

Stabilizer Aid KHF004

1. Introduction

Iron ions present in mix-water or fracturing fluids can affect the fluid properties adversely. A stabilizer must be added whenever the dissolved iron concentration is greater than 10 ppm. KHF004 is one of the effective stabilizers used in guar-based fracturing fluids to prevent the adverse effect of iron on fluid properties.

2. Physical Properties and Hazards

Additive	Form	Specific Gravity	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KHF004	Clear to Light-yellow Liquid	1.10-1.18	Soluble	>93	Eyes, Skin	None	9.0-11.0 (1%)

3. Chemical Properties and Application

High concentration of dissolved iron in mix-water or fracturing fluids can severely affect fluid viscosity especially at elevated shear and temperature. Stabilizer aid KHF004 is an organic-based iron stabilizer which can be used to minimize the adverse effect of dissolved iron and to enhance fluid properties at elevated temperature and shearing.

If dissolved iron concentration is low (less than 2 ppm) and temperature is less than 220°F, KHF004 is generally not required for stabilization. However, KHF004 must be used if fluid temperature is greater than 250°F no matter the concentration of dissolved iron.

KHF004 is compatible with most additives used in guar-based fracturing fluids, but it may interfere with some oxidizing breakers if the fluid is not properly designed.

4. Treatment

The recommended concentration for KHF004 is 1-3 Gal/1,000 Gal of mixing water.

5. Packaging

KHF004 is supplied in 55 gallons high density polyethylene (HDPE) drums.

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