

# Ocean Guard MDCL 4050

High Performance Monograde - Marine Diesel Engine Cylinder Oil (MDCL)

## Product Data Sheet



### Product Description

Ocean Guard MDCL 4050 is extra high performance 40 TBN marine diesel engine cylinder oil formulated with premium quality base stocks and high performance additive detergent & special anti-wear technology. This cylinder oil ensures optimum performance and excellent protection in low speed 2-stroke marine diesel engines, operating on severe residual fuels & HFO with high sulfur content in range of 1.0% to 2.5%. It is designed to provide excellent anti-wear properties to potentially reduce liner & ring wear and demonstrate outstanding anti-scuffing property under severe operating conditions. This MDCL eliminates the need of vessels for lubricant change, when sailing in and out of ECAs.

### Features & Benefits

- Excellent oxidation & thermal stability of oil reduces deposits formation on cylinder liners and ring belt areas.
- Outstanding anti-scuffing property provides excellent protection against ring and liner wear.
- Outstanding detergency ensures potentially cleaner pistons and liners, which helps in extending period between engine overhauling.
- High TBN reserves, helps in rapid neutralization of strong acidic combustion products and provides long term protection against corrosive wear of ferrous & non-ferrous metals.

### Specifications

**Ocean Guard MDCL 4050 meets or exceeds following International and Builder specifications:**

- MAN B & W (Cross head marine diesel engine)
- Wartsila (Cross head marine diesel engine)
- Mitsubishi MHI (Cross head marine diesel engine)

### Application

- High TBN Cylinder oil suitable for lubricating low speed cross head diesel engines used in heavy duty marine propulsions, burning on residual fuel oils with sulfur content in range of 1.0% up to 2.5%.
- Suitable for use in latest & old model Vessels – Containers, bulkers and tankers.
- It is best suitable for vessels sailing in and out of Emission Control Areas (ECA).

### Typical Characteristics

Ocean Guard MDCL	Test Method	Units	4050
SAE Grade	--	--	50
Density @ 15 °C	ASTM D 4052	gm/cc	0.935
Viscosity @ 100 °C	ASTM D 445	cSt	20.4
Viscosity @ 40 °C	ASTM D 445	cSt	240.9
Viscosity Index	ASTM D 2270	-	99
Pour Point	ASTM D 97	°C	-15
Flash Point (COC)	ASTM D 92	°C	276
Total Base Number	ASTM D 2896	mg KOH/g	40

*The above figures are typical of blends with normal production tolerance and do not constitute a specification.*