

M-I GEL SUPREME WYOMING

M-I GEL SUPREME WYOMING viscosifier is a premium-grade Wyoming bentonite (a sodium montmorillonite clay) which has not been chemically treated. It is used as a primary filter-cake-building, filtration-control and suspension agent in freshwater systems, and has application in all water-base mud systems. M-I GEL SUPREME WYOMING viscosifier is a high-quality product that meets the ISO 13500 Clause 10 (formerly known as API Spec 13A, Section 10) specifications for nontreated Bentonite.*

Typical Physical Properties

Physical appearance	Light tan/gray-green powder
Specific gravity	2.3 – 2.6
Bulk density	48 – 52 lb/ft ³ (769 – 833 kg/m ³)
ISO 13500 Clause 10 Specifications:	
Suspension properties (Suspension of 25 grams into 350 cm ³ deionized water):	
Dispersed plastic viscosity	10 cP, min.
Yield point/plastic viscosity ratio	1.5, max.
Dispersed API filtrate volume	12.5 cm ³ , max.

Applications

M-I GEL SUPREME WYOMING viscosifier is used to increase viscosity and reduce fluid loss in water-base drilling fluids. It is a cost-effective product for achieving viscosity, controlling fluid loss and maintaining filter-cake quality in freshwater and seawater muds. Typical concentrations for M-I GEL SUPREME WYOMING viscosifier range from 5 to 35 lb/bbl (14.3 to 100 kg/m³).

As with all bentonite products, the yield decreases as the salinity increases. In muds containing more than 10,000 mg/L chlorides, the performance of M-I GEL SUPREME WYOMING viscosifier is significantly reduced unless it is pre-hydrated in freshwater, before adding it to the mud system.

Advantages

- Hydrates more than other types of clays and is best for generating viscosity, developing gels for suspension and controlling filtration
- A premium-grade, API, nontreated bentonite; therefore, it does not contain chemical treatments and is considered to be more desirable for certain applications
- Small particle size, unique flat shape and high surface area of hydrated M-I GEL SUPREME WYOMING viscosifier provides superior filtration characteristics

Limitations

- Performance reduced in salty (>5,000 mg/L Cl⁻) or hard (>240 mg/L Ca⁺⁺) waters due to decreased hydration

Toxicity and Handling

Bioassay information is available upon request.

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

Packaging and Storage

M-I GEL SUPREME WYOMING viscosifier is packaged in 100-lb (45.4-kg) multi-wall paper sacks and is available in bulk.

Store in a dry, well-ventilated area. Keep container closed. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.



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