

SODIUM CHLORIDE

SODIUM CHLORIDE (NaCl) common name is Salt. This widely available commercial chemical is an economical product for formulating clear solids-free workover and completion fluids. Drilling fluid applications for Salt include: increasing density, increasing shale inhibition by decreasing water activity, reducing salt dissolution when drilling halite salt section, reducing the freezing point of water-base fluids and to reduce the potential of forming gas hydrates in deepwater drilling.

Typical Physical Properties

Physical appearance	White granular powder
Bulk density.....	1120 kg/m3
Specific gravity	2.16
Solubility	35.7 g/100 g H2O at 20oC (68OF)
Boiling point	1412oC (2574oF)
Freezing / Melting / Pour point	801oC (1474oF)
pH, saturated solution	6.7 - 7.3

Applications

SODIUM CHLORIDE is used to increase density and shale inhibition and reduce salt formation dissolution, freezing point and gas hydrate in a wide variety of water-and oil-base drilling fluids. SODIUM CHLORIDE is used in extensively low-density brines. To build saturated SODIUM CHLORIDE brine with a specific gravity of 1.20, add 352 kg SODIUM CHLORIDE to one m3 of water.

The density of the brine is affected by temperature and pressure.

For high-temperature applications, the effect of temperature and pressure should be considered. It can also be used to adjust the density in other non-saturated brines. In a mixed salt system, the solubility is depressed by the presence of other salts.

Advantages

- Widely available economical product for density and inhibition.

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Toxicity and handling requirements

HOCNF is available upon request.

Wear gloves and goggles when handling this product. In case of contact with eyes, flush with water.

SODIUM CHLORIDE does not have a restricted classification for transportation.

Packaging and storage

SODIUM CHLORIDE is packaged in 25 kg, 50 kg sacks or big bags.

Store in a dry area.

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