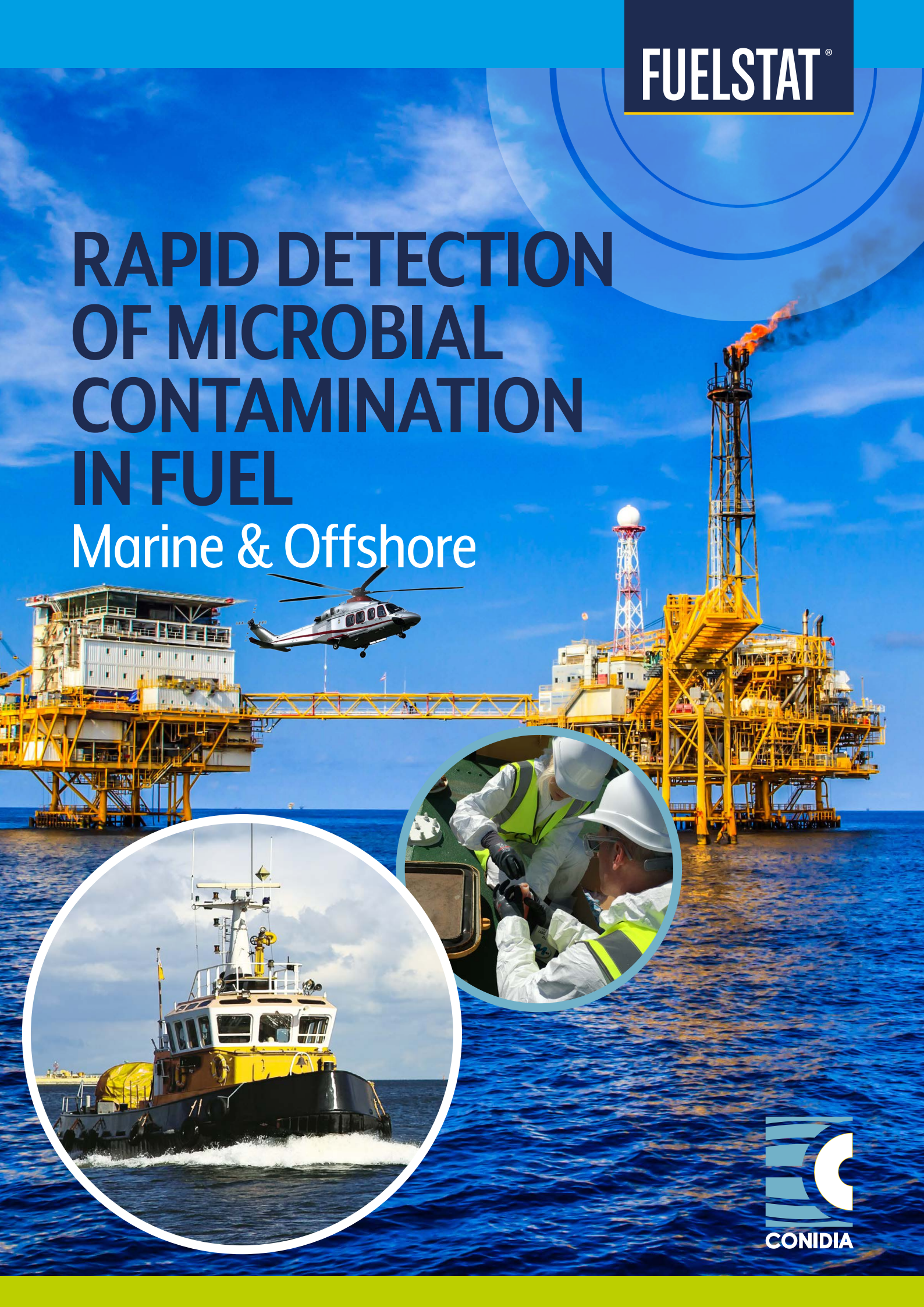
FUELSTAT®

RAPID DETECTION OF MICROBIAL CONTAMINATION IN FUEL

Marine & Offshore



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FUELSTAT®

Marine & Offshore Microbial Fuel Contamination

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

Every year, many sea vessels experience technical and mechanical problems caused by fuel contamination. In many of these cases, the fuel is on-specification and doesn't have dangerous levels of contamination when it is uploaded. 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 where identification and control of microbial growth is critical at the earliest possible stage, whether that be for day tanks, backup power generators, cranes and the transportation that relies on stored fuel (diesel-powered life craft and helicopters).

