

N-FLOW™ 408

Filter Cake Breaker

Product Data Sheet

Product Description

N-FLOW™ 408 filter cake breaker is a high temperature delayed acid generator that is used for the slow release of acid. When spotted downhole N-FLOW 408 breaker reacts with water, generates acid and subsequently dissolves the calcium carbonate and cellulose in the filtercake removing fluid damage. N-FLOW™ breaker products can be placed across the entire interval before acid is generated improving overall clean-up. N-FLOW 408 breaker is suitable for use in most brines at temperatures from 194 – 265°F (90 – 130°C) to give break times of up to 16 hours.

Applications / Functions

- In application, N-FLOW 408 filter cake breaker is dissolved in the carrier brine of choice and spotted over the downhole interval of interest. Because the acid liberation action is slow, the solution contains little or no free acid when placed across the zone to be treated. Acid will be generated over the subsequent 6 – 16 hours. The acid released reacts with and dissolves the calcium carbonate and cellulose in the filtercake, thus destroying the filtercake and removing mud damage.

Advantages

- With a 10 hour half life at 100°C, N-FLOW 408 filter cake breaker will be more effective at higher temperatures than N-FLOW 325 filter cake breaker
- Initial action is slow, fluid can be placed across entire interval before reaction sets in
- No enzymes are necessary
- Less HSE concerns than for straight acid
- Minimal corrosion risk
- All components are environmentally acceptable
- No special containers or vessels are required

Typical Properties

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|---------------------------------|------------------|
| • Appearance | Colorless Liquid |
| • Specific gravity | 1.042kg/L |
| • Boiling point | 338°F (154°C) |
| • Vapor pressure, @ 68°F (20°C) | 2mm Hg |
| • Flash point | 124°F (47°C) |

Recommended Treatment

A typical concentration of N-FLOW 408 filter cake breaker is between 10% and 23% (v/v), but in general, the optimum concentration should be identified on a case-by-case basis taking into account conditions such as completion technique, hole diameter, etc.

Packaging

N-FLOW 408 filter cake breaker is packaged in 220-kg drums and 1000-kg IBC tanks