

SXE

Emulsified acid

APPLICATIONS

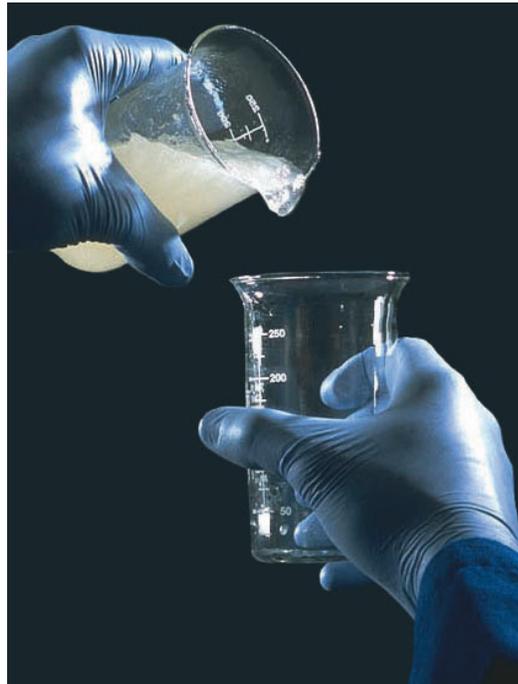
- HT matrix stimulation of carbonate formations
- Acid fracturing of HT carbonate reservoirs

BENEFITS

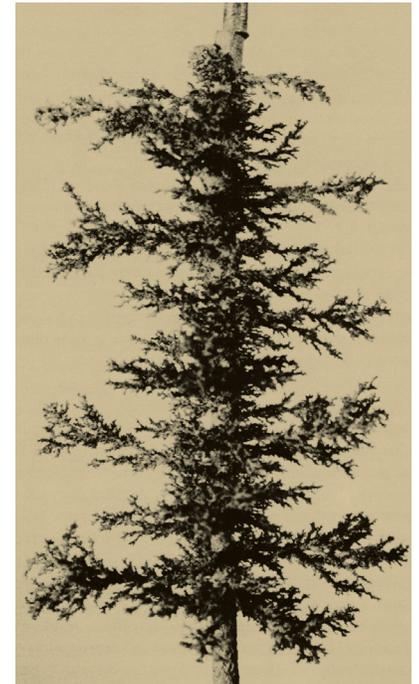
- Improved damage bypass via deeper wormhole penetration in HT wells
- Deeper live-acid penetration during acid fracturing and matrix stimulation
- Superior corrosion inhibition

FEATURES

- Operational range from 75 to 350 degF [24 to 177 degC]
- High degree of retardation
- Less fluid loss



Acid-internal emulsion results in viscosity development that aids diversion in matrix treatments and leakoff control when used for acid fracturing.



Laboratory core flow test results showing branching wormhole created in a limestone core.

Improves matrix acidizing and acid fracturing treatments in HT reservoirs

SXE[®] emulsified acid is a viscous, highly retarded HCl system designed to overcome acid penetration problems while stimulating reservoirs above 75 degF [24 degC]. Standard hydrochloric acid reacts very quickly in carbonate formations. The reaction is so rapid in high temperatures that it is impossible for acid to penetrate, or wormhole, more than a few inches into the formation. In such cases, the acid is rendered ineffective in stimulating the well. The HT SXE acid retards the acid reaction rate, enabling deep, live-acid penetration. This oil-external emulsion is formed with a 70:30 HCl-to-oil ratio, stabilized with an emulsifier. HCl concentrations ranging from 7.5 to 28% may be used in either a batch or continuous mix system.