**KLA-HIB**

KLA-HIB™ additive is a liquid polyamine shale inhibitor for water-base drilling fluids that inhibits reactive shale by preventing water uptake.

Effective inhibition of clay hydration minimizes the potential for bit balling. KLA-HIB shale inhibitor is used in applications where levels of inhibition obtained with other amine additives such as KLA-STOP™ are not required.

**Typical Physical Properties**
- **Physical appearance**: Dark liquid
- **Odor**: Characteristic amine
- **Specific gravity**: 1.03 – 1.05
- **pH (1% solution)**: >10.5
- **Flash point**: >230°F (110°C)
- **Solubility in water**: Soluble

**Applications**
KLA-HIB inhibitor is a liquid additive that acts as clay hydration suppressant by intercalating between the clay platelets and preventing water uptake.

KLA-HIB can be used as the primary hydration inhibitor in KLA-SHIELD™ inhibitive water based drilling fluid system. KLA-HIB shale inhibitor may also be used as additional inhibitor in gypsum or lime systems.

Pilot testing is recommended prior to initial applications. Treatment verification can be achieved through rig-site KLA-HIB inhibitor concentration monitoring and cuttings quality observation. Cuttings should be firm and dry to semi-dry on the inside. Soft cuttings indicate lack of inhibition. Cuttings should be discrete and not clump together on shaker screens. Fine screen linear motion shakers are highly recommended.

**Advantages**
- Improved cuttings recovery
- Compatible with high-pH, highly dispersed water-base drilling fluids
- Minimum effect on rheological properties when added to freshly mixed fluids or fluids with very low reactive solids content
- No negative effect on fluid-loss control when added to highly dispersed low solids systems
- Compatible with most ROP enhancers such as DRILLZONE™ additive

**Limitations**
- To avoid excessive viscosity, a solids laden fluid may require chemical dispersion and dilution treatment prior to initial addition of KLA-HIB additive. Pilot testing is highly recommended.
- Low Cation Exchange Capacity is recommended (MBT <20 lb/bbl, <57 kg/m³) before this product is added to an existing fluid.
Toxicity and Handling
Bioassay information is available upon request.

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

Packaging and Storage
KLA-HIB inhibitor is packaged in 55-gal (208-L), drums.

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