



# BUFFER H™ High pH Buffering Agent Product Data

BUFFER-H™ is a high-pH buffering agent used to adjust the pH of fracturing gels to the range of 9.0 to 11.5. The product helps to maintain the stability of fluids as temperatures increase.

Recommended Loading is 0.5-2.0 gallon of BUFFER-H per 1,000 gallons of fluid to provide a system pH 9.0-11.5. BUFFER-H must only be added to the gel after a complete hydration of the gelling agent. Overloading BUFFER-H can inhibit borate gel's breaking process. Optimal dosage, temperature, and extent of mixing should be determined for a cost-effective operation.

### Advantages & Benefits

- Effective high pH (9.0-11.5) buffer for crosslinked fracturing fluids effective in temperatures above 400°F (204°C)
- Maximizes crosslinker performance and ensures good gel viscosity for sand transporting capabilities in high-pH fracturing-fluid systems
- Easily mixed, works rapidly and is highly effective at low concentrations in a wide range of systems.
- BUFFER-H is broadly compatible with fracturing, fresh water, sea water, and brine systems and additives.

### Cost

Total well costs are often lower as a result of higher product operational efficiency, fewer performance problems and less rig time. VS-BUFF-H results in lower operational costs.

### Compatibility

BUFFER-H broadly compatible with fracturing, fresh water, sea water, and brine systems and additives and is compatible with most industry additives.

### Recommended Treatment

Recommended Loading is 0.5-2.0 gallon of BUFFER-H per 1,000 gallons of fluid to provide a system pH 9.0-11.5.

### Handling

For specific instructions refer to SDS information or as illustrated on product containers.

### Packaging

55 Gal drums or 270 gal totes

Application	Material Properties
Description	High pH HT Buffer to adjust the pH of fracturing gels to the range of 9.0 to 11.5 effective in temperatures above 400°F (204°C)
Specific Gravity	>1.15
% Soluble in Water / HCl / Brine / Oil	Soluble / Soluble / Soluble / Insoluble
Flash Point / Freezing Point	146°F or 63.3°C / -40°F or -40°C
Recommended Treatment	Recommended Loading is 0.5-2.0 gallon of VS-BUFF-H per 1,000 gallons of fluid to provide a system pH 9.0-11.5.

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