

PAC-PLUS

DESCRIPTION:

PAC-PLUS series cationic coagulants have been designed for use in a wide range of industrial and utility water and wastewater applications and processes.

PAC-PLUS series products are based on industry - leading polyaluminum hydroxychlorosulfate chemistry. These products have been developed to replace aluminum and iron salts and other coagulants by providing a cost and performance effective solution.

PAC-PLUS is an all-purpose coagulant that will satisfy a variety of demands in all coagulant-demanding processes.

TYPICAL PROPERTIES:

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|---|-------------------------|
| APPEARANCE | PALE AMBER CLEAR LIQUID |
| SPECIFIC GRAVITY, 20°C | 1.200 - 1.206 |
| BROOKFIELD VISCOSITY, 25°C (SP #1, 60 RPM) | 2 - 8 CP |
| pH | 2.3 - 2.9 |
| pH OF 1% W/V SOLUTION, 25°C) | 3.5 - 4.5 |
| FREEZING POINT | -12°C |

PERFORMANCE ADVANTAGES:

1. CHEMISTRY

- a) **INSTANTANEOUS REACTION:** **PAC-PLUS** works faster and more effectively than all other coagulants because of a three-fold method for instantaneous capture of fines - charge neutralization, surface absorption and occlusion.
- b) **REDUCED ALKALI CONSUMPTION:** **PAC-PLUS** has little or no effect on system pH even if overdosing occurs, therefore, corrective alkali requirements are eliminated or reduced.
- c) **EFFECTIVE OVER A WIDE pH RANGE:** **PAC-PLUS** functions effectively over the pH range 5 - 10. This is a wider pH range than aluminum sulfate and other coagulants.



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- d) **TEMPERATURE INSENSITIVE:** The coagulating ability of **PAC-PLUS** is not retarded by lower water temperatures unlike aluminum sulfate and other coagulants.
- e) **RESULT ORIENTED:** **PAC-PLUS** is extremely effective where water or wastewater contains highly separated and/or charged fine particles. Lower turbidities and suspended solids as compared to other coagulants result.
- f) **DOSAGE REQUIREMENTS:** As a polymer, **PAC-PLUS** provides equal or better treatment at substantially reduced treatment levels.

2. ENGINEERING

- a) **SIMPLICITY IN USE:** **PAC-PLUS** is easy to handle and use. Dilution prior to application is not required. Product viscosity is such that no pumping difficulties occur.
- b) **INSTANTANEOUS REACTIONS:** The very fast, very effective reaction allows larger volumes of water to be processed in compact equipment. Direct filtration performance is outstanding.
- c) **DOSAGE REQUIREMENTS:** Substantially lower dosages as compared to other coagulants may reduce sludge formation by as much as 50% and extend filter run lengths substantially.

3. COST

- a) **DOSAGE REQUIREMENT:** Cost savings are realized by lower chemical dosages, reduced sludge disposal cost, and lower maintenance costs.

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TYPICAL APPLICATIONS:

As the general-purpose coagulant of the series, **PAC-PLUS** has found application over the full industry spectrum. It is generally most effective in water and wastewaters containing very low to moderate levels of solids and/or very highly charged solids such as a paint or oil dispersion in water.

FEEDING AND STORAGE:

Feed as a neat product only, ahead of or to a rapid mix zone. Generally a coagulant is applied in such a manner 5-15 minutes before a flocculant is applied to a slower mixing zone.

Storage, transfer lines and feed equipment should be constructed of acid resistant materials such as polyethylene, PVC, fibreglass or rubber lined material.

PACKAGING:

PAC-PLUS is available in 181 kg drums and totes of 1000 kg.

SAFETY MEASURES:

PAC-PLUS should be handled like any acid product. Although not a strong acid, care should be taken not to get the product in the eyes, on the skin, or on clothing.

Any spills can be safely and effectively neutralized by lime or calcium carbonate and hydroxide gel disposed of to landfill.