



# SEQÜEST® PHOSPHONATES OF PRODUCTES QUÍMICS DE SÍNTESI®

FOR WATER TREATMENT AND OTHER APPLICATIONS

INTRODUCTION-GUIDE



Productes Químics de Síntesi®

## **SEQÜEST® Phosphonates**

For water treatment and other applications

### **INTRUDUCTION**

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Sediments, unwanted metal ions, deposits, etc. are problems with which one finds every day the industry that uses the water. Phosphonates are an important part of the formulations for water treatment.

The various applications are among others for detergents, cleaning products, stabilization of peroxides, stabilization of chlorine, etc.

Fields of application can be the following:

- Boiler Cleaning
- Boiler treatment
- Cleaning bottles
- Cooling towers
- Cosmetics and shampoos
- Detergents and cleaning products
- Galvanized Industry
- Industrial Cleaning Products
- Paper industry
- Textile industry
- Water treatment in oil fields

### **FUNCION OF THE SEQÜEST® PHOSPOHONTATES**

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#### **“Threshold effect” – Inhibition of sedimentation**

Phosphonates, have the ability in small amounts act as a sedimentation inhibitor.

The “Threshold effect”, is the property of some chemicals capable of prevent precipitation of insoluble salts, through the contribution of small concentrations of product.

## SECUESTRATION

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Sequestration or chelation is the process of utilizing a composite to form a complex with the ion metal soluble in the water. This provides an equal balance between the molecular sequestering agent and the metal ion.

The determination of the effectiveness of sequestration depends on several variables such as pH, measurement and calculation method, choice of the precipitating agent.

## DISPERSION (DEFLOCCULATION)

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This property of phosphonates, hinders the growth of agglomerations or "assemble" of crystals and particles, as a result of this effect, it creates strong repulsive charges. In addition to its ability to disperse solid and deflocular. For all these capacities, are an effective products to formulated detergents and cleaning products.

## CORROSION CONTROL

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Corrosion occurs when metals are attacked by oxygen from the water. Phosphonates combined with zinc, have proved an effective corrosion inhibitors.

## ENVIRONMENTAL FACTORS

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Phosphonates, do not rapidly degrade with tests carried out in laboratory, but tests performed in rivers and water streams, demonstrate that rapidly degrade upon exposure to sunlight and the presence of ferric ions. Also degraded in soil and some pseudomonas species are known that feed phosphonates.

## TOXICITY AND HANDLING PRECAUTIONS

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The SEQUEST<sup>®</sup> phosphonates, no acute toxicological properties for taking special precautions during handling, it just has to apply the rules of any industrial chemical, taking special measures to avoid contact with skin and eyes.

To obtain the safety cards of the product as well as to get more extensive information, you can contact with PRODUCTES QUÍMICS DE SÍNTESI<sup>®</sup>.

## PRODUCTES QUÍMICS DE SÍNTESI<sup>®</sup> QUALITY

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The manufacturing process of SEQUEST<sup>®</sup> phosphonates is based on a selection of raw materials and a strict control of the operating conditions.

The difference in relation to other commercial phosphonates on the market are:

- Low content of impurities and subproducts. Higher purity of the phosphonates.
- Minimum variations of active level.

This information is correct to our knowledge. PRODUCTES QUÍMICS DE SÍNTESI<sup>®</sup>, is not responsible for the use made of it, because this only serves as a guide for the user but offers no guarantee. Applications can vary depending on the circumstances, so users are advised to conduct their own tests.