

## PRODUCTS TECHNICAL DATA

**PRODUCT NAME: ME-THPS ,Iron Sulfide Scale Breaker**

### COMPOSITION / INFORMATION ON INGREDIENTS AND APPLICATIONS

**ME-THPS** , 75% is a biocide concentrate containing 75% w/w Tetrakis(hydroxymethyl) phosphonium sulphate, as a solution in water. THPS is a new generation active ingredient which has many advantages over traditional industrial biocides and has been used worldwide in water treatment applications. THPS is effective against a broad spectrum of microorganisms in both acid and alkaline conditions. It is extremely effective against Sulphate Reducing Bacteria (SRB) which are particularly troublesome in many applications causing both corrosion and the release of toxic gases.

**ME-THPS** has an unusually good toxicity profile for an industrial biocide and has been shown to be readily biodegradable. It can be also readily deactivated under controlled conditions. These properties result in safer handling and reduced environmental impact, two important factors influencing biocide selection.

**ME-THPS** is miscible in all proportions with every type of water, including seawater, and it is compatible with a wide range of water treatment additives, THPS is synergistic in combination with surfactants and reductions in dosing rates of up to 50% can be achieved by formulating correctly, the presence of surfactants can aid biofilm penetration and enhance the rapid kill characteristics of THPS.

**ME-THPS** concentrations can be quickly determined by a simple analytical procedure which can be used on site as well as in the laboratory.

#### **Application:**

**ME-THPS** is a biocide concentrate supplied to Chemical Service Companies for conversion to end user products. It is water miscible and compatible with most water treatment chemicals provides the formulator with wide flexibility. Typical end-use formulations contain 25-50% THPS and 2-5% surfactant-the exact formulations depending on the application concerned.

In the oilfield industry, formulations containing THPS display excellent activity against problem microorganisms, particularly Sulphate Reducing Bacteria (SRB). THPS can be used in applications where microbiological contamination is present and has extensive use in injection water, topside systems, pipeline protection and storage. It is insoluble in organic materials and remains in the aqueous phase of oil/water mixtures.

**ME-THPS** formulations for industrial water treatment applications have the benefits of rapid kill, broad spectrum activity and effective slime/algal eradication. THPS offers ease of handling, system compatibility and simple on site monitoring.

- Good environmental profile
- Easy to analyze on site at the point of usage
- Simple to deactivate under controlled conditions
- **ME-THPS** 75% is water miscible and very simple to formulate

