

Iron Control Agent KMA022

1. Introduction

In acid fracturing treatment of carbonate reservoirs, the fluid efficiency in etching and worm-holing the rock surfaces are essential for treatment effectiveness.

SGA is a self-diverting and leak-off control gelled-acid system used in carbonate acid fracturing operations. KMA022 is specifically designed for use in SGA systems to control the irons during the acid fracturing treatment process.

2. Physical Properties and Hazards

Additive	Form	Specific Gravity	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KMA022	Clear Liquid	0.95-1.05	Soluble	70	Skin, Eyes	None	9.5-10.5

3. Chemical Properties and Application

KMA022 is an environmentally friendly iron control agent used specifically in SGA systems. Conventional iron control agents have adverse effect on the crosslinking reactions between the linear polymer and crosslinker and the final properties of the SGA systems.

KMA022 is chemically a reducer to reduce the ferric irons to ferrous irons in order to keep irons in solution. Theoretically 10 gal/Mgal KMA022 can reduce up to 12000 ppm ferric irons in SGA systems. KMA022 can be used in SGA systems up to 300°F.

KMA022 is compatible with other additives in SGA systems such as KMA027G, KMA024, KMA054, KMA030, KMA031, and KMA001S. Other additives required in SGA should be tested in FETC or location lab.

4. Treatment

10 gal/Mgal of KMA022 is the minimum concentration required in SGA system. Additional KMA022 can be used if more ferric irons are anticipated. Add 10-15 gal/Mgal in SGA systems for each 12000 ppm ferric irons.

5. Packaging

KMA022 is supplied in 55 gallons high density polyethylene (HDPE) drums.

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