



BIO-BORE™

Horizontal Directional Drilling Fluid Concentrate

Description BIO-BORE is a free-flowing dry powder that when mixed with fresh water provides a clay-free, biodegradable drilling fluid for use in various drilling applications, particularly in the situation where clay-based drilling fluids are restricted.

- Applications/Functions**
- Provide a clay-free drilling fluid
 - Minimize formation damage
 - Maximize recovery rate of contaminants during remediation
 - Provide enhanced viscosity for hole cleaning
 - Provide 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

| Recommended BIO-BORE Application Amounts | | |
|--|------------|-------------------|
| 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 1-2 pounds calcium hypochlorite (65% active) per 100 gallons of BIO-BORE slurry or 1.2-2.4 kg calcium hypochlorite (65% active) per m³ of BIO-BORE slurry.

Packaging

BIO-BORE 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 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.

Availability

BIO-BORE can be purchased through any Baroid Industrial Drilling Products Distributor. To locate the Baroid IDP distributor nearest you contact the Customer Service Department in Houston or your area IDP Sales Representative.

Baroid Industrial Drilling Products

Product Service Line, Halliburton

3000 N. Sam Houston Pkwy E.

Houston, TX 77032

Customer Service (800) 735-6075 Toll Free (281) 871-4612

Technical Service (877) 379-7412 Toll Free (281) 871-4613
