

INTRODUCTION

AVANCID[®] 75 biocide is a dual-purpose product that controls troublesome bacteria and dissolves iron sulfide in oilfield applications. AVANCID[®] 75 is a 75% aqueous solution of THPS (tetrakis(hydroxymethyl) phosphonium sulfate), a proven molecule in oil and gas applications. AVANCID[®] 75 biocide is effective against a broad spectrum of microorganisms, especially *Sulfate Reducing Bacteria* (SRB) which are particularly troublesome in the oilfield, causing corrosion, filter plugging, inefficient demulsification, reduced pump life, and the generation of toxic gases. AVANCID[®] 75 biocide has also been shown to dissolve iron sulfide at low use levels.

AVANCID[®] 75 biocide has an usually benign environmental toxicity profile for an industrial biocide, and degrades rapidly upon discharge to non-toxic compounds. These properties result in safer handling and reduced environmental impact; two important factors influencing biocide selection.

AVANCID[®] 75 is miscible with water in all proportions and does not migrate to the organic phase. It is compatible with a wide range of water treatment additives, and concurrent dosing of with these additives can aid biofilm penetration and removal and enhance the biocidal effects of AVANCID[®] 75 biocide.

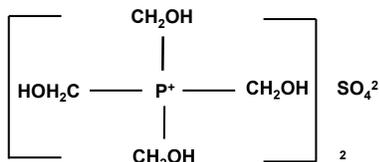
An added advantage of AVANCID[®] 75 biocide is the ability to assay the product in the field with a simple and inexpensive titration procedure, making it easy to optimize dose levels.

STRUCTURE

Tetrakis(hydroxymethyl) phosphonium sulfate

CAS Registry number 55566-30-8

Mol. Wt.: 406



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KEY PRODUCT FEATURES

- * Fast acting, broad spectrum biocide
- * Extremely effective against *Sulfate Reducing Bacteria*
- * Dissolves iron sulfide
- * Fully miscible with all types of water.
- * Easy, on-site analysis
- * Very low freeze point (-40 °C)
- * Excellent environmental profile

APPLICATIONS

AVANCID[®] 75 biocide can be used in oil and gas production applications where microbiological contamination is present including injection water, hydraulic fracturing operations, topside systems, drilling muds, packer fluids, completion and workover fluids, pipeline protection, and storage.

For industrial water treatment, the benefits of using AVANCID[®] 75 are ease of handling, rapid and broad spectrum activity, and biofilm control. AVANCID[®] 75 biocide is extremely effective against *Legionella Bacteria*, and can also be used for control of algae in cooling systems.

In addition to its outstanding biocidal profile, AVANCID[®] 75 biocide offers ease of handling, system compatibility and simple on-site monitoring.

TYPICAL PROPERTIES

(does not constitute specifications)

- * Active Content: 75% THPS
- * Appearance: Clear to slightly hazy colorless liquid
- * Specific Gravity (25 °C): 1.38
- * Viscosity: 30 cps
- * Flash Point: Non-flammable
- * pH: 3.0 - 5.0
- * Solubility in Water: Miscible in all proportions with seawater, freshwater and oilfield produced water.

TECHNICAL ASSISTANCE

Additional information concerning the safe use, application, and health hazard potential of AVANCID[®] 75 biocide may be obtained by contacting the Customer Service Group of Special Materials Company.

providing a competitive advantage...

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