

Iron Stabilizer KMA003B

1. Introduction

Ferric and ferrous ions remain in acid solutions during acidizing operations. When acid travels from surface to formation, it will dissolve iron from equipment, tubulars, scales and iron minerals in the formation. It is, therefore, required to add iron stabilizer in acid systems. KMA003B is a high-performance iron stabilizing agent used in acids to prevent iron hydroxide precipitations.

2. Physical Properties and Hazards

Additives	Form	S.G.	Water Solubility	Health Hazard	Physical Hazard	pH
KMA003B	White powder	1.57-1.77	Soluble	Eyes, skin	Dust	10.0-11.0 (1%)

3. Chemical Properties and Application

KMA003B is a chelating agent used in both fresh and spent acids to keep iron in solution instead of precipitation. It can be used for most applicable stimulation fluid systems at various well conditions.

Ferrous iron will not form iron hydroxides until pH of 8.5. As we know, pH of most spent acids will not be more than pH of 6. Therefore, Ferric iron is generally required to be stabilized in solution because it will precipitate to ferric hydroxide at pH above 3, which is an insoluble gelatinous mass. KMA003B is a high-performance chelating agent, which will react with ferric irons in acids and keep it in solution.

KMA003B is compatible with most additives in stimulation fluid systems.

4. Treatment

20-150 lbs/Mgal KMA003B is typically enough for most cleanup and acidizing jobs. 50 lbs/Mgal is considered optimum concentration in most fluid design.

5. Packaging

KMA003B is supplied in plastic-lined bags with net weight of 25 kg/bag. It should be stored in shaded areas with good ventilation. Keep it away from high temperature, humidity and direct sunlight.