Technical Data Sheet

Shell **Nautilus** *Premium Outboard*

Two-stroke premium outboard oil

Nautilus Premium Outboard Oil is a high performance lubricant for the protection of two-stroke gasoline outboard motors.
Its advanced formulation, which exceeds all outboard motor manufacturers' standards, is a guarantee of long and reliable engine life.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- Shell Nautilus Premium Outboard Oil exceeds the requirements of all major outboard motor manufacturers and all industry specifications.
- Certified by NMMA (National Maritime Manufacturers' Association) for service TC-W3 at the manufacturer's recommended fuel/oil ratio (up to 100:1).

Main Applications

- All two-stroke gasoline outboard motors with or without separate oil tanks.

Specifications, Approvals & Recommendations

- NMMA Certified TC-W3®
- Certified by NMMA (National Marine Manufacturers Association) for service TC-W3® at the manufacturer's recommended fuel/oil ratio (up to 100:1) (Consult your local Shell Technical Helpdesk for NMMA registration number)

  For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

Typical Physical Characteristics

Properties			Method	Shell Nautilus Premium Outboard
Kinematic Viscosity	@40°C	mm^2/s	ASTM D445	55
Kinematic Viscosity	@100°C	mm^2/s	ASTM D445	8.9
Density	@15°C	kg/m^3	ASTM D4052	870
Flash Point (PMCC)		°C	ASTM D93	70
Pour Point		°C	ASTM D97	-35
Sulphated Ash		% wt	IP 163	0.01

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

- **Health and Safety**

  Shell Nautilus Premium Outboard Oil is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

  Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

  Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from https://www.epc.shell.com

- **Protect the Environment**

  Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Self-Mixing Properties**

  Shell Nautilus Premium Outboard Oil is a self-mixing oil. It is blended to the correct viscosity for use in oil injection systems fitted to two-stroke gasoline outboard motors.

- **Advice**

  Advice on applications not covered here may be obtained from your Shell Lubricants distributor representative or Shell Technical Helpdesk.