MAX-GUARD
Prevent stuck pipe, bit balling, and nonproductive time

Applications
- Water-based drilling fluids
- Unconventional wells with temperatures up to 360°F (182°C)

Features and benefits
- Clay hydration and swelling suppressant
  - Prevents stuck pipe, bit balling, and nonproductive time
- Tolerant to common contaminants such as cement, carbon dioxide, crude oil, and drill solids
  - Reduces dilution rates
  - Improves solids removal efficiency
  - Increases rate of penetration
- Conforms with safe environmental measures

The MAX-GUARD™ shale stabilizer from Baker Hughes is the primary hydration and swelling suppressant in the PERFORMAX™ high-performance water-based drilling fluid system. Clay and gumbo inhibitions are achieved by limiting water absorption and providing improved cuttings integrity.

The MAX-GUARD shale stabilizer effectively inhibits reactive clays and gumbo from hydrating and becoming plastic, which provides a secondary benefit of reducing the tendency for bit balling. The MAX-GUARD shale stabilizer can be readily added to the mud system without effecting viscosity or filtration properties.

Recommended treatment
Typically, MAX-GUARD shale stabilizer concentration ranges from 2 – 4% by volume, but it may vary based on the hole size, rates of penetration, and reactivity of the formation being drilled.

Environmental information
For information concerning environmental regulations applicable to this product, contact the Health, Safety, and Environmental department of Baker Hughes.

Shipping
Transportation of the MAX-GUARD shale stabilizer is not restricted by either international or United States regulatory agencies.

Safe handling recommendations
Use normal precautions for employee protection when handling chemical products. See Safety Data Sheet (SDS) prior to use.

Packaging
MAX-GUARD shale stabilizer is available in bulk and packaged in 55-gal (208.2-L) nonreturnable drums.

Typical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Appearance</td>
<td>Amber liquid</td>
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<tr>
<td>Specific gravity</td>
<td>1.07 to 1.09</td>
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<tr>
<td>pH (2% solution)</td>
<td>6.8 to 7.2</td>
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<tr>
<td>Flash point (PMCC)</td>
<td>&gt; 212°F (100°C)</td>
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