Formula D-500A & D-500C

Biodegradation Bacteria for Wastewater Treatment

Optimize Biodegradation and Improve Plant Efficiency

Bioaugmentation is the process of adding specialized bacteria cultures to wastewater to accelerate the breakdown of organic matter in a cost-effective way. These selected microbes enhance the natural treatment process, support more efficient removal of contaminants, and help stabilize system performance.

Beyond supplementing existing microbial populations, bioaugmentation is especially useful for recovery after toxic shocks, process upsets, or system restarts in activated sludge bioreactors. Implementation is straightforward: begin with a higher initial dose to establish a strong microbial base, followed by ongoing maintenance doses to maintain dominance of the selected strains. Both steps are critical to ensuring a successful and sustainable bioaugmentation program.

Why Choose Formula D-500A & D-500C?

Formula D-500A and **Formula D-500C** are advanced microbial supplements scientifically engineered to accelerate the breakdown of complex organic waste. Each formula contains powerful strains of bacteria, enzymes, growth stimulants, and penetrants to enhance biodegradation even under demanding conditions.

Applications

- Municipal and industrial wastewater treatment plants
- Food and beverage processing
- Systems with heavy surfactant or hydrocarbon influent
- Lagoons, digesters, and activated sludge systems

Features

- Industrial-strength dry bacteria formulation
- Biodegradable and environmentally friendly
- Contains microorganisms, growth stimulants, enzymes, surface tension depressants, and penetrants
- Packaged in convenient, ready-to-use ½-lb water-soluble bags
- Effective in environments without dissolved oxygen
- Available in 25-lb pails

Benefits

- Improves overall wastewater treatment efficiency
- Stabilizes plant operations under variable loading conditions
- Enhances effluent quality and compliance reliability
- Reduces odors caused by organic buildup
- Supports cost savings through reduced chemical demand and maintenance
- Targets diverse organics
- Effective under variable loads

Dosage Schedule

Flow Rate	Initial Dosage	Maintenance**
Up to 1,000 GPD	½ lb per day for 3 days	½ lb per week
Up to 5,000 GPD	½ lb per day for 3 days	1 lb per week
Up to 20,000 GPD	5 lbs*	1½ lbs per week
Up to 50,000 GPD	8 lbs*	2 lbs per week
Up to 250,000 GPD	15 lbs*	¼ lb per day
Up to 500,000 GPD	25 lbs*	½ lb per day
Up to 1 MGD	50 lbs*	1 lb per day
Up to 5 MGD	50 lbs per MGD*	1 lb per MGD per day
Up to 12 MGD	50 lbs per MGD*	¾ lb per MGD per day
Up to 100 MGD	30 lbs per MGD*	½ lb per MGD per day

* Spread this initial dosage out over the course of 10 days.

** Add as regularly as possible. If you miss one day, add that day's product with the next dosage.

Dosage rate will vary with flow rates, retention times, and system variations.

Do not add to the treatment system at a location where toxic or otherwise adverse pH, dissolved oxygen or temperature conditions may exist at peak levels.

For optimal results, the wastewater treatment system should meet the following conditions:

	Optimum	Minimum
Influent pH	7.0	5.0
Dissolved oxygen, ppm	2.0+	1.0+
C/N/P ratio	100/10/1	100/5/1
Temperature	30 °C (86 °F)	10 °C (50 °F)
Toxic metals, ppm (e.g., hexavalent chromium)	0	0