

Shale Inhibitor KDF015

1. Introduction

Clay inhibitors or shale stabilizers are generally used in drilling fluids to reduce clay swelling and cutting dispersion in order to improve wellbore stability and minimize post-treatment cost while drilling reactive formations.

KDF015 is a polymeric shale inhibitor primarily used in drilling fluids, workover fluids and completion fluids. It adsorbs onto the surface of drill cuttings to rapidly inhibit hydration and dispersion of drill cuttings, facilitating cutting removal and reducing drill solid accumulation.

2. Physical Properties and Hazards

Additive	Form	S.G.	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KDF015	White Powder	1.30-1.40	Soluble	-	Inhalation	Dust	4.0-6.5 (5%)

3. Chemical Properties and Application

KDF015 is a synthetic polymer with cationic nature. It can absorb onto the clay or cutting surfaces since they are negatively charged. The encapsulated clay or cuttings prevent clay swelling or shale dispersion caused by the invasion of water molecules.

KDF015 creates synergistic effect when used together with other clay or shale inhibitors such as salts and poly-alcohols. It is compatible with most drilling fluid additives as a high-performance shale inhibitor. KDF015 has no adverse effect on rheological, fluid loss control and other properties of drilling fluid systems.

Chemical Nature: Cationic Synthetic Polymer
 Solubility: Soluble in fresh water or seawater
 Application Temperature: up to 177°C (350°F)

4. Treatment

KDF015 should be added in the range from 5 to 15 kg/m³ (1.5-5.5 lbm/bbl) depend on mud weight. Small maintenance addition is generally required to compensate for adsorption losses to cutting or formation surfaces.

5. Packaging

KDF015 is supplied in 25 KG multi-lining paper sacks.

Keep it away from extreme conditions such as places near flames or direct sunlight.