

Sulfate Scale Dissolver KWC009

1. Introduction

CST (Chelant Stimulation Technology) is effective stimulation technologies for scale removal (inorganic scales) and stimulation of carbonate formations such as calcite, dolomite, and chalk.

Most sulfate scales are NOT soluble in acids such as HCl, formic and acetic acids. KWC009 is proven effective in dissolving sulfate scales such as barium sulfate, strontium sulfate, and calcium sulfate.

High pH nature of KWC009 also minimizes the risks of treatment regarding corrosion, HSE, and emulsion sludge tendency compared to traditional acid systems.

2. Physical Properties and Hazards

Additive	Form	Specific Gravity	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KWC009	Clear Liquid	1.25-1.35	Soluble	-	Eyes, Skin	None	12.5-14.0

3. Chemical Properties and Application

KWC009 is designed to dissolve most sulfate scales by chemically introducing a catalytic mechanism in traditional chelating solutions. It is more effective in dissolving barium, strontium, calcium sulfate scales compared with traditional acids such as HCl, Formic, and Acetic acids. It is also proven to be more effective than other chelant technologies such as Na₄EDTA.

BHST, size of scale particles, location of the scales, scale mixture with other inorganic or organic scales will change KWC009 treatment effectiveness. Laboratory testing is generally required for job design before KWC009 field treatment. KWC009 can be used as low temperature as 70°F and as high as 400°F depend on the well conditions.

KWC009 can NOT be used with acids and brines with high content of calcium and magnesium ions. Laboratory testing is required before KWC009 is used together with other products such as surfactants, mutual solvents, and non-emulsifying agents. Iron control or reducing agents are NOT required for KWC009 because of its high pH chelating nature.

4. Treatment

KWC009 is diluted in 50% solution before used in the fields for sulfate scale removal.

5. Packaging

KWC009 is supplied in tote tanks or 55 gallons high density polyethylene (HDPE) drums.

Keep it away from extreme conditions such as places near flames or direct sunlight.