

Iron Control Agent KMA023

1. Introduction

Ferric and ferrous ions remain in acid solutions during acidizing operations due to the very low pH of acids. When acid travels from surface to formation, it will dissolve iron from equipment, tubulars, scales and iron minerals in the formation. While spending the acid, the pH of the acid will go up, and can result in the precipitation of iron. Trivalent Iron (Ferric) precipitates at about pH 3, while the divalent Iron (Ferrous) will not precipitate until the acid spent to a pH of 8. To minimize the precipitation of iron, it is better to keep the iron in the ferrous iron. It is therefore required to add an iron stabilizer (reducer) into acid systems. KMA023 is an effective iron control agent used in acids to prevent iron hydroxide precipitations.

2. Physical Properties and Hazards

Additive	Form	Specific Gravity	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KMA023	White Powder	1.50-1.70	Soluble	-	Eyes	Fire, Dust	2.0-3.0 (1%)

3. Chemical Properties and Application

KMA023 is an iron sequestering agent used in both fresh and spent acids to keep iron ions in solution instead of precipitates. It is typically used for low to medium temperature depend on the iron concentration presented at well conditions.

KMA023 is often used to react with ferric irons in acids especially organic acids and keep it in solution.

KMA023 is compatible with most additives in stimulation fluid systems except for high concentration of calcium presented.

4. Treatment

20-150 lbs/Mgal KMA023 is typically enough for most cleanup and acidizing jobs. 50 lbs/Mgal is considered optimum concentration in most fluid design.

5. Packaging

KMA023 is supplied in plastic-lined bags with net weight of 25 KG/bag.

Keep it away from extreme conditions such as places near flames, direct sunlight and moisture.