Mutual Solvent KHF017

1. Introduction

Oil film around formation fines sets a barrier for acids or other stimulation fluids to react with formation rock. Mutual solvent mixed in acids or stimulation fluids will dissolve the oil films and water-wet the formation fines. KHF017 is therefore normally used in most acidizing fluid systems to penetrate sandstone matrix and water-wet formation grains in order to improve acidizing efficiency.

2. Physical Properties and Hazards

Additives	Form	S.G.	Water Solubility	Health Hazard	Physical Hazard	pH
KHF017	Colorless liquid	0.90-0.95	Soluble	Eyes, skin	Moderate-Fire	5.5-6.5

3. Chemical Properties and Application

KHF017 is a multi-functional surfactant which is very effective in facilitating fluid flow, breaking emulsions, and preventing water blocks. It can be used for most applicable stimulation fluid systems at various well conditions.
KHF017 is miscible in acids, oils, water and brines. The functional groups attached to KHF017 molecules provides KHF017 with strong surface-active properties. KHF017 reduces surface tension of water and interfacial tension of water oil interfaces and reverse the wettability of solid surfaces from oil-wet to water-wet. It is especially effective in removing oil films from formation fines leaving surface water-wet for more acids to react.
KHF017 is compatible with most additives in stimulation fluid systems. Lab testing is required when new corrosion inhibitor is considered since KHF017 may have adverse effect on corrosion inhibition.

4. Treatment

5-10% Volume is typically enough for most cleanup and acidizing jobs. 10% Volume is considered the optimum concentration in most fluid designs.

5. Packaging

KHF017 is supplied in 55 gallons steel drums. Keep it away from extreme conditions such as places near flames or direct sunlight.