Calcium/Zinc Bromide Solution

MULTI-SALT BLENDS

Overview
Calcium/Zinc Bromide Solution is two-salt (CaBr₂/ZnBr₂) brine fluid used as a completion, workover or packer fluid.

It can be formulated to meet individual density and crystallization temperature requirements over the density range from 15.0 lb/gal to 19.2 lb/gal.

These blends are generally formulated using 14.2 ppg Calcium Bromide, 19.2, Calcium/Zinc Bromide, and Dry Calcium Bromide.

Features and Benefits
- Inhibitive properties can prevent hydration that may lead to migration of swelling clays.
- Can be blended with other clear brine fluids to achieve a specific density and crystallization temperature.
- Generally compatible with most oilfield elastomers.

Caution: Fluid additives, formation water and other contacting fluids should be screened for compatibility with the brine prior to use.

Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear amber liquid</td>
</tr>
<tr>
<td>pH</td>
<td>&lt; 4.0</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.8 to 2.30 @ 60°F (15.5°C)</td>
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<tr>
<td>Density</td>
<td>15.0 to 19.2 lb/gal @ 60°F</td>
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<tr>
<td>Crystallization Temperature</td>
<td>Formulation Dependent</td>
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</tbody>
</table>

Packaging Information
Bulk Liquid

Recommended Treatment
Use the amount necessary for density adjustment. See blending tables or consult a TETRA representative for specific requirements.

Safety and Handling
Avoid skin and eye contact, inhalation or ingestion. For skin contact, wash with soap and large quantities of water. For eye contact, flush with large quantities of water. Use properly designed respirator if adequate ventilation is not available. Refer to the Safety Data Sheet for specific details.