

CHEMICAL CONTAMINATION SCREENING

The announcement of the implementation of the 0.50% global sulphur cap as of the 1st January 2020 brought with it concerns surrounding the availability and quality of compliant fuel.



Chemical contamination screening

Lessons learned from the use of the 1.00% m/m sulphur residual fuel for ECA compliance highlighted the potential pit falls of the use of blended products for regulatory compliance. In looking across the range of 1.00% m/m sulphur fuels available it is clear that the use of unregulated blend / cutter stocks provided cause for concern in relation to the suitability of the final product for use.

The step change from the 1.00% m/m sulphur limit in ECAs to 0.10% m/m sulphur on the 1st January 2015 eradicated the need for the 1.00% m/m sulphur fuel overnight and many of the concerns surrounding chemicals in fuel vanished with it.

However, as we head towards the 1st January 2020 deadline we, again, have to think about the aspect of supply of good quality compliant fuel.

Given the short time frame allowed by the legislators it is highly likely the bunkering industry will find itself in a situation, not too dissimilar to that of the 1.00% m/m sulphur limit in ECAs, where wide scale blending is utilised in order to achieve regulatory compliance.

What the ISO Standard says

The ISO 8217: 2017 standard is still clear in its standpoint regarding chemicals in fuel: "General Requirements

5.1 The fuel as supplied shall be homogenous and conform to the characteristics and limits given in Table 1 or Table 2, as appropriate, when tested in accordance with the methods specified.

The fuel composition shall consist predominantly of hydrocarbons primarily derived from petroleum sources while it may also contain hydrocarbons from the following:

- Synthetic or renewable sources such as Hydrotreated Vegetable Oil (HVO), Gas to Liquid (GTL) or Biomass to Liquid (BTL);
- Co-processing of renewable feedstock at refineries with petroleum feedstock

5.2 The fuel shall be free from any material at a concentration that causes the fuel to be unacceptable for use in accordance with Clause 1 (i.e. material not at a concentration that is harmful to personnel, jeopardizes the safety of the ship, or adversely affects the performance of the machinery)."

How we can assist

The chemical contamination screening services provided by Intertek Lintec offer a cost effective means of identifying accidental and deliberate adulteration of bunker fuels, and ensures that fuels comply with the requirements of Marpol Annex VI and ISO 8217.

The various analytical techniques employed which include: Headspace Gas Chromatography-Mass Spectrometry (GC-MS); Direct Injection GC-MS and Fourier Transform Infrared Spectroscopy (FTIR), allow the detection and identification of a wide range of contaminants and also provide an indication of their concentration.

In addition, the further changes to ISO 8217: 2017, specifically the inclusion of FAME grade distillate fuels, highlight the need for vigilance and strengthen the argument that regular chemical screening remains as vital today as it has ever been, and will be an invaluable tool moving forward in an ever evolving bunkering market.

FOR MORE INFORMATION



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