

# CITRIC ACID

pH Adjustment Chemical

## DESCRIPTION

**CITRIC ACID** is used to reduce pH, treat out soluble calcium and neutralise iron and other metal poly-cations

## APPLICATIONS

**CITRIC ACID** is used to reduce pH and remove calcium when treating cement contamination, preventing cross-linking of polymers with iron contamination and prevents fishyes when mixing polymers.

CITRIC ACID is an organic acid, which means it is less reactive than other acids like sulphuric or hydrochloric acid and safer to handle.

## ADVANTAGES

- Easy to mix
- Reduces pH and removes calcium to pretreat or remedy cement contamination
- Neutralises soluble iron to prevent polymer crosslinking
- Reduces high pH
- Less reactive and safer to handle than most other acids

## TYPICAL PROPERTIES

Physical Appearance	Opaque to white granules
Specific Gravity	1.6 – 1.7

## USAGE

Drilling Application / Desired Result	Kilograms per 1000
pH adjustment (pilot tests are advised)	1 - 5
To treat cement contamination  <b>Imperial</b> CITRIC ACID expressed in lb / bbl = Mud Weight(lb/bbl) x 1.893 x Fw Where Fw = % water / 100 (Retort analysis)  <b>Metric</b> CITRIC ACID expressed in kg / M <sup>3</sup> = (Mud Weight(SG) x Fw) x 45.11  Where Fw = % water / 100 (Retort analysis)	