



Drilling Fluids, Inc.

Commercial Chemical

SODIUM CHLORIDE (Salt)

Description

SALT is sodium chloride, with the chemical formula NaCl. It may come in a sack or a super sack as a powder or mixed with water in various concentrations up to 10.0 pounds per gallon .

Uses

SALT is used as an inhibitor to control active shale and clay dispersion. SALT can be used in polymer mud to minimize the formation of gas hydrates. SALT is used to retard the dissolution of massive salt sections and salt stringers. SALT can be used to balance the activity of the water phase in oil mud. SALT can be used as a weighting material up to 10.0 pounds per gallon plus additional weight/density can be obtained by using finely ground SALT in a saturated solution. In some applications, SALT is used as a bridging agent for lost circulation in saturated salt systems.

Benefits

SALT is an inexpensive clear fluid additive for increasing density and providing chlorides for inhibition. When drilling massive salt sections, SALT is added to saturation so that salt from the formation will not be dissolved and washed away. Sodium based oil based mud are sometimes preferred although GEO MUL systems can also utilize calcium chloride. When used as a lost circulation material SALT can be removed with water to lower the concentration below the saturation point.

Treatment

Add SALT directly to the mud to increase the salinity and density of water as desired. SALT may be added up to saturation, 10.0 pounds per gallon. Treatment levels should be determined by desired salinity or density. See chart on next page.

Function

Chlorides from SALT provide a degree of inhibition by mass action of the chloride ions. As a densifier, SALT leaves no solids behind to damage the producing formation.



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Typical Physical Properties

Appearance:white crystals
Specific gravity:2.16
Bulk Density:53-83 lbs/ft³
Solubility in water:108.98 pounds per barrel at 68°F
26% by weight

Safe Handling Recommendations

Utilize normal precautions for employee protection when handling chemical products. Use of appropriate respirator, gloves, goggles, and apron is recommended for employee comfort and protection. See Material Safety Data Sheet (MSDS) for this product prior to use.

Packaging

SALT is packaged in 50 lb and 80 lb multi-wall bags. It is also available in super sacks and bulk. SALT may be provided as a premixed liquid.

Chlorides Chart

Table with 7 columns: NaCl Concentration (% by weight), Density (ppg), NaCl per finished barrel (ppb), Percent Volume to Start, Cl- (mg/l), Na+ (mg/l), NaCl (Mg/l). Rows 1-26.