



# 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)

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**Recommended Treatment**

- Using a 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.

<b>Approximate Amounts of LIQUI-TROL Polymer Added to Water-based Fluids</b>		
<b>Desired Condition/Result</b>		
<b><i>Added to fresh or salt water</i></b>	<b>qt/100 gal</b>	<b>liters/m<sup>3</sup></b>
• To help stabilize water sensitive formation	4-6	10-15
• To help reduce torque and lower circulating pressure	2-4	5-10
<b><i>Added to QUIK-GEL slurry (25 pounds per 100 gallons) (30 kilograms per m<sup>3</sup>)</i></b>	<b>qt/100 gal</b>	<b>liters/m<sup>3</sup></b>
• To help enhance drilling mud fluid properties	1-2	2.5-5
• To help improve drilling mud suspension and stabilization capabilities	2-4	5-10
<b><i>Added to injection liquid in air/foam drilling</i></b>	<b>qt/100 gal</b>	<b>liters/m<sup>3</sup></b>
• To help improve foam performance and hole cleaning	1-4	2.5-10

*Note:*

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

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**Packaging**

LIQUI-TROL polymer is packaged in 5-gal (19-liter) plastic pails.

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**Availability**

LIQUI-TROL polymer 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

<b>Customer Service</b>	(800) 735-6075 Toll Free	(281) 871-4612
<b>Technical Service</b>	(877) 379-7412 Toll Free	(281) 871-4613

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