

DATA BULLETIN

Saber® Professional & Outboard 100:1 Pre-Mix Synthetic 2-Cycle Oils

AMSOIL Saber Professional and Saber Outboard 100:1 Pre-Mix Synthetic 2-Cycle Oils are formulated with exclusive AMSOIL synthetic base oils and premium additives. Designed for lean mix ratios in two-cycle motors, Saber 2-Cycle Oils have excellent lubricity and cleanliness properties to control friction and help prevent wear, plug fouling, ring sticking and exhaust port blocking. Saber 2-Cycle Oils also feature an anti-rust formulation to counteract the damp environments often encountered in two-cycle applications. AMSOIL 100:1 Synthetic 2-Cycle Oils have been providing improved performance and protection in two-cycle motors since 1973.



Saber Professional (ATP) is specifically designed for small engines including, but not limited to, chainsaws, lawn equipment, blowers, chop saws, pumps, scooters and go-carts. It is available in a 3.5-oz. bilingual (English/Spanish) container, which is ideal for treating the 2 – 2.5-gallon gas cans commonly used for storing mixed gas on the job. Saber Professional also works well in motorcycles, snowmobiles, ATVs, jet boats and personal watercraft. Saber Professional is formulated with high-temperature detergent additives to help prevent hard carbon deposits from forming in these hot-operating motors. Saber Professional is "smokeless" and delivers fewer emissions at 100:1 mix ratios than oils mixed at 50:1. Equipment operators subjected to smoke and fumes will benefit from these low emission properties. Because one mix ratio satisfies multiple pieces of equipment, Saber Professional eliminates mix ratio confusion. Saber Professional is recommended for pre-mix where ISO-L-EGD, JASO FD or API TC is specified.

Saber Outboard

Specifically designed for outboard motors, Saber Outboard (ATO) contains a heavy dose of low-temperature dispersant additives that excel at reducing varnish and carbon deposit formation in water-cooled motors. Saber Outboard also performs well in personal watercraft, jet boats, motorcycles, snowmobiles and ATVs. Its low-smoke, low-odor, low-toxicity properties produce fewer emissions at 100:1 mix ratios than oils mixed at 50:1, benefitting operators and the environment. Saber Outboard is formulated to prevent "oil loading" and plug fouling for rapid throttle response, making it ideal for trolling motors. Recommended for pre-mix use where TC-W3 or API TC is specified.



TYPICAL TECHNICAL PROPERTIES

Saber® 100:1 Pre-Mix Synthetic 2-Cycle Oils (ATP & ATO)

| | ATP | AT(| 0 |
|---|------------|--------|------|
| Kinematic Viscosity @ 100°C, cSt (ASTM D-445) | 13.5 | 17. | 9 |
| Kinematic Viscosity @ 40°C, cSt (ASTM D-445) | 99 | 141 | .2 |
| Viscosity Index (ASTM D-2270) | | 141 | 1 |
| Pour Point, °C (°F) (ASTM D-97) | 36 (-33) | -33 (- | 27) |
| Flash Point, °C (°F) (ASTM D-92) | 114 (237) | 120 (2 | 248) |
| Fire Point, °C (°F) (ASTM D-92) | 114 (237) | 138 (2 | 280) |
| APPLICATIONS 2.6 oz. per 1 U.S | S. gallon | = 5 | 50:1 |
| | S. gallons | = 8 | 30:1 |
| ratios in normal service. Richer mix ratios may be used where desired. 1.3 oz. per 1 U.S. | o. ganon | = 10 | 00:1 |
| 8 oz. per 6 U.S | S. gallons | = 10 | 00:1 |

AMSOIL 2-CYCLE OIL RECOMMENDATIONS

| AMSOIL 2-Cycle Oil | Outboard | Snowmobile, Motorcycle & ATV | Personal Watercraft & Jet Boat | Chainsaw, Chop Saw & Pump | Weed Eater, Blower & Lawn Mower | Moped, Scooter & Go-Cart |
|---|---------------------------|---------------------------------|--------------------------------------|------------------------------|------------------------------------|-----------------------------|
| hp Injector* (HPI) TC-W3, APITC (Injection or 50:1 Pre-Mix) | Excellent (4) (5) | Very Good | Very Good | Not Recommended | Not Recommended | Not Recommended |
| INTERCEPTOR® (AIT) API TC, JASO FC (Injection or 50:1 Pre-Mix) | Not Recommended | Excellent (4) | Excellent (3) (4) | Good | Good | Good |
| DOMINATOR® (TDR) API TC, JASO FC (Injection or 50:1 Pre-Mix) | Racing (1) | Racing (2) | Racing (2) (3) | Very Good | Very Good | Very Good |
| Saber® Professional 100:1 Pre-Mix (ATP) ISO-L-EGD, JASO FD, APITC | Not Recommended | Very Good Pre-Mix Only | Very Good Pre-Mix Only (3) | Excellent | Excellent | Excellent |
| Saber® Outboard 100:1 Pre-Mix (ATO) TC-W3, API TC | Excellent Pre-Mix Only | Very Good Pre-Mix Only | Very Good Pre-Mix Only | Not Recommended | Not Recommended | Not Recommended |

Equipment manufacturers and motor builders have redesigned twocycle motors to reduce emissions and increase fuel economy. These changes have increased operating temperatures, reduced oil consumption and incorporated direct fuel injection and exhaust power valves. AMSOIL 2-Cycle Oils are designed to maximize performance in all types of engine designs and are optimized for select applications.

Even though AMSOIL 2-Cycle Oils have been optimized for specific applications, they are multi-functional and recommended for use in many areas. The chart rates each oil's performance abilities per application as follows:

Excellent: The primary recommendation for the oil. The oil is specifically designed for the operating conditions of the motors in these markets. There is only one "Excellent" recommendation per category.

Very Good: A main recommendation for the oil. Identifies an oil that is very good for the operating conditions of these motors.

Good: A secondary recommendation for an oil. The oil was not specifically designed for these applications. However, the chemistry in the oil is suited to the operating conditions of these motors.

Not Recommended: Identifies applications where the product was not intended for use.

NOTES:

- (1) Not recommended for long-term use in outboard motors as a TC-W3 type oil, although excellent as a racing oil for short term use where motors are periodically inspected.
- (2) Excellent for racing or modified motors. Very good for recreational use.
- (3) For applications calling for a TC-W3 product, use the recommendations listed under "Outboards."
- (4) Recommended for all direct fuel-injected (DFI), electronic fuel-injected (EFI) and carbureted motors.
- (5) Includes Mercury® Optimax®, Johnson® & Evinrude® FICHT® & E-ETEC™, Yamaha® HPDI, Nissan® & Tohatsu® TLDI®.

DANGER: Harmful or fatal if swallowed. Contains synthetic lubricant and petroleum distillates. If swallowed, do not induce vorniting. Contact a physician immediately. Avoid frequent or prolonged skin contact. Wash skin thoroughly with soap and water after handling. Avoid eye contact. Flush eyes with water for 15 minutes in case of contact. **KEEP OUT OF REACH OF CHILDREN.**



AMSOIL products and Dealership information are available from your local AMSOIL Dealer.

Brian Klinkner - Direct Jobber #1642716 - Ordering - 800-985-5823 - http://www.SyntheticOilDistributor.com