

Amended Label of April 22, 1991

BIOBAN P-1487® - Antimicrobial Agent

Active Ingredients:

4-(2-Nitrobutyl)morpholine..... 76 % by wt  
4,4'-(2-Ethyl-2-nitrotrimethylene)dimorpholine... 2 % by wt

Inert Ingredients..... 22 % by wt

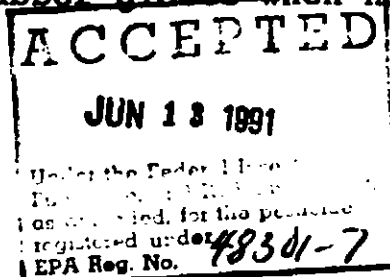
TOTAL 100%

PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
KEEP OUT OF REACH OF CHILDREN

DANGER!

CAUSES SEVERE EYE DAMAGE AND SKIN BURNS.  
MAY CAUSE ALLERGIC SKIN REACTION.  
HARMFUL OR FATAL IF SWALLOWED OR ABSORBED THROUGH THE SKIN.

Do not get in eyes, on skin, on clothing.  
Causes skin sensitization.  
Wear goggles or face shield and rubber gloves when handling.  
Wash thoroughly after handling.  
Avoid breathing vapor or mist.  
Avoid contamination of food.  
Do not take internally.



ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Do not discharge effluent containing this active ingredient into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

EPA Reg. No. 48301-7  
EPA Est. No. 48301-LA-1

ANGUS Chemical Company  
2211 Sanders Road  
Northbrook, IL 60062

2075

### STATEMENT OF PRACTICAL TREATMENT

**IF IN EYES:** Flush with plenty of water for at least 15 minutes. Call a physician immediately.

**IF ON SKIN:** Wash thoroughly with soap and water. Remove and wash contaminated clothing before reuse.

**IF INHALED:** Remove immediately to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

**IF SWALLOWED:** Do not induce vomiting. Drink promptly a large quantity of milk, egg whites, or gelatin solution; or if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately.

### NOTE TO PHYSICIAN

Probably mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsions may be needed.

See Side Panel for Additional  
Precautions and Other Information

### DIRECTIONS FOR USE

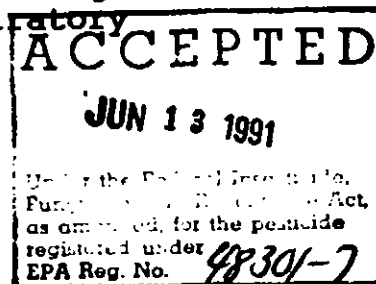
It is a violation of Federal Law to use this product in a manner inconsistent with its labelling.

### PESTICIDE DISPOSAL

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL

Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.



BEST AVAILABLE COPY.

# FOR USE IN METALWORKING FLUIDS, DIE CAST LUBRICANTS, AND MOLD-RELEASE AGENTS

To control the growth of microorganisms in fluids used as lubricants in metalworking operations, metal die cast applications, and mold-release agents utilized in the manufacture of plastics.

In concentrates. BIOBAN P-1487 is soluble in organic solvents and may be incorporated by the manufacturer in the fluid concentrate. It normally will be stable in such concentrates as long as the pH is maintained above 6. However, long-term stability tests should be carried out by the manufacturer on his specific formulations to ensure that the concentrate does not contain ingredients incompatible with BIOBAN P-1487 stability. The amount to be incorporated will depend on the dilution factor recommended to be used when the concentrate is diluted for use. For efficient bacteriostatic activity, a concentration of 1000 ppm in the diluted fluid is suggested.

