

CL-142

BORATE CROSS-LINKER

Description

CL-142 is an extremely versatile liquid borate cross-linker. It contains 1.50 lbs. of B₂O₃ per gallon and is one of the most highly concentrated forms of a true liquid borate available on the market today. Because CL-142 is a freeze protected liquid, it is much easier to use than conventional dry powdered borate products. CL-142 can be metered more precisely than powders, maximizing gel performance. CL-142 crosslinks the gel rapidly after contact. If desired, CL-142 may be used without the addition of a buffer in low temperature ($\leq 150^{\circ}$ F (65.6°C)) applications. In many waters CL-142 used at 2 –3 gal/Mgal will provide cross-link at a pH of approximately 9.30. This lower cross-link pH allows the enzyme breakers to work better, thus breaking the cross-linked gel more completely. CL-142 may also be used with conventional buffers at temperatures to 300⁰ F (148.9°C).

Properties

Form: Liquid	Chemical Family: Borate Salt
Color: Clear	Solubility: Water
Odor: Mild	Wt. per Gal.: 10.0 lbs.
Charge: Inorganic Salt	Flash Point: >200 ⁰ F (93.3°C)

Application

It is strongly recommended that a cross-link test be performed prior to field application using the water and all materials that will be employed in the actual job. CL-142 should be added on the fly to the gel. For temperature applications $\leq 150^{\circ}$ F (65.6°C), simply add 2.0 – 3.0 gal/Mgal. to a 20 – 60 lb. GA-40W or GA-41W (Guar) gel. In most waters no other pH adjustment is required to achieve a cross-link. For higher temperature applications or a stiffer cross-link a buffer should be used to raise the pH. For temperature applications above 150⁰ F (65.6°C) and up to 300⁰ F (148.9°C) an external buffer such as buffer C or buffer D should be used. The dosage will vary from 0.75 – 4.0 gal/Mgal. of gel depending on gelling agent concentration, pH and bottom hole temperature.

Compatibility

CL-142 is compatible with all commonly used additives. Gels made with CL-142 can be broken using LEB-4, DEB, GB-102, GB-120 and GB-121.

Handling/Storage

Keep container tightly sealed when not in use. Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Wear rubber or neoprene gloves, apron and chemical splash goggles while handling. Refer to Material Safety Data Sheet (MSDS) for handling and hazard data.

Packaging

CL-142 is available in 55 gallon drums and 330 gallon totes.