



## Product Information

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### Chembreak ECA

#### GENERAL DESCRIPTION

Chembreak ECA is free flowing white powder and an enzyme blend designed to consume the wide range of natural and semi-synthetic polymer chains. It is a water-soluble enzyme breaker for cellulosic, guar and starch type polymers.

#### FEATURES AND BENEFITS

Chembreak ECA is added and mixed directly to the mud systems. On standing, the viscosity will reduce usually within 24 hours. For soak solutions, it may be made up in KCL brine solutions. The product has a citric acid buffer and should buffer the pH to 4.0-5.0. Don't use strong mineral acids to buffer this product, as a pH <3.5 will totally denature the enzyme.

The temperature should be <60°C, and the pH ≤6.5. This product will not break XC polymer. Applications of 1.0kg/m<sup>3</sup> (0.35 ppb) are usually required to break normal systems.

Pilot test product before applying it in the field on the particular polymer blend to be broken. Field use has shown that it's not expected to be formation damaging if pumped down hole to break an in-situ polymer. Before flocculating a sump or land farming, a polymer system should be broken to separate the liquid phase from solid phase.

Mud systems are more easily disposed of if the viscosity is reduced before flocculating or land farming. This will allow for an effective clean-up/disposal process and provide a clean, economical method for reducing the viscosity of polymer-based systems.

Chembreak ECA is used for a soak solution to spot across the production interval to aid in cleaning up polymer filter cake and filtrate residual.

#### RECOMMENDED TREATMENT

Mix Chembreak products through a standard mud hopper over one circulation so that the breakers will be dispersed evenly throughout the entire polymer system.

The Chembreak product line offers a cost effective method of breaking polysaccharide polymers. This can be done without using liquid acids, bleaches or liquid oxidizing agents. The product line offers a wide choice of specialized breakers for different types of base fluids to safely and effectively break conventional drilling mud and work over completion polymers. The more complex a polymer chain is the more time it will take to break the polymer. It is advised to perform a pilot test on the fluid simply prior to adding the product.

#### HANDLING

Chembreak ECA is a controlled product using the WHMIS classification. Refer to MSDS information for specific precautions and handling.

Product may cause burning or irritation to the skin, eyes, nose and throat. Some individuals may show some sensitivity to the enzymes used in this product.

#### AVAILABILITY

Chembreak ECA is available in 20L plastic pails from HiTech Fluid Systems Ltd.