

FEC-20

Iron Sequestering Agent

11155-001



LIBERTY

General Information:

FEC-20 is a convenient source of citric acid, pre-dissolved in water, for acidizing use. Citric acid is typically used to sequester dissolved iron in acid solutions and to prevent its precipitation as solids when acid spends.

Physical Properties:

Density 10.2 lbs/gal.
Solubility in Water Complete
Solubility in Diesel Insoluble
Color..... Clear to hazy
OdorSlight
pH.....2.7

Chemical Description:

FEC-20 is a water solution of citric acid with a freeze point around 23deg F. Each gallon of FEC-20 provides just less than five pounds of citric acid monohydrate in a readily mixed pre-dissolved form.

Limitations:

FEC-20 is corrosive to most metals, and should be stored in plastic or fiberglass tankage with plastic or stainless steel piping and valves. Citric acid in any form begins to lose effectiveness in preventing iron precipitates as temperatures approach 150deg F.

Recommended Uses:

FEC-20 is recommended as a convenient source of citric acid for oilfield acidizing use at temperatures below 150deg F. It offers very economical protection against iron precipitation in so-called NE-FE acid formations.

Treating Applications:

FEC-20 is typically used in hydrochloric acid at loadings of 2 gallons per 1000 gallons of acid. Loadings will depend on the expected severity of iron problems to be encountered. FEC-20 is frequently combined with acetic acid (at about equal loadings) to utilize the iron sequestering ability of citric along with the pH buffering capabilities of acetic acid.

Packaging:

FEC-20 is obtainable in 55 gallon poly drums, 275 gallon poly totes, and bulk storage.

DOT Information:

CORROSIVE LIQUID N.O.S., 8, UN-1760, PGH

