

BIO-BORE[™]

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

© Copyright 2011 Halliburton

BIO-BORE is a trademark of Halliburton

Because the conditions of use of this product are beyond the seller's control, the product is sold without warranty either express or implied and upon condition that purchaser make its own test to determine the suitability for purchaser's application. Purchaser assumes all risk of use and handling of this product. This product will be replaced if defective in manufacture or packaging or if damaged. Except for such replacement, seller is not liable for any damages caused by this product or its use. The statements and recommendations made herein are believed to be accurate. No guarantee of their accuracy is made, however.

Recommended Degradation Treatment	To bring about the degradation of a BIO-BORE TM slurry, utilize 1 to 2 pounds of 65% active calcium hypochlorite per 100 gallons (or 1.2 to 2.4 kg per m^3) 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.			
Availability	BIO-BORE HDD fluid concentrate can be purchased through any Baroid Industrial Drilling Products Retailer. To locate the Baroid IDP retailer 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	