suspended solids. AlcoPAS 1000 is also as effective at Total Organic Carbon (TOC) removal as aluminum sulfate. In addition, lower feed rates, along with the pre-hydrolysis of AlcoPAS 1000, results in reduced requirements for lime or caustic during coagulation and in the subsequent adjustment of pH for distribution and residual solids generated in the treatment process.

All of this results in lower overall costs of the potable water treatment process.

AlcoPAS 1000 is certified to the NSF/ANSI/CAN 60 standard for the treatment of potable water.

AlcoPAS 1000 technology is patent pending.

## *PROPERTIES*

| | |
|---|---|
| Product Weight: | 10.71 - 10.83 Lbs/Gal |
| pH (neat): | 2.5 – 4.5 |
| Viscosity (cps): | 10 – 25 @23 °C |

## *SPECIFICATIONS*

| | |
|---|---|
| Alumina, %$Al_2O_3$ | 8.0 – 8.5 |
| Basicity, % | 48 - 52 |
| Sulfates, %$SO_4$ | 16.8 – 17.2 |
| Chlorides | 20 ppm maximum |
| Appearance: | Clear to slightly hazy |
| Specific Gravity @60°F: | 1.285 - 1.300 |
| Color: | Colorless to light beige |

## *PRINCIPAL USES*

Drinking water / wastewater treatment – removal of suspended and dissolved matter such as organics and phosphorus. Reduction of Chloride to Sulfate Mass Ratio (CSMR).

## *SAFETY / HANDLING*

Observe caution when handling corrosive materials. Please consult the safety data sheet (SDS) for safety and handling precautions.

## *DELIVERY*

| | |
|---|---|
| Drum (55 gallon) | 585 pounds |
| IBC Tote (275 gallon) | 2,700 pounds |
| Bulk Tanker | |
| Rail | |

## *PRODUCTION*

USALCO has production facilities in:

- Bastrop, LA

## *CUSTOMER SERVICE*

If you have any questions concerning this material, please contact our Inside Sales Department at:

**800-282-5322** or **info@usalco.com**