IMO 2020: Why marine fuel management is 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.

Better for the environment and sustainability undoubtedly but the knock-on effect is potentially more microbial contamination risks that must be managed before they turn into serious operational and commercial issues for the marine industry.

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

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 10 days 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?...
FUELSTAT® solution
Test. Result. Report
within 15 minutes

FUELSTAT®

FUELSTAT® Plus

- Ultra simple test that requires **4 drops** of sample
- **15 minutes** to result as opposed to 4-7 days!

FUELSTAT® is based on immunoassay technology, which is widely used in the medical industry to rapidly and accurately detect such things as pregnancy, prostate cancer and hypoglycaemia. Put simply FUELSTAT® only searches for the specific micro-organisms that are known to thrive and do damage in diesel and jet fuel.

FUELSTAT® is simple to use, simply add the sample to the bottle provided with the test kit, shake it, place 4 drops onto a piece of tissue to remove any fuel trapped in the nozzle before adding 4 drops to each of the sample wells on the test paddle before waiting 10 minutes for the results to appear. FUELSTAT® requires little instruction and little in way of rigid sterility controls on-board except for a clean sampling jar. The components of the test kit are also recyclable; however, the fuel sample must be disposed of as per each individual organisation's own protocol.

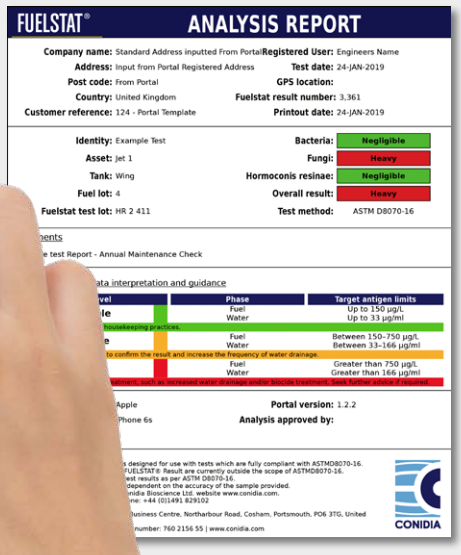
FUELSTAT® Result

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

If you want instant verification of the result which can be sent or received back on shore within minutes, then the free to download app FUELSTAT® Result will tell you in seconds on your smartphone device.

FUELSTAT® Result will also enable a fully transparent and traceable audit trail to track trends and hotspots but also provide accurate information to enable effective and more cost-efficient maintenance programs to be undertaken. It will also help to identify potential issues when bunkering, which whilst it may be your only fuel source and therefore difficult to refuse, it allows the ability to treat the fuel accordingly prior to departure.

Over 100,000 FUELSTAT® tests are used every year all over the globe in many highly regulated industries to monitor microbial contamination in middle distillate fuels. It is compliant with the ASTM D8070 International Standard and is used by organisations the world over from airlines to major fuel operators, from militaries to data centres to keep assets protected.


FUELSTAT®
ANALYSIS REPORT
Company name: Standard Address inputted From Portal
Address: Input from Portal Registered Address
Post code: From Portal
Country: United Kingdom
Customer reference: 124 - Portal Template
Registered User: Engineers Name
Test date: 24-JAN-2019
GPS location:
Fuelstat result number: 3,361
Printout date: 24-JAN-2019
Identity: Example Test
Asset: Jet 1
Tank: Wing
Fuel lot: 4
Fuelstat test lot: HR 2 411
Bacteria: Negligible
Fungi: Heavy
Hormoconis resinae: Negligible
Overall result: Heavy
Test method: ASTM D8070-16
Phase
Target antigen limits
Fuel
Water
Up to 150 µg/L
Up to 33 µg/ml
Between 150–750 µg/L
Between 33–166 µg/ml
Greater than 750 µg/L
Greater than 166 µg/ml
Portal version: 1.2.2
Analysis approved by:
CONIDIA

find out more:
www.conidia.com

FUELSTAT®

FUELSTAT®

Who we are:

FUELSTAT® fuel tests are developed, manufactured and marketed by Conidia Bioscience Limited. Based in UK, Conidia Bioscience Limited was founded in 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. Contact info@conidia.com who will arrange for a distributor to support you.

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