

D-SOLVER HD

High-density chelating agent

APPLICATIONS

- Filtercake cleanup in openhole completions, such as barefoot, standalone screens, expandable screens, and openhole gravel packs
- Cleanup of perforating pill filtercake
- Mitigation of precipitation of calcium and other divalent ion-bearing scale

ADVANTAGES

- Is compatible with seawater and divalent brines, such as calcium chloride, calcium bromide, and zinc bromide
- Can be used in wells where higher densities are required with an upper limit of 14.8 lb/galUS [1.77 sg]
- Slow action precludes contribution to immediate losses
- Active over a wide range of temperatures; tested up to 300 degF [146 degC]
- Can be placed during completion operation
- Is compatible with rig equipment for mixing
- Eliminates intervention trip

LIMITATIONS

- Encapsulating polymers, lubricants, and nonaqueous shale inhibitors can limit the ability to attack the calcium carbonate components in water-based filtercake.
- Storage in any type of metal container should be avoided, especially over an extended time. Use plastic containers.

As a primary component in the BREAKDOWN HD* high-density filtercake breaker system, the main function of D-SOLVER HD* high-density chelating agent is to dissolve the calcium carbonate portion of a water-based filtercake. The secondary role of D-SOLVER HD agent is to complex divalent cations. The BREAKDOWN HD system is recommended when seawater or divalent brines are needed for breaker system density or compatibility.

D-SOLVER HD agent can be used in all type of brines, including seawater, calcium chloride, calcium bromide, and zinc bromide, where other types of chelants are incompatible. It can also be used in monovalent brines, such as sodium, potassium chloride, or sodium bromide.

Any carrier fluid incorporating the D-SOLVER HD agent should contain at least 20% by volume of free water.

The concentration of D-SOLVER HD agent in the BREAKDOWN HD system will depend on the type of completion and the estimated amount of calcium carbonate present in the filtercake, but usually it is in the range of 10% to 40% by volume.

In breaker systems designed to disperse and dissolve nonaqueous filtercakes, D-SOLVER HD agent acts as a buffering agent and is used in combination with D-STRUCTOR* organic-acid precursor breaker and other components. The recommended usage is 4% to 6% by volume.

Toxicity and handling

Bioassay information is available on request. Handle as an industrial chemical, wearing protective equipment and observing the precautions as described in the MSDS.

Packaging and storage

D-SOLVER HD agent is packaged in 264-galUS [1,000-L] bulk totes and 55-galUS [208-L] poly drums. Keep container closed and store in a well-ventilated area away from sources of heat or ignition. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping, or stacking.

Typical Physical Properties

Physical appearance	Liquid
Color	Dark amber to clear yellow liquid
Specific gravity	1.3
pH	3.4 to 3.8