

Fluid Loss Control Additive KDF017H

1. Introduction

Serious fluid loss into formation rocks leads to differential sticking, formation damage and reduces well productivity. Fluid loss control additives are generally used in drilling fluid systems to minimize the fluid loss while drilling oil or gas wells.

Starch and its derivatives are good fluid loss control additives generally used in drilling fluid systems. They are cost-effective and environmentally friendly in addition to working as fluid loss control additives in drilling and completion fluids. KDF017H is a modified starch used in ResDrill, EcoDrill and other drilling and completion fluids. It is not only a superior fluid loss control additive but also acid soluble and bacterial degradable to minimize potential formation damage.

2. Physical Properties and Hazards

Additive	Form	S.G.	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KDF017H	Off-white Powder	1.50-1.60	Soluble	-	Eyes	Dust	7-9 (1%)

3. Chemical Properties and Application

Modification of polymer backbone provides KDF017H superior performance in fluid loss control, rheological property optimization (low molecular weight), and high temperature stability in addition to the economical and environmentally friendly nature.

KDF017H is also resistant to high salt concentrations therefore it can be used in various seawater and concentrated brines.

Solubility: Readily soluble in fresh water, seawater, and concentrated brines.
 Temperature Stability: Stable up to 140°C (285°F) in laboratory.

4. Treatment

The concentrations vary from 2 to 6 lbm/bbl (5.7 to 17.2 kg/m³). KDF017H can be mixed rapidly at a rate of 5 to 10 min per sack due to its high solubility. As KDF017H is subject to bacterial degradation, a biocide is recommended to prevent fermentation in fluids which are not salt saturated.

5. Packaging

KDF017H is supplied in 25 KG and 6-ply paper sacks.

Keep it away from extreme conditions such as places near flames or direct sunlight. Pay attention to moisture protection.