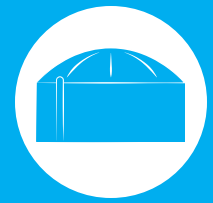


Magnesium Hydroxide

Safe pH Adjustment for Anaerobic Digestors



Magnesium hydroxide provides fast and easy to use way to stabilize anaerobic digestors in the event they go sour or you are accepting acid waste streams. This product is helpful if an anaerobic digester goes sour and the pH needs to be neutralized.

Compared to caustic soda, Magnesium hydroxide is very safe and will not raise the pH above 8.0. Magnesium hydroxide works better if it can be made into a slurry before being added into the anaerobic system.

- Great for neutralizing acid waste stream
- Recovery if an anaerobic system goes sour
- Works better in digester with good mixing
- Safe to handle and safer for your system



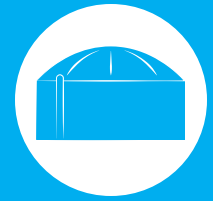
P.O. Box 8682
Madison, WI
53708-8682

P: 888.757.9577
F: 866.636.1864

info@teamaquafix.com
www.teamaquafix.com

Dose Rates

Magnesium Hydroxide



Aquafix Laboratories partners with those who run or operate anaerobic digestors of any kind through technical consulting and biological methane potential testing. Feel free to reach out to us for technical assistance any time.

Approximate Dosing for pH below 6.0

Digester Volume Gallons	Initial Dose Once per day for 7-14 days, or until pH reaches 6.0
100,000 gal	100 lb
500,000 gal	500 lb
1,000,000 gal	1,000 lb

Available Sizes:

- 2200 lb pallet

Pair With:

Boost N Lock to better stabilize the pH.

Exact Dosing Bench Test:

Running this simple titration test is the best way to accurately know how much to add.

- 1. Prepare Chemicals:** Make a slurry mixture of 50g of Magnesium Hydroxide and 1000 mL of distilled water. Add the slurry to a bottle with a cover so it can be shaken up regularly.
- 2. Prepare Sample to Be Tested:** Collect 500 mL of well mixed (if possible) anaerobic digester sample in a 1000 mL beaker. Place the beaker on a mixing plate with a magnetic stirrer or put in a 1000 mL beaker with mixing.
- 3. Add magnesium hydroxide until desired pH is Achieved:** Test and record the initial pH, then add 5 mL portions of magnesium hydroxide. After each 5 mL magnesium hydroxide addition, mix the digester sample for 3 minutes and then test and record the pH and add another 5 mL until the pH is at 7. Magnesium Hydroxide should be shaken or mixed before each 5 mL addition.
- 4. Calculate Dose Required for Full Scale Treatment:** Once the pH reaches 7, the dose of 5 mL equates to 210# of magnesium hydroxide per 100,000 gallons digester volume. This means you will need to add 210 pounds of Boost N Lock per 100,000 gallons digester volume or other solid pH adjuster for each 5 mL added to the beaker.

- Generally, we recommend increasing the pH to 6.0 with magnesium hydroxide and use Boost N Lock to finish the pH adjustment to improve pH stability
- Procedure can be used for fully soluble compounds such as sodium carbonate or caustic soda. Take caution with caustic soda as it is dangerous to eyes and skin and can raise pH too high, killing microbes
- Be sure to take safety precautions

Notes:

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