CLEAN FAZE

CLEAN FAZE additive, a high-quality, preserved tapioca polysaccharide derivative which meets API starch specifications, is used to provide filtration control and rheology stability in all types of water-base drilling fluids. This non-ionic, natural polymer is effective in all makeup waters, including high-salinity and high-hardness brines such as NaCl, KCl, $MgCl_2$ and complex brines.*

Typical Physical Properties

Physical appearance	White granular powder
Solubility in water	Soluble
pH (4% solution)	5-7
Specific gravity	1.5
Bulk density	25-35 lb/ft^3 (400-560 kg/m^3)

Applications

CLEAN FAZE starch is designed to reduce fluid loss and increase viscosity in all water-base muds. It is especially applicable and economical in saturated salt and brine systems where other products are not effective. This includes clear brines used during workover and completion operations.

CLEAN FAZE starch encapsulates particles with a protective polymer coating to function as a protective colloid. CLEAN FAZE additive is effective as a drilling fluid stabilizer, as well as a fluid-loss reducer, when evaporite formations such as anhydrite or salt must be drilled and when drilling hydratable shales. CLEAN FAZE additive contains a preservative acceptable to offshore operations and does not normally require a biocide. However, the fluid should be monitored for bacteria and treated with an approved bactericide if a problem develops.

A minimum concentration of CLEAN FAZE starch is necessary before a significant reduction in fluid loss will be observed. Normal treatments range from 2 to 6 lb/bbl (5.7 to 17.1 kg/m^3) CLEAN FAZE additive, depending on the makeup water chemistry and desired fluid loss. Treatments of 2 to 3 lb/bbl (5.7 to 8.6 kg/m^3) usually reduce API fluid loss values to the 6 to 8 cm^3 ranges in freshwater mud systems. Higher concentrations are required for comparable results in brine systems.

CLEAN FAZE starch is sensitive to high solids and it functions best in clean, low-solids mud systems. For this reason, the drill solids concentration should be controlled at optimum values. Initial treatments can cause a viscosity "hump" in high-solids or non-dispersed systems. CLEAN FAZE additive should not be added to high-solids systems that already have rheology problems. The reactive solids concentration should be reduced prior to adding CLEAN FAZE starch.

Advantages

- An economical, one-sack, preserved product for filtration control and viscosity
- Effective in a wide range of makeup waters, including high-salinity, high-hardness brines
- Functions in NaCl, KCl, $MgCl_2$, $CaCl_2$ and complex brines
- Performs satisfactorily over a wide pH range
- Minimizes filtration damage to production zones
- Pregelatinized for maximum effectiveness
- Provides wellbore stability through filtration control and encapsulation
- A preserved product which does not normally require a biocide

Limitations

- CLEAN FAZE starch rapidly degrades when exposed to temperatures in excess of 275°F (135°C)
- Less effective in high-pH/high-calcium, saturated brine systems

Toxicity and Handling

Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the Material Safety Data Sheet (MSDS).

Packaging and Storage

CLEAN FAZE additive is packaged in 50-lb (22.7-kg), multi-wall, paper sacks.

Store in a dry, well-ventilated area. Keep container closed. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.

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