

BIOMARINE OUTBOARD TWO STROKE OIL

Synthetic Marine 2 Stroke Engine Oil

Issue: February 2016

Product Code	Pack Size	Carton Qty
BIOOUTBTS001*	1 Litre	6
BIOOUTBTS005	5 Litre	4
BIOOUTBTS020	20 Litre	1
BIOOUTBTS205	205 Litre	1

^{*}Chamber Pack

Description

Biomarine Outboard Two Stroke Oil is a full synthetic, NMMA (National Marine Manufacturers Association) TC-W3®, fully licensed & registered 2-stroke engine oil. It is a highly biodegradable, low smoke, clean burning oil, formulated with a synthetic ester base oil and an ashless additive package meaning soot and other combustion chamber deposits are minimised. It has improved lubricity and anti-oxidation resistance and offers less environmental impact than conventional 2 stroke motor oils.



Application

Biomarine Outboard Two Stroke Oil is recommended for all types of 2-stroke water cooled outboard motors and Jet Skis and can be used in direct injection engines as well as premix systems at mixing ratios as specified by manufacturer requirements (up to 100:1).

Biomarine Outboard Two Stroke Oil is suitable as an upgrade to *Marine Outboard Two Stroke Oil*. It is Penrite's prime recommendation for the following applications:

- Evinrude E-TEC engines (may need appropriate reprogramming)
- Mercury & Mariner Optimax outboards
- All Nissan 2 stroke outboards
- Tohatsu TLDI Automix outboards

It can also be used in engines from popular manufacturers such as:

Johnson Chrysler Parsun Suzuki Volvo Penta Yamaha

Please Note: Not intended for the high combustion temperatures that can occur in land-based air cooled 2-stroke engines or Sea-Doo Jet Skis (use Penrite MC-2ST Full Synthetic Two Stroke Oil).

Product Benefits

- Low smoke, clean burn performance
- Exceptional wear protection, lubricity and anti-oxidation resistance
- Excellent engine cleanliness
- Biodegradable
- Reduces combustion chamber deposits

Environmental Impact

- Readily biodegradable; 69% according to OECD 301B testing
- Toxicity to aquatic organisms is low
- Meets Canadian Environmental Choice, ICOMIA 27-97, NATO O-1177 and the French military DCSEA 242/C standards.

Approvals

NMMA TC-W3® Registration Number RL-90041R

Industry Specifications

API TC+ NATO O-1177 DCSEA 242/C











Typical Data

Colour	Blue
Density at 15°C, kg/L	0.940
Viscosity, Kinematic, cSt	
at 40°C	47
at 100°C	8.2
Viscosity Index	149
Sulphated Ash, mass %	<0.10
Flash Point, °C	258
Biodegradability, OECD 301B, %	69
Biodegradability, CEC L33 A93, %	82
Base Number, mass %	4.0

Information in this sheet is based on recent production. Minor variations to typical properties are expected in normal manufacture and do not affect product performance. An MSDS is available on request.





