

Clay Stabilizer KHF002C

1. Introduction

Clay stabilizers are routinely added to aqueous-based fracturing fluids to help prevent damage to the formation caused by clay migration and swelling. These clay stabilizers are either a temporary or permanent type, and they are often used in combination.

The clay stabilizer KHF002C is a KCl substitute and can be used with Guar, HPG, CMHPG and Friction Reducer-based frac fluids. KHF002C is a temporary clay stabilizer that helps to prevent clay particles from swelling and plugging of reactive clays in water-sensitive formations during fracturing and flowback operations.

2. Physical Properties and Hazards

| Additives | Form | S.G. | Water Solubility | Health Hazard | Physical Hazard | pH |
|-----------|------------------|-----------|------------------|---------------|-----------------|---------|
| KHF002C | Colorless liquid | 1.02-1.07 | Soluble | Moderate-Eyes | None | 6.5-8.0 |

3. Chemical Properties and Application

Temporary Clay Stabilizer KHF002C is an organic liquid clay stabilizer. It is NOT a solution of KCl, but it can be substituted for KCl in most oilfield applications.

KHF002C has been used at temperatures up to 350°F without any adverse effect on fluid rheology.

KHF002C can be batch mixed, or continuously mixed into the fracturing fluid using a liquid-additive system. This eliminates the time-consuming step of batch mixing dry KCl in the base fluid. KHF002C can be used in most aqueous-based fracturing fluids and is compatible with most additives used in the fracturing fluid systems.

KHF002C is highly recommended for systems that are sensitive to high salt concentrations.

4. Treatment

The recommended KHF002C concentration is 0.5 to 2 Gal/1,000 Gal (0.5 to 2 L/m³). For specific formations such as high reactive clay content, the KHF002C concentration can be further optimized using laboratory core tests.

5. Packaging

KHF002C is supplied in 55 gallons high density polyethylene (HDPE) drums or 265 gallons HDPE totes. Keep it away from extreme conditions such as places near flames or direct sunlight.