Potassium Chloride Brine System

Potassium Chloride (KCl) Brine Systems are single-salt solutions of potassium chloride and water. Potassium Chloride Brine Systems have ranging densities from 8.4 to 9.7 lb/gal (1,007 to 1,162 kg/m³). The desired density is obtained by mixing dry potassium chloride and water. Potassium Chloride Brine Systems are also used to form non-damaging Flo-Pro® drill-in fluids.

**Typical Physical Properties**

- **Physical appearance**: Clear liquid
- **Clarity**: Crystal clear, <3 NTU

**Applications**

Potassium Chloride Brine Systems are used for clear-fluid workover and completion operations which require densities ranging from 8.4 to 9.7 lb/gal (1,007 to 1,162 kg/m³). Potassium Chloride Brine Systems are especially beneficial due to excellent shale stabilization in water-sensitive clay/shale formations and clay-containing sandstones. It is often used to enhance inhibition in other brine systems. KCl solutions become saturated around 24% by weight or near 9.7 lb/gal (1,162 kg/m³). Because the dissolution rate decreases near saturation, good agitation and heat may be required to attain 9.7 lb/gal (1,162 kg/m³) brine with a crystallization temperature near 59°F (14.9°C). Note: Use the Blending Tables to obtain the desired density.

**Toxicity and Handling**

Bioassay information is available upon request. Handle as an industrial chemical, wearing protective equipment and observing the precautions as described on the Material Safety Data Sheet (MSDS). Also observe the health hazard information and emergency and first aid procedures described on the MSDS.

**Packaging and Storage**

Potassium Chloride Brine Systems are packaged in bulk liquid quantities. Store in appropriate corrosion-resistant brine containers and keep closed and firmly sealed.