

LUBE 945

LUBE 945* water-dispersible lubricant is designed to decrease the coefficient of friction in all water-base muds. Decreasing coefficient of friction reduces torque, drag and the potential for differential sticking in the wellbore. It also has a unique wettability characteristic that lowers the potential of Bottom Hole Assembly (BHA) accretion. LUBE 945 lubricant is only slightly water soluble under most conditions, but is dispersible in water-base muds. LUBE 945 lubricant contains no hydrocarbons and is compatible for offshore usage.

Typical Physical Properties

Physical appearance.....	Dark amber liquid
Odor	Pungent
Specific gravity	0.96 – 1.01
pH (1% solution).....	9.7 – 10.3
Flash point.....	>284°F (140°C) (PMCC)

Applications

LUBE 945 lubricant is designed to be used in situations where torque, drag and/or the potential for differential sticking are likely, such as when drilling highly deviated or high-differential-pressure wells. LUBE 945 additive is an effective lubricant in low-solids, non-dispersed and/or chemically dispersed water-base muds.

Normal concentrations of LUBE 945 lubricant range from 1 to 3% by volume, (3.5 to 10.5 lb/bbl or 10 to 30 kg/m³), depending on the fluid density, desired reduction in coefficient of friction, and the mud system. Higher concentrations of LUBE 945 lubricant are normally required for mud densities above 12 lb/gal.

After the initial treatment, periodic treatments should be made to maintain the desired concentration. Higher concentrations can be necessary for pills and special applications. Treatment levels and product usage depend on the rate of penetration, solids-control equipment and dilution rates.

The product is water dispersible and blends easily into all water-base mud systems. It can be added to the mud system through the mixing hopper or directly to the surface system wherever good agitation is available.

Advantages

- Effective, all-purpose lubricant for water-base mud systems
- Decreases the coefficient of friction, which reduces torque and drag
- Reduces the potential for and severity of differential sticking
- Reduces the tendency for bit and BHA accretion when drilling gumbos

Limitations

- Can grease or emulsify in mud systems with soluble hardness greater than 600 mg/L and higher pH levels
- Can cause slight foaming in freshly built, ultra-low-solid seawater systems
- Applications above 200°F can destabilize the lubricant in freshwater

Toxicity and Handling

Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the Material Safety Data Sheet (MSDS).

Packaging and Storage

LUBE 945 lubricant is packaged in standard pack unit: 55-gal drum (net 456-lb) or 1,000-liter one-way totes; other pack units are available on request.

Store in a dry, well-ventilated area. Keep container closed. Keep away from heat, sparks and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.



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