

Rheology Modifier KDF041

1. Introduction

Viscosifier or rheology modifier are generally used in drilling fluids to increase the drill-cutting carrying capacity, maintain the correct pressure and control the fluid loss of the drilling fluids.

KDF041 is a liquid rheology modifier designed for fresh water and high salinity monovalent brines (up to 150,000 ppm) and sea water. It is specially used in clay-free high temperature drilling fluid or Drill-In-Fluid (DIF) systems.

2. Physical Properties and Hazards

Additive	Form	S.G.	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KDF041	Milky Liquid	1.05-1.15	Soluble	-	Skin, Eyes	-	-

3. Chemical Properties and Application

KDF041 is a crosslinked synthetic polymer. The slightly crosslinked nature provides KDF041 superior performance by increasing low-shear viscosity without adverse effect on other properties of drilling fluids. KDF041 comes in emulsion form (30 wt.% active), which allows for improved mixing and fast hydration without fish-eye.

KDF041 can be used in different formation environments. Laboratory testing results also show enhanced shale stabilization and clay inhibition performance of KDF041.

Chemical Nature Synthetic Polymer Emulsion
 Temperature Stability: Stable up to 190°C (375°F)

4. Treatment

A typical concentration range is 5-15 ppb. Pilot tests are required and follow proper design procedures to determine the optimized fluid formulation.

5. Packaging

KDF041 is supplied in 55 GAL plastic drums.

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