

MEGA-BAC®— Successful solutions to waste-stream problems

For over 20 years, Micro-Bac® International, Inc. has helped solve challenging waste-stream problems worldwide. For food processors, who face some of the most demanding waste treatment challenges of all, Micro-Bac's research team has developed effective biological solutions.

As a food processing expert, you're all too aware of the increasing costs associated with industrial waste. Chemical solutions are expensive, filtration systems are a burden and disposal fees and wastewater fines are skyrocketing. But now there is Mega-Bac®, a 100% natural biological solution. Using Mega-Bac, you'll not only reduce operating costs, you'll also protect the environment.

Mega-Bac—Safe and Natural Products

Mega-Bac products are highly concentrated, naturally occurring marine microorganisms that rapidly biodegrade wastes, turning them into harmless water and carbon dioxide. Because Mega-Bac microbes are facultative anaerobes, they can work with or without oxygen. And Mega-Bac overcomes wastewater problems of all kinds in a safe, environmentally appropriate manner.

Micro-Bac products are non-pathogenic, non-toxic and non-chemical. They are so safe that the EPA has chosen not to regulate them at all. They pose no hazard to production equipment, downline systems or city wastewater plants, and are not harmful to animals, plants or humans. Mega-Bac has been approved by the USDA and complies with all federal safety regulations.

Benefits and Savings

✓ Waste Control

Mega-Bac degrades fats, oils and grease in food processes. That means less scum, fewer clogs and the elimination of emulsifiers as well as lower operating costs, less disruptions in workflow, lower labor costs and fewer mechanical routing and cleaning services.

✓ Odor Control

Mega-Bac tackles tough odors by degrading wastes and controlling hydrogen sulfide. It reduces odor quickly and eliminates the expense of covers and masking agents.

✓ Lower Chemical Costs

Mega-Bac lowers BOD/COD/TSS, degrades many chemicals necessary to some food processes, and eliminates the expense of other chemical treatments. That increases operational profits.

✓ Less Sludge/Disposal

By digesting solids in the waste stream, Mega-Bac reduces the expense of pumping, hauling and removing sludge. This improves plant efficiency and increases plant capacity.

✓ Lower Energy and Equipment Costs

The ability to work anaerobically means that Mega-Bac can reduce aeration expense, filtering problems and dissolved oxygen issues, putting less stress on processing equipment.

✓ Easy Application

For food processors, Mega-Bac can be applied in several ways and at several points. No special handling is required and dispensing can be manual or automatic.

Effective and Economical

Mega-Bac products work and Micro-Bac's growing list of satisfied users proves it. Today, Mega-Bac can be found in numerous food-processing operations throughout the world, including bakeries, snack food manufacturers, meat packers, poultry processors, soft drink bottlers, candy makers, fruit and vegetable canneries and many others.

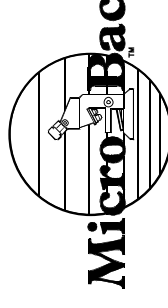
"The best digesters in the business."
—Bettendorf, IA

"We've achieved incredible results since 1993."
—Mexico City

"Why pay \$24,000 in haul-off fees when I can pay \$1200 to get rid of sludge on site."
—Austin, TX

"Micro-Bac has the best products by far."
—Tulsa, OK

"We added the primary dose two months ago and it's still working. Can you just place us on a 'standing order' basis?"
—Clodcroft, NM



Biological solutions for a clean, safe environment

Industry Applications

- Golf courses
- Sewer plants
- Hog farms
- Industrial waste
- Lagoons, ponds
- Food processing
- Bakeries
- Dairies
- Bottlers
- Municipal waste
- Breweries
- Restaurants
- Hazardous wastes
- Septic systems
- Grocery stores
- Slaughter houses
- Meat processing
- Milk products
- Candy makers
- Sugar cane
- Lakes, rivers
- Contaminated soils

Technical Services and Support

Micro-Bac International, Inc.—a leader in the microbiological industry with worldwide resources in the U.S., Canada, Europe, South America, Central America and China—stands behind its products with sophisticated lab facilities, an ongoing commitment to research and development, and strict quality control.

With two decades of experience, you can count on Micro-Bac for the quality biological products you need to save money, improve your operations and solve heavily regulated waste-related problems facing the food-processing industry today.

**For more information contact:
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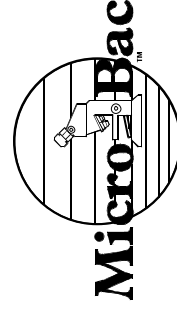
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<http://www.micro-bac.com>

TREATMENT PROBLEM	BACTERIAL SOLUTION	BENEFIT
SLUDGE	<ul style="list-style-type: none"> ✓ Promotes improved flocculation ✓ Promotes better settling performance ✓ Digests solids 	<ul style="list-style-type: none"> ✓ Operational efficiency ✓ Eliminates bulking in the clarifier ✓ Reduces haul-off logistics and paperwork
CONTAMINANTS	<ul style="list-style-type: none"> ✓ Reduces BOD ✓ Reduces COD ✓ Reduces TSS 	<ul style="list-style-type: none"> ✓ Reduces penalties and surcharges (where applicable) ✓ Helps achieve effluent standards ✓ Increases capacity/volume of plant
ODOR	<ul style="list-style-type: none"> ✓ Controls hydrogen sulfide ✓ Controls ammonia and amines ✓ Reduces odors 	<ul style="list-style-type: none"> ✓ Eliminates most odors ✓ Saves money, eliminating covers and masking agents ✓ Increases equipment life by reducing MTFB (mean time between failures) ✓ Saves expense of emulsifying agents
FATS • OILS • GREASES	<ul style="list-style-type: none"> ✓ Reduces scum formation ✓ Eliminates the need for emulsification agents ✓ Replaces mechanical scum removal 	<ul style="list-style-type: none"> ✓ Reduces frequency of line blockages – and cost ✓ Reduces cost of aerator operation
SHOCKS • DISRUPTIONS	<ul style="list-style-type: none"> ✓ Helps quickly reduce organic concentrations ✓ Resists toxic compounds 	<ul style="list-style-type: none"> ✓ Reduces effect and cost of shock ✓ Allows plant to recover from toxins more quickly without reseedling
LIFT STATIONS	<ul style="list-style-type: none"> ✓ Reduces odors ✓ Reduces pipe clogs ✓ Increases float operation reliability 	<ul style="list-style-type: none"> ✓ Pumps last longer (reduced pump load increases pump life) ✓ Influent quality to plant is better ✓ Decreases cleaning requirements at lift stations
APPLICATION	<ul style="list-style-type: none"> ✓ No machinery required ✓ Facultative – works anaerobic and aerobic ✓ Easily done by existing manpower 	<ul style="list-style-type: none"> ✓ No cost increase other than product ✓ Works with or without oxygen: saves aeration expenses ✓ Reduces maintenance

MEGA-BAC®

Safe, effective
biological solutions
for wastewater
treatment in the food-
processing
industry



Trust Experience