

Crosslinker KHF048

1. Introduction

Crosslinkers are generally introduced into polymer-based fracturing fluids to improve rheological properties and high temperature stability of the fracturing fluids.

Crosslinker KHF048 is a zirconium based crosslinker used in UniFrac (crosslinked polyacrylamides) fluids.

2. Physical Properties and Hazards

Additive	Form	Specific Gravity	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KHF048	Yellow Liquid	1.15-1.20	Soluble	>100	Moderate, Eyes	Moderate	5.5-6.5

3. Chemical Properties and Application

Crosslinker KHF048 is a zirconium based crosslinker used for crosslinking Polyacrylamide based fracturing fluids. The crosslink is mainly temperature dependent. Crosslinking reaction takes place when the temperature rises to around 100°F.

KHF048 crosslinked polyacrylamide (UniFrac) provides high viscosity at high shear rate and elevated temperature. The temperature dependent crosslinking maintains low viscosity of UniFrac fluids below 100°F in the tubulars and reduces the friction pressure while pumping UniFrac.

KHF048 is compatible with most additives used in UniFrac systems which can be used up to 350°F.

4. Treatment

Batch mixing KHF048 into the fluid is not recommended. If the KHF048 must be batch mixed, it is added only after the polymer is fully hydrated. 2.0 to 3.0 Gal/1,000 Gal of KHF048 is generally sufficient to obtain good crosslink property and fluid stability at elevated temperature.

5. Packaging

KHF048 is supplied in 55 gallons high density polyethylene (HDPE) drums.

Keep it away from extreme conditions such as places wet and humid or direct sunlight.