

# EPPCO BAHRI MSD

## PRODUCT DESCRIPTION

**EPPCO BAHRI MSD** are a range of generation III high performance engine oils for all types of marine medium speed diesel engines operating on high sulphur residual fuels. They have been developed from the latest complex dispersant and detergent technology to provide long lubrication life and enhanced engine performance in particular in low emission engines and those with anti-bore glazing piston designs.

## APPLICATIONS

- ◆ A range of high Total Base Number oils for use in Trunk Piston Engines burning variable quality residual fuel with high sulphur content available in the market
- ◆ Provide gear lubrication qualities for reduction gear applications where similar viscosities might be used
- ◆ Suitable for high output turbocharged engines
- ◆ It is recommended that BAHRI MSD oils are suitable for centrifuging and/or filtered in accordance with the manufacturers instructions

## PERFORMANCE STANDARDS

Meets the requirements of 4-stroke Wartsilla , MAN and other marine engines applications.

## BENEFITS

### BAHRI MSD provides:

- ◆ Suitability for engines using high sulphur residual or distillate fuels
- ◆ Superior resistance to oxidation and oil thickening
- ◆ Effective neutralisation of acidic combustion products
- ◆ Proven detergent/dispersant technology to reduce deposit formation
- ◆ Long engine and oil service life
- ◆ Excellent centrifugal separator operation

Technical Data*						
Product Grade	320	330	340	350	355	420
SAE Viscosity	30	30	30	30	30	40
Density @ 29.5 deg. C	0.8881	0.8941	0.9001	0.914	0.9152	0.8924
Kinematic Viscosity, mm <sup>2</sup> /s @ 100°C	11.66	12.23	12.09	11.66	12.09	14.55
Kinematic Viscosity, mm <sup>2</sup> /s @ 40°C	104.3	110.3	107.2	104.3	107.2	147
Flash Point COC °C	240	256	258	240	250	258
Pour Point, °C	-15	-15	-15	-15	-15	-15
Total Base Number, ASTM D2896	20	30	40	50	55	20
FZG fail stage (A8.3/90)	12	12	12	12	12	12
Sulphated Ash %	2.3	3.45	4.61	5.74	6.3	2.3
Product code	352019	352003	352012	352018	352013	352010

<b>Technical Data*</b>						
<b>Product Grade</b>	<b>430</b>	<b>440</b>	<b>450</b>	<b>455</b>	<b>530</b>	<b>540</b>
SAE Viscosity	40	40	40	40	50	50
Density @ 29.5 deg. C	0.8986	0.9044	0.9099	0.91	0.9053	0.9097
Kinematic Viscosity, mm <sup>2</sup> /s @ 100°C	15.16	14.84	14.9	14.92	20.18	20.18
Kinematic Viscosity, mm <sup>2</sup> /s @ 40°C	151	139.5	148	140.8	228	228
Flash Point COC °C	252	254	258	258	252	252
Pour Point, °C	-15	-15	-15	-15	-15	-15
Total Base Number, ASTM D2896	30	40	50	55	30	40
FZG fail stage (A8.3/90)	12	12	12	12	12	12
Sulphated Ash %	3.45	4.61	5.74	6.3	3.45	4.61
Product code	352005	352002	352020	352014	352015	352016

\*The information prepared provides the typical properties that are considered as representative. Some variation which will not affect performance is possible

#### **HEALTH AND SAFETY, ENVIRONMENT**

The information on this product is available in the ENOC Material Safety Data Sheet (MSDS) as a guide to the precautions and safe handling of this product and its disposal. For further information we recommend you review the MSDS. Handled correctly there are no special precautions suggested.