

## BUNKER FLASH

### Organic Chloride Compound Detected in Singapore Bunkers

Maritec Pte Ltd has tested several samples representing HSFO deliveries from 04 -13 Mar 2022 in Singapore, detecting Chlorinated Organic Compound by GCMS test method. The product tested had 1-2-Dichloroethane ranging 1955 ppm – 3753 ppm & Tetrachloroethylene ranging 127 ppm – 217 ppm. These samples are also marginally stable using test method SMS 1600 between 1.00 – 1.10, which may cause excessive sludging.

Source of these organic chlorides could be from chemical used in engine air coolers and cleaning agents used in the dry cleaning industry and should not be present in bunker fuels at these level

There has been a reported case of Purifier Sludging, Filter clogging and fuel pump damages among the samples tested.

With a high concentration of chlorinated compounds, this is an indication for the presence of residual chlorinated degreasing/cleaning solvents in bunker fuel which will cause excessive wear to fuel pump plunger and barrel assembly. Please monitor the fuel pump index closely to check for deteriorating performance. Ensure there is sufficient spare seals and plunger barrel assembly to replace damaged units if necessary.

The P-value of an oil gives information on stability and stability reserve. A higher P-value indicates that the oil is more stable with respect to flocculation of asphaltenes. Please find table below.

P-value	Stability
$P\text{-value} < 1.00$	Fuel is not stable
$1.00 \geq P\text{-value} < 1.20$	Fuel is marginally stable
$1.20 \geq P\text{-value} \leq 1.50$	Fuel with acceptable stability

...

**Please feel free to contact us:**

Website: <http://www.maritec.com.sg>

Email: [admin@maritec.com.sg](mailto:admin@maritec.com.sg)

Tel: [+65 62718622](tel:+6562718622)

...

P-value > 1.50	Fuel is stable: For strategic long-term storage, fuels with a higher P value (e.g. > 1.5) are preferred as this provides a wide margin for ageing.
----------------	--

Unstable fuel will form excessive sludge concentrations in tanks and can choke purifiers, filters, fuel injection equipment and even the fuel lines. Under such conditions fuel treatment is often impossible and even transfer becomes problematic. Particularly in the case of thermally unstable fuels where problems manifest in the filters, purifiers, and fuel service system heaters.

It is advisable to carefully observe the vessel fuel system for the above signs and conduct further GCMS testing by ASTM D7845 & assess the stability of the fuel further by SMS 1600 as pre-emptive measures.

In cases where a ship suspects the specific fuel in use on board is the possible cause of the operational problems, applicable evidence should be gathered to support further investigation. Such evidence includes but is not limited to logging the case in detail, collecting further in-use fuel system samples, documenting the evidence leading up to, during and after the operational problems were experienced as well as any mitigating actions taken.

**This document however does not reflect on the overall quality of fuel being supplied in Singapore, if you intend to bunker at this region, Maritec Pte Ltd can also 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 your Maritec Sales Representative.**

...

**Please feel free to contact us:**

Website: <http://www.maritec.com.sg>

Email: [admin@maritec.com.sg](mailto:admin@maritec.com.sg)

Tel: [+65 62718622](tel:+6562718622)

...