

**VERSAMUL<sup>®</sup>** *VERSAMUL multi-purpose emulsifier is a liquid blend of selected emulsifiers, wetting agents, gelling agents and fluid stabilizers in a mineral oil base. VERSAMUL is used as the basic emulsifier for the VERSADRIL<sup>®</sup>, VERSACLEAN<sup>®</sup>, and VERSAPORT<sup>™</sup> oil mud systems. VERSAMUL provides excellent emulsion stability, secondary wetting, viscosity, filtration control and temperature stability.*

**TYPICAL PHYSICAL PROPERTIES**

Physical appearance . . . . . Dark amber, viscous liquid  
 Specific gravity . . . . . 0.84 – 0.96  
 Flash point . . . . . 197°F (91.7°C) (PMCC)

**APPLICATIONS**

VERSAMUL will form the basic brine-in-oil emulsion required for the VERSADRIL, VERSACLEAN or VERSAPORT oil mud systems. Initial system formulations require 4 to 10 lb/bbl (11.4 to 28.5 kg/m<sup>3</sup>), depending on the properties desired and other components in the system. Daily treatments of VERSAMUL will enhance the emulsion characteristics of these systems. Daily treatments are usually in the 0.05 to 2 lb/bbl (0.14 to

5.7 kg/m<sup>3</sup>) range. VERSAMUL treatments will lower the fluid loss and increase viscosity.

VERSAMUL is activated by calcium and works better at higher levels (>3 lb/bbl or >8.6 kg/m<sup>3</sup>) of excess lime. Generally, 1 lb/bbl (2.85 kg/m<sup>3</sup>) lime should be added to initial formulations for every 1 lb/bbl (2.85 kg/m<sup>3</sup>) VERSAMUL.



## ADVANTAGES

- Multi-purpose product which may be used in a wide variety of oil mud systems, including VERSADRIL, VERSACLEAN and VERSAPORT systems.
- Improves emulsion stability.
- Functions as a secondary wetting agent.
- Provides viscosity.
- Provides filtration control.
- Helps maintain high-temperature, high-pressure filtrate in a water-free state.
- Improves the thermal stability and contamination-resistance of an oil mud.

## TOXICITY AND HANDLING

Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions as described on the Transportation and Material Safety Data Sheet (MSDS).

Environmental restrictions concerning the use of oils and oil-base

fluids should be considered, since VERSAMUL is used in conjunction with oil.

*CAUTION! Avoid exposure. VERSAMUL contains mineral oil which is an irritant to eyes, skin and respiratory system.*

## PACKAGING AND STORAGE

VERSAMUL is packaged in 55-gal (208.2-l) drums.

Store in a location away from sources of heat or ignition. Keep containers closed and tightly sealed.

This material is supplied solely for informational purposes and M-I Drilling Fluids L.L.C. makes no guarantees or warranties, either expressed or implied, with respect to the accuracy or use of this data. All product warranties and guarantees shall be governed by the Standard Terms of Sale.



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