



Drilling Fluids, Inc.

Petro Drill Oil Base Product

Description

MUL TREAT

MUL TREAT is a dispersant and wetting agent for mineral Oil Based drilling fluid systems. MUL TREAT is specially formulated for the specific base oil in use.

Uses

This invert emulsion wetting agent and thinner is used to counteract the effects of high solids concentrations or rapid increases in water content in Oil Based drilling fluid systems. MUL TREAT can be utilized during major drilling fluid weight increase to help oil wet the Barite. Caution should be used in the application of this product as the long term viscosity implications may result in a need for MUL THIK additions to maintain the proper Yield Point.

Benefits

MUL TREAT prevents or reverses viscosity increases due to solids or water increases. Continues to provide viscosity control for extended period of time in the oil phase. As new solids become oil wet and water becomes emulsified, excess MUL TREAT will continue to act as a wetting agent.

Treatment

| | |
|---|------------------------------|
| For treatment of water and/or solids contamination: | ½ to 1 ½ ppb |
| To thin slugs (dry jobs): | 2 - 5 gallons per 50 barrels |
| To increase wetting: | 1 ppb |

Function

MUL TREAT molecules are crafted to be exceptionally good at oil wetting solids as well as providing an oil-based dispersant. The molecular function of surfactants is carefully engineered in the selection of each side of the molecule to provide the proper degree of oil soluble (hydrophillic) and water soluble (hydrophobic) attraction.

Typical Physical Properties

| | |
|-----------------------------|-------------------|
| Physical Appearance..... | Dark Amber Liquid |
| Specific Gravity @60°F..... | 1.071—1.083 |
| Odor..... | Sweet |
| pH..... | 11-12 |



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Safety and Handling

Packaging

MUL TREAT (continued)

Inhalation of fumes, ingestion, and skin contact should be avoided. Normal storage precautions for industrial chemicals apply. See MSDS for further details of proper handling and other safety issues.

| | |
|------------------|------------|
| 55-gallon drums: | 400 pounds |
| 5-gallon pails: | 36 pounds |