

VG-69[®] *VG-69 organophilic clay is a viscosifier and gelling agent used in VERSA oil-base and NOVA synthetic-base systems. This amine-treated bentonite is used to increase carrying capacity and suspension properties, providing support for weight materials and improved cuttings removal. VG-69 also aids in filter-cake formation and filtration control.*

TYPICAL PHYSICAL PROPERTIES

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|---------------------|--|
| Physical appearance | Off-white to tan powder |
| Specific gravity | 1.57 |
| Bulk density | 33 lb/ft ³ (528 kg/m ³) |

APPLICATIONS

VG-69 is used to increase viscosity and gel strengths in VERSA oil-base and NOVA synthetic-base systems. It has proven effective in drilling, coring, workover and completion fluids. The product is also effective in specialty applications such as casing packs, packer fluids and spotting fluids. Good agitation and sufficient shear are required to develop viscosity when using VG-69 to build fresh mud.

Typical concentrations range from 2 to 10 lb/bbl (5.7 to 28.5 kg/m³) for most drilling fluid applications, depending on the base fluid and

system requirements. Mineral oils generally require higher concentrations than diesel oils. VG-69 will not fully yield by the shear and temperature exposure in a mixing plant or mud pit. Care should be taken not to overtreat with VG-69 until the fluid has actually circulated through the well. For system maintenance, VG-69 should be added as needed to maintain the flow properties and gel strengths in the desired ranges. Specialty applications such as packer fluids and casing packs typically use concentrations in the 10 to 15 lb/bbl (28.5 to 43 kg/m³) range.



ADVANTAGES

- Provides gel structure and viscosity for the suspension of weight materials.
- Increases viscosity for improved hole-cleaning capacity.
- Improves filter-cake quality and filtration characteristics.
- Effective gelling agent in casing packs and packer fluids.

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). Slip hazard when wet.

Environmental restrictions concerning the use of oils and oil-base fluids should be considered, since VG-69 is used in conjunction with oil.

CAUTION! VG-69 contains crystalline silica, the inhalation of which may cause cancer.

PACKAGING AND STORAGE

VG-69 is packaged in 50-lb (22.7-kg), multi-wall, paper sacks.

Store in a dry location away from sources of heat or ignition, and minimize dust.

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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