

# LFR-22

## Friction Reducer

11135-003



LIBERTY

### General Information:

LFR-22 is an extremely efficient anionic friction reducer for oilfield brines or fresh water. It hydrates very rapidly, even in cold water, to give optimal performance.

### Physical Properties

Density ..... 8.67 lbs/gal.  
Solubility in Water ..... Complete, limited by viscosity  
Solubility in Diesel ..... Dispersible  
Color..... Opaque, Cream colored liquid  
Odor ..... Faintly Fruity  
Flash Point ..... >200° F  
Ionic Charge..... Anionic

### Chemical Description:

LFR-22 contains anionic acrylamide copolymers and surfactants in a mineral oil base. It is compatible with moderate concentrations of salts and with anionic or nonionic surfactants.

### Recommended Uses:

LFR-22 can be used wherever water or brine is pumped in turbulent flow to reduce friction pressure by as much as 50%-60%. The most common applications are in slick water fracs and in coil tubing operations.

### Limitations:

LFR-22 is not intended for use in hydrochloric acid. As with most liquid polymer products, LFR-22 may show some settling or free oil after storage, particularly in hot weather. Stirring containers prior to use is a good safeguard to avoid improper product dosing. Protect LFR-22 from freezing temperatures.

### Treating Applications:

Normally, loadings of 0.2 to 0.5 gallon of LFR-22 per thousand gallons of fluid will give excellent friction reduction in fresh water or brines. LFR-22 can be batch mixed with moderate agitation, though the preferred method of use is “on the fly”.

### Packaging:

LFR-22 is obtainable in 55-gallon poly drums, 275-gallon poly totes and bulk storage.

### DOT Information:

Not DOT Regulated.



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