TBC-BRINADD

A DIVISION OF TEXAS UNITED CHEMICAL COMPANY, LLC

Bridgecarb-Ultra™ System

DESCRIPTION

The **Bridgecarb-Ultra** System utilizes sized calcium carbonate particles for pill applications requiring fluid densities below 10.5 lb/gal or where a calcium carbonate system is preferred. The **Bridgecarb-Ultra** System is composed of two basic products, **Bridgecarb-Ultra** and **Bridgecarb-Ultra Fine**. Incorporating an increased concentration of bridging particles below 10 microns in combination with broad particle distributions, the **Bridgecarb-Ultra** products are able to provide improved filtrate control with a significant reduction in polymer levels.

The new **Bridgecarb-Ultra** and **Bridgecarb-Ultra Fine** can be used for:

- Lost circulation pills
- Perforating fluid loss pills
- Pre/post gravel pack fluid loss pills
- Sealing annular leaks in casing

The **Bridgecarb-Ultra** products may be mixed in potassium chloride, sodium chloride, calcium chloride, and sodium bromide brines. **Bridgecarb-Ultra** and **Bridgecarb-Ultra Fine** fluid densities range from 9.0 lb/gal to 13.5 lb/gal depending on the base brine and concentration of bridging solids utilized. **Bridgecarb-Ultra** products are packaged in 50 lb or 25 kg sacks.

FEATURES

- Applicable across a broad range of fluid densities
- Blended calcium carbonate products contained in the **Bridgecarb-Ultra** and **Bridgecarb-Ultra Fine** products provide optimized broad particle distributions for reduction in polymer concentrations, and improved sealing characteristics over a wide range of reservoir permeabilities
- **Bridgecarb-Ultra** products when combined with **Sluggit®, Sluggit CM and Sluggit Plus,** generate a series of overlapping particle distributions which provide formulating flexibility to meet formation requirements in lost circulation applications
- Incorporates a proprietary derivatized starch/biopolymer combination for outstanding rheological and suspension properties to prevent settling at bottom hole temperatures up to 250°F
- This polymer combination creates a unique synergistic effect creating an optimum viscosity profile giving **Bridgecarb-Ultra** long-term suspension stability
- Improved bridging/filtration control results in thin, ultra-low permeability filter cakes
- Compatible with **Ultra Breake M™**, the patented internal breaker system for filter cake removal

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Bridgecarb-Ultra™ System Products

PRODUCT	COMPONENTS	FUNCTIONS
Bridgecarb-Ultra Fine	Xanthan gum biopolymer, derivatized starch, magnesia compound, sized calcium carbonate (63 microns)	One-sack lost circulation treatment
Bridgecarb-Ultra	Xanthan gum biopolymer, derivatized starch, magnesia compound, sized calcium carbonate (106 microns)	One-sack lost circulation treatment
FL-7 Plus™	Derivatized starch	Fluid loss control additive
Sluggit® **Sluggit CM** **Sluggit Plus**	Medium to coarse calcium carbonate	Bridging/lost circulation additives
pH Buffer	Magnesia compound	Buffer to maintain alkaline pH
Defoam 2	Water miscible glycol mixture	Defoamer
Ultra Breake M™	Magnesium peroxide	Internal filter cake breaker

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MIXING PROCEDURE:

Refer to the brine tables prior to mixing the **Bridgecarb-Ultra** or **Bridgecarb-Ultra Fine** Systems.

SODIUM CHLORIDE BASE BRINE	TABLE B: NaCl and fresh water
POTASSIUM CHLORIDE BASE BRINE	TABLE F: KCl and fresh water
CALCIUM CHLORIDE BASE BRINE	TABLE I: $CaCl_2$ and fresh water
SODIUM BROMIDE BASE BRINE	TABLE O: NaBr and fresh water

THE FOLLOWING INSTRUCTIONS ARE FOR MIXING ONLY; PLEASE CONTACT A TBC-BRINADD REPRESENTATIVE FOR THE PROPER RECOMMENDATION.

1. Start with the desired amount of base brine in the slugging pit or mixing tank.
2. Add recommended defoaming agent as needed. Normally 1/2 can (2.5 gal) of **Defoam 2** for every 20 bbl of pill is sufficient.
3. Add prescribed amount of **Bridgecarb-Ultra** or **Bridgecarb-Ultra Fine** through a hopper at 3-4 minutes per sack.
4. If necessary, add recommended concentration of **FL-7 Plus**™ through a hopper at 8-10 minutes per sack.
5. Allow the pill to agitate for 30-45 minutes prior to pumping downhole.
6. For moderate lost circulation or post gravel pack in-screen pills, add the prescribed amount of **Sluggit®** through a hopper at 1-2 minutes per sack.
7. For severe lost circulation, add the prescribed amount of **Sluggit**, **Sluggit CM** and **Sluggit Plus** through a hopper at 1-2 minutes per sack.
8. Allow the pill to agitate for 10-15 minutes prior to pumping downhole.

- **If a hopper is not available, add all products at maximum agitation while circulating through a pump.**