

# MUL S-HT

## Emulsifier

### Product Description

MUL S-HT organic surfactant is a multi-functional additive that serves as an emulsifier and wetting agent in the oil mud systems.

This particular version has been formulated with a much higher flash point, for use in areas that require this added safety feature. Secondary benefits include improved thermal stability and high-temperature, high-pressure (HTHP) filtration control. The product is effective over a wide temperature range and in the presence of contaminants, and for reducing the adverse effects of water contamination.

### Typical Physical Properties

Physical appearance	Dark amber, viscous liquid
Specific gravity	0.89 – 0.92
Solubility	Insoluble
Flash Point	150 - 200°F (65 - 93°C)

### Application

MUL S-HT surfactant functions as a wetting agent and secondary emulsifier when used in conventional, low-fluid-loss, high-lime systems in combination with primary emulsifier. In this application, the product oil-wets barite and drill solids to prevent water-wet solids, improves thermal stability, rheological stability, filtration control and emulsion stability and improves the fluid's resistance to contamination.

This secondary emulsifier has been formulated with a higher flash point for areas that need this added safety feature.

Concentrations for initial formulations range from 1 to 3 lb/bbl (2.85 to 8.6 kg/m<sup>3</sup>) when used as a wetting agent, with occasional daily treatments of ~0.063 lb/bbl (0.18 kg/m<sup>3</sup>).

MUL S-HT surfactant functions as the primary emulsifier when used in relaxed-fluid-loss, lower-lime systems, in combination with wetting agent. In this application, the product forms a stable, oil-in-water emulsion and provides a degree of oil-wetting.

### Advantages

- High flash point product.
- Wide application, including higher-lime, conventional, and lower-lime systems.
- Improves emulsion stability.
- Improves oil-wetting and prevents water-wet solids.
- Maintains stable oil-in-water emulsion and helps prevent water in HTHP filtrate
- Improves thermal stability, rheological stability, filtration control and contamination-resistance of oil-base muds.
- Effective at counteracting the adverse effects of water contamination such as high viscosity, low emulsion stability and water-wet solids.

Important Note: These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and method of use of our product are beyond our control. We recommend that the prospective user determine the suitability of our material and suggestions before adopting them on a commercial scale.

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### Limitations

- Environmental restrictions concerning the use of oils and oil-base fluids should be considered since
- Versacoat NA surfactant is used in conjunction with oil.

### Recommended Treatment

Concentrations for initial formulations range from 2 to 8 lb/bbl (5.7 to 22.8 kg/m<sup>3</sup>) when used as the primary emulsifier, with daily treatments of ~0.125 lb/bbl (0.36 kg/m<sup>3</sup>). High-temperature applications and some “light” mineral oils require higher concentrations of MUL S-HT surfactant.

### Packaging and Storage

MUL S-HT emulsifier is packaged in 55-gal (208-L) drums. Store in a dry location away from sources of heat or ignition, and minimize dust.

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