

Ecolube

ECOLUBE is a modified fatty acid lubricant for most water-based drilling fluids. ECOLUBE does not foam at any concentration and, in addition to its main function of reducing friction coefficient, reduces fluid loss and improves quality and strength of the filter cake of drilling fluids. ECOLUBE helps reduce the likelihood of bit balling, improves wellbore stability, and has a positive effect on ROP and bit life extension.

Typical Physical Properties

Physical appearance	Dark brown liquid
Odor	Specific
Specific gravity	0.99 SG
Freezing Point	<-15oC

Applications

ECOLUBE is an easily dispersible lubricant in fresh or saline water, recommended for reducing the coefficient of friction when drilling long, directional and horizontal wells.

The recommended concentration of ECOLUBE in the mud depends on treatment objectives, usually in the range of 0.5-5% by volume, depending on the type and density of the drilling mud, the desired value of the coefficient of friction. As the well deepens, part of the reagent is adsorbed on the surface of the cuttings and the borehole walls, therefore, periodic additional treatment is required to maintain the required concentration of the reagent and the lubricity of the mud. The amount of additional treatment depends on the section of the well, the rate of penetration and the efficiency of the equipment for cleaning the solution. For the preparation of special baths or packs, a higher concentration of the reagent may be required.

It is recommended to add the reagent through a vortex or ejector hoppers into a tank with good agitation or directly into the suction of mud pumps. This will provide effective dispersion of the reagent and its uniform distribution throughout the entire volume of the mud.

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Eastern Hemisphere
 Gamle Forusvei 43
 N-4033 Stavanger,
 Norway
 Phone: +47-51-57-73-00
 Fax: +47-51-57-74-51

Western Hemisphere
 P.O. Box 42842
 Houston, Texas 77242-2842
 Phone: 281-561-1300
 Fax: 281-561-1441
 www.miswaco.slb.com



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Advantages

- Effective, all-purpose lubricant for water-base mud systems
- Decreases the coefficient of friction which reduces torque and drag
- Does not increase rheology or gel strengths
- Contains unique metal-wetting additives which reduce the tendency of soft, sticky shales (gumbos) to cause bit and BHA balling
- May be used at all bottom-hole temperatures
- Does not cause foaming
- Does not cause a sheen when dispersed in drilling fluids at 4% by volume or less

Limitations

- May “grease” in mud systems with soluble hardness greater than 600 mg/l and high pH levels, high solids content mud systems. Pilot testing is recommended.
- May increase viscosity of mud if overtreated

Toxicity and Handling

Bioassay information is available upon request.

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

Packaging and Storage

Ecolube is packaged into 200-L or 220-L drums.

Store in dry cool areas.

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