

## Hanasaki Marine Cylinder Oil Series

### *Premium Quality Marine Cylinder Oil*

#### Product Description

Hanasaki Marine Cylinder Oil (MCO) Series of lubricants are premium quality marine cylinder lubricants designed to provide outstanding protection for modern low speed crosshead diesel engines operating on residual fuels having sulphur content of up to 3.5%. These oils are specially formulated for diesel engines operating with higher pressure and temperatures and longer strokes. They are available in SAE 50 viscosity grade with a BN (Base Number) of 40 – 100. The Hanasaki MCO series of oils provide outstanding acid neutralization capability and excellent engine cleanliness and durability.

#### The Hanasaki Marine Cylinder Oil Series of marine cylinder lubricants provide the following benefits:

- 1) Superior protection against excessive piston rings and cylinder liner wear
- 2) Superior detergency and dispersancy to ensure exceptional engine cleanliness, hence reducing maintenance cost
- 3) Excellent thermal and oxidative stability
- 4) Excellent storage stability in condition on-board vessels
- 5) Maintains oil film under severe, high load conditions thus reducing frictional wear and preventing scuffing of lines, piston and rings
- 6) Extended oil drain intervals to allow reduce lay-up time

#### Typical Properties

Product Name	Hanasaki MCO 5040	Hanasaki MCO 5050	Hanasaki MCO 5070	Hanasaki MCO 5080	Hanasaki MCO 50100
BN (Base Number)	40	50	70	80	100
SAE Viscosity Grade	50	50	50	50	50
Viscosity @ 40°C (ASTM D445) , cst	212	213	215	217	220
Viscosity @ 100°C (ASTM D445) , cst	19.0	19.1	19.2	19.4	19.5
Viscosity Index (ASTM 2270)	100	100	100	101	102
Pour Point (ASTM D97) , °C	-9	-9	-9	-9	-9
Flash Point (ASTM D92) , °C	242	243	242	245	245
Density @ 15°C (ASTM D4052) , kg/l	0.922	0.923	0.925	0.926	0.934

#### Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended applications and the recommendations provided in the Material Safety Data Sheet (MSDS). MSDS is available upon request through your sales contact at Hanasaki. This product should not be used for purposes other than its intended use. When disposing of used product, please take care to protect the environment.