

LBK-21ME

Enzyme Breaker

11110-003



LIBERTY

General Information:

LBK-21ME is a highly concentrated, moderate pH liquid enzyme breaker for fracturing fluids. LBK-21ME gives clean, reproducible breaks in guar and modified guar gels at pHs in the range of about 4 to 8.

Physical Properties:

Density 9.4 lbs/gal.
Solubility in Water Soluble
Appearance Light tan
Freeze Point <20°F

Chemical Description:

LBK-21ME contains hemicellulase and mannanase enzymes in an aqueous glycol carrier.

Recommended Uses:

LBK-21ME can be used wherever conventional enzyme breakers are used. Normal dosages will vary depending on pH of fluid, temperature, and other additives that are present: 0.05 gallon per thousand gallons of fluid (one gallon product per 500-bbl frac tank) is a suggested loading for starting testing. If fluid pH will exceed about 8, the use of LBK-22HE is suggested.

Limitations:

The enzymes contained in LBK-21ME can be permanently inactivated by extremes of pH, and their activity can be affected by some surfactants or other chemicals occasionally used in fracturing fluids. Laboratory testing is strongly advised if any changes are made in fluids using enzyme breakers.

Packaging:

LBK-21ME is obtainable in one-gallon jugs (four jugs per case) or 5-gallon pails.

DOT Information:

Not DOT Regulated.



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