

## drilling fluids additives

## shale inhibitors

## S-ES HYB HS

S-ES HYB HS is a cationic organic multivalent clay inhibitor for polymer based drilling, workover and completion fluids. S-ES HYB HS is a liquid replacement for KCl, completely water soluble and environmentally acceptable.

S-ES HYB HS is an effective clay inhibitor for water sensitive formations and shows excellent shale stabilisation properties. S-ES HYB HS prevents clay swelling caused by water molecules invasion and limits cuttings dispersion. S-ES HYB HS has a small ionic radius, allowing easy substitution on the exchange sites for the sodium ion, thereby effectively blocking the site for water hydration.

S-ES HYB HS can be used in conjunction with common water based additives. By inhibiting shales or gumbo clays, S-ES HYB HS also minimizes the accretion potential and consequently bit - and BHA- balling. Drill cuttings tend to be non sticky, firm and easily removed from the shale shakers when using S-ES HYB HS.

S-ES HYB HS has no adverse effects on viscosity and filtration properties of the mud. S-ES HYB HS is non-foaming, non oil-wetting, mildly cationic product.

## **Treatment**

S-ES HYB HS is designed to be used at pH range of 10.5 or less. S-ES HYB HS recommended treatment is in the range of 1-3% v/v depending on shale reactivity. S-ES HYB HS may be used in freshwater, seawater, saltwater, low-solids or weighted systems. S-ES HYB HS can be added directly to the mud system.

Typical Properties

Appearance: liquid

Density: 1.0 - 1.1 kg/lpH as is: 9.0 - 10.5Water solubility: soluble Pour Point: < -10C

**Packaging** 

55 US gal non returnable drums, palletized, strapped and shrink wrapped (4 drums per pallet); 5 gal cans, palletized, shrink wrapped; 275 gal totes / 1000 liters IBC.

