

COMMERCIAL AVIATION

Jet fuel microbial contamination can be extremely costly to aviation businesses. Identify and deal with the issue at earliest possible stage

TRIED. TESTED. TRUSTED.

FUELSTAT® provides simple rapid detection of microbial contamination in jet fuel with free digital app to verify results and capture data





Avoiding unscheduled Aircraft on Ground (AOG) can be very good business

Traditionally, jet fuel testing methods have depended on fuel samples being sent to a specialist laboratory for analysis. The next step is a waiting period of up to 4-7 days, or longer to get the results. If aircraft then have to be recalled after a laboratory test indicates microbial contamination, that risks the aircraft not being available for operations. A day's operations missed can be in excess of \$200K in revenue if a replacement aircraft is not available.

Sending the fuel samples to the lab isn't simple. ASTM D6469 highlights that if a sample is to be tested for microbial contamination and cannot be tested on-site, it should be transported on ice and tested within 24hrs or the sample may no longer be a true representation of the environment from which it came. Delays cause varying results which may cause an increased risk to your asset and require unscheduled AOG to remove the contamination.

- Why take the risk?...
- Why wait 4-7 days for a test report?

FUELSTAT® SOLUTION
TEST. RESULT. REPORT
within 15 minutes



COMMERCIAL AVIATION FUEL MANAGEMENT

FUELSTAT® Microbial Contamination Detection: A solution for Commercial Aviation in all aspects of managing fuel.

All fuel contamination can impact the quality of aviation jet fuel, microbial contamination is the most troublesome.

- Does your fuel contain dangerous levels of microbial contamination?
- FUELSTAT® can quickly help you find out!

FUELSTAT® is used across many aspects of the aviation business. Regular planned testing of fuel tanks by the owners of their maintenance suppliers, quality control of fuel suppliers, corrosion control programmes, in defueling operations are all common uses.



FUELSTAT® is listed as a recommended product by IATA. Conidia is a Strategic Partner with IATA



FUELSTAT® is particularly suited to aircraft being tested not only when in for heavy maintenance but also at line maintenance when testing is required on a more frequent than C Check basis (less than 2 years on average).

- Test and re-test in less than 30 mins
- No delays in treating microbial contamination
- No need to recall aircraft at later date

MICROBIAL CONTAMINATION IN JET FUEL

What is aviation fuel microbial contamination, why is it so costly and vital to identify?

Fuel microbial contamination is caused by microbes: tiny organisms such as bacteria, yeasts and fungi, which thrive wherever there is food and water. Aviation fuel systems are ideal habitats for these organisms. Not only are these systems often warm and humid, but they also provide food for microbes in the form of hydrocarbons that are in the fuel.

If these microbes (also known as 'bugs') are allowed to proliferate unchecked, they can block fuel filters and cause fuel gauging problems. In fact, they can even induce corrosion to such extent that they can damage the aircraft's tank structure.

- Blocked filters
- Fuel Quantity Indication Probes
- Corrosion and tank leakage



Solo Working: FUELSTAT® makes the new normal easier

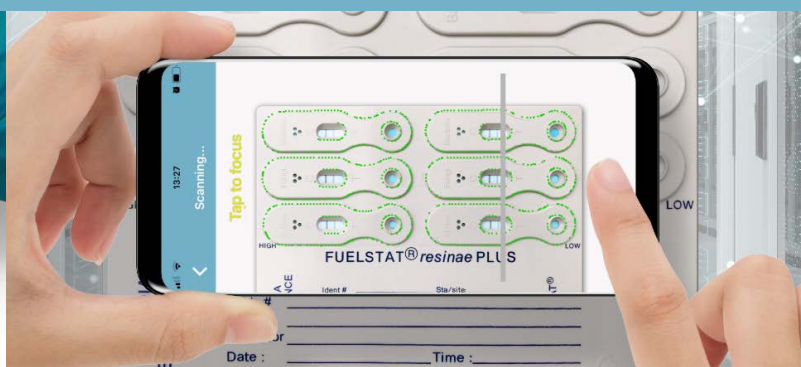
1. Test kit comes complete in sealed pouch

