



## MARINE SYSTEM OIL

# BRAVOIL™

### Technical Data Sheet

## MARINE SO 630, SO 640

#### PRODUCT DESCRIPTION:

MARINE SO 630 and SO 640 are premium quality multi-purpose system oils designed, primarily for low-speed, crosshead marine diesel engines operating on residual fuels. They are alkaline oils giving the highest levels of protection in a wide variety of engine and shipboard applications.

#### APPLICATION:

- Crankcase System of low speed, crosshead, and marine diesel engines operating on residual fuel
- Main and Auxiliary trunk piston diesel engines burning distillate fuels
- Turbochargers
- Geared transmission
- Oil Lubricated Stern tubes
- Variable Pitch propellers
- Deck Machinery
- Other ancillary equipment requiring an SAE 30 or 40 Oil

#### FEATURES & BENEFITS:

- Excellent thermal and oxidation stability
- Excellent dispersancy
- Good Alkalinity
- Good water shedding properties
- Excellent resistance to corrosion

#### MEETS OEMs:

- MAN
- Wartsila
- MHI

#### TYPICAL PROPERTIES:

| PARAMETERS                        | TEST METHOD | UNIT              | MARINE SO 630 | MARINE SO 640 |
|-----------------------------------|-------------|-------------------|---------------|---------------|
| Grade                             |             |                   | 30            | 40            |
| Kinematic Viscosity @ 104°F/40°C  | ASTM D445   | cSt               | TBR           | TBR           |
| Kinematic Viscosity @ 212°F/100°C | ASTM D445   | cSt               | 11.0          | 14.5          |
| Viscosity Index (min)             | ASTM D2270  | -                 | 95            | 95            |
| Density @ 60°F                    | ASTM D4052  | g/cm <sup>3</sup> | TBR           | TBR           |
| Flash Point (min)                 | ASTM D92    | °C                | 220           | 220           |
| Pour Point (max)                  | ASTM D97    | °C                | -9            | -9            |

#### DISCLAIMER:

The test data provided is not a final specification; rather, it serves as a guideline and may vary within acceptable production tolerances. Bravoil reserves the right to modify this test data. Any updates will supersede previous versions, so please refer to the most recent Technical Data Sheet (TDS).

#### HEALTH & SAFETY, ENVIRONMENT:

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further Information on Safety Guidelines please refer to MSDS available on our website [www.bravoil.ae](http://www.bravoil.ae)

#### HEALTH & SAFETY:

This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet [www.bravoil.ae](http://www.bravoil.ae)

#### PROTECT THE ENVIRONMENT:

Take used oil to an authorized collection point. Comply with local regulation. Do not discharge into drains, soil or water.

#### STORAGE:

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.