



TRIPOL 7510 SCALE INHIBITOR

- Low AOC
- Superior control of carbonate/phosphate scales

PROBLEM

In many installations worldwide, bio fouling of RO membranes can be exacerbated by introducing assimilable organic carbon (AOC), a food source from low molecular weight monomers present in many scale inhibitors. In addition, many waste waters with high hardness and phosphate levels are limited by the potential for phosphate scaling. This is especially problematic for waters with high amounts of silica or metal hydroxides, which can form insoluble polymeric gels with conventional acrylic acid scale inhibitors. Phosphate scale formation may lower system recovery which adversely affects the system economics.

SOLUTION

TriPol 7510 protects and enhances the operation of RO and NF systems, by controlling mineral scale formation due to carbonate and phosphate compounds while having a minimum amount of AOC. In most water types, proper use of TriPol 7510 can significantly increase allowable system recoveries and decrease cleaning frequencies.

APPLICATION

TriPol 7510 is metered into the feed water at a point where turbulent flow will ensure adequate chemical mixing prior to entering the RO or NF system.

This is usually done prior to the cartridge filters and high pressure pump. Dosing rates vary depending on feedwater quality and recovery but normally run between 2 and 5 ppm. For exact dosing, contact your TriSep representative. TriPol 7510 contains a dispersant and can be used if there are iron or other metal hydroxides in the feedwater. Since this product is anionic in nature, care should be taken when using cationic polyelectrolytes in the pretreatment system.

PERFORMANCE

Calcium phosphate solubility is dependent on calcium and phosphate solubility's, pH and temperature. It is possible to calculate a solubility index (similar to the LSI) which gives an indication of the scaling potential.

Where: **pH** is the pH of the concentrate

Ca is the calcium concentration as CaCO₃ in the concentrate

PO₄ is the phosphate concentration in the concentrate

Temp is the temperature of the concentrate in celcius

$$\text{Index} = \text{pH} - \frac{11.766 - \log(\text{Ca}) - \log(\text{PO}_4) - 2 \cdot \log(\text{Temp})}{0.65}$$

If antiscalant is not present, a positive index indicates calcium phosphate scaling may occur. With TriPol 7510, the limit can be as high as 1.0.

PACKAGING

TriPol 7510 is shipped as a liquid in 5 gallon (40 lb) plastic pails, and 55 (500 lb) gallon plastic drums. Pricing is F.O.B. our factory in Goleta, CA. Delivery for most orders is 1-2 days after receipt of order.

MSDS SHEETS

For the most up to date information on MSDS sheets, please contact our web site at www.trisep.com