

Product data

Biolube 100

Product Description

Castrol Biolube 100 is a superior quality, NMMA TC-W3(TM) approved, synthetic based lubricant that is specially formulated for high powered, water cooled, two stroke outboard engines.

Castrol has developed **Castrol Biolube 100** to provide a high level of protection and performance at fuel/oil mixture ratios of up to 100:1, where a conventional mineral outboard oil is used at 50:1.

Winner of the Pollution Abatement Technology Award in 1985, **Castrol Biolube 100** has been specially developed to meet increasing environment demands of biodegradability, low hydrocarbon emissions and low toxicity.

Product Application

Castrol Biolube 100 is our prime recommendation for outboard and jet ski engines used in competition. Petrol/oil ratios are much lower in racing than for unmodified engines used for normal boating. **Castrol Biolube 100** has been successfully used around the world in competition engines. The appropriate petrol/oil ratio will depend on the degree of engine modification and maximum engine speed. Higher petrol/oil ratios can be used for lower engine speeds.

NOTE 1: Modified engines in outboard and jet skis should use petrol/oil ratios as per competition applications whether involved in competition or not.

NOTE 2: Many manufacturers have revised their lubricant recommendations for two stroke outboard engines to NMMA TC-W3(TM) for 1992/93 models onwards, **Castrol Biolube 100** is a qualified TC-W3(TM) lubricant Licence Number 3-51020. **Castrol Biolube 100** may be used where either TC-W3(TM), TC-WII(R) or TC-W lubricants are specified.

Castrol recommends **Castrol Biolube 100** for all water cooled outboard engines, both premix and oil injection, including Yamaha, Mercury, Johnson, Evinrude, Suzuki, Chrysler and Tohatsu.

In engines where less than 50:1 is recommended e.g. 40:1 then the maximum fuel/oil ratio should be 80:1. **Castrol Biolube 100** should not be used in premix petrol/oil ratio of more than 100:1. **Castrol Biolube 100** is also recommended for oil injected outboards and will give outstanding engine cleanliness, lubrication and rust protection.

Following is a guide to suitable petrol/oil ratios for modified and or competition engine applications. If manufacturers have specific recommendations for competition applications these should be followed.

- ◆ Highly developed engines with maximum engine speeds in excess of 7500 rpm 20:1.
- ◆ Modified engines with maximum engine speed less than 7500 rpm 30-35:1.

It is suitable for all two stroke outboard engines including the latest models whether in competition or normal service. These petrol/oil recommendations apply to **Castrol Biolube 100** and are not applicable to mineral based outboard oils.

Product Features & Benefits

Castrol Biolube 100 is formulated with a synthetic high performance base fluid and contains selected ashless additives to give excellent:

- ◆ Lubricity and resistance to scuffing
- ◆ Piston cleanliness and deposit control
- ◆ Thermal stability
- ◆ Resistance to plug fouling and pre-ignition
- ◆ Anti-wear performance
- ◆ Protection against rust and corrosion
- ◆ Low temperature fluidity for oil injection systems
- ◆ Proven 100:1 performance in OMC and Mercury engines in normal service (unmodified engines).

Typical Characteristics

Grade	KV @ 100°C cSt	KV @ 40°C cSt	Total Base Number	Closed Flash Point °C	Pour Point °C	Sulphated Ash % mass	Colour
20	7.8	42	12	65	-35	0.12	Green

The above data is typical and does not constitute a specification

Petrol Mixing Table

Ratio Petrol to Oil	Litres of Petrol to mL				
	5 litres	10 litres	20 litres	50 litres	100 litres
16:1	315mL	625mL	1.25L	3.13L	6.25L
20:1	250mL	500mL	1L	2.5L	5.0L
25:1	200mL	400mL	800mL	2.0L	4.0L
30:1	170mL	335mL	670mL	1.7L	3.35L
32:1	155mL	315mL	625mL	1.56L	3.12L
35:1	145mL	285mL	570mL	1.43L	2.85L
40:1	125mL	250mL	500mL	1.25L	2.5L
50:1	100mL	200mL	400mL	1L	2L
75:1	70mL	135mL	270mL	670mL	1.35L
80:1	65mL	125mL	250mL	625mL	1.25L
100:1	50mL	100mL	200mL	500mL	1L

Biodegradability Properties

The biodegradability of **Castrol Biolube 100**, in comparison with conventional mineral based outboard oils, has been assessed by the latest European Test Method for biodegradability of Outboard Oils (CEC-L-33-T-82). **Castrol Biolube 100** gives a result for biodegradability over three times higher than that of conventional outboard oils.

Toxicity

The toxic properties of **Castrol Biolube 100** dispersed in water were determined with respect to fish, algae and daphnia (a water flea) and showed low toxicity.

Health, Safety & Environment

Castrol Biolube 100 is considered non-hazardous according to Worksafe. However, in line with safe handling practices, it is recommended that the handling instructions outlined in the Castrol Material Safety Data Sheet be followed.

Spillage

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| Small: | Soak up using an inert mineral adsorbent such as Castrol Diatomaceous Earth and dispose of in the appropriate manner. |
| Large: | Corrective action usually dictated by individual company safety procedures. Immediate containment and subsequent removal is essential. |
| Disposal: | Oily materials must not be allowed to enter groundwater, watercourses, sewerage or drainage systems. Refer to local Waste Disposal Authority for legal requirements. |

Product Removal

- Bare Metal Surfaces:** Remove with Castrol solvent cleaners or water based degreasers.
- Hand Cleaning:** Use any of the Castrol range of hand cleaners, e.g. CareClean Plus.
- Other Surfaces:** Contact your local Special Products Division in each State Office.

Although all reasonable care has been taken to ensure that the information contained in this publication is accurate as at the time of printing, such information is nevertheless liable to variation in the event of changes occurring subsequent to the date of printing it: the blend formulation, methods of storage, or due to the improper handling or application of any of the products referred to, or in the requirements of any specification or approval relating to any of the products.

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