**Actimul RD**

*Actimul RD* dry emulsifier is a multi-functional additive that serves both as an emulsifier and as wetting agent in diesel, mineral oil and paraffin-based non-aqueous drilling fluids (NAF).

Additional benefits include improved thermal stability and high-temperature, high-pressure (HTHP) filtration control. The product is very effective at controlling rheological properties with high solids and high water content.

**Typical Physical Properties**

- **Physical appearance**: Tan powder
- **Specific gravity**: 1.0-1.2
- **pH**: 10-11 (1% water solution)

**Applications**

*Actimul RD* dry emulsifier is designed for use in diesel, mineral oil and paraffin-based non-aqueous drilling fluids to provide a stable emulsion and excellent oil wetting. *Actimul RD* additive contributes to HTHP filtration control and temperature stability of the system. It is effective over a wide range of temperatures and in the presence of contaminants such as water or drilled solids. Initial system formulations typically require 12 to 29 kg/m³ (4 to 10 lb/bbl) of *Actimul RD* additive. The concentration depends on the desired properties and the other components present in the system such as fluid loss control additives or organophilic clays.

Higher concentrations of *Actimul RD* additive might be required for high-temperature applications or specific applications such as high solids loading generated with the addition of wellbore strengthening materials. Daily treatments of *Actimul RD* additive usually are in the range of 0.3 to 2.85 kg/m³ (0.1 to 1 lb/bbl) but will vary depending on mud properties such as total solids or water content and cutting volumes generated or dilutions.

*Actimul RD* additive can be added directly to the active system through the mixing hopper or in a premix. In all cases, pilot testing is required to establish proper treatments and additions of *Actimul RD* additive to the active system.

**Advantages**

- Contributes to improved logistics management
- Improves emulsion stability and oil wetting characteristics
- Maintains stable water-in-oil emulsion and helps prevent water in HTHP filtrate
- Improves thermal stability, rheological stability, filtration control and contamination-resistance of Non Aqueous Fluids
- Effective at counteracting the adverse effects of water contamination such as high viscosity, low-emulsion stability and water-wet solids
- Eliminates pour point concerns in cold temperature applications
- Temperature stable to >204º C (400º F)
Limitations
- Overtreatment with Actimul RD additive can result in a reduction of the rheological properties under certain conditions
- Pilot testing is suggested prior to adding to the active 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 Sheet (MSDS).

Packaging and Storage
Actimul RD additive is packaged in 11.4 kg (25 lb) multi-wall, paper sacks.

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.