

Oilfield Chemical Additives Supplier for

- Drilling
- Completion
- Production
- Stimulation

Emulsifier *EA-250*



Emulsifier EA-250

An emulsifier is an amphiphilic molecule of low or high molecular weight that tends to migrate and adsorb rapidly on the oil (apolar) and water (polar) interface, favoring the formation of drops with lower energy consumption. These compounds decrease interfacial tension and create a film at the interface.

For your project of matrix acidizing, Youzhu Chem provide acid emulsions chemicals.



Technical Index

Appearance:	brown liquid
Solubility In water:	soluble
Solubility In oil	Dispersed

Product introduction

Acidizing operations increasingly present challenges in deeper formations. The formation of wormholes and inhibition of corrosion are particularly becoming significant because both are drastically affected in deeper wells with higher temperatures. In emulsified acid fluids, the direct contact between the acid and formation is reduced, thus enhancing the formation of wormholes at high temperatures. Emulsions also reduce the direct contact between acid and metal, thus improving the inhibition of corrosion. This makes emulsified acids one of the most promising fluids for high-temperature acidizing operations; however, the primary challenge is stabilizing the emulsion system at increased temperatures and in the presence of corrosion inhibitors.

Emulsified acids have been used to increase production rates of oil and gas in carbonate-containing reservoirs through acid fracturing and matrix acidizing operations. The acids emulsified with oil, usually diesel or crude oil, can reduce corrosion of pumping equipment and downhole tubulars, and decrease the reaction rates with formation carbonates at higher temperatures, which provides active acid to penetrate deeply into the formation. As noted, emulsified acids give reduced or retarded acid reaction rates because of the oil-external outer phase. The stabilization of acid and oil emulsions is usually an issue for field applications. By "stable" it is meant that the viscosity of the emulsified acid is generally maintained, and does not markedly increase or decrease, even over elevated temperatures and the expected pumping shear.

EA-250, An emulsifier, is used to form water in oil (W/O) type emulsified acid system. A stabilized emulsified acid comprising: from about 25 to about 40 % volume of at least one oil; from about

60 to about 65 % volume of an aqueous acid solution such as HCl, HF, HAC and mud acid ; from about 0.5 to about 2 % volume of emulsifier EA-250. This emulsified acid system can be used to a temperature range of , but is not necessarily limited to, about 200° F. to about 250° F. (about 93° C. to about 120° C.)

Application

The recommended dosage of EA-250 is 0.5-2.0% by weight of volume (the total volume of acid and oil). During acid preparing process, the product can be only added into oil instead of water or acid solution. The volume ratio of acid to oil is from 8:2 to 6:4, the preferable ratio is 7:3.

Recommended treatment

EA-250 is added in oil and cannot be added into water or acid solution. So, we must pay attention to the sequence stage in the mixing process. The following sequence may be used as a Guide:

- Put required oil (diesel or crude oil) in tank.
- Add EA-250 and mix thoroughly.
- Add acid (HCl, HF, or other acid) and water.
- Add corrosion inhibitor , iron stabilizer , and other additives, etc.
- Mix thoroughly.

Safe operation: Emulsified acid is a chemical that is corrosive and irritating, so you need to strictly abide by safe operating procedures when using it, wear personal protective equipment, avoid contact with skin and eyes, and ensure good ventilation. environment.

Ratio control: When using emulsified acid, the ratio with other chemicals needs to be strictly controlled to ensure the emulsifying performance and stability of the emulsified acid and avoid adverse effects caused by improper ratio.

Compatibility with other chemicals: When using emulsified acid, it is necessary to consider its compatibility with other chemicals to avoid adverse reactions with other chemicals and affect the use effect.

Storage and transportation: When storing and transporting emulsified acid, relevant storage and transportation regulations need to be followed to ensure its safety and stability and avoid leaks and accidents.

Handling

Observe warning labels on containers. Normal precautions for industrial chemicals apply.

Packaging

EA-250 is available in 200kg drum or IBC tanker.

Sichun Youzhu New Material Science & Technology Co.,Ltd. (Youzhu Chem)

National Science Park, Xindu Street No.8,
Xindu District, Chengdu City,
Sichuan Province, China
P. C :610500



YOUZHUCHEM

For Technical Information and Support:

+86 13808175002

+86 028-83089378

E-mail:info@youzhuchem.com

Youzhu Chem offers a wide range of oil field chemicals widely used in the various stages of oil and gas production. And we have developed the finest quality Oil Soluble Demulsifier, Water Soluble Demulsifier and Corrosion Inhibitors. Our products enable customers to maximize value in their oilfield operations, and increase the overall efficiency of the well.