

# Divert HT acid systems

## Improve acid stimulation efficiency with a high-temperature, surfactant-based gelling agent

### Applications

- Acid fracturing operations in carbonate formations
- Matrix acidizing in high-permeability carbonate formations
- Diversion in extended-reach horizontal wells
- Diversion in matrix sandstone

### Features and Benefits

- High-temperature stability
  - Can be used in bottomhole temperatures up to 400°F
- Self-diverting
  - Increases viscosity as acid spends
  - Improves stimulation efficiency
  - Increases volume of stimulated formation
- Gelled acid
  - Increases system viscosity
  - Retards acid reaction rate to improve penetration
  - Maximizes fracture width and conductivity
  - Reduces leakoff
- Surfactant-based
  - Eliminates risk of polymer damage to the formation
  - Contact with oil, water, or high temperatures will break the viscosity post-treatment
  - Internal breaker can be used, but is not needed in oil wells

**Divert™ HT acid systems** are high-temperature, surfactant-based gelling agents used for diversion in acidizing treatments. They can be used in wells with bottomhole temperatures up to 400°F (204°C). Under certain conditions, these products can also be used in temperatures below 225°F (107°C).

Divert HT acid systems are self-diverting, surfactant-gelled acids designed primarily with hydrochloric (HCl) acid to stimulate production from carbonate formations. The system can also be designed with hydrofluoric (HF) acid for sandstone acidizing diversion. In carbonate acidizing, Divert HT acid systems have low viscosity in concentrated HCl acid, but viscosity increases as the acid spends. This self-diversion feature enables more complete and efficient treatment of formations with varied permeability.

In sandstone acidizing, diverter pills can be created with ammonium chloride brine for diversion of HF acid stages.

High temperature, dilution with water, or contact with hydrocarbon liquids such as oil or solvent will reduce the viscosity for easy cleanup and flowback. An internal breaker can also be used.

For more information about the Divert HT acid systems, contact your Baker Hughes representative or visit [www.bakerhughes.com](http://www.bakerhughes.com).

### Safety and handling

Before handling, storage, or use, review the Safety Data Sheet (SDS) for guidance.

### Typical properties

Appearance	Clear amber liquid
Typical temperature range	Up to 400°F (204°C)
Density	7.51 lbm/gal
pH	8-9
Flash point	Closed cup: 77°F (25°C)
Solubility	Soluble in brine and acid