

# POLY-PLUS LV

## Low-viscosity clay inhibitor

### APPLICATIONS

- Cuttings encapsulation in seawater, KCl, or freshwater systems

### ADVANTAGES

- Provides excellent cuttings encapsulation and limits cuttings dispersion
- Enhances removal of drill solids by reducing dispersion tendencies
- Makes a minimal contribution to system viscosity
- Provides improved shale stabilization
- Has significantly lower screen-blinding potential compared to higher-molecular-weight encapsulators
- Does not negatively affect positive rheological profiles

### LIMITATIONS

- Make-up water should be treated with soda ash or bicarbonate to reduce hardness and increase the performance of the product.

POLY-PLUS LV\* low-viscosity clay inhibitor is a low-molecular-weight, medium-charge acrylic copolymer designed to provide cuttings encapsulation and clay-dispersion inhibition. It is intended for use in fluids based on fresh and saline water environments. The POLY-PLUS LV inhibitor provides minimal viscosity contribution and can enhance filtration properties. When added to MAX GEL\* viscosifier or MAX BORE HDD\* one-step boring system, the POLY-PLUS LV inhibitor produces an inhibitive drilling-fluid system without affecting fluid properties.



POLY-PLUS LV inhibitor provides excellent cuttings encapsulation by adsorbing onto the clay surfaces and forming a protective film that prevents cuttings from sticking to each other or the shaker screen. The product is also effective in seawater and KCl-based fluids. Normal dosage rates are between 1.0 and 3.0 lb/bbl [3.0 and 9.0 kg/m<sup>3</sup>].

Due to the low molecular weight of this polymer, the mixing process requires less shear than polymers with higher molecular weights. The resulting fluid can pass through fine shaker screens without blinding.

Recommendations: Total hardness should be treated out first with bicarbonate or soda ash. Maintain pH below 10 for optimum performance.

### Recommended treatment

Approximate amounts of POLY-PLUS LV inhibitor added to water-based fluid.

### Toxicity and handling

Bioassay information is available on request. Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the material safety data sheet (MSDS).

### Packaging and storage

POLY-PLUS LV inhibitor is packaged in 27.5-lb [12.5-kg], 5-galUS [18.9-L] buckets. Store in a dry location away from sources of heat or ignition, and minimize dust.

### Typical Physical Properties

Physical appearance	White, granular powder		
Specific gravity	0.7		
pH (0.5% solution)	6.0–8.0		
Solubility in water	Soluble		

	lb/100 galUS	lb/bbl	kg/m <sup>3</sup>
Bentonite-free drilling fluid	0.5–1.5	0.2–0.6	0.6–1.8
Added to MAX GEL viscosifier or MAX BORE HDD system for inhibition	0.25–0.75	0.1–0.3	0.3–1.0
Foam drilling (stiff foams)	0.5–1.0	0.2–0.4	0.6–1.2