

# THIOGUARD® ΩMEGA-S

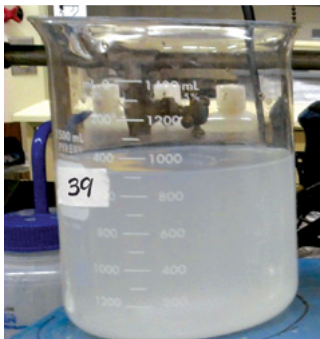
EFFECTIVE, ENVIRONMENTALLY SAFE TOTAL SYSTEM TREATMENT FOR MUNICIPAL WASTEWATER

## THIOGUARD® ΩMEGA-S: NUTRIENT MANAGEMENT

The chemical components of struvite (magnesium, ammonia, phosphorous) exist in every wastewater system. They are specifically found at more highly concentrated levels in biological processes, such as anaerobic digestion... yet struvite scale is not prolific at every plant. This is irrespective of their use of magnesium hydroxide. For several years, Premier has had many customers using **THIOGUARD®** experiencing no negative impacts from struvite.

Why? Magnesium, an ingredient in **THIOGUARD®**, is rarely the causative factor for struvite formation. The real explanation is the concentration ratio of the three components mentioned above, COUPLED with mechanical, hydraulic, or chemical inputs facilitating localized aqueous pH spikes, promoting high omega factors, and thus struvite formation (i.e. pump volute or mixer, turbulent elbow, excess caustic or soda ash addition).

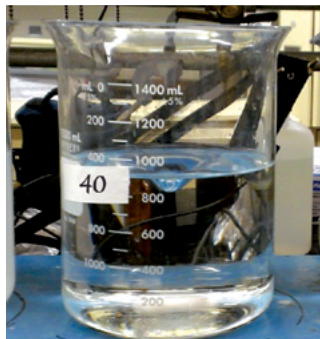
WITHOUT ΩMEGA-S



Without ΩMEGA-S, struvite freely precipitates yielding visual turbidity.

With ΩMEGA-S, no struvite precipitates and turbidity is non-existent.

WITH ΩMEGA-S



WITHOUT ΩMEGA-S



Without ΩMEGA-S, struvite precipitates in areas of high turbulence. For example, near mechanical mixers with evolution of dissolved gases changing the wastewater chemically (i.e. higher pH and thus higher Omega.)

WITH ΩMEGA-S



**THIOGUARD® ΩMEGA-S** is an easy turnkey patent pending process. The **THIOGUARD® ΩMEGA-S** program is a small fraction of the cost of other aggressive methods. A few milligrams of Omega-S combined with **THIOGUARD®** treatment will insure that struvite will not form under any of the many circumstances that can cause the problem.



Premier Magnesia, LLC is a global market leader in magnesia-based products and solutions.



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AND PRODUCED  
IN THE USA

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PREMIER MAGNESIA, LLC HEADQUARTERS: 1275 Drummers Lane, Suite 102 | Wayne, PA 19087