

Fluid Loss Control Additive KDF047

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.

KDF047 is a multi-functional modified natural polymer used as a fluid loss control additive and shale stabilizer. It is especially effective in Oil-Based Muds and at high temperature applications.

2. Physical Properties and Hazards

Additive	Form	S.G.	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KDF047	Black Powder	1.50-1.70	Soluble	-	Eyes, Inhalation	Dust	-

3. Chemical Properties and Application

KDF047 contains both water-soluble sulfonated groups and oil-soluble hydrocarbon component, featuring dual solubility of water dispersibility and partial oil solubility. The colloidal nature of KDF047 effectively plug and seal the pores of the formation and filter cake, therefore forming an impermeable barrier to minimize the fluid loss of the drilling fluid systems. With unique amphiphilic molecular structure and excellent downhole adaptability, it is also widely recognized as a high-efficiency shale inhibitor, wellbore stabilizer for oil and gas drilling fluids including water-based, oil-based and synthetic-based drilling fluid systems.

KDF047 presents synergistic effect when it is used together with KDF027 and KDF037 especially at high temperature conditions.

Chemical nature: A Multi-functional Modified Natural Polymer

Temperature Stability: Stable up to 240°C (465°F)

4. Treatment

KDF047 should be added in the range from 2 to 6 lbm/bbl (5.7 to 17.2 kg/m³) depend on the application.

5. Packaging

KDF047 is supplied in 25 KG plastic-lining paper bags.

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