



PHOSPHORIC ACID

DESCRIPTION

PHOSPHORIC ACID [H3PO4] is an acid solution used to reduce the pH of water based drilling fluid systems and can reduce the viscosity of certain calcium contaminated fluids.

USES

PHOSPHORIC ACID is used to reduce the pH of KLAYCON drilling fluid systems. Coincidentally it may work to reduce the viscosity in certain other clay based drilling fluid systems. **PHOSPHORIC ACID** may be used to reduce pH to allow even dispersion when mixing polymers such as HEC.

BENEFITS

PHOSPHORIC ACID reduces the pH of the fluid. Phosphates are less damaging to drilling fluid than sulfates and **PHOSPHORIC ACID** has a stronger effect on the pH than citric acid.

TREATMENT

PHOSPHORIC ACID is added as needed to maintain a desired pH. It should be added at a low rate directly into the mud pit in an area with good agitation. To reduce the pH for HEC add 1-2 gallons per 100 bbls

FUNCTION

PHOSPHORIC ACID adds H+ ions to the water decreasing the pH. Potassium ions displace cations such as calcium and magnesium, from clay platelets. This acts to inhibit the clays and to provide a better bonding mechanism for anionic polymers on the clay surface.

TYPICAL PHYSICAL PROPERTIES

Physical appearance.....	Clear Liquid
Ph.....	< 1
Specific Gravity.....	1.15 for 25%
	1.25 for 40%

SAFE HANDLING RECOMMENDATIONS

Contact with phosphoric acid can cause severe skin and eye irritation/chemical burns.

Spills can be neutralized with BICARBONATE OF SODA.

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

Packaged in 5 gallon plastic buckets and 220 to 330 gallon totes.

GEO Drilling Fluids, Inc.

1431 Union Avenue
Bakersfield, CA 93305

1-800-GETSGEO

(661)325-5919

geodf@geodf.com

For more info visit:

geodf.com

