

FOBAS Bulletin **Compatibility of fuels in view of IMO2020**

Applicability: **All ship owners and operators**

As most people involved in the bunker industry are aware, mixing of fuels on board ships is not recommended. This advice is often followed because although incompatibility between fuels is very rare, when it does happen the results can be severe. Typical problems include sludging at tank bottoms and blockage of pipe work, filters and centrifuges.

However, with the upcoming sulphur limit for outside Emission Control Area (ECA-SO_x) from 1st January 2020, it is anticipated a much broader range of fuel blends will become available. With that, the risk of incompatibility between two different fuels is likely to become more pronounced than that faced today.

In view of this, particular attention will need to be given to setting up a commingling procedure as part of the Ship Implementation Plan (SIP), with the primary aim to keep bunkers of different sources segregated or make efforts to ensure the compatibility test is performed between the fuels to be mixed prior to possible commingling and a safe ratio blend mix is determined.

FOBAS provides, as part of its comprehensive fuel oil bunkering advisory services to clients, the ability to test for compatibility using the on-board compatibility test kit provided in FOBAS bottle packs, or by sending samples for shore based compatibility testing at any of the FOBAS laboratories.

Compatibility testing by ship crew on board the ship (Spot Test)*

All FOBAS bottle kit includes, apart from all sample bottles and labels for drawing fuel samples, the following:

- Chromatography blotter paper for compatibility spot test purposes.
- Spot reference chart as per ASTM D4740 for spot rating of compatibility.

The test can be conducted on-board by the ship's crew and is relatively simple to carry out.

Full instructions are provided within the FOBAS sample bottle kit documentation pack

Compatibility testing in any of the FOBAS laboratories (Lab Test)*

All FOBAS laboratories are able to run compatibility tests between the fuels. All FOBAS sample bottle kits contains small vials of 45 ml which can be used to collect the fuel samples from remaining on-board (ROB) fuels and can be sent along with the bunker drip sample for compatibility test. By following this process, the compatibility test results of all fuels on-board will be known and decisions can then be made about mixing of fuels if required.

**Please note that the existing compatibility testing as per ASTM D4740 may not be suitable for assessing the compatibility for all types of 0.50% sulphur fuel blends. However, it is anticipated that a more suitable assessment tool will become available which we will advise you about as and when it has been developed.*

In order for some of the documents on this page to be read in full, Adobe Acrobat Reader is required. It can be downloaded [here](#).

If you require any further information about this Bulletin, please contact us at fobas@lr.org or speak to one of our consultants on +44 (0)330 414 1000 (Southampton UK), +44 (0)1642 440991 Redcar (UK), +65 3163 0888 (Singapore), +30 210 4580 874 (Greece).