# RINGFREE



Certified to NSF/ANSI 60

RINGFREE\* additive is a highly efficient, thermally stable thinner and surface-active agent that removes bentonite clays from the drillstring. It is environmentally acceptable and contains no heavy metals. Because it dissolves rapidly, RINGFREE additive immediately affects the rheology of most drilling fluids.

# Typical Physical Properties

Physical appearance	Pale yellow liquid
Specific gravity	1.3
pH as supplied	

# **Applications**

RINGFREE additive is used primarily to prevent bit balling and mud rings. It can also be used to reduce the viscosity and gel strengths of most freshwater drilling fluids.

#### Advantages

- RINGFREE additive is an excellent clay dispersant that quickly penetrates sticky clays that can cause tools to stick
- Works quickly to alleviate hole problems and reduce costly pulling times or lost pipe

#### Methods of Addition

- **Bit balling/mud rings:** Use ½ vis cup (0.5 L) per 300 gal (1,135 L) of fluid up to 0.5-1.5 gal (1.9-5.7 L) per 300 gal (1,135 L) of fluid. An alternate method is to slug rods with 1 vis cup (1 L) on connections.
- Thinning: Slowly add RINGFREE additive to the mud as needed to reduce viscosity.



#### Limitations

Effectiveness is reduced in fluids with more than 1,000 ppm dissolved calcium and 10,000 ppm chlorides. Since RINGFREE additive reduces mud rheology, caution should be exercised when adding it to the active mud system.

# 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 Sheets (MSDS).

# Packaging and Storage

RINGFREE additive is packaged in 5-gal (18.9-L) buckets.

Store in a well-ventilated area away from sources of heat or ignition.

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