



Specialty Chemical

HEXAPHOS

Description

HEXAPHOS is Sodium Hexametaphosphate (NaPO_3)₆. Chemically and functionally HEXAPHOS is similar in structure and use to SAPP, with the major difference being that HEXAPHOS has a higher pH.

Uses

HEXAPHOS is used to treat cement-contaminated drilling fluid. HEXAPHOS is used as a low-cost, fast-acting dispersant in low-weight freshwater drilling fluids used in top-hole drilling. HEXAPHOS is effective at low concentration levels. HEXAPHOS may be effective in controlling free calcium in low pH drilling fluids.

Benefits

Used as a calcium scavenger, HEXAPHOS may be added to combat cement contamination, usually in combination with SODIUM BICARBONATE (Bicarb). HEXAPHOS may be used in low-weight freshwater drilling fluids to reduce viscosity, gel strengths and to reduce the hardness level.

Treatment

HEXAPHOS should be added in small incremental amounts of as little as 0.1 ppb to reduce viscosity and gel strengths. For cement contamination, HEXAPHOS additions will vary with the amount and hardness of the cement. Normally, HEXAPHOS can be added in concentrations of 0.5 to 1.0 ppb for each 1 ppb of excess lime.

Function

The phosphate in HEXAPHOS acts as a dispersant as well as combining with the free calcium in the drilling fluid. Phosphate dispersants are effective at low temperatures and concentrations. High temperature can convert phosphates to orthophosphates which act as a viscosifier.

Typical Physical Properties

Physical Appearance.....white crystalline flakes
Specific Gravity.....
Bulk density.....61.9 lb/cu ft.
Hygroscopic.....
pH in water.....
Density.....2.484



Drilling Fluids, Inc.

Specialty Chemical

**Safe Handling
Recommendations**

Packaging

HEXAPHOS (continued)

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.

HEXAPHOS is packaged in 50 pound and 100 pound multi-wall bags.