

IS YOUR FUEL SYSTEM CONTAMINATED WITH BACTERIA AND FUNGUS ?

AVIATION LABORATORIES *BUG TEST*

A FIELD TEST KIT FOR MICROBIAL CONTAMINATION IN FUEL



- ◆ Accurately Determine the Amount and Type of Microbial Contamination in Jet and Diesel Fuel Systems
- ◆ Test is Performed Quickly and Accurately in the Field
- ◆ Field Test Results Correlate with Standard Laboratory Tests
- ◆ Color Chart Included for Quantitative Test Results
- ◆ Laboratory Fuel Testing Packages Are Also Available

THE HAZARDS OF BACTERIAL AND FUNGAL GROWTH

Bacteria and fungus multiply rapidly in jet and diesel fuel systems. As these bugs flourish and feed on the fuel, they pose a serious hazard to both equipment and fuel storage systems.

- ◆ Fuel filters, nozzles, and lines become contaminated or plugged
- ◆ Severe Corrosion of Fuel Tanks, Pumps, Injectors, and Systems
- ◆ Seals, Gaskets, Hoses, and Coatings are Attacked
- ◆ Erratic Fuel Quantity Readings Can Occur
- ◆ The Formation of Sludge and Water Occurs as a Results of Growth

The early detection of microbial growth is absolutely critical for proper fuel quality control. Early detection can allow for scheduled fuel treatments, prevent costly downtime, avoid equipment repairs or replacement, prevent fuel waste and disposal. Undetected microbial growth can become severe rapidly and cause problems very quickly.

TEST KIT DESCRIPTION

The *BUG TEST* field kit includes

- ◆ A sealed, sterilized serum test bottle containing a nutrient growth media and color growth indicator.
- ◆ A sterile fuel sampling syringe.
- ◆ Detailed instructions, color chart for results interpretation, and safety packing material.

A fuel sample is injected into the sealed serum test bottle. The bacterial and fungal growth is determined at a timed interval at room temperature and compared to a color chart to determine the type and amount of microbial contamination. Laboratory testing packages are also available for microbial contamination and fuel quality specifications.

THE CAUSES OF BACTERIAL AND FUNGAL GROWTH

Most Jet and Diesel fuel contain fungal spores (*Cladosporium*) or bacterial cells (*Pseudomonas*) . When these microbial seeds are exposed to the proper conditions of moisture and temperature they begin to Multiply rapidly feeding off the fuel. No one really one knows when they receive contaminated fuel. All one knows for sure is that under the proper conditions microbial bugs will flourish sometimes doubling their population every 20 minutes. Fungus produces its own water source as a byproduct of growth once it begins to flourish. Fuel stored for any length of time has a high probability of microbial growth, the amount of water and the ambient temperature play an important role in determining how severe the contamination is. Proper housekeeping and microbiocidal treatment is critical to insure fuel quality. The *BUG TEST* kit will allow you to monitor the degree of contamination and determine the scheduling and effectivity of fuel treatment. Aviation Laboratories provides biocides and fuel system icing inhibitor for fuel treatment.

FOR INFORMATION OR TO ORDER CONTACT AVIATION LABORATORIES INC. 1-800-256-6876
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