

## MARINE FUEL WATCH

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fuel specialties

The Newsletter for Innospec Fuel Specialties | IMO 2020 Edition

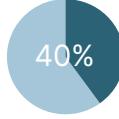
### Secure Your Refueling Strategy for IMO Compliance

#### Concerns Grow Over VLSFO Instability

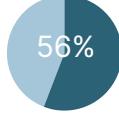
Major fuel suppliers and lab tests show unpredictable stability and compatibility with VLSFO. Despite compliance with ISO 8217 standards, significant issues may arise onboard. Testing over 35 compliant samples using Turbiscan revealed that:



Incompatibility occurs irrespective of mix ratio (50:50, 10:90, 90:10 etc).



40% of base VLSFO fuels are currently unstable when they are sold.



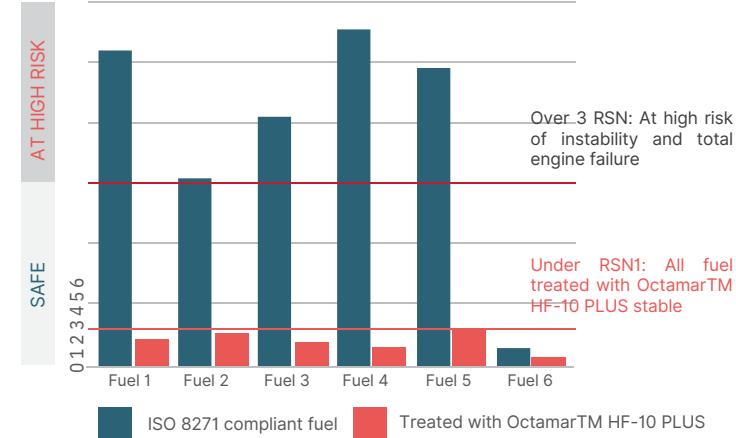
56% of VLSFO fuels become highly unstable when mixed in a tank.



> 90% fuels pre-treated with Octamar™ HF10 PLUS showed excellent stability.

A sample of ISO 8217 compliant fuel was mixed with five other samples in a 90:10 ratio to assess stability and compatibility. All combinations showed high instability risks. However, when treated with Octamar™ HF-10 PLUS, every fuel mix tested stable with no risk of instability. For detailed results, visit: [innospecinc.com/IMO2020](http://innospecinc.com/IMO2020).

*The Turbiscan Reserve Stability test, a widely used method, predicts a fuel's tendency to destabilize and form sludge. A Reserve Stability Number (RSN) over 3.0 indicates a high risk of instability.*



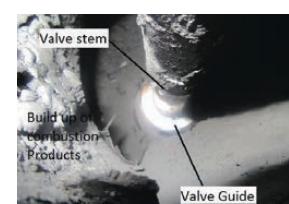
#### VLSFO Quality Varies

VLSFO differs widely by port and batch, even under the same classification. These fuels require specific storage, handling, and heating procedures due to their inconsistent quality.

- Significant variation exist in fuel composition, even under the same ISO category
- Traditional testing methods often fail to predict VLSFO stability accurately

#### Total engine failure

These images highlight a recurring issue. Despite being within ISO 8217 specifications, this VLSFO failed within four hours after being loaded into clean tanks and systems, leading to total engine failure. This is not an isolated case, as several reports have emerged of fuel system failures and engine damage when using 'on spec' fuels.



## Avoid Costly VLSFO Instability

VLSFO instability can lead to more than just wasted fuel. Returning the vessel to port, engine repairs, cleaning, and refueling can cost hundreds of thousands of dollars, not to mention the operational downtime and losses.

## Prevention is Key

Pre-treating fuel with Octamar™ HF-10 PLUS or Ultra HF effectively stabilizes VLSFO but won't reverse existing sludge. Once breakdown occurs, it's irreversible.

## Act Before Refueling

Claims against suppliers rarely succeed if their fuel meets spec. Major suppliers won't guarantee stability after expiry. Pre-treating fuel with Octamar™ is crucial for operator peace of mind and fuel stability.

## Understanding the Issue

VLSFO contains up to 90% unstable distillates prone to oxidation, causing new types of sludge. Stabilizing requires advanced chemistry.

## Cost-Effective Fuel Stability with Innospec

Pre-treating VLSFO addresses instability and mix incompatibility issues. Octamar™ HF-10 PLUS and Ultra HF are the only additives that safeguard against both distillate and asphaltene sludge, ensuring fuel reliability.

### Octamar™ HF-10 PLUS

**Octamar™ HF-10 PLUS ensures engine reliability by stabilizing fuel blends and minimizing sludge.**

- Enhanced fuel compatibility, especially with new or unknown fuels
- Enables safer fuel changeovers for ECAs
- Promotes stable combustion, reducing sludge for more efficient fuel burn
- Higher treat rates prevent injector fouling

### Octamar™ Ultra HF

**Octamar™ HF-10 PLUS optimizes VLSFO use by improving blend stability, combustion, and reducing soot formation**

- Offers combined combustion and ignition benefits
- Ensures cleaner engine performance
- Boosts fuel economy and reduces exhaust system fouling
- Enhances fuel stability and compatibility across blends

## Leader in Fuel Additive Technology

**Innospec** helps the fuel industry tackle new challenges with reliable, innovative additives designed for land, sea, and air applications. Operating across 23 countries with 2,000 employees, Innospec delivers proven, custom solutions that enhance fuel performance. Their commitment to quality keeps them ahead of competitors.

As the official distributor for Hong Kong and South China, **The Hostmost Group** proudly partners with Innospec to offer world-class, high-performance marine additives, ensuring vessels operate efficiently and meet global standards.

