



Drilling Fluids, Inc.

Commercial Chemical

Description

HYDRATED LIME

LIME is the common name for Calcium Hydroxide and has the chemical formula $\text{Ca}(\text{OH})_2$. A separate product, HOT LIME, commonly called Processed Lime or Calcium Oxide, has the chemical formula CaO .

Uses

LIME is added as required to maintain alkalinity properties of lime mud and is used to flocculate bentonite based or spud mud for increasing viscosity and gels for cleaning the hole. LIME is used to remove soluble carbonates from water base mud. Only Hot Lime should be used in GEO MUL system and is added to increase the pH to control pipe corrosion.

Benefits

LIME is an economical source of soluble calcium for calcium treated mud such as lime-base mud and in spud mud as a flocculant. Lime is a safer alternative to CAUSTIC SODA to provide alkalinity for corrosion protection.

Treatment

LIME can be added through the mud hopper, but avoid using the chemical barrel since the solubility is very limited in water and it will settle to the bottom. The amount to add will vary with application. As little as 0.1 ppb can be used to flocculate spud mud.

Function

Although LIME can remove soluble carbonates, it should not be used where an increase in the mud pH is not desired (as in Low Solids Non-Dispersed mud) or where the pH of the mud is already greater than 11.0. If carbonate contamination from CO_2 occurs, DESCO, Lignite or Lignosulfonate are recommended as thinners when LIME is added. In GEO MUL oil base mud HOT LIME is used instead of HYDRATED LIME.



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Typical Physical
Properties

Safe Handling
Recommendations

Packaging

HYDRATED LIME (Continued)

Physical Appearance.....white crsystalline powder
Specific gravity.....2.3
Bulk Density.....25-35 lb/cu.ft.
pH11.5-13.5
Solubility in water.....0.07 to .0185% by weight

LIME may be more hazardous than most mud chemicals. 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. Spills may be a slip hazard.

LIME is packaged in 50 lb. plastic multi-wall bags.