

Foaming and Silt Suspending Agent KMA021

1. Introduction

Two primary functions for foaming agents in stimulation treatment are (1) energize fluids for well cleanup and unloading and (2) use as carrying and diverting fluids for main treatment.

KMA021 surfactant is an outstanding surface-active agent. It has excellent silt-suspending qualities, excellent foam generating and stability characteristics, and provides low surface and interfacial tension qualities.

2. Physical Properties and Hazards

Additive	Form	Specific Gravity	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KMA021	Clear Liquid	0.85-0.95	Soluble	20.6	Eyes, Skin, Inhalation	Fire	6.0-8.0

3. Chemical Properties and Application

KMA021 is a cationic/amphoteric mixture and is compatible with most cationic and nonionic additives in stimulation fluid systems. KMA021 is a high-performing surface-active agent for low-pH systems. It provides low-surface tension to treatment fluids and water-wets sandstone and limestone formations.

KMA021 is also a good silt-suspending agent, which improves wellbore cleanup significantly.

KMA021 can be used as a surfactant in water, acid, or heavy brine. It is effective in acid, spent acid (CaCl_2 brine) and KCl water.

4. Treatment

Typical concentrations range from 2 to 10 Gal/1000 Gal (2 to 10 L/m³) of acid. Laboratory testing is required to determine the optimum concentration.

5. Packaging

KMA021 is supplied in 55 gallons high density polyethylene (HDPE) or steel drums.

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