



Used By  
The U.S. AIR FORCE  
WORLDWIDE

## Aviation Fuel Performance Additive

Turboline®FS100 is a high-temperature **fuel stabilizer** and **detergent** additive designed to **minimize carbon** or **coke deposits** in turbine fuel combustion systems. Combined with antioxidant and metal deactivator additives, Turboline®FS100 is a **multi-functional** product that is formulated with the same **detergent technology used by the U.S. Air Force** in the JP-8+100 program. The JP-8+100 program was a study conducted by the U.S. Air Force in the 1980's to determine the effects of higher heat loads generated by new propulsion engines which were designed to power the next generation of fighter aircraft. Turboline®FS100 is an additive which **addresses the problems of high-temperature fuel combustion.**

When jet fuel is exposed to **increased temperatures**, chemical reactions cause **carbon** and **coke** build-up on metal surfaces which can lead to poor fuel atomization, distorted fuel spray and an overall **drop in engine performance**. Turboline®FS100 prevents this problem.

In dirty systems, Turboline®FS100 first stops reactions that cause **carbon and coke build-up** as the fuel is heated. Turboline®FS100 also binds to existing carbon-on-metal surfaces and creates a **cleaning action** as the additive flows through the system. This two-fold action cleans turbine systems and keeps them clean.

Turboline®FS100 is readily soluble in jet fuel. Batch blending into the fuel is acceptable, but the best procedure is proportional injection. Turboline®FS100 is **completely compatible** with other fuel system additives such as FSII and Biobor JF®, the worldwide leading fuel biocide.

Turboline®FS100 is **fully approved** for all operators using GE, Pratt & Whitney, Honeywell and all variants of the Turbomeca Arriel 1 & 2 engines. For a complete list of aircraft engine and airframe manufacturers approving of the use of Turboline®FS100 please see the reverse side of this document.

Contact **Hammonds Fuel Additives, Inc.** for Turboline®FS100 pricing and delivery information. For more information please call a **Hammonds Fuel Additive Specialist** at (800) 548-9166 or visit our website [www.hammondscos.com](http://www.hammondscos.com).



Available in:  
16 oz bottles,  
5 gallon pails  
and 55 gallon  
drums



**Turboline**® is a high temperature **fuel stabilizer** and **detergent** for **aviation fuel**.

- ✓ Maintains **engine power levels** longer
- ✓ **Less soot** and **coke** in combustor
- ✓ **Fewer** fuel nozzle **cleanings**
- ✓ **Reduces** operating **expenses**
- ✓ **Lowers** maintenance **costs**
- ✓ **Improves** aircraft **availability** and **flight safety**

-Recommended Treatment Level for Turboline®FS100 -  
8 oz. Turboline®FS100 treats 100 gallons of fuel

**Hammonds**  
FUEL ADDITIVES, INC.  
6807 West Little York • Houston, Texas 77040 • (800) 548-9166  
[www.biobor.com](http://www.biobor.com)

# BIOBOR® Family of AVIATION FUEL ADDITIVES

The Worldwide Standard Since 1965

THE MOST RECOGNIZED NAME IN FUEL ADDITIVES.

## BIOBOR JF®

Aviation Turbine and Jet Fuel  
MICROBIOCIDE

Kills fungi, bacteria and  
micro-organisms which cause  
fuel tank contamination...

Available Sizes: 8oz., 16oz., 32oz., 1gallon,  
5 gallons, 55 gallons, 330 gallon totes



- ✓ Disperses and prevents sludge
- ✓ Prevents clogged filters
- ✓ Adds lubricity to low sulfur fuels, exceeding ASTM Standards
- ✓ The only biocide that kills in both the water and fuel phase, for a more efficient kill
- ✓ Recommended by airframe and equipment manufacturers around the world
- ✓ Military Spec MIL-S-53021A

## LubriBor®

Super Lubricity Agent for  
Low Sulfur Fuels

Far exceeds ASTM standards  
Improves fuel lubricity and  
reduces fuel system wear.

Available Sizes: 16oz. and 5 gallon pail



- ✓ Lubricates Vital Engine Parts
- ✓ Prolongs Engine Life
- ✓ Cuts Maintenance Costs
- ✓ Improves Fuel Efficiency
- ✓ Reduces Engine Wear

**MIL-SPEC product**  
Approved for use in  
commercial and  
military jet fuel



Available in 12 kit cases

## EARLY WARNING!

- ✓ Ensures fuel supply quality
- ✓ Low cost, easy-to-use
- ✓ Early warning detection of microbial infestation in fuel
- ✓ Detects microbial infestation in all hydrocarbon fuels and oils

The HumBug Detector® Kit identifies the presence of microbial infestation in fuel tanks. Use this in conjunction with BioborJF® to ensure a clean and safe fuel supply.

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