

FOR PREVENTION AND ELIMINATION OF MICROBIAL GROWTH IN ALL HYDROCARBON FUELS SUCH AS AVIATION JET FUELS, KEROSENE, NO. 1 AND NO. 2 DIESEL FUELS, HOME HEATING OIL, MARINE DIESEL AND BUNKER "C" FUEL.

FOR USE IN AVIATION JET FUELS, FOLLOW SPECIFIC RECOMMENDATIONS FROM AIRFRAME AND AIRCRAFT ENGINE MANUFACTURERS.

Notice: Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions of established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

BIOBOR® JF

The Industry Standard for the Treatment of Microbial Growth in Fuel.

ACTIVE INGREDIENTS:

2,2-(1-methyltrimethylenedioxy)bis-(4-methyl-1,3,2-dioxaborinane) 67.6% by wt.
2,2'-oxybis(4,4,6-trimethyl-1,3,2-dioxaborinane) 27.4% by wt.

INERT INGREDIENTS 5.0% by wt.

KEEP OUT OF REACH OF CHILDREN

WARNING

See Side Panel For Additional Precautionary Statements and Practical Treatment

A
Hammonds
Product

Manufactured for
Hammonds Fuel Additives, Inc.
Houston, Texas 77238-5114
EMERGENCY PHONE: 800-546-9116

EPA REG. NO. 65217-1
EPA EST. 61697-TX-0001

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ACCEPTED
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Under the Federal Insecticide, Fungicide, and Rodenticide Act, all amended, for this pesticide registered under EPA Reg. No. 65217-1

PRECAUTIONARY STATEMENTS

HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Harmful or fatal if swallowed. Do not use in closed spaces without adequate ventilation. Avoid contact with skin and clothing. Do not get in eyes.

PRACTICAL TREATMENT: IF IN EYES, flush eyes with plenty of water. If irritation persists, consult physician. IF SWALLOWED, call a physician or Poison Control Center. If these are unavailable, give a large quantity of milk, egg white, gelatin solution or water. Avoid alcohol. IF ON SKIN, wash thoroughly with soap and water.

Environmental Hazards

This pesticide is toxic to fish. 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.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL

STORAGE: BIOBOR® JF should be protected from moisture. Containers must be capped tightly when not in use as prolonged exposure to atmospheric moisture can cause formation of solids and loss of effectiveness. Do not transfer to other containers for storage. Discard if product is cloudy or contains solid materials.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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

- Bulk Storage Tanks
- Aircraft Fuel Tanks
- Locomotive Fuel Tanks
- Home Heating Oil Tanks
- Diesel Trucks
- Diesel Boats and Ships
- Farm Equipment
- Construction Vehicles

BIOBOR® JF is a microbicide used to eliminate and prevent the growth of *Cladosporium resinae* and *Pseudomonas aeruginosa* microorganisms in fuel tanks. The maximum treatment level for contaminated tanks is 270 ppm of BIOBOR® JF and the maintenance level for clean tanks is 135 ppm of BIOBOR® JF. The preferred method of blending the appropriate concentration of BIOBOR® JF is by metered injection directly into the stream of flowing fuel as it is added to a fuel tank. This ensures dispersion, and prevents the formation of high concentration of BIOBOR® JF in fuel. If metering is not available, and batch blending is the only alternative, caution must be taken to ensure that BIOBOR® JF is blended only into clean, dry fuel. When batch blending, add BIOBOR® JF to the largest batch possible, i.e., a tank truck while fuel is being added. Start adding BIOBOR® JF when tank is half full, never to an empty tank. Do not exceed 1000 ppm or 0.10% of the total volume of fuel treated. Concentrations in excess of recommended levels may produce formation of solids. For best results when using maximum treatment levels, fill tank completely and allow 24 to 36 hours exposure time.

BIOBOR® JF is soluble in both fuel and water, and is designed to migrate from the fuel phase to the water phase for complete control of fungus. Standard fuel management practice mandates the removal of excess water. BIOBOR® JF must be blended into the fuel phase only, and not into water bottom areas.

TREATMENT DOSAGE LEVELS

for 5 gallon pails and 55 gallon drums

Gallons of Fuel to be Treated*	BIOBOR® JF (270 ppm)**	BIOBOR® JF (135 ppm)**
100 gallons (378.5 l)	2.6 fl. oz. (80 ml)	1.3 fl. oz. (40 ml)
300 gallons (1135.5 l)	1/2 pint (236 ml)	4.0 fl. oz. (118 ml)
825 gallons (2365.6 l)	1 pint (473 ml)	1/2 pint (236 ml)
1250 gallons (4731.3 l)	1 quart (946 ml)	1 pint (473 ml)

*Assuming fuel density at 6.7 pounds per gallon.

**BIOBOR® JF weight per gallon = 8.75 pounds.

To calculate exact level of BIOBOR® JF in fluid ounces, multiply the amount of fuel, in pounds, by the factor 0.004 for the maximum treatment level (270 ppm). Use a factor 0.002 for maintenance treatment level (135 ppm). Use only clean, dry measuring containers.

JP-4 weight per gallon.....	6.363 pounds
Jet A (Kerosene) weight per gallon.....	6.714 pounds
Diesel Fuel #1 weight per gallon.....	6.82 pounds
Diesel Fuel #2 weight per gallon.....	7.08 pounds
Bunker "C" weight per gallon.....	8.30 pounds

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RIGHT PANEL (cont.)

TREATMENT DOSAGE LEVELS

for 16 and 32 ounce containers

DOSAGE LEVELS

Gallons of Fuel to be Treated*	"Shock" Treatment (270 ppm)	Maintenance Treatment (135 ppm)
20	1/2 fl. oz. (15 ml)	1/4 fl. oz. (7 ml)
40	1 fl. oz. (30 ml)	1/2 fl. oz. (15 ml)
60	1 1/2 fl. oz. (45 ml)	3/4 fl. oz. (25 ml)
120	3 1/4 fl. oz. (100 ml)	1 3/4 fl. oz. (50 ml)

270 ppm = (weight of fuel x gallons x .004)

135 ppm = (weight of fuel x gallons x .002)

JP-4 = 6.343 lbs./gal.

Jet A = 6.714 lbs./gal.

Diesel #1 = 6.827 lbs./gal.

Diesel #2 = 7.080 lbs./gal.

Bunker "C" = 8.305 lbs./gal.

BLENDING AND DISPENSING INSTRUCTIONS

This container is designed so that the BIOBOR® JF may be added in exact measured quantities during the fueling operation. After the fuel tank is approximately half full, begin adding BIOBOR® JF from the **measured control area** of the container into the tank to the desired dosage. 1). Make sure black cap is on tight. (main bottle) 2). Loosen white cap covering **measured control area**. 3). Squeeze sides of container lightly in order to fill **measured control area** to desired level. 4). Remove white cap and pour measured amount of BIOBOR® JF from **measured control area** into fuel tank. 5). Replace white cap and repeat steps #3 and #4 as required to treat the desired fuel quantity. 6). After required treatment is completed, make sure all caps are on tightly in order to eliminate moisture contamination of the product. This container is NOT to be re-filled with BIOBOR® JF.

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