

Sodium Bicarbonate

PRODUCT DESCRIPTION

Sodium Bicarbonate is used in water-base muds as a source of bicarbonate ions to precipitate calcium and reduce pH. It is primarily used for treating cement contamination. Common names for Sodium Bicarbonate (NaHCO_3) are bicarbonate of soda, bicarb and baking soda. It is a very weak base which is soluble in water and dissociates into sodium (Na) and bicarbonate (HCO_3) ions in solution.

ADVANTAGES

- Widely available and an economic source of carbonate ions to precipitate calcium while increasing pH.
- Concentrated chemical; at small treatment levels.
- Reduces pH, which helps maintain a reasonable pH in cement contamination.
- Non-hazardous chemical and generally recognized as safe.

LIMITATIONS

- Unless a low pH is desired, Sodium Bicarbonate should not be used to treat soluble calcium in water-base muds and makeup waters; soda ash should be used to reduce calcium and soften makeup water.
- Over treatment results in bicarbonate, or carbonate, contamination. Even minor amounts of excess carbonate and bicarbonate ions can cause large increases in yield point, gel strengths and fluid loss.

APPLICATIONS

Sodium Bicarbonate is an economical and effective treatment for cement contamination. It precipitates calcium, reduces pH and deflocculates cement-contaminated fluids.

TYPICAL PHYSICAL PROPERTIES

Physical appearance	White powder
Specific gravity	2.16
pH (1% solution)	8.3

PACKAGING

- 50 lb and 100 lb sacks