



Mountain Flocculants

Complex Polyaluminium Chloride-Aluminiferous Flocculant (Abbreviated to PAC – AF)

Product Information

1. Introduction

Our new formulation high-efficiency flocculant, is an excellent low contact time water clarificant, which comprises complex polyaluminium chloride-aluminiferous (PAF-AF) is currently believed to be the most effective of the aluminiferric flocculants of complex inorganic polymers available on the market.

For the chemists amongst us, the chemical formula is:-
 $[AL_2(OH)_nCL_6-n] \cdot \{Fe_2(OH)_nCL_6-n\}_m$, where $n \leq 5$, $m \leq 10$.

This product is made from the local high quality Chinese hydrargillite raw material, which is then further processed using our treatment optimization technology.

Our product provides the advantages of both BAC and PFC.

It has both macromolecular and bridging structures, with the result that during the hydrolysis, it rapidly accomplishes physiochemical processes such as electrochemistry, flocculation, absorption, sedimentation, etc, so as to provide market leading water clarification.

Our quality controlled factory ensures a product complying with the international standards which apply to drinking water flocculating clarificants (for example JISK1475-1978), and they are certified by the Central Inspection Institute attached to the Provincial Standardization Bureau of Fujian, China.

The level of trace detrimental substances of arsenic, lead, cadmium and chromium is strictly within the limits of the developed country rules such as Japan, and compliance information can be provided for comparison with other national standards on request.

Because of the remarkable clarifying effect, it is highly praised by domestic



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and overseas users, and generally appreciated as currently a leading clarificant throughout the water treatment field.

Product Information (Continued)

2. Performance advantages

This clarificant is a complex of multihydric macromolecules, having large structure and strong absorption. Its clarifying ability is superior to ordinary coagulants of alumstone, aluminum sulphate, ferrous sulphate, iron chloride and flocculant of basic aluminum chloride.

When PAC-AF is dosed into the treatment system inlet (feed water), the floccules form rapidly and have high strength and relative density, so that precipitate is rapid. The result is a high quality supernatant with high clarification and easy and reliable operation of the treatment system.

PAC-AF can adapt itself to the large variety pH values found in polluted wastewaters.

Tests have shown it to exhibit outstanding adaptability to changes in turbidity, basicity, temperature and concentration of organic substances.

The percentage dosed into wastewaters can be adjusted across a wide range.

Tests have shown that over consumption within reasonable ranges does not yield any significant side effects whatsoever, this enables the product to be used without safety concerns as long as sensible precautions are taken to provide dosing a wide range.

PAC-AF can reduce the labour intensity of operation, and PAC-AF treatment is easy to perform and worker and operator training is minimised.

Use of PAC-AF will cut down treatment cost, and only a small amount of clarificant addition is required. This results in the lowest possible corrosion on the equipment and conduit.



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PAC-AF also has much less influence on the water pH value than other clarificants.

3. Main specifications

AL ₂ O ₃ & Fe ₂ O ₃	>30%
Basicity	45-85%
As	<15PPM
Pb	<30PPM
Cb	<6PPM
Cr	<30PPM

4. Primary Uses

- i. Domestic and industrial water clarification.
- ii. Polluted and waste water treatment.

Example of common uses:

- a. Dispose overflowing liquid in hydro floatation process of tailings with the efficiency up to 99.6% and circulating advantages.
- b. Treat effluents from printing and dyeing factories, providing both effective coagulation and de-colorization (removal of colour).
- c. Clarify metallurgy and furnace gas wash water.
- d. Clean up the wastewater effluents from the chemical, papermaking, tannery, pharmaceuticals, food processing, industries etc. These effluents may contain heavy metals such as lead, chromium, cadmium and some also contain polyaromatic hydrocarbons (for example phenols).
- e. Purge fluoride-bearing and radioactive headwaters with satisfactory results.
- f. Purify oil-polluted and recycling water in petroleum industry.
- g. Improve water quality in aquatic cultivation.

5. Operating instructions, dosing rates and precautions

The clarificant product must at all times be diluted with water to the required concentration (the concentration required is not less than 2%)



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before dosing into the flow and thoroughly mixed into the feed water flow before settlement.

Consumption quantity of clarificants must be properly adjusted and controlled at all times by the dosing equipment provided by the purchaser.

Each case will vary according to the concentration and nature of the pollutants in the wastewaters and the final quality required after treatment. We can only provide very general guidance here.

PAC-AF samples should always be used to carry out tests on each effluent based upon the guide figures provided, in order to optimize treatment and ensure that the level of residual PAC-AF still present after treatment is kept to a suitably low level.

Table 1: Typical recommended dosing rates for PAC-AF use in water treatment for common applications

<i>Items</i>	<i>Reference consumption (kg/ton)</i>	<i>Decrement efficiency</i>
Domestic Sewage	0.1	Normal range
Abattoir Effluent: blood contaminated water	0.3 - 0.5	Normal range
Overflowing of hydrofloatation	0.53-0.67	SS:99.6%, turbidity:97.5%
Tannery wastewater/effluent	0.38	COD:75%, chrominance:95%,SS:97%, chromium:94.8%
Dyeing waste water	0.06-0.12	COD:89% chrominance: above 90%
Metallurgy and furnace gas washing water	0.002	SS: 87.8%
Paper making wastewater/effluent	0.1	COD:78%, chrominance 7-10 times decrement



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Precautions:

- The consumption should be suitably controlled according to the local water quality, processing technology and requirements of clarification.
- The diluted clarificant liquid must be consumed within 48-72 hours.

6. Packaging, transportation and storage

PAC-AF as delivered is packed in 25kg net nylon mesh bags and plastic film liners.

PAC-AF is a solid products and is easy to get damp which will cause deterioration, so it is recommended to store PAC-AF at all times in a dry and well-ventilated place.

All clarificants must be stored separately away from any noxious and detrimental materials.

**REQUEST YOUR HIGHLY COMPETITIVE PRICE QUOTATION NOW!
COMPLETE OUR FORM AT http://www.floc.biz/html/contact_us.html**

Terms of Sale

While every effort has been made to represent this product correctly and fairly the Agent (Mountain Flocculants UK) cannot accept any responsibility for any errors in the information provided, or any liability whatsoever for the effect of any such errors or failures to inform or provide information which may be found relevant at a later date.

The buyer undertakes, as a condition of purchase to carry out his/her own tests to verify the information provided and shall be deemed to rely on those tests alone.

No contract between Mountain Flocculants UK and the purchaser is intended or shall be inferred by ordering goods as herein described. The purchaser shall by purchasing the product enter a contract solely between the supplier and the purchaser.

Mountain Flocculants UK reserves the right to amend the terms of sale at any time.