



TECHNICAL DATA SHEET

Product Name: AMMONIA-OUT BACTERIAL TREATMENT

Product Number: MARC 63

Form:	Brownish-white powder
Odor:	Mild
Bulk Density:	60 pounds per cubic foot
Solubility in Water:	Virtually 100%
pH in Water:	8
Bacteria:	12.5 billion colonies per gram
Pathogenic:	No
Functional Temperature Range:	40° to 130°F
Functional pH Range:	5.0 to 10
Unique Feature:	Helps reduce ammonia levels
Mechanism of Ammonia Removal:	Bacteria uptake ammonia directly into cells to use the nitrogen for growth
Breaks Down:	Organic wastes, fats, oils, greases, carbohydrates, proteins, cellulose
Flammability:	None
Storage Stability:	Excellent (keep dry)

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HOW M-63 “AMMONIA OUT” WORKS

M-63 Ammonia Out is a highly concentrated powdered bacterial treatment formulated to help reduce ammonia levels in wastewater. The reason ammonia is bad is that excessive ammonia discharged from treatment ponds and plants into streams and rivers can cause serious ecological problems, such as the depletion of dissolved oxygen and excessive growth of algae. Substantial concentrations of ammonia in wastewater can also be toxic to fish and wildlife.

Some ammonia bacterial products reduce ammonia by converting ammonia into inert nitrogen gas, but these types of bacteria require special handling. The bacteria in M-63 help reduce ammonia by uptake directly into the bacterial cells to use the nitrogen in the ammonia as a source of growth. Therefore, the ammonia essentially becomes part of the bacteria, being converted into amino acids used for cellular growth.

The process works best under slightly alkaline conditions, so the carrier in M-63 is a slightly alkaline material. Alkaline conditions will also help with the natural conversion of ammonia to other less-harmful compounds. In addition, an initially high BOD level is required to help the bacteria grow. For best results regarding ammonia, the initial BOD level should be at least ten times the ammonia level. This allows the bacteria to thrive in the environment thereby giving the best chance at reducing the ammonia level.

Besides helping to reduce ammonia levels, M-63 Ammonia Out also reduces BOD, suspended solids, fats, oils greases, sludge and odors including hydrogen sulfide.

M-63 will function best in a temperature range of 45 to 120°F and a pH range of 5.0 to 9.5, although ammonia reduction is achieved at a pH slightly above 7.0.