

# CMH-AMRB- 5B Ammonia Reduction Blend

## PRODUCT DATA SHEET

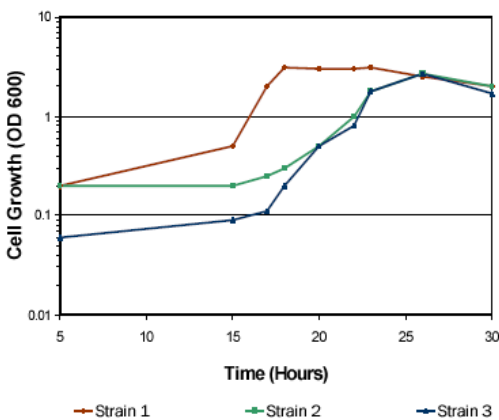
**A concentrated, dry blend of stabilized bacterial spores and micronutrients formulated for ammonia reduction**

### ADVANTAGES

High ammonia concentrations cause problems in many industries such as waste water treatment, aquaculture, and animal waste treatment. To address this issue our factory scientists set out to isolate strains to deal with these excessively high ammonia levels.

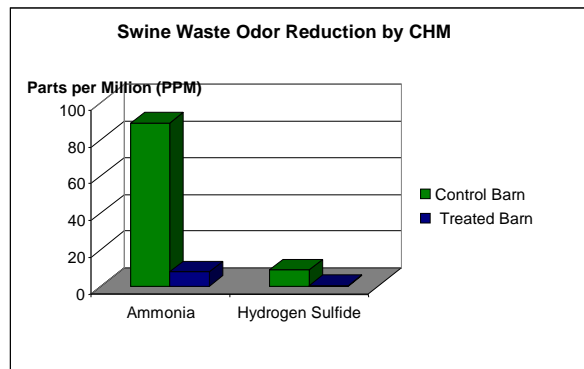
For this research replicate flasks of sterile media consisting of basal salts, glucose, and ammonia were inoculated with different strains of bacteria. The flasks were placed on an incubated shaker, and bacterial growth was monitored over a thirty-hour period. An increase in growth is indicative of the ability to utilize ammonia for cell growth. As demonstrated in the graph below, CHM's bacteria have the ability to utilize ammonia.

#### Growth of Chemtech Bacteria on Ammonia



After screening over 300 strains of bacteria, the best ammonia degraders were combined to form CHM's Ammonia Reduction Blend. This blend was further tested for the ability to reduce ammonia in swine barns. One barn was treated with scientifically selected bacterial cultures and the other barn was left untreated for comparison. After 6 weeks of treatment, the ammonia and hydrogen sulfide levels were compared between the two barns after

As is shown in the graph below, CHM's Ammonia Reduction Blend significantly reduced the ammonia level in the treated barn as well as the hydrogen sulfide level.



The microorganisms in this blend are also capable of digesting other types of waste, such as protein, fat, starch, and plant materials.

## CMH-AMRB-5B - Ammonia Reduction Blend Specifications

### Guaranteed Minimum Bacterial Concentration:

5 billion CFU/g (2.25 Trillion CFU/pound)

### APPLICATIONS

Waste water treatment  
Animal waste treatment  
Aquaculture

### PRODUCT PROFILE

#### Multiple *Bacillus* Species

- Naturally occurring, non-engineered
- Aerobes and facultative anaerobes
- Highly motile
- Positive chemotaxis
- 100% stabilized bacterial spores

#### Bacterial Enzyme Production

Amylase, Protease, Lipase, Esterase,  
Urease, Cellulase, Xylanase

#### Appearance

Dry, tan, free-flowing powder.

#### Effective pH Range

5.0 - 10.0

#### Effective Temperature Range

5°C - 55°C (40°F - 130°F)

#### Shelf Life

One year at 21°C (70°F)

### STANDARD PACKAGING

One pound water soluble packets in  
25 pound pails, 10kg pails and bulk fiber drums.

### CUSTOM PRODUCT

Consult supplier for alternative formulations and  
packet sizes to meet your desired specifications.

### STORAGE AND HANDLING

Store in a cool, dry location. If exposed to skin or  
eyes wash thoroughly with water.

### PRECAUTIONS OR OTHER COMMENTS

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HEREIN ARE BASED UPON RESEARCH OF OTHERS AND  
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