



Drilling Fluids, Inc.

SODIUM CHLORIDE

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.

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 68oF
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.

GEO Drilling Fluids, Inc.

1431 Union Avenue
Bakersfield, CA 93305

1-800-GETSGEO

(661)325-5919

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For more info visit:

geodf.com





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NaCl Concentration (% by weight)	Density (ppg)	NaCl per finished barrel (ppb)	Percent Volume to Start	Cl- (mg/l)	Na+ (mg/l)	NaCl (Mg/l)
1	8.39	3.54	99.53%	6,098	3,954	10,052
2	8.45	7.07	99.22%	12,267	7,954	20,221
3	8.51	10.71	98.90%	18,542	12,024	30,565
4	8.57	14.39	98.57%	24,923	16,162	41,085
5	8.63	18.1	98.23%	31,376	20,346	51,722
6	8.69	21.98	97.88%	37,899	24,576	62,475
7	8.76	25.7	97.52%	44,529	28,875	73,404
8	8.82	29.58	97.14%	51,229	33,220	84,449
9	8.88	33.5	96.76%	58,036	37,634	95,670
10	8.94	37.49	96.36%	64,949	42,117	107,067
12	9.07	45.61	95.54%	79,024	51,244	130,268
14	9.19	53.95	94.67%	93,489	60,624	154,113
16	9.32	62.52	93.76%	108,343	70,257	178,600
18	9.45	71.31	92.81%	123,588	80,142	203,730
20	9.58	80.38	91.82%	139,258	90,304	229,562
22	9.72	89.65	90.79%	155,354	100,741	256,095
24	9.86	99.17	89.71%	171,875	111,454	283,329
26	10	108.98	88.59%	188,821	122,444	311,265

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