PRODUCT INFORMATION SHEET

WYNN'S SUPREME ENGINE PROTECTANT

Product Number: 64318 24 x 350 ml

WYNN'S SUPREME ENGINE PROTECTANT is a proprietary engine lubricant supplement that improves oxidation resistance, wear control, sludge control, corrosion control, and engine cleanliness while reducing friction wherever metal-to-metal contact occurs. Wynn's Supreme Engine Protectant is used to increase the potency of engine oil at an oil change or an oil revitaliser between oil changes. Wynn's Supreme Engine Protectant will not thicken oil at high or low temperatures.

Advantages

Wynn's Supreme Engine Protectant is designed to be a multi-purpose crankcase additive that can be used in new and old engines, both petrol and diesel fuelled. This product is formulated to provide the following benefits listed under each basic chemical ingredient.

POLYMER

- Reduces oil consumption past worn parts.
- Provides a cushion between worn parts, helping to reduce engine noises and wear.
- Increases oil pressure in worn engines and at high operating temperatures.

OXIDATION INHIBITORS

- Retards the oxidation and breakdown of the motor oil at high engine operating temperatures.
- Controls oil thickening resulting from oxidation during periods of severe high speed operation, reducing the possibility of oil thickening and loss of lubrication.

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- Increases the level of oxidation inhibitors found in new motor oils.

- Helps maintain engine cleanliness be reducing the formation of lacquer and varnish deposits, helping to insure proper lubricant flow and mechanical component operation.

ANTIWEAR ADDITIVES

- Prevents engine wear resulting from direct metal to metal contact under extreme operating conditions such as sustained high speed and trailer pulling.

- Increases the anti-wear properties of the motor oil to which it is added, affording additional protection against engine wear resulting from the depletion of the motor oil's original anti-wear system.

- Reduces wear in older engines resulting from the larger clearances between worn parts and the higher shock loads encountered.

DETERGENTS/DISPERSANTS

- Assures optimum engine lubrication by maintaining oil line/oil screen cleanliness, thereby assuring proper lubricant flow.

- Assures proper ring operation by maintaining ring cleanliness.

- Increases the level of detergents/dispersants included in new motor oils.

- Retards the accumulation of low temperature sludge deposits.

- Provides additional protection against engine deposits under all operating conditions.

<u>Applications</u>

The formulation of Wynn's Supreme Engine Protectant has been designed to:-

- Prolong oil life.

- Reduce engine sludge and varnish build up.

- Improve API SG Specification oil performance during extended oil drain intervals.

- Increase rust and corrosion protection.

- Reduce oil thickening and oil screen clogging.

- Contains no damaging lead or chlorine compounds.

- Address the industry-recognised problem of oil oxidation.

Suitable for all petrol, diesel and LPG car engines. At operating temperature, or while engine is warm, add Wynn's Supreme Engine Protectant to engine oil with engine turned off. Use at each oil change or as needed between oil changes.

Typical Characteristics

Appearance	Clear Liquid
Colour (Visual)	Brown
Colour (ASTM D 1500)	3.5
Density @ 15°C	0.911 (ASTM D 4052)
Viscosity @ 40°C (cSt)	77.0 (ASTM D 445)
Viscosity @ 100°C (cSt)	10.2 (ASTM D 445)
Viscosity Index	129 (ASTM D 2270)
Flash Point (ºC) COC	199 (ASTM D 92)
Freeze Point (°C)	-7
Boiling Point (°C)	>316
Volatiles (% Vol)	Nil

Performance Tests

Wynn's Supreme Engine Protectant is formulated to help reduce friction and wear. These benefits are based on numerous laboratory wear tests which show improvements in performance whenever Wynn's Supreme Engine Protectant is added to a conventional crankcase motor oil.

A. REDUCED FRICTION

Friction tests were run on the Falex Pin and Vee Block Wear Tester, which is manufactured by the Faville-LeVally Corporation and is widely used in the evaluation of lubricants. The coefficients of friction at various loads were measured for a commercial motor oil. The coefficients of friction were then measured at the same loads for the motor oil plus 10 percent Wynn's Supreme Engine Protectant. The coefficients of friction were found to have been reduced by the addition of the Wynn's Supreme Engine Protectant.

At 88kg per square centimetre jaw load, the results were as follows:-

	COEFFICIENT OF FRICTION
MOTOR OIL SAE 10W-40	0.927
MOTOR OIL SAE 10W-40 PLUS 10% WYNN'S SUPREME FRICTION PROOFING FOR ENGINES	0.839

The lower the coefficient of friction, the less friction between the test pieces. On the basis of this and similar results, the conclusion is that the use of Wynn's Supreme Engine Protectant in a conventional motor oil will reduce friction.

B. REDUCED WEAR

Reduced wear has been demonstrated by many different laboratory tests among which is the well known Shell Four-Ball Wear Test. In this test, wear was measured by the average diameter of the scars on three steel balls against which a fourth ball is rotated at controlled speeds and temperatures.

The results were as follows:-

	WEAR SCAR (Millimetres)
MOTOR OIL SAE 10W-30	0.449
MOTOR OIL SAE 10W-30 PLUS 10% WYNN'S SUPREME FRICTION PROOFING FOR ENGINES	0.416

The lower wear scar diameter demonstrates reduction of wear from the addition of Wynn's Supreme Engine Protectant to the motor oil. On the basis of this and many similar results on other laboratory wear testers, the conclusion is that the use of Wynn's Supreme Engine Protectant in a conventional motor will reduce wear.

C. REDUCED OXIDATION

A Lube Stability Test was conducted at an independent research laboratory which concluded that Wynn's Supreme Engine Protectant was "an excellent oil supplement, particularly in the areas of oxidation inhibitors and wear protection". This test simulates oxidation and wear performance targeted at Sequence IIID screening.

	% VISCOSITY INCREASE AT 46 HOURS	BEARING WEIGHT LOSS AT 46 HOURS
MOTOR OIL SAE 10W-30	70	71
MOTOR OIL SAE 10W-30 PLUS 10% WYNN'S SUPREME FRICTION PROOFING	23	26

These results clearly indicate improvement in oxidation stability and corrosive wear performance.

Using Wynn's Supreme Engine Protectant, oxidation stability was improved by 67% and bearing weight loss was reduced by 72%.