

# **MARINE & OFFSHORE**

# **2020:** Is your marine fuel at greater risk of microbial contamination?

EVELSTA BIOSING PUS

#### TRIED. TESTED. TRUSTED.

**FUELSTAT®** provides rapid detection of microbial contamination in fuel



## Is sending samples onshore for microbial fuel tests worthwhile or economical?

Traditionally, marine fuel testing methods have depended on fuel samples being sent onshore for analysis. The next step is a waiting period of up to 4-7 days, or longer to get the results.

Sending the fuel samples onshore 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.

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

FUELSTAT® SOLUTION TEST. RESULT. REPORT within 15 minutes





### **MARINE & OFFSHORE**

Every year, many sea vessels experience technical and mechanical problems caused by fuel microbial contamination.

Microbial contamination can grow quickly in short time periods—so testing marine fuel yourself is very important. Similarly in offshore applications there are many users of stored fuel; day tanks, backup power generators, cranes and the transportation that relies on stored fuel (diesel-powered life craft and helicopters).

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

### **2020 : WHY MARINE FUEL** MANAGEMENT IS EVER MORE IMPORTANT

The IMO 2020 regulations are important for fuel users, as they require fuel manufacturers to reduce sulphur concentration.

Whilst the direct effects of sulphur reduction on long term fuel stability are, yet unknown, several published studies indicate that introduction of biodiesel, primarily Fatty Acid Methyl Esters (FAME), can increase microbial contamination overall due to the hygroscopic (water absorption/retention) nature of FAME.

- How are you addressing the risk of increased microbial contamination?
- Regular *fuel tank testing* is advised at sea or in port
- Manual cleaning of fuel oil tanks during dry-docking and while the ship is in service



### **MICROBIAL CONTAMINATION IN FUEL**

If you're a user or supplier of diesel fuels, microbial contamination can pose a serious threat to your business.

Microbial contamination, in particular, is almost always present in fuels to some degree. Left unchecked for too long, it can do serious harm to engines and tanks, and even cause leaks and environmental damage. Diesel "bug" microbial contamination creates a slime called a biofilm or biomass that can induce several issues. If left for a prolonged period of time without treatment, it can cause:

- Blocked filters
- Increased injector wear
- Increased fuel consumption
- Engine failures
- Corrosion and tank leakage
- Excessive exhaust smoke



### HOW DO YOU MANAGE THE RISKS OF DIESEL FUEL MICROBIAL CONTAMINATION?

A single case of diesel fuel microbial contamination, if left unchecked, can easily cost hundreds of thousands of pounds/dollars in damages and remedial activities. Basic fuel maintenance, in comparison, costs relatively little—so it makes good business sense to do these activities. To minimise the risks, there are three key activities you need to do:

- 1. Remove water from tanks
- 2. Store fuel correctly
- 3. Test for fuel microbial contamination regularly...



### 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® is based on immunoassay antibody tests. Just as a pregnancy test searches only for markers of human chorionic gonadotropin, FUELSTAT® 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



**ANALYSIS REPORT** 

Test date: 24-IAN-2019

Between 150-750 µg/L Between 33-166 µg/ml

Printout date: 24-JAN-201

Ractoria

Overall result

Portal version: 1.2.2 Analysis approved by:

Funai

GPS location: Fuelstat result number: 3,36 FUELSTAT

RESULT

LOGIN

Username

 The easy to use app that gives *immediate visual* verification of result

FUELSTAT

Comment

FUELSTAT® Result data inte Alert level Negligible

Moderate

Heavy nsider remedial treatme Phone make: App

Phone model: iPhone 6s App version:

any name: Standard Address inputted From Po

Post code: From Portal

Identity: Example Test

Asset: Jet 1

Tank: Wing Fuel lot: 4

t test lot: HR 2 41

Country: United Kingdom er reference: 124 - Portal Template

- Reduces risk of misinterpretation
- No need for additional equipment other than a smartphone
- Fully **detailed report** can be instantly produced in PDF format





### **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.





#### HAMMONDS FUEL ADDITIVES, INC. Houston, Texas • (800) 548-9166

#### www.biobor.com



FUELSTAT® meets the ATSM International D8070-16 Standard



FUELSTAT® is listed as an approved product by Joint Inspection Group



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

#### **HEADQUARTERS & GLOBAL SALES OFFICE**

Conidia Bioscience Ltd Bakeham Lane, Egham, Surrey, TW20 9TY, UK +44 (0)1491 829102 info@conidia.com

#### **Conidia** Bioscience

WWW.CONIDIA.COM

#### **US SALES OFFICE**

Conidia Bioscience Inc 15 Briarwood Ln, Dover, NH, 03820, USA +1 844 438 3578 info@conidia.com

SBR104-2.2