



Drilling Fluids, Inc.

**Specialty Product**

## H-BREAK 100

**Description**

H-BREAK 100 is an enzyme breaker for HEC completion fluids.

**Uses**

H-BREAK 100 is used in Drill In, completion or workover as a pre-treatment. It activated after all work requiring viscosity is complete.

**Benefits**

H-BREAK 100 goes with any losses to the formation, degrading the polymer after work is complete, even when it is beyond the reach of pills. Sweeps, and washes. HEC is degraded to a simple sugar molecule, allowing it to be easily removed from all types of producing formations.

**Treatment**

Two pints of H-BREAK 100 are added for each 100 barrels. Before adding, the pH of the water or salt water is raised to 8.5 to 10.0 with Magnesium Hydroxide or Caustic Soda. When activation is desired, the pH is reduced to 5.0-7.0 with Phosphoric or Citric Acid. Normally the final changeover to salt water without HEC is treated with acid so that any remaining HEC is treated out.

**Function**

H-BREAK 100 contains an enzyme that is specific to HEC. It remains dormant when the pH is above 8.0 but should not be subjected to a pH in excess of 11.0 as this will kill the enzymes. Lowering the pH activates the enzymes and attacks the HEC molecules, breaking them down to a simple sugar and destroying 100% of their viscosity.

**Typical Physical Properties**

H-BREAK 100 is a clear liquid.

**Safe Handling Recommendations**

Utilize normal precautions for employee protection when handling chemical products. Use of appropriate respirator gloves, goggles, and apron is recommended for employee comfort and protection. See Material Safety Data Sheet (MSDS) for this product prior to use.

**Packaging**

H-BREAK 100 is packaged in one pint plastic containers.