



WBK-131

Encapsulated Enzyme Breaker

WBK-131 is an encapsulated enzyme breaker used to break linear or cross-linked fracturing fluids in hydraulic fracturing applications.

Application

The special coating of WBK-131 protects the enzyme from denaturing in these fluids and slowly releases the enzyme into the fluids, delaying the break or allowing increase of the breaker concentration to ensure optimal break and cleanup in low- to moderate-temperature reservoirs.

Usage

WBK-131 can be used in fluid systems with pH levels below 9.0 and temperatures up to 140°F (60°C). Conversely, WBK-131 may be used in conjunction with delayed-release acids in high-pH fluids below 120°F (49°C). After released acid has caused the pH of the fluid to decrease, the enzyme will activate and break the fluid.

Physical Properties

Appearance	Faint yellow powder
Odor	Faint organic
Specific gravity	1.15
Bulk density (lb/ft ³)	45 to 55

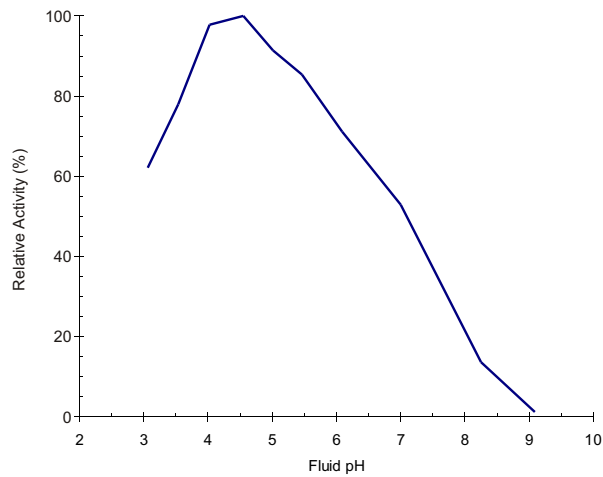
Advantages

- Powder is readily soluble in water, on location.
- Product can be packaged and labeled to meet user requirements, including water-soluble bags.
- Quality assurance ensures consistent break times with each batch.
- Product can be used in conjunction with delayed-release acids.

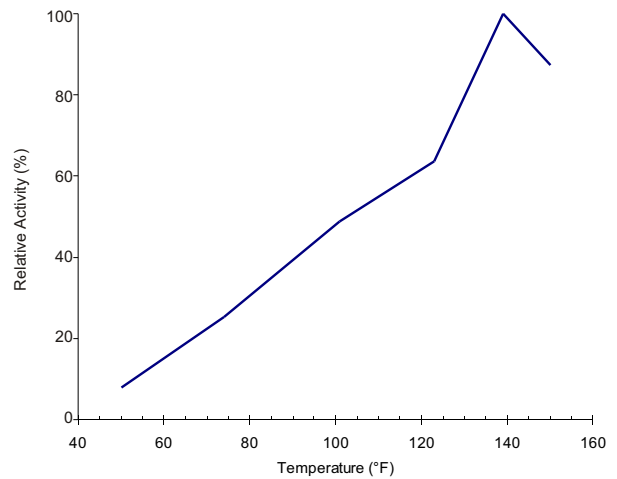


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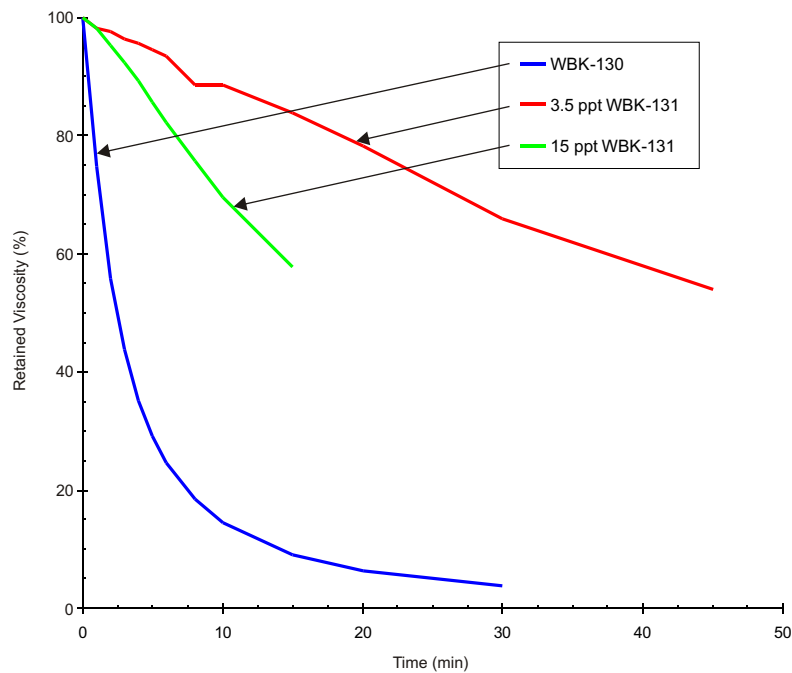
WBK-131 Activity versus pH



WBK-131 Activity versus Temperature



Example Retained Viscosity Profile, 75°F (24°C)



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