2. Watch training videos on smartphone



3. Do test, wait 10 minutes and get results

4. Transmit result to anywhere in globe



THE SOLUTION IS AS SIMPLE AS 1-2-3

FUELSTAT® Plus

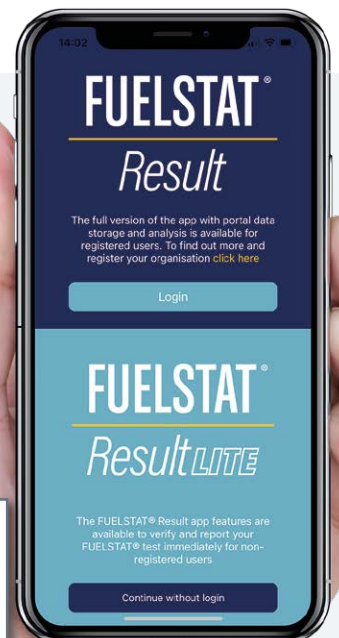
- The ultra-simple test that just requires **4 drops** of sample
- **15 minutes** to result as opposed to 4-7 days!
- **'Test at the tank'** technology - no laboratory required
- No requirement for additional **equipment** or **sterility measures**



In critical times, you need a fast, convenient testing method - one that doesn't require multiple people to complete the process. Using FUELSTAT®, a single person can conduct tests at the tank after minimal training from our instructional videos. FUELSTAT® Plus is based on immunoassay antibody tests. Just as a pregnancy test searches only for markers of human chorionic gonadotropin, FUELSTAT® Plus only searches for the markers of bacteria and fungi that can grow in jet and diesel fuel and can potentially cause both operational downtime, corrosion and in worse case safety issues.

FUELSTAT® Result

- The easy to use app that gives **immediate visual verification** of result
- **Reduces risk** of misinterpretation
- No need for additional equipment other than a smartphone
- Fully **detailed report** can be instantly produced in PDF format



FUELSTAT® ANALYSIS REPORT		ConidiaBioscience
This test for microbiological contamination was conducted on a fuel sample using the FUELSTAT® Plus test kit in accordance with ASTM D8070 and the results reported below were read using the FUELSTAT® Result app.		
TEST DATA		
Tester name: John Smith	Test date: 01-JAN-2021	
Location/Site: Location 1	Printout date: 01-JAN-2021	
Asset Identity: Asset 1	Phone make: OnePlus	
Tank Reference: Tank 1	Phone model #: ONEPLUS A6013	
GPS location: 51.41868 -0.56902	App version: 2.0.2	
FUELSTAT Test Lot #: B2101		
TEST RESULT CONTAMINATION ALERT LEVELS		NOTES
Bacteria: NEGLECTIBLE		A caution on the Negligible alert levels indicates that reading is getting close to the alert level for Moderate Contamination
Fungi: NEGLECTIBLE		
Hormoconis resiniae: NEGLECTIBLE (CAUTION)		
OVERALL RESULT: NEGLECTIBLE		
DISCLAIMER		RESULT LIMIT INDUSTRY GUIDELINES
FUELSTAT® Result is designed for use with tests which are fully compliant with ASTM D8070. However, readings obtained using FUELSTAT® Result are currently outside the scope of ASTM D8070. Operators should visually validate test results as per ASTM D8070. The accuracy of this report may be dependent on the accuracy of the sample provided. Full terms of use available on the website: www.conidia.com For any technical assistance telephone: +44 (0)1491 829102		Phase Target antigen limits Alert level
		Fuel Up to 150 µg/L
		Water Up to 33 µg/ml
		Fuel Between 150-750 µg/L
		Water Between 33-166 µg/ml
		Fuel Greater than 750 µg/L
		Water Greater than 166 µg/ml

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FUELSTAT®

Who we are:

FUELSTAT® fuel tests are developed, manufactured and marketed by Conidia Bioscience Ltd. Based in UK, Conidia Bioscience was founded in the early 2000's by experts in immunoassay techniques and holds the internationally patented intellectual property for FUELSTAT®.

Where to find us:

FUELSTAT® is distributed globally by a network of specialist distributors covering the major sectors. To arrange for a distributor to support you simply contact info@conidia.com.



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