

Emulsifier KMA036

1. Introduction

Emulsified Acid Technology (EAT) is designed for use in carbonate acidizing and acid fracturing. It is an oil-external emulsion formed with a 70:30 hydrochloric acid-to-oil ratio, stabilized with an emulsifier KMA036. EAT emulsion retards the acid reaction rate of 28% HCl approximately 10-15-fold. Even greater retardation (up to 40-fold) is achieved at lower acid concentrations.

2. Physical Properties and Hazards

Additives	Form	S.G.	Water Solubility	Health Hazard	Physical Hazard	pH
KMA036	Light brown to dark brown liquid	0.90-0.95	Insoluble	Eyes, skin, inhalation	Fire	N/A

3. Chemical Properties and Application

KMA036 is a good surface-active agent for stabilizing acid-internal and oil-external emulsions. It is applicable at wide temperature range from 60 to 375°F. Typical acid-to-oil ratio for KMA036 application is 70/30 by weight percentage. Higher acid-to-oil ratio will increase friction pressure and lower ratio will decrease acid strength and capacity.

KMA036 is compatible with most additives in acid stimulation systems. However, additives such as non-emulsifying agents and corrosion inhibitors have to be tested in the laboratory before using with KMA036.

4. Treatment

KMA036 concentration depends on acid, strength, additives, oil and application temperature. Typical concentrations range from 3 to 5 Gal/1,000 Gal of acid.

5. Packaging

KMA036 is supplied in 55 gallons high density polyethylene (HDPE) drums. Keep it away from extreme conditions such as places near flames or direct sunlight.