

PolyFloc* AP1142

high molecular weight flocculant

Water Technologies & Solutions fact sheet

- Cost-effective powder
- Reduces floc carryover
- Increases throughput

description and use

PolyFloc AP1142 is a nonionic, high molecular weight, polymeric flocculant, which is designed to function in industrial treatment programs as a coagulant aid, or flocculant, in clarification, thickening, and sludge dewatering processes.

PolyFloc AP1142 is a free-flowing powder, providing a cost-effective solution to many solids separation processes in both influent and effluent water treatment applications.

PolyFloc AP1142 produces a fast-settling floc which reduces carryover when used as a flocculant with inorganic or cationic polymeric coagulants.

It settles iron oxide suspensions from steel industry wastewaters and precipitated hydrous metals in finishing water wastes, and reduces fines in blast furnace, steel mill scale, and BOP scrubber thickener effluents.

This polymer provides a clean effluent from automotive oily waste treatment processes and increases settling in chrome/cyanide destruction units and heavy metal separation systems. PolyFloc AP1142 can be used to reduce oil in refinery and other industrial wastewaters by improving air flotation unit and API separator efficiencies.

In the steel industry and many other markets, PolyFloc AP1142 is also an excellent sludge dewatering aid producing clean filtrate, high solids capture, and a drier cake.

treatment and feeding requirements

PolyFloc AP1142 should be dissolved in water before use. The solution may be prepared in batch fashion by slowly adding the powder to the vortex of an agitated tank, using a dry powder feeder or an eductor. Do not add water to the dry polymer. Maximum practical solution concentration is 0.5% by weight. Air or low speed (350 rpm) mechanical agitation should continue until complete dissolution is accomplished in about one hour. Dissolution is accelerated with warm water, not to exceed 150°F (65°C). Avoid high shear or excessive agitation once the product has been dissolved. It is recommended that diluted solutions be used within 24 hours for maximum activity.

Further dilution of the stock solution to approximately 0.05% by weight, or a 10 to 1 ratio, enhances polymer performance in most applications. For dewatering applications, diluting to approximately 0.25% may be more practical. Your SUEZ representative can assist you in this and other polymer feeding requirements.

Diluted product may be fed by a pump, an eductor, or by gravity flow to a point where good mixing, but not violent agitation, of the treated water occurs. High speed mixing decreases the activity of the polymer. Pumps used to transfer the solution to the point of application should be positive displacement gear or piston pumps.

Liquid-side components of tanks, pumps, and piping can be constructed of stainless steel or most plastics, such as polyethylene and polypropylene.

Mild steel is acceptable only in systems where contamination by corrosion products is not a critical problem. Viton and Tygon rubbers are acceptable for pump components and hose linings. (Viton is a registered trademark of DuPont Dow

Elastomers. Tygon is a registered trademark of Saint-Gobain Corporation.)

general properties

Physical properties of PolyFloc AP1142 are shown on the Material Safety Data Sheet, a copy of which is available on request.

packaging information

PolyFloc AP1142 is a dry powder, available in bags and drums. Consult your SUEZ representative for delivery and packaging alternatives.

storage and handling

Store PolyFloc AP1142 under dry, low humidity conditions. Opened containers should be sealed prior to restorage.

Spilled polymer is very slippery. Spills should be scooped and/or wiped up before flushing with copious amounts of water.

safety precautions

A Material Safety Data Sheet containing detailed information about this product is available on request.

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