

**MEETS ASTM SPECIFICATIONS FOR LUBRICITY**



# BIOBOR JF

Adds lubricity to fuel—Biobor JF exceeds ASTM specifications for fuel lubricity!

## Diesel and Jet Fuels Microbicide

Biobor® JF is a liquid fuel additive that combats fungus and other microbial life in hydrocarbon fuels, such as diesel and jet fuels, but is also effective in light oils and transmission fluid. Biobor® JF eliminates growth of harmful slime-producing fungi that clog filters and pipelines, attack rubber fuel system components and whose waste products aid in the corrosion of metal surfaces. Biobor® JF is simple to use and harmless to the wide variety of fuel system parts, top coatings, sealants and elastomeric materials tested. It does not adversely affect fuel performance in engines. Biobor® JF is an effective microbicide because of its solubility in both fuel and water under conditions of fuel storage.

**Applications**— Biobor® JF is used by a large number of aircraft manufacturers, airlines, marines, trucking fleets, railroads, bulk storage terminals, fuel suppliers and by other users of hydrocarbon fuels and oils exposed to the possibility of contamination by fungus and bacteria.

**Treatment procedures**—If system is badly contaminated, drain water bottoms. Water bottoms in storage tanks should be kept to a minimum. Good house-keeping is important in treating slime problems, but it is not a cure. Biobor® JF is used at 270 ppm in fuel to effect sterilization, and subsequently at 135 ppm to maintain fungi-free fuel. Ideally, Biobor® JF should be metered. However, in the absence of metering equipment, Biobor® JF may be manually batch-blended. If batch-blended, as in tank trucks or small aircraft wing tanks, Biobor® JF should be introduced while the tank is being filled and after the tank is approximately 1/2 full. This will ensure faster and more complete dispersion.

**Container sizes and dosage rates**—Biobor® JF is available in 8 oz. and 16 oz. Easy Squeeze containers designed to dispense the exact measure every time, along with 1 quart cans, 1 gallon containers, 5 gallon pails, and 55 gallon drums. Use the following chart to calculate how much Biobor® JF you need for proper fuel treatment.

Fuel to be treated (in gal.)	40	50	60	100	300	500	2,500	10,000	50,000
Biobor® JF (in oz.) Maintenance Dosage	1/2	3/4	7/8	1 1/2	4	7	32	1 gal.	5 gal.
Shock Treatment	1	1 1/2	1 3/4	3	8	14	64	2 gal.	10 gal.

**Storage and handling**—All Biobor® JF containers must be kept closed from the atmosphere. Protect Biobor® JF from any water contamination. Biobor® JF is classified as a flammable and is shipped as a FLAMMABLE LIQUID N.O.S. (NAPHTHA) UN 1993, Class 3.3, PG III.

**Other Hammonds Products**—Ask your distributor about other Hammonds products:

- HumBug Detector® Kit
- LubriBor®
- ColdFlo®
- Select3®

Questions? To contact a Hammonds Fuel Additives specialist, or to locate the Hammonds distributor nearest you, please call us at (800) 548-9166.



### Biobor® JF kills hydrocarbon utilizing micro-organisms (or, HUM Bugs) which cause fuel tank contamination

- Specially formulated for diesel and jet fuel
- Considered the industry standard for killing microbial growth
- Recommended by airframe and equipment manufacturers around the world
- MIL-S-53021A
- Meets ASTM specifications for lubricity in diesel fuels



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