

INFORMATION

OIL AID-IS-1

IRON STABILIZER

DESCRIPTION

OIL AID-IS-1 is a liquid organic chelating agent which is especially useful as an iron stabilizer in oilwell acidizing treatments. Its typical properties are:

Form	Liquid
Color	Straw
Specific Gravity	1.31 @ 25° C

APPLICATION

OIL AID-IS-1 should be used when acidizing formations which contain iron minerals or when iron scale is present in pipe or tubing. In many areas, the majority of wells will have significant amounts of iron scale and corrosion products inside the well tubing; for this reason iron stabilizers should be used in most acid treatments.

Acid pumped into a well dissolves rust, iron scale and iron-bearing formation minerals. The iron remains in solution until the acid is spent and the pH of the fluid begins to rise. As the pH of the spent acid nears 2, the ferric iron (valence +3), which normally accounts for about 20% of the total iron, precipitates as ferric hydroxide. Ferric hydroxide is a shiny, gelatinous mass which can plug formation permeability, reducing oil/gas production. When OIL AID-IS-1 is used as an acid additive, the formation of ferric hydroxide precipitate is inhibited. The dissolved iron and other acid reaction products remain in solution and are removed from the formation as the well flows back and cleans up. OIL AID-IS-1 is stable at 350° F to 375° F, but a high metal ion concentration will lower its effective temperature somewhat.

RECOMMENDED TREATMENT

OIL AID-IS-1 dosage should be based on the amount of ferric iron to be encountered in treatment. This is best determined by laboratory analysis of spent acid returns from offset wells. If information on ferric iron content is not available, treat for one-fifth of total iron. Generally, OIL AID-IS-1 should be used at a concentration of 1.3 gallons per 1000 gallons of acid per 100 ppm of ferric iron content.

For example, if ferric iron content is 500 ppm, use 6.5 gallons of OIL AID-IS-1 per 1000 gallons of acid. Do not treat for total iron content, but only for ferric iron. Do not exceed the following maximum dosages:

MAXIMUM DOSAGE OF OIL AID-IS-1
with 15% Acid: 40 gal/1000 gal
with 28% Acid: 16 gal/1000 gal

MIXING INSTRUCTIONS

OIL AID-IS-1 is soluble in both acid and water, and can be added at almost any stage in the mixing process. But the following sequence may be used as a guide.

- Put required water in tank.
- Add OIL AID inhibitor and other OIL AID surfactants, emulsion preventers, etc.
- Add OIL AID-IS-1
- Mix thoroughly.
- Add required concentrated acid.
- Mix thoroughly.

HANDLING

OIL AID-IS-1 is a moderate irritant, and can cause burns to skin and eyes. Protective goggles and gloves are advised for handling. Flush or wash with water if splashed in eyes or on skin, respectively. Change and launder contaminated clothing.

PACKAGING

OIL AID-IS-1 is packaged in 55-gallon drums.

OIL AID-IS-1 is a Messina trademark