



April 29, 2025

Victor Shahid
Utilities Maintenance Manager
Marion County
11800 SE US Hwy 441
Bellevue, FL 34420

Re: Pinellas County Utilities Sole Source Contract for THIOGUARD® Technical Grade
Magnesium Hydroxide Slurry

Dear Mr. Shahid,

The following is a summary of the proprietary, patented and trade secret technology surrounding our THIOGUARD® technical grade magnesium hydroxide slurry.

Premier Magnesia has been the industry leader in magnesium hydroxide since our original patent, which pioneered the use of magnesium hydroxide for odor control and alkalinity addition. Innovative scientists and engineers with Premier were the first to discover and develop the controlled systemic application of technical-grade reactive magnesium hydroxide in municipal wastewater systems. We have spent decades trialing and perfecting our USA-based product chemistry to provide a consistent and effective end result for our clients.

We have made a significant investment in time, research, and production to produce the most superior product available because even small variations in chemistry can effect treatment performance and dosage rate significantly. THIOGUARD® is more chemically robust than competing products and therefore can deliver more consistent results at lower dosage rates, ultimately leading to cost savings and increased efficiency. Our technical-grade magnesium hydroxide has the highest purity (MgO), the highest specific surface area for maximum product reactivity, the highest stability for reliable transport and conveyance, and the highest available alkalinity per pound in the marketplace to ensure superior and efficient performance in your system. THIOGUARD® has thus become the most trusted, widely used, and reliable USA-sourced and produced magnesia product to safely control hydrogen sulfide gas, organic odors, corrosion, total gas emissions, FOG (fats, oils, and grease), and provide alkaline treatments to wastewater processes throughout the country.

More recently, Premier has developed practical and cost-effective new intellectual property that helps our customers with a range of treatment strategies that measurably improve conveyance efficiency, reduce total gas emissions, reduce biosolids, enhance nutrient and energy recovery, and better meet federal discharge standards, while minimizing the occurrence of struvite scale. Proper application of this emerging technology solves many of the most vexing problems facing wastewater professionals today.

75 Giles Place
Waynesville, NC 28786





Methods involving the use of magnesium hydroxide in municipal wastewater collection systems for total gas production and emission, FOG (fats, oils, grease) accumulation, and in wastewater processes for divalent magnesium (Mg), alkalinity, and struvite control are protected under one or more claims contained in the following patents owned by Premier:

United States Patent No. 11,964,889; Dated: April 23, 2024; Titled: Biosolids quality and dewaterability

United States Patent No. 9,845,258; Dated: December 19, 2017; Titled: Compositions and Methods for Treating Wastewater

United States Patent No. 10,160,674; Dated: December 25, 2018; Titled: Improving Wastewater Pumping and Conveying Efficiency

United States Patent No. 10,280,100; Dated: May 7, 2019; Titled: Compositions and Methods for Treating Wastewater and

United States Patent No. 10,287,198; Dated: May 14, 2019; Titled: Compositions and Methods for Treating Wastewater.

Copies of the above patents are available online through USPTO or upon request from Premier.

Premier has spent a great deal of effort, research, time, trial, and error, as well as significant funds, to obtain the patent rights described above and to develop a product of the quality that our customers require. We believe the efforts expended to obtain such patents are indicative of the effort our Company will put forward to ensure that our customers receive a competitive, efficient, and high-quality product that will produce superior results.

I hope that this helps in your understanding of Premier's patent position as well as our superiority of product. Please do not hesitate to contact your Premier Regional Manager Todd Baker at (770) 514 8748 with any questions or concerns.

Best regards,

A handwritten signature in black ink that reads 'Charles Gehret'.

Charles Gehret
Contracts Administrator
chgehret@premiermagnesia.com
Phone: (267) 249-9176

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Waynesville, NC 28786

