

PROFE 175

■ Iron Control for Acidizing Operations

> PRODUCT DESCRIPTION

ProFe 175 is a chelating agent capable of performing in spent acid, even in the presence of high calcium ion concentrations. ProFe 175 chelates both Fe+3 (ferric) and Fe+2 (ferrous) iron up to a pH of 9.5. This chelating action prevents iron from forming insoluble compounds that precipitate out of spent acid solutions, thereby reducing the effectiveness of the acid treatment. Proper chelation keeps the iron in a soluble form that can be produced back with the treating fluid after the job. ProFe 175 also helps to prevent the formation of acid sludge that may be caused by precipitated iron compounds.

ProFe 175 is also an iron chelating agent for linear frac fluids (pH >7-9). ProFe 175 holds iron in solution in frac return water and prevents iron plugging of proppant area.

> PACKAGING

ProFe 175 is available in 55 gallon drums and 330 gallon tote tanks. Other packaging options may be available upon request.

> RECOMMENDED APPLICATION

ProFe 175 can be used in any strength of acid up to 200 F (93.3°C) and is effective up to pH 9.5. The amount of iron that may be present is dependent on the acid strength, contact time, temperature and the amount of iron contained in the formation and on tubular goods. ProFe 175 used at 1.0 gal/1000gal (gpt) of acid will chelate 75 ppm of ferric and ferrous iron.

Typical dosage of ProFe 175 is from 1-3 gal/1000gal (gpt) in linear gel systems depending on the amount of iron in the formation water. ProFe 175 should not be used at more than 0.5 gal/1000gal (gpt) in the non-crosslinked pad of crosslinked frac gel systems as interference with the crosslinker may occur at higher concentrations.

Typical Physical Properties

Flash Point (°F/°C)	Not Applicable
Freeze Point (°F/°C)	< 0 / < -17.8
Charge	Anionic
Specific Gravity	1.25 - 1.33
Solubility	Water, Acid

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