

Liquid  
DHS VIS XC  
Biopolymer



**Downhole Solutions's** *DHS Vis XC Biopolymer* is a high-purity Xanthan Gum Biopolymer, suspended in an ultra-clean mineral oil with less than 0.01% aromatics. This type of polymer is unique when compared to most other polymers in oilfield drilling and completion applications. Xanthan Gums are well known for their ability to provide extremely low-solids fluids with excellent carrying and suspending characteristics. This is due to Xanthan Gum "shear thinning" properties. Fluid's thickened with DHS Vis Biopolymer and has a tendency to thin at higher velocities and thicken at lower velocities. This translates into the following:

- Optimized bit hydraulics resulting in higher penetration rates
- Reduced circulating pressure losses
- Improved hole cleaning
- Minimal drilled solids settling under static conditions

*DHS Vis XC Biopolymer* is a versatile product and can be used in most types of water-based fluids for rheology modification, hole cleaning and solids suspension. It provides excellent friction reduction for coiled tubing operations. It is useful over a wide pH range. The *DHS Vis XC Biopolymer* suspension is uniquely stable, easily handled and useful in both oilfield and non-oilfield applications.

#### Handling

For specific instructions on handling, refer to the MSDS.

#### Packaging

Disposable pails,

Other packaging options are available.

#### Environmental

Liquid DHS Vis XC biopolymer is generally non-polluting and safe to handle.

## Suspension Properties

DOWNHOLE SOLUTIONS'S *DHS Vis XC Biopolymer* will not experience the separation that is evident in other suspension products. It is not subject to settling or separation under normal storage or transport conditions. Starting with a fine-grade mineral oil and utilizing unique suspension technology, we eliminate settling of the Xanthan Gum particles while the product remains fully pourable. The long-term stability of the suspension provides for consistent, reliable product properties, without the use of any clay material or fumed silica at your field locations.

Packaging the *DHS Vis XC Biopolymer* as a liquid suspension allows for accurate metering and provides complete dispersion of the particles in your treating fluids before hydration begins. This quality eliminates problems of polymer lumping and incomplete viscosity development, even when facing adverse field mixing conditions.

## Advantages

- Easy to handle and mixes well in low-shear environments
- Extremely stable suspension provides reliable properties
- Freeze/thaw cycle does not affect stability or performance of the product
- Clay free Suspension package
- Excellent viscosifier – requires less material than other types of rheology modifiers with a broad temperature range
- Produces shear thinning fluids for optimum penetration rates
- Performs well in fresh water, seawater, brine and saturated salt environments
- Rapid dispersion without “fisheyes”
- Excellent friction reduction