

# **LUBE EXE**

# Enhanced ester lubricant

#### **APPLICATIONS**

- Onshore drilling with water-based fluids
- Highly deviated and horizontal wells

#### **ADVANTAGES**

- Reduces torque and drag and increases ROP
- Has no adverse effect on mud properties
- Yields excellent performance in freshwater and low-density brines
- Reduces likelihood of differential sticking
- Is nonfoaming

#### **LIMITATIONS**

- Is incompatible with direct emulsion fluids
- May cheese, grease, or both when pH >10 and total hardness exceeds 100 mg/l

LUBE EXE\* enhanced ester lubricant is formulated to decrease coefficient of friction, torque, and drag in water-based drilling fluids when drilling highly deviated and horizontal wells in onshore applications. Additionally, by treating the system with the appropriate concentration, the potential for differential sticking can also be reduced.

Recommended concentrations for LUBE EXE lubricant range from 1–3% in volume. Appropriate concentrations depend on the particular conditions and needs of each application. This lubricant blends easily either through a conventional mud hopper or directly into the mud system; it should be added over one circulation to enable homogenization.

LUBE EXE lubricant does not affect mud properties, but pilot testing should be conducted before additions. Ensure total hardness in the system is <100 mg/l and pH <10 before adding LUBE EXE.

### **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 SDS.

## Packaging and storage

LUBE EXE lubricant is generally packaged in 55-galUS [208-L] drums. Keep containers tightly closed in a dry, cool, and well-ventilated place.

Typical Physical Properties	
Physical state	Liquid
Specific gravity	0.95–1.05
Solubility in water	Insoluble in water
Flash point	>212 degF [>100 degC]