

# Hanasaki Marine System Oil Series

*Premium Quality Marine System Oil*

## Product Description

Hanasaki Marine System Oil (MSO) Series of lubricants are high performance multi-purpose crankcase and marine diesel engine oils designed as system oils for large low-speed crosshead marine engines in both marine and stationary applications. These oils are manufactured using the finest quality base oils and advanced additive packages to provide excellent engine cleanliness, especially in the hottest parts of the crosshead engine piston and in the crankcase area. They provide excellent high temperature thermal and oxidation stability, low volatility and superior wear and corrosion protection.

## The Hanasaki Marine System Oil Series of lubricants provide the following benefits:

- 1) Excellent thermal and oxidation stability to effectively combat oil degradation in areas such as piston undercrown, especially for piston cooling and thus, ensuring long oil life and good oil consumption control
- 2) Excellent detergency/dispersancy additive system provides exceptional engine cleanliness by effectively control varnish, lacquer and other common engine deposits resulting in reduced maintenance cost
- 3) Optimum level of alkalinity reserve provides effective neutralization of acidic combustion by-products (which enter the crankcase due to leaks in the connecting rod seas) to protect bearings and metal components against corrosive wear

## Typical Properties

Product Name	Hanasaki SO 3005	Hanasaki SO 3006	Hanasaki SO 3008
BN (Base Number)	5	6	8
SAE Viscosity Grade	30	30	30
Viscosity @ 40°C (ASTM D445) , cst	109	109	109
Viscosity @ 100°C (ASTM D445) , cst	11.9	11.9	11.9
Viscosity Index (ASTM 2270)	96	96	96
Pour Point (ASTM D97) , °C	-6	-6	-6
Flash Point (ASTM D92) , °C	250	252	253
Density @ 15°C (ASTM D4052) , kg/l	0.893	0.895	0.897

## 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.