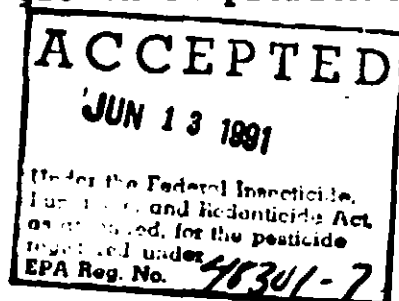
In diluted fluid. An initial concentration of 1000 ppm of BIOBAN P-1487 is normally sufficient to control gross microbial contamination of freshly diluted fluids for a period of several weeks at ambient temperatures. The degree of control is influenced by the composition of the metalworking fluid, the pH, the conditions for use, and other factors. Under conditions of severe microbial contamination, a concentration of BIOBAN P-1487 as high as 3000 ppm may be required temporarily.

Maintenance dosage. Periodic addition of BIOBAN P-1487 to the fluid will extend its activity in controlling gross microbial contamination after the initial charge. Additions of 100 ppm to 200 ppm of BIOBAN P-1487 at weekly intervals usually are recommended.

Note. Transitory eye irritation can occur from exposure to vapors produced during the use of fluids containing BIOBAN P-1487. Should eye irritation occur, further exposure should be prevented by vacating the area or by using protective goggles.

## FOR USE IN HYDROCARBON PRESERVATION

To control the growth of problem microorganisms associated with the fuel.



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In general use. Add BIOBAN P-1487 to storage tanks or fuel tanks for control of microbial growth in diesel oil, fuel oil, gasoline, or kerosene. Treatment may be performed by slug dosage or by intermittent metering to attain a concentration of 135-1000 ppm of BIOBAN P-1487.

For storage above water. Add 1 gallon of BIOBAN P-1487 to each 1000 gallons of water in the bulk storage system to achieve a concentration of approximately 1000 ppm. To facilitate mixing, dissolve each gallon of BIOBAN P-1487 in 100 gallons of water and add this solution directly to the water phase in the tank with minimal agitation.

For storage in tanks without intentional water. Add 0.125-1 gallon of BIOBAN P-1487 directly to each 1000 gallons of hydrocarbon in the system to obtain a concentration of approximately 135-1000 ppm.

In a fuel-treatment pre-mix. BIOBAN P-1487 may be mixed with other fuel additives for addition to fuel. The end user must add sufficient BIOBAN P-1487 to the pre-mix to provide 135-1000 ppm of BIOBAN P-1487 in the treated fuel.

#### FOR USE IN ADHESIVES AND INDUSTRIAL EMULSIONS (NON-FOOD USE)

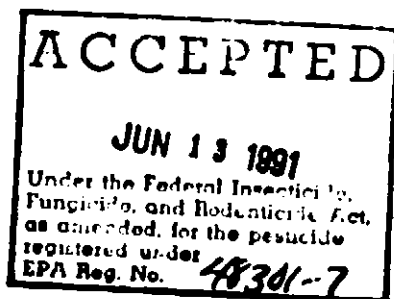
For control of microbial contamination in resin, latex or other water based emulsions, asphalt emulsions or inhibit the growth microorganisms in adhesives, add 0.025 - 0.1 % (250-1000 ppm) BIOBAN P-1487. The addition of BIOBAN P-1487 should be made as a final step in the manufacturing process after any heating and when the product has cooled to below 100°F.

#### FOR USE IN INKS (NON-FOOD USE)

To inhibit the growth of microorganisms during storage or use of water-based inks.

In-can preservation: Add BIOBAN P-1487 in the final step of the manufacturing process, after any heating and when the product has cooled to below 110° F. BIOBAN P-1487 should be dosed at 250-1000 ppm based on the final formulation volume.

BIOBAN P-1487 may be added press side at a concentration of 250-1000 ppm.



# FOR USE IN PAINT SPRAY BOOTH WASH WATER

BIOBAN P-1487 is used to control the growth of microorganisms in paint spray booth wash waters. Add tankside and circulate through the system to mix thoroughly. Concentrations of 250-1000 ppm BIOBAN P-1487 should be attained. One gallon of BIOBAN P-1487 to each 1000 gallons of wash water will achieve a concentration of approximately 1000 ppm.

