



**MARINE FUEL SPECIALTIES**  
Enhancing your fleet performance

## Act now and avoid VLSFO compatibility and stability issues

By the end of 2019 all major fuel suppliers should be selling VLSFO that complies with IMO 2020. The question for ship operators is how to make sure this new fuel does not cause compatibility and stability issues.

Extensive testing of VLSFO by Innospec, using samples taken from around the world, reveals that most of these new fuels are highly unstable when mixed, even at a ratio of 10:90. Official guidance suggests segregating VLSFO, but given that many vessels operate with a limited number of storage tanks, implementation is not always straightforward.



It is also important to note that the oil majors will not be taking responsibility for fuel stability after its expiry date. Ship operators must find their own solution to these issues, especially if fuel is mixed onboard.

To combat this, Innospec has developed two advanced, multi-functional, fuel additives to protect vessels in real-world situations.

## Get ready for cold climates



Vessels operating in colder climates without heated fuel storage tanks need a cost-effective solution to keeping fuel flowing when the temperature drops.

Octamar™ Winterflow has been specially formulated to improve the low temperature properties of DMA and DMZ grade marine distillate fuels. It significantly improves cold flow, reduces pour point,

protects against fuel waxing and minimises the chances of a fuel filter getting plugged. This cutting-edge product is dosed manually into bunker tanks.

## Octamar™ HF-10 Plus

Octamar™ HF-10 Plus stabilises fuel blends and reduces sludge. It ensures all types of VLSFO can be used safely on-board.

- Improved compatibility when using new fuels or unknown fuels.
- Safer fuel changeovers for ECAs.
- Stable and homogenous fuel ensures improved combustion.
- Reduced sludge means more fuel to burn.
- Higher treat rates combat injector fouling.

## Octamar™ Ultra HF

Octamar™ Ultra HF provides a complete solution for VLSFO. It delivers better fuel blend stability, improved combustion and cleaner engines with reduced soot formation.

- Combined combustion and ignition improvements from one additive.
- Cleaner running engines.
- Improved fuel economy and reduced fouling of exhaust gas systems.
- Increased fuel stability and compatibility of marine fuel blends.

## Take on the challenges of low sulfur fuels

Advanced fuel technology can help solve the well-documented issues surrounding low sulfur fuels and modern marine engines. Marine distillates used over long periods tend to foul fuel injectors, corrode the fuel system and prematurely block fuel filters.

Octamar™ LI-5 Plus is a multifunctional lubricity improver that not only reduces the risk of corrosion and fouling in the fuel system, it also improves the long-term storage stability of low sulfur marine fuels.

Certified by Lloyds Register, this high-performance additive improves fuel lubricity, oxidation and thermal stability. Used regularly, it will ensure marine engines continue to operate as originally designed.



Lloyds Register certify the performance of this product