

THE ECHA FUEL EXTRACTANT

If the only purpose of a test is to detect microbes in the fuel, the sensitive and quantitative **MicrobMonitor2** test is the preferred test procedure.

1.0 FUEL EXTRACTANT PROCEDURE

The ECHA FUEL EXTRACTANT bottle contains 7 ml of aqueous EXTRACTANT. Add fuel to the bottle shoulder (c. 28 ml of fuel) and shake vigorously for c. 30 seconds. Allow to settle. This procedure extracts both organisms (if any) and biocide (if any) from the fuel into the aqueous phase.

2.0 TO TEST FOR AEROBIC MICRO-ORGANISMS

REQUIREMENTS: ECHA FUEL EXTRACTANT and DIP SLIDES

- Using the sterile disposable pipette, flood both sides of a DIP SLIDE with the aqueous EXTRACTANT as prepared in section 1.0
- Follow the manufacturers instructions supplied with the DIP SLIDE.
- The DIP SLIDE calibration chart result should be divided by 4 to obtain numbers of micro-organisms in the original fuel per ml.
- Multiply this value by 1000 to obtain the number of micro-organisms per litre of fuel
- If a more sensitive and accurate test for micro-organisms is required, the **MICROBMONITOR2** test should be used.
- The aqueous EXTRACTANT can be used for any normal microbiological analysis (remember the extraction procedure concentrates the organisms from 28 ml of fuel into 7ml of water; a 4X concentration).

3.0 TO TEST FOR SULPHATE REDUCING BACTERIA

REQUIREMENTS: ECHA FUEL EXTRACTANT and ECHA SIG SULPHIDE TESTS.

- Add c. 2 ml of the aqueous EXTRACTANT as prepared in section 1.0 to an ECHA SIG SULPHIDE tube. Follow the instructions supplied with the ECHA SIG SULPHIDE TEST.

4.0 TO TEST FOR BIOCIDES.

REQUIREMENTS: ECHA FUEL EXTRACTANT and ECHA BIOCIDES RAPIDE TESTS.

- Use the aqueous EXTRACTANT as prepared in section 1.0 to test with the ECHA BIOCIDES RAPIDE tests in accordance with the instructions supplied.

OTHER ECHA TESTS AVAILABLE.

MICROBMONITOR2 - will detect light and heavy microbial contamination in fuel **quantitatively** with no requirement for an extraction procedure. (Box of five tests)

ECHA SIG TESTS:

SIG RAPID WB - will detect moderate to heavy microbial contamination in fuel tank bottom water in one hour. (Box of ten tests).

SIG SULPHIDE - will detect Sulphate Reducing Bacteria, a prime cause of Microbially Influenced Corrosion. (Box of ten tests)

SIG NITRITE - will detect Nitrite Reducing Bacteria which degrade nitrite corrosion inhibitors in water systems. (Box of ten tests).

ECHA BIOCIDES RAPIDE TEST - will detect the presence of antimicrobial chemicals (biocides) in aqueous samples. (Box of twenty-five or one-hundred tests)

ECHA DIP SLIDES - will detect aerobic micro-organisms semi-quantitatively in aqueous samples or on surfaces. (Box of ten tests)

If you would like further information regarding any of the above tests or more information regarding the consultancy and laboratory services ECHA Microbiology can provide please contact us by phone, Fax or E-mail. Courses on microbiological problems are also available at ECHA's laboratories or at clients' premises.

Results that count