



BAROID LIQUI-TROL™

Modified Cellulosic Polymer Suspension



Description LIQUI-TROL™ viscosifier is a free-flowing, liquid suspension of a modified natural cellulosic polymer, in an ultra-clean oil. LIQUI-TROL viscosifier of polymer when added to a QUIK-GEL® or BORE-GEL® slurry, yields a drilling mud system suitable for drilling in water sensitive formations.

- Applications/Functions**
- Can provide filtration control in fresh or brackish water-based drilling fluids
 - Can promote borehole stability in water sensitive formations
 - Can pour a slug of concentrate into drill string directly to sweep the hole
 - Can minimize rotational torque and circulating pressure
 - Can improve hole cleaning and core recovery
 - Can stiffen the foam to improve cuttings transport in air/gel-foam drilling
 - Can reduce air requirements, uphole velocity and borehole annulus pressure

- Advantages**
- Effective in fresh water, salt water and brackish water-based drilling fluids
 - Effective in small quantities for filtration control
 - Non-fermenting
 - Compatible with other Baroid drilling fluid additives
 - Resistant to harsh environments and contaminants

Typical Properties

| | |
|-----------------------------|--|
| • Appearance | Off-white, free-flowing, viscous fluid |
| • Specific gravity | 0.98 |
| • pH (0.3% solution) | 9.0 |
| • Flash point, PMCC °F (°C) | 185, (85) |
| • Pour point, °F (°C) | 35, (1.7) |
| • Freeze point, °F (°C) | -40, (-40) |

Recommended Treatment

- Using Venturi Mixer, or into vortex of a high-speed stirrer, add slowly and uniformly to entire circulating system.
- Used to slug down the rods to produce a high viscosity hole-cleaning sweep.

| Approximate Amounts of LIQUI-TROL viscosifier or polymer Added to Water-Based Fluids | | |
|--|-------------------|-----------------------------|
| Desired Condition/Result | | |
| <i>Added to fresh or salt water</i> | qt/100 gal | liters/m³ |
| <ul style="list-style-type: none"> • To help stabilize water sensitive formation | 4-6 | 10-15 |
| <ul style="list-style-type: none"> • To help reduce torque and lower circulating pressure | 2-4 | 5-10 |
| <i>Added to QUIK-GEL® slurry (25 pounds per 100 gallons) (30 kilograms per m³)</i> | qt/100 gal | liters/m³ |
| <ul style="list-style-type: none"> • To help enhance drilling mud fluid properties | 1-2 | 2.5-5 |
| <ul style="list-style-type: none"> • To help improve drilling mud suspension and stabilization capabilities | 2-4 | 5-10 |
| <i>Added to injection liquid in air/foam drilling</i> | qt/100 gal | liters/m³ |
| <ul style="list-style-type: none"> • To help improve foam performance and hole cleaning | 1-4 | 2.5-10 |

Note:

Salt water may require twice as much LIQUI-TROL viscosifier or polymer as fresh water. Preferably, LIQUI-TROL should be mixed in freshwater before it is added to salty water.