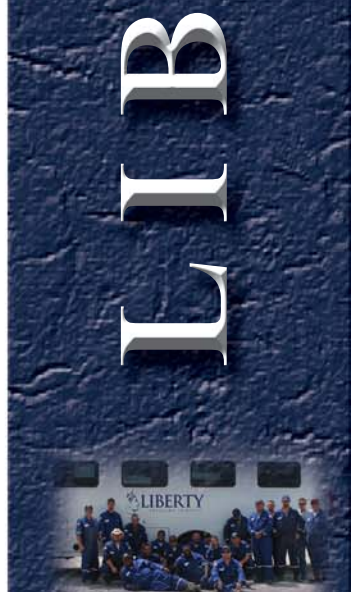


LCL-51

Delayed Borate Cross-Linker

41120-004



General Information:

LCL-51 is a patented “penta” borate salt-based slurry that provides delayed cross-linking of guar and dervitized guar fracturing fluid systems. It is added as a continuous mix during pumping operations to produce a unique gel structure that is elastic and thermally stable. LCL-51 has the ability to heal and reform stable structures after shearing. It is available in a hydrocarbon-base to prevent freezing, and an environmentally friendly water-base.

Physical Properties:

Density 9.28 lbs/gal.
Solubility in Water Moderate
Appearance Tan liquid
Odor Hydrocarbon
Flash Point 88°F

Chemical Description:

LCL-51 is salt-based in either a hydrocarbon-base or aqueous base.

Recommended Uses:

LCL-51 is typically used at 0.75 to 1.5 gallons per thousand gallons of frac fluid. Higher temperatures and longer delay times may require higher loadings. Laboratory testing is essential to ensure designed fluid properties, as in any properly engineered fracturing system.

Packaging:

LCL-51 is obtainable in 55 gallon poly drums, 330 gallon poly totes and Bulk storage.

DOT Information:

Not DOT Regulated.

