D-Structor

The D-STRUCTOR* additive is an organic acid precursor used in FAZE-AWAY* or FAZE-OUT* breaker systems.

These systems are designed to remove FAZEPRO* filter cakes. In addition, D-STRUCTOR additive can be used to formulate VERSA-WAY*, VERSAOUT*, NOVA-WAY*, or NOVA-OUT* breakers to destroy conventional VERSAPRO*/NOVAPRO* filter cakes. D-STRUCTOR additive converts to organic acid downhole with time, temperature, and free water.

Typical Physical Properties

Physical appearance	Liquid
Specific gravity	1 1 6
Flash point	200°F (93°C)

Applications

D-STRUCTOR additive is the active ingredient in FAZE-OUT, FAZE-AWAY, VERSA-OUT, VERSA-WAY, NOVA-OUT, and NOVA-WAY breaker systems. These systems are designed to destroy residual filter cakes from FAZEPRO, VERSAPRO, or NOVAPRO systems, respectively, in openhole completions such as standalone screens, expandable screens, or openhole gravel packs. D-STRUCTOR acid precursor converts into organic acid and destroys the emulsion and dissolves acid-soluble bridging agents under downhole conditions. It is slow acting, taking 6-8 hr to initiate breakthrough under moderate temperature conditions <200°F (<93°C). Full filtercake dissolution can occur within 16 hr.

Due to its slow-acting nature, the breaker system can be spotted and the workstring can be extracted from the openhole section without fluid losses to the formation. If a fluid-loss-control device is present, the breaker system can soak for an extended period of time without significant bypass of the breaker for thorough, uniform filter-cake destruction. The breaker system can be incorporated into the openhole gravel-pack treatment, eliminating the need for an intervention cleanup trip.

D-STRUCTOR additive is compatible with a variety of brines, including KCI, NaCI, NaBr, CaCl2, and CaBr2. D-STRUCTOR additive is a part of the internal phase in the FAZE-AWAY, VERSA-WAY, and NOVA-WAY breaker systems. It is used at a concentration of at least 30% by volume in all breaker systems. At temperatures above 200°F (93°C) an organic acid corrosion inhibitor should be included in the breaker system formulation.

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Advantages

- Slow-acting breaker that spends as it is generated •
- Lower corrosivity than conventional acids
- Thorough / uniform destruction of FAZEPRO, VERSAPRO, or NOVAPRO filter cakes
- Placement during completion operation
- No intervention trip required

Limitations

- Temperature limit <290°F (143.3°C) •
- Difficult to get high density (>12.5-lb/gal [1.5-SG]) breaker treatments

Toxicity and Handling

Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the Material Safety Data Sheet (MSDS).

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