

Description

WellCal Clear Brine Fluid is a solids-free, single salt brine (CaCl₂) manufactured from a naturally-occurring underground brine. Standard formulations include densities of 11.2, 11.6 and 12.0 ppg.

Application

WellCal Clear Brine Fluid is used in a variety of drilling applications, including workovers and completions. In addition to pressure control provided by this high density brine, the divalent calcium ion (Ca⁺²) inhibits the hydration and migration of swelling clays. It may also be used for controlling water activity in the brine phase of oil and synthetic-based drilling fluids.

WellCal can be mixed with bromide-based brines to obtain densities up to 19.2 ppg.

Storage and Shelf Life

Store in carbon steel tanks with an epoxy-based interior lining and epoxy-based exterior paint. Common stainless steels should not be used for the storage of liquid calcium chloride because they are subject to chloride stress cracking, even at temperatures as low as 100°F (38°C). Nonmetallic materials, such as fiberglass or plastic, may work well for smaller tanks at near ambient temperature. The puncture resistance and structural strength of these materials, relative to carbon steel, should be evaluated.

When properly stored to protect from moisture contact and maintained above crystallization temperature, the expected shelf life for liquid calcium chloride products is 36 months. Calcium chloride does not degrade or deteriorate; however, the shelf life is limited based on the potential for moisture intrusion into the product. Moisture intrusion will cause a decrease in overall calcium chloride concentration.

Typical Properties⁽¹⁾

Density, ppg @ 70oF	11.2	11.4	11.6
Calcium Chloride Assay	34%	36%	38%
pH	7 – 10		
Turbidity, NTU	< 20		
Iron, ppmw	< 10		

(1) These data are laboratory results typical of the product, and should not be confused with or regarded as specifications. All percentages are percent by weight.

For more information or to find an authorized distributor of OxyChem's calcium chloride products, please call or visit our website.

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