SGA-V™ Gelling Agent

SGA-V™ gelling agent is a dispersion of crosslinkable polymer that can be used to gel hydrochloric and organic acid. It is often used as the gelling agent in the ZCA™ zonal coverage acid system. It is approved for use in the North Sea area.

Applications
SGA-V gelling agent can be used as an alternative to SGA-HT® gelling agent when a viscosifying agent or friction reducer is required for any strength of HCl acid or for organic acid systems.

For controlling leakoff during fracture acidizing treatments, SGA-V gelling agent can be used with the ZCA system. The ZCA system is designed so that crosslinking does not occur until the acid is nearly spent. The crosslinked acid blocks wormholes, helping prevent any further loss of acid from the fracture. Over time, as the acid spends more completely, the ZCA system crosslink breaks allowing return of the spent acid from the well.

SGA-V gelling agent and the ZCA system can also be applied as a diverting acid system during matrix acidizing treatments.

SGA-V gelling agent is also the polymer used in the SGA-XL™ crosslinked acid system.

Features
SGA-V gelling agent has an upper temperature limit of 175°F / 79°C when used as an acid gelling agent.

Compatibility
SGA-V gelling agent is an anionic polymer. Use of cationic chemical additives should be avoided when using SGA-II™ gelling agent.

SGA-V gelling agent can be crosslinked by SCA-130™ sulfide cracking inhibitor and CCA-H2S™ additive. SGA-V gelling agent should not be used in acid systems containing either of these additives.

Benefits
SGA-V™ gelling agent can provide the following benefits:
• Approved for use in the North Sea area
• Economical acid gelling agent for lower temperature applications (< 175°F / < 79°F)
• Can be used at the gelling agent for the ZCA system for lower temperature applications
• Can be used as the gelling agent for the SGA-XL crosslinked acid system
• Can be used as a friction reducer for both acid and nonacid fluids

SGA-V Gelling Agent - Product Specifications

<table>
<thead>
<tr>
<th>SAP No.</th>
<th>101568088 for 200 Liter drum</th>
<th>Flash Point</th>
<th>&gt;200°F (&gt;93°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeze Point</td>
<td>-20°F (-29°C)</td>
<td>Bulk Density</td>
<td>8.74 lb/gal</td>
</tr>
<tr>
<td>Form</td>
<td>White opaque liquid</td>
<td>Specific Gravity</td>
<td>1.049</td>
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</tbody>
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