E**∦onMobi**l

ExxonMobil Premium HDME 50

ExxonMobil Commercial Fuel , Chad

PRODUCT DESCRIPTION

ExxonMobil Premium HDME 50 is an Emission Controlled Area (ECA) compliant fuel which combines some of the unique features of a heavy fuel oil (HFO) with th a marine gas oil (MGO).

It has better ignition qualities compared with HFO and also possesses inherent lubricity characteristics. These characteristics ensure peak combustion and minimize on internal moving parts within the fuel system that rely on the fuel for lubrication. ExxonMobil Premium HDME 50 has a viscosity higher than MGO resulting in handling of fuel switch-over operations and also optimizing proper injection viscosity and fuel atomization with an increased engine operational efficiency. Th means that chillers are not required to be installed.

FEATURES AND BENEFITS

- Higher viscosity compared to MGO, meaning easier handling compared with MGO. No requirement for chillers/coolers to be installed
- No residual material. Cleaner engines without cat-fines and low ash build up in engine
- Higher flashpoint compared with MGO providing safer handling in boilers
- Excellent ignition quality
- Better volumetric energy content of the new fuel compared with MGO
- Excellent lubricity
- Meets and exceeds ISO 8217:2017 RMD 80

APPLICATION

- For vessels running in a 0.10% sulphur ECA compliant environment.
- A pour point closer to HFO means that the product is to be stored in heated tanks and treated in heated fuel systems.
- When sulfur levels over 1.00% are present, comingling 10% -15% or greater with low sulfur HFO may result in asphaltene precipitation due to the reduced sc action of the product. Since it is impossible to identify all crude sources from previous fuels bunkered operators should take a cautious approach and limit com of ExxonMobil Premium HDME 50 and existing low sulfur HFO to 2% or less.
- Cetane Index is not an applicable measure of ExxonMobil Premium HDME 50 ignition qualities and CCAI is used instead. Likewise the product is not clear and but green / brown in color. This coloration is due to the refining and processing of the fuel and is not an indication of residual product in the fuel.

TYPICAL PROPERTIES

| Kinematic Viscosity | |
|-----------------------------------|-----------|
| cSt @ 50°C | 30 - 45 |
| Density @ 15°C kg/m ³ | 900 - 915 |
| Cetane Index | N/A |
| CCAI | 795 - 810 |
| Sulfur Content, mass % | <0.10 |
| Flash Point, °C | > 70 |
| Hydrogen Sulfide, mg/kg | <1 |
| Acid Number, mg KOH/g | < 0.1 |
| Total Sediment - existent, mass % | < 0.01 |
| Total Sediment - aged, mass % | 0.01 |
| Oxidation Stability, mass % | < 0.01 |
| Carbon Residue, mass % | < 0.30 |

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| Kinematic Viscosity | |
|-------------------------|------------------------|
| Pour Point, °C | 6-12 |
| Appearance | Brown / green , opaque |
| Water, vol % | 0.05 |
| Ash, mass % | < 0.01 |
| HFRR lubricity, microns | <320 |
| Vanadium, mg/kg | <1 |
| Sodium, mg/kg | <1 |
| Al + Si, mg/kg | <5 |
| Ca, mg/kg | <1 |
| Zn, mg/kg | <1 |

HEALTH AND SAFETY

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application, followir recommendations provided in the Safety Data Sheet (SDS). SDSs are available upon request through your sales contract office, or via the Interr http://www.exxonmobil.com. This product should not be used for purposes other than its intended use. If disposing of used product, take care to prote environment.

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05-2020 Exxon Mobil Corporation ExxonMobil House Ermyn Way Leatherhead Surrey, UK KT22 8UX

800 662-4592

Due to continual product research and development, the information contained herein is subject to change without notification. Typical properties may vary slightly

