



THERMAL STABILITY FUEL OIL TREATMENT FOR VLSFO/HFO

The World's Most Advanced VLSFO/HFO Treatment Solution

PMAX INCREASE • SLUDGE REDUCTION • DEPOSIT PREVENTION • EMISSIONS CONTROL

PRI-RS is a scientifically designed additive chemistry formulated to successfully overcome the challenges associated with today's VLSFO/HFO fuel qualities worldwide. Poor stability & compatibility, compromised ignition quality, PMAX improvements and increased sludge precipitation are but a few of the negative impacts associated with this trend in fuel degradation.



One Product for Optimum Performance

- **PMAX INCREASE – SFOC REDUCTION:** **PRI-RS** elevates peak firing pressure (PMAX) in a range of 4-to-6 bars. In so doing, specific fuel oil consumption (SFOC) is reduced 1.0-to-1.5 percent (0.25% reduction for every bar PMAX increase).
- **SLUDGE REDUCTION:** **PRI-RS** contains a series of highly effective dispersant chemistries verified to inhibit organic fuel sludge by as much as 50 percent. Not only are fuel delivery systems kept sludge free, the fuel value recovered provides a very significant return on investment.
- **CARBON & VANADATE DEPOSIT PREVENTION:** **PRI-RS** greatly reduces post-combustion carbon and soot. Highly effective vanadium control chemistries prevent formation of low melting point vanadates - preventing damaging high temperature corrosion.
- **EMISSIONS COMPLIANCE:** The cleaner combustion proven with **PRI-RS** results in greatly reduced visible smoke (particulate reduction), and major reductions in other emissions – ensuring compliance with Marpol Annex VI standards.

Tested & Proven

- **MAN B&W MARPOL ANNEX VI TESTING:** Rigorous testing by the engine maker Man B&W under Marpol Annex VI protocol verifies **PRI-RS** capability to improve combustion and dramatically reduce harmful products of combustion.
- **WARTSILA/SULZER COMPLIANCE:** **PRI-RS** chemistry has been reviewed and deemed safe to use by Wartsila, meeting the company's demanding standards. Stocks are available worldwide. Call PRI today to discover the myriad of ways to optimize fleet performance.

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SPECIFICATIONS	
Color & Appearance:	Amber Liquid
Odor:	Sharp Petroleum Odor
Boiling Point:	213 C.
Flash Point:	65 C.
Specific Gravity:	0.78 - 0.81
Water Solubility:	Insoluble
USA DOT ID Number:	UN 1268
Class/Division:	Combustible Liquid
IMDG:	Not classified as dangerous under IMDG regulations.
IATA:	Not classified as dangerous under IATA regulations.

Dosage Rate:

PRI-RS is dosed at the rate of 1:4000. The fixed dosage rate concept was developed in consideration of the fact that fuel oil quality is widely variable.

PRI-RS is formulated to address not only normal fuel oil combustion behavior, but combustion behavior that results from a matrix of “worst case” conditions that negatively affect normal engine operation. Among these often-hidden conditions are blending incompatibilities, off spec or poor quality fuels, reduced ignition quality, and adverse Sodium/Vanadium (Na/V) ratios.

Dosage Method:

Power Research Inc. recommends dosing via air vent/manhole or via transfer pump 30 minutes or less before bunkering begins. This is preferred as the optimum method to provide early prevention of organic sludge precipitation – hence preventing typical losses in fuel value.

Quality Control:

PRI-RS is manufactured in accordance with strict, chemical manufacturing standards. Each blend is numbered, and a retain sample is FTIR tested against a laboratory standard to ensure optimal conformance.

Miscibility:

PRI-RS is a highly complex blend of organic chemistries that once blended with fuel oil, will not stratify or separate, even with fuel purification. In fact, purification systems remain cleaner and more efficient when processing **PRI-RS** treated fuel oils.