Dual Spacer™ Surfactant A Additive System

Halliburton’s Dual Spacer™ Surfactant A additive system has been developed for use with the Dual Spacer™ system, but it can be used with other weighted spacers such as Tuned® Spacer. The Dual Spacer System is a low-viscosity, weighted spacer for primary and secondary cementing operations.

Dual Spacer Surfactant A system, to be used as a supplementary additive when oil-based muds are displaced, is designed to reduce interfacial viscosity and preferentially water-wet the pipe and formation to promote better cement bonding.

A required surfactant system may consist of a single component or a combination of surfactants. Dual Spacer Surfactant A system may be used alone or with other components such as SEM-7™, Musol® A, and/or Dual Spacer Surfactant B additives.

Since each drilling mud system tends to be unique, laboratory testing is recommended to determine appropriate surfactant components and concentration levels.

**Advantages**
- Helps improve spacer performance when displacing oil-based mud systems
- Helps reduce interfacial viscosity
- Helps to water-wet the pipe and formation to improve cement bonding

### Dual Spacer™ Surfactant A Additive System

<table>
<thead>
<tr>
<th>SAP No. and Packaging</th>
<th>Function</th>
<th>Generic Chemical Description</th>
<th>Form</th>
<th>Color</th>
<th>Specific Gravity</th>
<th>Density</th>
<th>pH</th>
<th>Freezing Point</th>
<th>Typical Concentration Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP 100003664—5-gal can</td>
<td>Surfactant</td>
<td>Spacer additive</td>
<td>Liquid</td>
<td>Clear to pale yellow</td>
<td>1.02</td>
<td>8.50 lb/gal</td>
<td>5-7 for 1% solution</td>
<td>0°F (-18°C)</td>
<td>0.0 – 1.5 gal/bbl</td>
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<tr>
<td>101215662—sample</td>
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<td>101281974—53-gal drum</td>
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