

## **OIL AID-IS-2**

### **IRON STABILIZER**

#### **DESCRIPTION**

OIL AID-IS-2 is an organic chelating agent which is especially useful as an iron stabilizer in oilwell acidizing treatments. Typical properties:

Form Powder  
Color White  
Bulk Density 52 lbs/cu ft

#### **APPLICATION**

OIL AID-IS-2 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-2 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-2 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-2 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-2 should be used at a concentration of 6.5 pounds per 1000 gallons of acid per 100 ppm of ferric iron content. For example, if ferric iron content is 500 ppm, use 32.5 pounds of OIL AID-IS-2 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-2**  
with 15% Acid: 200 lbs/1000 gal  
with 28% Acid: 80 lbs/1000 gal



## MIXING INSTRUCTIONS

OIL AID-IS-2 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-2.
- Mix thoroughly.
- Add required concentrated acid.
- Mix thoroughly.

## HANDLING

OIL AID-IS-2 is moderately irritating to eyes and skin, and can cause burns. Chemical goggles should be worn while handling the product. Flush from eyes or wash off skin with water. OIL AID-IS-2 is irritating to nasal passages, and the dust should not be inhaled. When dusty conditions exist, a protective mask should be worn.

## PACKAGING

OIL AID-IS-2 is packaged in 50-lb export bags.

