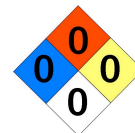


Product Data Bulletin
THIOGUARD[®]
Technical Grade Magnesium
Hydroxide Slurry

THIOGUARD[®] is a proven product manufactured through a proprietary process for conditioning in municipal water and wastewater treatment. Thioguard has the following qualities:

- Thioguard is highly reactive and is manufactured through extraction from magnesium rich brine or hydrated from highly reactive caustic calcined magnesium oxide
- Thioguard is sourced and processed exclusively at Premier Magnesia production in the USA
- Thioguard has the highest available surface area and reactivity as result of Premier's proprietary manufacturing process
- Wastewater treatment is performed in a sensitive biological environment wherein operation is performed at near-neutral or slightly alkaline conditions, requiring the highest reactive grade magnesium hydroxide available
- Lower reactive grades are incapable of sufficiently neutralizing the acid generated in these environments and will pass through the system unused
- Thioguard is manufactured to exacting particle size, specific surface area and particle size distribution to provide highest reactivity and proper stability for transportation, pumping and handling
- Thioguard is a patented application for the effective reduction of odor and corrosion due to hydrogen sulfide gas
- Thioguard supplies a non-carbonate divalent cationic magnesium ion that enhances bioflocculation formation that improves de-watering resulting in higher percent biosolids/filter-cake which will reduce disposal costs
- Premier offers distribution terminals throughout the USA



THIOGUARD® Specifications / NSF Approved:

	Typical	Maximum	Minimum
Slurry Basis			
Mg(OH) ₂ contained lb/gal	7.5	8.0	7.3
Dry Solids Basis			
Mg(OH) ₂ , wt%	93.0		92.0
CaO, wt%	2.0	3.0	
SiO ₂ , wt%	1.3	1.7	
Fe ₂ O ₃ , wt%	.50	.60	
Median Particle Size, Micron	7.0	10.0	1.0
Specific Surface Area, m ² /g	16	25	
Lbs. Alkalinity/Gallon	12.9	13.1	12.8
Caustic Magnesia Activity/Sec	75	100	50
% Passing 325 Mesh Sieve	99.8	100	99.0
Stabilized Residual Test, Grams*	12.0	20.0	
NaOH Equivalent	1 lb Equivalent to .73 lb Mg(OH) ₂		
Na ₂ CO ₃ Equivalent	1 lb Equivalent to .55 lb Mg(OH) ₂		
PHYSICAL PROPERTIES OF SLURRY			
Density, lbs./gal.	12.80		12.20
Solids, Weight Percent %	60	62	58
Viscosity, cps*	250	500	100
*TP-112 14 Hour Stability Residual Test			
*Brookfield RVT Viscometer #3 spindle @ 100 rpm, 60 seconds at 70°F			
THIOGUARD® conforms to the requirements of NSF / ANSI Standard 60 – Drinking Water Treatment Chemicals			

Packaging and Storage:

THIOGUARD® is shipped in bulk tank trucks and can be easily pumped and stored in steel, fiberglass or polypropylene tanks. Thioguard should be kept from freezing.

THIOGUARD is a registered trademark of Premier Magnesia, LLC

Visit our Web Site www.THIOGUARD.com / www.PREMIERMAGNESIA.com