A TOUCH OF MAGIC

POLYDISP 18™

A solution of a strongly cationic polymer.

INFORMATION SHEET

Composition:	proprietary amine polymer formulation
Polymer active content:	10%
Physical properties:	Ambre liquid, slight burnt odor pH 4 to 5, totally soluble in water Specific gravity: 1 Slightly viscous fluid
Proportioning:	Variable, see application sheet. Requires accuracy
Toxicity:	None; see M.S.D.S. for precautions
Impurities:	None except mineralization of dilution water
Packaging:	5 gal. pail or 55 gals.plastic drums. Do not transfer to metallic drums.
Storage and handling:	Handle with care. Keep at above freezing temperature.
Spillage:	Dilute with lots of water.
Precaution:	Caution must be used in handling due to vinegar like pH.
Fire:	Aqueous solution, no fire hazard.
Disposal:	Neutralize pH with Soda Ash or Baking Soda.

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POLYDISP18APPLICATIONS

NOTE: **POLYDISP 18** polymer presents strong cationic properties which react with anionic polymer fluids to obtain gradual levels of modifications. The presence of suspended mineral fines in a drilling fluid adds a third component that will have a role with respect with proportioning. Charges colloidal particles will also behave differently than static mineral fines.

Anionic Polymer Drilling Muds:

At a very low proportioning, POLYDISP 18 reacts with high molecular weight anionic polymer in forming fine white threads; at a minimum dosage, a slight increase in apparent viscosity is achieved with the introduction of this solid phase. At this juncture, certain technicians advance that the thread structure reduces the filtration in pervious formations. In fact, the quantity of threads is quantatively insufficient to achieve this result.

As the dosage of POLYDISP 18 diluted solution is increased, a larger amount of polymer combines in threads into a solid phase and releases free water. This release of water causes a decrease in viscosity of the drilling fluid. With the presence of suspended fines, an agglomeration of polymer and fines may result in flocs that settle readily. Error in dosage may cause a complete breakdown of the fluid by releasing all its water.

A possible application is the localized application of POLYDISP 18 at the bottom of the hole to agglomerate all settled fines in order to thoroughly clean up the bottom by excavating relatively solidified sediments that would be otherwise soupy and are typically difficult to remove by conventional means. Special means of implementation of this approach are required to assure success.

Anionic Polymer Fluid Disposal: POLYDISP 18 provides a very economical and quick means of separating polymer and fines from the preparation water. Clear free water is disposable within authorized pH levels and the solid conglomerate is disposed as part of the excavated spoils. Since no polymer is disposed in liquid form, no disposal permit should be required. Contrary to the accurate proportioning required when applying POLYDISP 18 to an active drilling fluid, POLYDISP 18 is easy to work as a breakdown agent.

POLYDISP 18 as soil conditioner: An Earth Pressure Balance Shield working in granular soils may need a substantial amount of conditioning in the form of polymerized stabilized foam or polymer slurries. POLYDISP 18 can be used at small dosage to create the threads structure in the chamber or in higher dosage at the exit of the auger or the conveyor to allow the plastic spoil to disgorge its excess water and recover its consistency for proper transportation and landfilling.

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