



BAROID BIO-BORE™

Horizontal Directional Drilling Fluid Concentrate



Description BIO-BORE™ Horizontal Directional Drilling (HDD) fluid concentrate, when mixed with fresh water, provides a clay-free, biodegradable fluid for use in various drilling applications, particularly in situations where clay-based drilling fluids are restricted.

Applications/Functions *The use of BIO-BORE drilling fluid concentrate promotes the following:*

- Provide a clay-free drilling fluid
- Minimized formation damage
- Maximized recovery rate of contaminants during remediation
- Enhanced viscosity for hole cleaning
- High yield point and gel strength for effective suspension and transport
- Reduce filtration rate in poorly consolidated formation
- Improve borehole stability for easy well installation

Advantages

- Soluble in water and disperses easily with moderate shear
- Compatible with wide range of make-up waters
- Does not form filter cake on the wellbore
- Stable and yet biodegradable within a reasonable time frame depending on the surrounding environment
- Preserve with addition of small quantity of 5.25% sodium hypochlorite solution (½ to 1 pint per 100 gallons of BIO-BORE slurry)
- Breakdown chemically by calcium hypochlorite

Typical Properties

- Appearance White powder
- Bulk density (lb/ft³) 42.5 (as packaged)
- Specific gravity 1.2
- pH (4% solution or 15 lb/bbl) 6.4

Recommended Treatment

Approximate Amounts of BIO-BORE drilling fluid concentrate Added to Fresh Water		
Boring Applications	lb/100 gal	kg/m ³
Normal Boring Conditions	25-30	30-36
Unconsolidated Formations	30-35	36-42

Recommended Degradation Treatment To bring about the degradation of a BIO-BORE™ slurry, utilize 1 to 2 pounds of 65% active calcium hypochlorite per 100 gallons (or 1.2 to 2.4 kg per m³) of BIO-BORE slurry.

Packaging BIO-BORE drilling fluid concentrate is packaged in a 50-lb (22.7-kg) white, multiwall bag. The bag is sturdy, moisture resistant and easy to handle and transport.

Safety Drilled cuttings exposed to BIO-BORE drilling fluid concentrate should be treated with calcium hypochlorite to break down the polymers before the cuttings can be confined or stored in a vented, sealed container or drum.
