



Drilling Fluids, Inc.

**Viscosifier**

**BEN-EX®**

**Description**

BEN-EX® is a blend of polyacrylate and polyacrylamide polymers that are used to increase the yield of bentonite and minimize the accumulation of drilled solids.

**Uses**

BEN-EX® is used in low solids, non-dispersed drilling fluids, including spud mud, to increase the yield point without significantly affecting the plastic viscosity or density. BEN-EX® is used to create a minimum solids drilling fluid by reducing the amount of Bentonite (GEO GEL) required for a given point. Additionally, BEN-EX® may provide some slight flocculation to calcium based clays enhancing their removal by solids control equipment.

**Benefits**

BEN-EX® replaces a portion of the GEO GEL that would otherwise be needed to achieve a given viscosity. Very small amounts (less than 0.07 ppb) are required. Using BEN-EX® reduces the density requirement thus helping to prevent lost circulation. By reducing the required solids, BEN-EX® improves penetration rates. For remote locations or small operations such as horizontal boring, the reduced amount of material can have a significant effect on transportation costs.

**Treatment**

Over treating with BEN-EX® may result in reduced viscosity. It is critical that treatment levels remain between 0.02 ppb and 0.07 ppb. At higher mud weights, less BEN-EX® will be required to achieve an acceptable Yield Point.

**Function**

BEN-EX® is used to formulate both unweighted and weighted minimum solids fresh water drilling fluids and to control the low density drilled solids. BEN-EX® drilling fluids shear thin at the bit to maximize hydraulic horsepower, yet regain their viscosity in the annulus to remove drilled cuttings. Because of their minimum solids content BEN-EX® drilling fluids have reduced pressure loss and greater resistance to high temperature gelation. The polymer coating action also helps reduce shale sloughing.



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**Typical Physical Properties**

Physical Appearance.....cream colored powder  
Specific Gravity..... N/A  
Bulk Density.....  
Hygroscopic.....moderately  
pH in water.....neutral

**Safe Handling Recommendations**

Read the Material Safety Data Sheet (MSDS) for this product before use. A very minor dust hazard may exist. Slip hazard when spills are wet.

**Packaging**

BEN-EX® is packaged in 2-pound plastic bags, 25 bags to a 50-pound box.