

## BUNKER FLASH

### Contaminated VLSFO in US-Gulf Region

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Recently **MARITEC** has investigated 5 VLSFO samples that were bunkered in the US-Gulf region between [June to July 2022](#). Operational Feedback was received from 2 vessels that had used these fuels indicating issues such as excessive wear of fuel pump plungers, barrels, and fuel injectors.

Further investigation through forensic analysis by ASTM D7845 Direct Injection and Solid Phase Extraction **GCMS** methods, has indicated these fuels to have an uncharacteristic detection of chemical species, specifically:

- Tetrachloroethylene (Chlorinated Organic Compound) at concentration less than 100ppm
- FAME at concentrations 300 to 400ppm
- Fatty Acids at concentrations between 50-2000ppm

Though there is insufficient literature that the presence of these compounds especially at these concentration levels causing issues as mentioned above, it remains a cause of concern as they are not natural products of a refinery stream.

Through experience and feedback from vessel usage, these compounds primarily affect the fuel service system resulting in excessive wear of injection components.

It may not always be possible to get a thorough GCMS analysis along with the supplier's Certificate of Quality prior bunkering. If you are planning to bunker in this region, we recommend ensuring correct sampling procedure and proper documentation is carried out onboard to ensure true representation of the bunkered fuel. Record any event and document evidence indicating any operational issues faced onboard by the vessel during the fuel usage.

Alternatively, CTI-Maritec advises to pre-emptively conduct GCMS by D7845 and Solid Phase Extract to look out for such deleterious material and check whether the fuel supplied to the vessel contravenes stipulations of the MARPOL Annex VI Regulation 18.3 & ISO 8217 Clause 5 both of which mentions that marine fuels supplied to the ships should be free from chemical waste or added substances at quantities that may jeopardize the safety or adversely affects the performance of the machinery.

This document however does not reflect on the overall quality of fuel being supplied at US Gulf region, it is however advised to take the necessary precautions as indicated above.

**Maritec Pte Ltd** can assist you in with further information on quality of bunkers tested in different regions. If you require any other information or assistance do not hesitate to [contact us](#)

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