

# FOBAS Bulletin

4 August 2022

## Contaminated Fuels from ARA (Amsterdam, Rotterdam, Antwerp) Region – An Update

Further to our previous [bulletin](#) issued detailing contaminated fuels found in the ARA area, we have seen further similar cases which suggests this contamination of marine bunkers in the ARA (mainly in Rotterdam and Amsterdam) region is an ongoing issue. Since our last bulletin, we have also seen a similar contamination case from Ulsan, Korea and a recent case with lower levels of the same contaminants from Singapore.

Detailed analysis on these fuels has shown a range of compounds, more specifically, high levels of phenolic compounds. The compounds with highest concentrations are Cardanol (also referred to as Ginkgol and other chemical names) and Cardol which are not normally seen in marine fuels. The concentration of these extraneous components ranged from 20, 000 to in excess of 140,000 ppm. We do find that phenol related compounds are often linked with fuel pump wear and damage. The exact mechanism may vary, but in general it may be that these chemicals interfere with the usual fuel lubrication of the fuel pump. In the case of the recent fuels tested where Cardanol alone was at >100,000ppm concentration (>10% total fuel), we would expect this to affect the fuel behaviour considerably.

These fuels were also found to have been blended with Estonian shale oils. Although use of shale oil as a blend component is allowed under ISO 8217 specifications, Estonian shale oils have a tendency to fall apart during purification, which leads to sludging issues during purification.

Further investigation continues in order to identify the exact source and intention of these chemicals. However, regardless of the source or intention for these chemicals in the fuel, the concern is that some of the vessels using these fuels are reporting operational problems, particularly involving fuel pump wear and damage.

We will continue to investigate these current cases and share any further conclusions regarding the analysis results and operational feedback.

For all vessels bunkering particularly in the ARA region, we would recommend to clarify with the supplier regarding the blend composition of the fuel and a confirmation that the fuel meets the specification of general requirement details in ISO 8217 clause 5 and stipulations of MARPOL Annex VI clause 18.3. As always, the supplier also has a responsibility to ensure no chemical waste/contamination enters the fuel.

FOBAS is proactively alerting our client's where suspected contaminated fuels are bunkered to run further detailed tests to determine the composition of the fuels.

*If you are in doubt or require any further information about this Bulletin, please contact us at [fobas@lr.org](mailto: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), +30 211 990 7732 (Greece). For anything urgent, please contact us via our out of office number, +44 (0)1642 425660.*