Esso Imperial Oil

Product Data Sheet

EASYMIX, SNOWMOBILE, OUTBOARD

GASOLINE 2-CYCLE ENGINE OILS

May 2009

Imperial Oil offers a complete line of oils formulated specifically for 2-cycle engines, which covers three distinct, service-specific applications.

EASYMIX

- **Recommended for applications requiring ISO GD, JASO FC, JASO FB, API TC, Low ash formulation**
- **Synthetic blend formulation with low smoke, and low odour.**
- **Suitable for both oil injection and pre-mix applications**

ESSO SNOW MOBILE

- **Recommended for snowmobiles requiring ISO GD, JASO FC , API TC, low ash formulation**
- **Formulated to give low temperature protection to -40°C**
- **Suitable for both oil injection and pre-mix applications**
- **Low smoke, Low odour, synthetic blend formulation**

ESSO OUTBOARD OIL

- **Recommended for engine oils requiring TC-W3 quality oils including outboard engines and snowmobiles**
- **Formulation meets low toxicity standards**
- **Meets low smoke standard in JASO FC**
- **Suitable for both oil injection and pre-mix applications**
- **Formulated to give low temperature protection to -40°C for snowmobiles**

Primary Applications

EASYMIX- Recommended choice for use in air cooled 2 cycle engines including those on motorcycles, generators, lawn and garden equipment. EASYMIX is recommended for applications requiring a low ash ISO GD, JASO FC or API TC quality oil. Suitable for both injection and premix fueled engines.

ESSO SNOWMOBILE OIL - Recommended for Snowmobiles requiring ISO GD, JASO FC or API TC quality oil. Due to its very good low temperature performance, it will perform well in injection systems to below -40°C. However, at very low temperatures it is recommended to premix oil with the fuel at 50:1 for added protection.

ESSO OUTBOARD OIL - Recommended for water cooled and liquid cooled engines requiring TC-W3 quality oils. Suitable for 2 cycle outboard engines and snowmobiles requiring TC-W3. Suitable for both oil injection and premix applications

Performance Features

EASYMIX is a low ash (0.25% ash) 2-cycle lubricant designed for use in air-cooled engines. The fully field tested formulation contains an effective additive package to control engine wear, ring sticking and to maintain engine cleanliness in severe service. It also controls corrosion, pre ignition, plug fouling and port plugging. EASYMIX synthetic blend formulation meets the requirements of ISO GD, JASO FC and API TC. It is also formulated to ensure fluidity at -40 °C.

ESSO SNOWMOBILE OIL is designed to meet the high performance demands of modern snowmobiles. The low ash (0.25% ash) formulation controls carbon and varnish deposits in hard running operation in the coldest climates. ESSO SNOWMOBILE OIL can be used in gasoline:oil ratios up to 100:1 where approved by the engine manufacturer. It is recommended for both oil injection and premix fueled engines, either air or liquid-cooled. The synthetic blend formulation is both low smoke and low odour.

ESSO OUTBOARD OIL is a premium quality ashless lubricant designed specifically for use in water-cooled 2-cycle engines. It exceeds the NMMA specification TC-W3 and will satisfy manufacturer's warranty requirements. The formulation meets the low smoke part of JASO FC and also the most severe SAE low temperature requirement FM 4 required for snowmobile applications. The formulation is designed to control corrosion, pre-ignition, plug fouling, port plugging, ring zone deposits, piston scuffing and wear. It is recommended for use in any 2-cycle engine that specifically requires an ashless type oil. Where approved by the engine manufacturer, ESSO OUTBOARD OIL is recommended in gasoline:oil ratios up to 100:1.

Which Oil Is Right For You?

Imperial Oil offers 3 oils because there are different requirements in the field. Air cooled 2 cycle engines operate at high temperatures and the low ash formulations are required to control deposits when these engines work hard as in chain saw applications. Ashless formulations (i.e. TC-W3) do not keep air-cooled engines as clean under these severe conditions.

Water-cooled outboard engines operate at lower temperatures and the low ash formulations cause ash deposits to form around the piston and cause ring sticking. The ashless formulations do not create these deposits in water cooled engines and are the required product for this application.

Snowmobile engines can be either air cooled or liquid cooled. Hence some prefer a low ash formulation and some prefer an ashless formulation. Therefore checking the owner's manual is required to ensure the right oil is used. Some liquid cooled snowmobiles recommend TC-W3 oils (i.e. Outboard) and some recommend API TC low ash quality (i.e. Snowmobile).

Mixing Instructions

Proper mixing is essential to ensure the correct gasoline to oil ratio is delivered to the engine. The following suggestions are recommended to ensure that complete and proper mixing occurs;

Mix gasoline & oil before adding to the fuel tank
Add the oil to the empty container, then add gasoline.
After adding gasoline, agitate container thoroughly.

Precautions

Imperial Oil's 2-cycle engine oil line is manufactured from high quality petroleum base stocks, carefully blended with selected additives. As with all petroleum products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact to skin, splashing into the eyes, ingestion or vapour inhalation. Special care is also recommended in handling used motor oils. An ESSO Service Data Sheet entitled "Safe Handling of Used Motor Oils" is available on request from your ESSO Representative. Please refer to the Material Safety Data Sheet for further information

Note: These products are controlled under Canadian WHMIS legislation (combustible liquid).

Typical Properties

	Outboard Oil	Snowmobile Oil	Easymix
Viscosity,			
cSt @ 40 °C	29	36	38
cSt @100°C	6.0	6.9	7.0
Pour Point, °C	-42	-45	-45
Flash Point, °C	80	70	70
Colour	Blue	Blue/Green	Blue/Green

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Mixing Table

Gasoline liters	16:1	20:1	24:1	32:1	40:1	50:1	100:1
5	310	250	210	155	125	100	50
10	625	500	420	310	250	200	100
15	940	750	625	470	375	300	150
20	1250	1000	830	625	500	400	200

Oil quantities are listed in millilitres. For example a 16:1 gasoline to oil mixture requires 310 ml of oil be added to 5 litres of fuel

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