January 1, 2020: The current maximum of 3.5% S in fuel will be reduced to 0.5% with Emission Control Areas (ECA) remaining at the 2015 standard ultra-low 0.1% S content. Authorities request a MARPOL sample during inspections and may decide to take samples from engine feed or returning line, especially in ECAs, to confirm compliant fuel is in use.

Bruker’s MARPOL package provides a complete solution to test for the IMO 2020 Low Sulfur Fuel Oil Standard Requirement with its portable CTX™ 500S or S1 TITAN™ 500S, ready-to-go MARPOL factory calibration set-up, QC kit and QC standards.

**Portable Analyzer for Fast QA/QC of S in Fuel**

This portable solution can quickly and accurately be used at service labs, supply stations, on docks, in ports and even aboard barges and ships. Suppliers, engineers, ship captains and inspectors need to trust that the analyzer measuring sulfur in fuel oil provides accurate and reproducible results no matter who takes the measurements or where they are taken. Bruker’s Portable XRF MARPOL package for quick and simple-to-use screening of sulfur in fuel oil is used by maritime inspectors around the world.

**Complete Portable Testing Solution for IMO 2020 Low Sulfur in Fuel Regs**

Bruker’s MARPOL package provides a complete solution to test for the IMO 2020 Low Sulfur Fuel Oil Standard Requirement with its portable CTX™ 500S or S1 TITAN™ 500S, ready-to-go MARPOL factory calibration set-up, QC kit and QC standards.

**Bruker’s Portable CTX™**

- Small, lightweight battery operated portable XRF analyzer
- 7.1 kg (15.6 lbs) with battery
- 13.5 cm x 25 cm x 35 cm WxDxH (5.3 in x 9.8 in x 13.8 in)
- Operating temperature: -10°C to +40°C (-14°F to 104°F)
- Splash / dust proof (IP-54) stainless steel housing for use in rugged conditions
- Sample chamber: 12 cm x 13.5 cm x 8.5 cm WxDxH (4.7 in x 5.3 in x 3.3 in)

**Bruker’s Portable Solutions Can Do More**

Do you need to do a Quick Check of more than S in fuel, such as wear metals (Al, Ti, Cr, Fe, Ni, Cu, Pb, Sn, Ag) in oil? Bruker’s portable XRF analyzers can be customized to meet your specific needs.

- Ready-to-go factory standard or custom calibrations
- Optional EasyCal Software to create your own calibrations
- Measure powders, liquids, solids or sludge
- Capable of measuring elements from Mg to U in ambient air
- Print results with optional Bluetooth™ portable printer
Bruker Portable XRF Elemental Analyzers: Simultaneously measure elements from sodium (Na) to uranium (U) at concentrations as low as parts-per-million to high percentage levels (depending on the element). Objects of any form – liquids, solids, cores, powders, shavings, chips – can be analyzed wherever they are located.

Bruker’s portable Counter Top XRF, the CTX™, is for qualitative and semi-quantitative elemental analysis. It also performs quantitative analysis when utilizing calibrations with like-sample standard reference materials. Results can be given as spectra, composition, or Pass/Fail/Inconclusive for single or multi-elemental analysis of elements from Mg to U. The convenient form factor of the CTX is ideal for samples presented in containers such as powders, soils and liquids; small samples; and those which require extended measurements of more than a few seconds.

Bruker’s portable XRF features
- Rh X-ray tube with high performance SDD detector
- 5 filter wheel (plus manual slot for TRACER 5)
- SharpBeam geometry for high performance, speed and sensitivity
- Touchscreen operation
- Internal camera (optional for CTX and TITAN)
- Wireless communication
- Battery or AC operation
- Lightweight and supplied with water tight transport case

Bruker’s two handheld XRF spectrometers, the TRACER 5™ and the S1 TITAN™, are for qualitative and semi-quantitative elemental analysis. They also perform quantitative analysis when utilizing calibrations with like-sample standard reference materials. Results can be given as spectra, composition, or Pass/Fail/Inconclusive for single or multi-elemental analysis of elements from Na to U. A desk or bench top stand with a PC can be used for samples presented in containers such as powders, soils and liquids; small samples; and those which require extended measurements of more than a few seconds.

Contact Us at www.bruker.com/hhxrf