



## Unique chemistries for the harshest environments

**Biocides:** Treating your frac tank, impoundment pit, producing wells or even sour wells requires biocides that can act quickly with a lasting effect to help ensure the longevity of production. Our products are the only fast acting, long lasting biocides that are safe to handle with EPA registration. No need to adjust your other commonly found additives such as friction reducers or even O<sub>2</sub> scavengers as our biocides are compatible and deliver against Sulfate Reducing Bacteria (SRB) as well as Acid Producing Bacteria (APB).

**Antiscalants:** High temperatures, pressures and changing water chemistries can create a variety of challenges to keeping your wells flowing to their maximum production levels. Our polymer based scale inhibitors are best suited to provide the performance you need where phosphonates fail because of the wide range of demanding variables they can withstand. Whether you are battling barium sulfate or calcium carbonate or anything in between, we can help provide the right solution to keep your well running even in the most extreme scaling conditions.

Our wide selection of scale inhibition chemistry can be tailored for any treatment scenario.  
Learn more at [www.wateradditives.com](http://www.wateradditives.com)

Chemistry	Application Use	Features and Benefits
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### Fast Acting Long Lasting

<b>Bellacide® 300</b>	Tributyl Tetradecyl Phosphonium Chloride (TTPC)	Drilling, Pit Treatment, Fracturing, Production, Sour Wells	<ul style="list-style-type: none"> <li>Competitive- Effective kill of SRBs &amp; APBs at efficient dosages.</li> <li>Capable- Safe to handle, high functioning in a broad pH and TDS spectrum, thermally stable over 300°C.</li> <li>Compatible- Does not interfere with other additives such as friction reducers, gel breakers or scavengers.</li> </ul>
<b>Bellacide® 350/355</b>	Tetra-alkyl Phosphonium Quat	Topside, downhole, oil & gas pipelines, and storage tanks	<ul style="list-style-type: none"> <li>High performance and fast acting against sulfate-reducing bacteria. Excellent biocidal activity against acid-producing bacteria.</li> <li>Highly effective versus biofilms.</li> <li>Excellent high temperature stability.</li> <li>Not affected by reducing agents and compatible with chlorine and oxygen scavengers.</li> <li>Corrosion inhibition properties.</li> <li>Cost effective, broad spectrum biocide.</li> </ul>

### Severe Scale Control

<b>Bellasol® S50</b>	Sulfonated Carboxylic Acid Based Polymer	Barium sulfate and calcium carbonate scale inhibition	<ul style="list-style-type: none"> <li>Highly effective against many scales including BaSO<sub>4</sub>, Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>, CaSO<sub>4</sub>, SrSO<sub>4</sub>, CaCO<sub>3</sub> even in high TDS.</li> <li>Excellent compatibility profile and detectability.</li> <li>Exhibits excellent barium sulfate control under high barium ion and low pH control.</li> <li>Superior crystal growth inhibition properties compared with phosphonates and/or polyvinyl sulfonate copolymers.</li> <li>Better adsorption characteristics compared to other sulfonated polymers.</li> <li>Thermal/hydrolytic stability, excellent high temperature stability.</li> <li>Precipitation squeezes can be used which will further increase squeeze lifetimes.</li> </ul>
<b>Bellasol® S80</b>	Carboxylic Acid Based Polymer	Barium sulfate, calcium carbonate and silica scale inhibition	<ul style="list-style-type: none"> <li>Good performance in BaSO<sub>4</sub> and CaCO<sub>3</sub>.</li> <li>Extremely effective against silica and related scales.</li> <li>Effective even in systems with iron.</li> </ul>
<b>Bellasol® S30</b>	Carboxylic Acid Based Polymer	Barium/calcium sulfate & calcium carbonate scale inhibition	<ul style="list-style-type: none"> <li>High performance severe scale control against CaSO<sub>4</sub> and CaCO<sub>3</sub>.</li> <li>Outperforms phosphonates and is superior to polyacrylates for CaSO<sub>4</sub> control.</li> <li>Readily detectable in oilfield brines controlling the timing of subsequent squeezes.</li> <li>Exhibits efficient adsorption/desorption profiles in both limestone and sandstone geology.</li> <li>Superior calcium compatibility provides optimum CaSO<sub>4</sub> control in reservoirs with high total dissolved solids.</li> <li>Thermally/hydrolytically stable.</li> <li>Precipitation squeezes can be used which will further increase squeeze lifetimes.</li> </ul>
<b>Bellasol® S65</b>	Carboxylic Acid Based Polymer	Biodegradable barium sulfate & calcium carbonate scale inhibition	<ul style="list-style-type: none"> <li>Strong scale performance with excellent biodegradability profile.</li> <li>Greater than 60% biodegradable in OECD 306 Test.</li> <li>Precipitation squeezes can be used which will further increase squeeze lifetimes.</li> </ul>
<b>Bellasol® S28</b>	Maleic Terpolymer	Barium sulfate & calcium carbonate scale inhibition	<ul style="list-style-type: none"> <li>Strong CaCO<sub>3</sub> performance.</li> <li>Precipitation squeezes can be used which will further increase squeeze lifetimes.</li> </ul>
<b>Bellasol® S16</b>	Enhanced PMA	Barium/calcium sulfate & calcium carbonate scale inhibition	<ul style="list-style-type: none"> <li>Cost effective for scale inhibitor treatments.</li> <li>General purpose antiscalant for non-severe formation of CaCO<sub>3</sub>, CaSO<sub>4</sub> and BaSO<sub>4</sub>.</li> </ul>

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