

BioborJF[®] is a liquid fuel additive that combats fungus and other microbial life in hydrocarbon fuels such as diesel and jet fuels.

BioborJF[®] 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.

BioborJF[®] 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 any way.

BioborJF[®] is an effective microbiocide because of its equilibrium solubility in both fuel and water under conditions of fuel storage.

BioborJF[®] is used by a large number of aircraft operators, airlines, ships, boats, trucking fleets, railroads, bulk storage terminals, fuel suppliers and by other users of hydrocarbon fuels exposed to the possibility of contamination by fungus and bacteria.

GENERAL USAGE

If a system is badly contaminated, drain water bottoms thoroughly. Water bottoms in storage tanks should be kept to a minimum. Good housekeeping is important in treating slime problems, but it is not a cure. **BioborJF**[®] is used at 270*ppm in fuel to effect sterilization, and subsequently at 135*ppm to maintain fungus-free fuel. Ideally, **BioborJF**[®] should be injected to ensure proportionality and even distribution throughout the fuel tank. However, in the absence of metering equipment, **BioborJF**[®] may be batch-blended. If batch-blended, as in tank trucks or small aircraft wing tanks, **BioborJF**[®] should be introduced while the tank is being filled, after the tank is approximately 1/2 full. This will ensure faster and more complete dispersion.

*See chart on reverse side.

PRODUCT DATA

Chemical Composition	
Active Ingredients	
2,2'-oxybis (4,4,6-trimethyl-1, 3,2-dioxaborinane)	
2,2-(1-methyltrimethylenedioxy) bis-(4-methyl-1,	
3,2-dioxaborinane)	
Inert Ingredients	
Petroleum Naphtha	
Inerts	
	Total 100.0%
Boron Content	
Physical Properties (typical)	
Flash Point, Tag Closed Cup	
Pour Point	27°F
Appearance	Clear Liquid
Instructions for Storage and Handling	1

Instructions for Storage and Handling

All **BioborJF**[®] containers must be kept closed from the atmosphere. Protect **BioborJF**[®] from any water contamination. The solvent action of **BioborJF**[®] will attack coatings on paper linings of caps and lids, therefore, polyethylene liners or closures are recommended for storage of **BioborJF**[®].

EPA REG. NO. 65217-1 EPA EST. 61897-TX-0001 CANADIAN P.CP. REG. NO. 10301 CAS NO. 8063-89-6



TECHNICAL DATA SHEET CONTINUED...

DOSAGE LEVELS

(Fuel = U.S. Gallons)

JET FUEL		SHOCK TH @27(REATMENT) PPM	MAINTENA @13	MAINTENANCE LEVEL @135PPM		
Lbs.	Gals.	Gals.	Fl. Oz.	Gal.	Fl. Oz.		
670	100	0.02	2.6	0.01	1.3		
1,340	200	0.04	5.3	0.02	2.6		
2,010	300	0.06	8.0	0.03	4.0		
2,680	400	0.08	10.7	0.04	5.3		
3,350	500	0.10	13.4	0.05	6.7		
6,700	1,000	0.21	26.8	0.10	13.4		
13,400	2,000	0.42	53.6	0.21	26.8		
16,750	2,500	0.52	67.0	0.26	33.5		
33,500	5,000	1.0	134.0	0.52	67.0		
67,000	10,000	2.1	268.0	1.04	134.0		
134,000	20,000	4.2	536.0	2.09	268.0		
335,000	50,000	10.3	1,340.0	5.23	670.0		

To determine the fluid ounces of BioborJF[®] required to give a concentration of 270 PPM, multiply pounds of fuel by 0.004 and for 135 PPM by 0.002. Density of Jet Fuel:: 1 gallon weighs 6.714 pounds.

METRIC CONVERSIONS FOR VARIOUS FUELS

SHOCK TREATMENT AT 270 PPM

	Fuel Density at 15°C / 59°F			oz. of BioborJF® per 1000	ml of BioborJF® per 1000
FUEL	g/ml	lbs./gal.	kg/L	gal. fuel	liters fuel
JP-4	0.7601	6.343	.762	25.37	198.27
Kerosene (Turbine Fuel)	0.8045	6.714	.806	26.86	209.57
Diesel #1	0.8180	6.827	.820	27.31	214.50
Diesel #2	0.8484	7.080	.850	28.32	220.99
Bunker "C"	0.9952	8.305	.997	33.22	259.26

To determine the fluid ounces of BioborJF[®] required to give a concentration of 270 PPM, multiply pounds of fuel by 0.004 and for 135 PPM by 0.002.

To determine milliliters of BioborJF[®] required to give a concentration of 270 PPM, multiply kilograms of fuel by .26 and for 135 PPM by .13.

*Computed from fuel densities as surveyed by the American Petroleum Institute.



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