



Drill-Terge™

Drilling Detergent/Wetting Agent



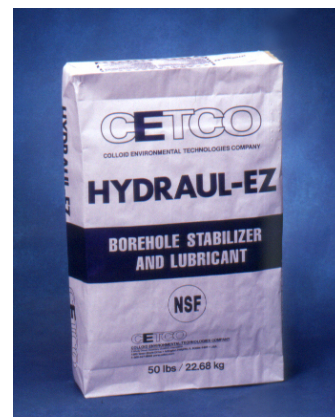
- Description:** Drill-Terge™ is a liquid solution of nonionic surfactants formulated to increase detergency and wetting properties of drilling fluids.
- Recommended Use:** Designed to control interfacial tension and inhibit the hydration and dispersion of clay and shale.
- Characteristics:**
- Reduces torque and drag associated with drilling in swelling clays.
 - Assists in keeping the drill bit clean and prevents bit balling.
 - Promotes settling of clays at the reserve pit/tank.
 - Designed to work in fresh or salt water.
 - Mixes very easily.
- Mixing and Applications:** Add 2-3 quarts of Drill-Terge™ per 100 gallons of existing bentonite drilling fluid.
- Packaging:** 5-gallon pails, 30 pails per pallet, or 55-gallon drums. All pallets are plastic-wrapped.



TECHNICAL DATA

Hydraul-EZ[®]

Horizontal Directional Drilling Fluid



Description:

Hydraul-EZ[®] is a high yield, 200-mesh sodium bentonite clay with a special dry polymer additive. It is designed to maintain borehole integrity in horizontally drilled boreholes. Hydraul-EZ is certified to NSF/ANSI Standard 60, Drinking Water Treatment Chemicals - Health Effects.

Recommended Use:

Hydraul-EZ[®] is specially designed for conditions encountered in angle and horizontal drilling. It can be used for all types of freshwater mud rotary drilling and as a jacking lubricant.

Characteristics:

- Mixes quickly.
- Requires less material due to low fluid loss properties.
- Concentrated for high yield.
- Forms a tight, thin filter cake in unstable formations.
- Maintains borehole integrity in horizontal and vertically drilled holes.
- Eliminates clay and shale swelling, bit balling and sticking problems.

Mixing and Applications:

Mixing ratios are based on the use of fresh water. Water purity will affect bentonite performance. For best results, make-up water should be pre-treated with soda ash to a pH of 8.5-9.5. Hydraul-EZ[®] should be added slowly through a jet/hopper mixer.

Hydraul-EZ[®] mixing ratios in pounds per 100 gallons of water:

- Normal conditions.....20-30 lbs.
- Sand and gravel.....30-40 lbs.
- Fluid loss control.....40-60 lbs.

Bulk Density:

54 lbs/ft.³

Packaging:

50 lb. multiwall, water-resistant bags, 48 bags per pallet. All pallets are plastic-wrapped.



TECHNICAL DATA

Insta-Vis™ Plus

Liquid Drilling Fluid Polymer



- Description:** Insta-Vis™ Plus is a multi-functional liquid polymer designed to improve drilling efficiency in both horizontal and vertical drilled holes through its rapid field mixing, viscosity development, and clay and shale inhibition. Insta-Vis™ Plus is certified to NSF/ANSI Standard 60, Drinking Water Treatment Chemicals - Health Effects.
- Recommended Use:** Designed for use as a drilling fluid polymer for improved viscosity, bit lubrication and shale stabilization/inhibition.
- Characteristics:**
- Quick mixing and rapid yield in fresh water.
 - Eliminates clay and shale swelling, bit balling, and sticking.
 - High lubricity reduces torque.
 - Flocculates non-reactive solids in reserve pit.
 - Maintains borehole integrity in both horizontal and vertical holes.
 - Can be used with Versa Foam® to produce a stiff foam.
- Mixing and Applications:**
- Adjust mix water pH to above 7.0 to maximize product performance. Always mix bentonite first, then add Insta-Vis™ Plus at a slow, steady rate. To break down Insta-Vis™ Plus, add ½ pound of chlorine per 100 gallons of drilling fluid.
- Insta-Vis™ Plus mixing ratios:
- Added to fresh water.....0.5 to 1 qt. per 100 gallons water.
Added to bentonite system.....0.5 qt. per 100 gallons drilling fluid.
- Packaging:** 5-gallon pails, 32 pails per pallet. All pallets are plastic-wrapped.