Low Solubility - 0.0009 g/100ml, H₂O solubility and high surface area of 1 acre per gallon provides long distance collection system treatment to and through the wastewater treatment plant

SRB Inhibition - reduces the ability of sulfate reducing bacteria (SRB) to convert sulfates to hydrogen sulfide gas

Magnesium Polysulfide Complexation - promotes irreversible complexation between magnesium cation and sulfides by absorbing dissolved sulfides onto the solid magnesium hydroxide particle
**Henry's Law** - Gas/Liquid Phase Equilibrium - resulting increase in pH keeps the dissolved hydrogen sulfide gas in solution

---

**WASTEWATER TREATMENT PLANT PROCESS IMPROVEMENTS THROUGH:**

- **pH and Alkalinity Supplementation** - without adversely electing pH beyond biologically healthy limits creating a more stable environment for bioremediation of BOD, nitrogen and phosphorus

- 1 mg/L ammonia-N requires 5.50 mg/L NaOH caustic soda or 4.16 mg/L Mg(OH)₂ for elective nitrification

- With the addition of a slowly dissolving low solubility 0.009 g/100ml, H₂O particle THIOGUARD®’s use in aerobic and anaerobic biological digestors provides a steady reactor pH conducive for maximizing bacterial development

- Negatively charged microbial flora are bridged by the divalent positive charge of magnesium hydroxide forming a large floc that settles readily

- **Biosolids Chemistry Enhancement for Land Application** available magnesium in soil occupies the central position of the chlorophyll molecule/green pigment to utilize solar energy for the production of organic matter. Therefore, an adequate magnesium supply to plants may markedly increase photosynthetic activity of leaves. Also, magnesium is essential to energy (vitamin) transfer within plants.

- **Increasing filter cake solids by 20-40% percent due to divalent cation bridging** improvements in floc formation and thereby significantly reducing polymer demands

---

1 TON OF THIOGUARD®
1.37 TONS OF CAUSTIC SODA

1.37 Truckloads of 50% NaOH

---
Ask me how the NEW Thioguard Omega-S program can help you take advantage of Thioguard benefits while addressing struvite and nutrient management needs! Call 1-800-227-4287 today for details.