



PRODUCT INFORMATION SHEET

WYNN'S THROTTLE BODY CLEANER

Product Number: 60820 24 x 325 ml 60808 500 ml 60810 325 ml tin

WYNN'S THROTTLE BODY CLEANER is professionally formulated to safely clean away gum and varnish from air throttle plates and throttle plate shafts.

Wynn's Throttle Body Cleaner is formulated and packaged for use in the Wynn's Enviro-spray Fuel Injection System Cleaning Apparatus (Part No. 04000) and Tool (Part No. 31500).

Introduction

Wynn's has long touted the economy and performance benefits of a well-maintained vehicle. Now we add environmental responsibility to the list of reasons for keeping vehicles in top operating condition. The delivery system for Wynn's Throttle Body Cleaner – Wynn' Enviro-purge, is an easy to use, safe and effective service solution to fuel system contamination issues in modern, engine management controlled vehicles.

Deposit Problems

Wynn's Throttle Body Cleaner (and Wynn's Ultra Power 3) are designed to overcome vehicle deposit problems encountered with today's fuel injected engines operating on unleaded fuel. Engine design changes for better efficiency and lower emissions coupled with typical non-metallic octane enhancers used in unleaded fuel (e.g. olefins, polynuclear aromatics, oxygenates, etc.) lead to increased propensity to form deposits on intake valves, fuel injectors, combustion chambers, and air intake systems.

BMW was a leader in studying problems related to intake valve deposits. Today, many domestic OEM's such as Ford and GM, have recognized similar problems. In U.S.A. the Co-operative Research Council is studying solutions to these problems.

Air intake is critical to proper engine operation. It must be remembered that engines consume roughly 15 litres of air with each litre of fuel. Proper air intake is disturbed by deposits in the air induction system and on intake valves.

Combustion chamber deposits increase a vehicle's octane requirement. Higher octane unleaded fuels use PNA's, olefins, and/or oxygenates to achieve higher octane values. However, these same components lead to more combustion chamber deposits, and the engines appetite for octane increases further. Octane Requirement Increase (ORI)

leads to annoying knocking and pinging (which can cause damage to cylinder heads in extreme situations) and reduced power on demand, particularly in vehicles equipped with knock-sensors that retard spark timing upon sensing knock.

Fuel injector flow problems from deposits lead to uneven distribution of fuel and overall performance deteriorates. This has been a field problem since the mid 1980's.

This combination of fuel system deposits causes poor driveability, hesitation, stalling, reduced power, poor fuel economy, and poor overall performance. If a regular engine tune-up is performed without addressing fuel system deposits, the customer may not be satisfied with the maintenance performed.

World-wide field experience with Wynn's Throttle Body Cleaner (and Wynn's Ultra Power 3) strongly indicates that its use, either in conjunction with a regular engine tune-up or on its own, provides a significant difference in vehicle performance that the customer can feel, and greatly enhances customer satisfaction with the workshop service performed.

Wynn's Throttle Body Cleaner (and Wynn's Ultra Power 3) are chemical kits for professional installer use, to remove and dissolve fuel system deposits found on: intake valves; fuel injectors; air intake systems; manifolds; combustion chambers; and throttle bodies.

Wynn's Throttle Body Cleaner (and Wynn's Ultra Power 3) can be used either in conjunction with regularly scheduled engine tune ups, or on its own, to restore fuel system-related vehicle driveability performance, power and acceleration performance, low emissions, optimal fuel economy, and lower octane requirement to improve customer satisfaction.

Advantages

Wynn's Throttle Body Cleaner cleans away gum and varnish for smoother idling.

Wynn's Throttle Body Cleaner lubricates computer-controlled air-intake system components and protects against rust and corrosion.

Wynn's Throttle Body Cleaner improves air flow for smoother idling and also restores lost fuel efficiency from throttle plate deposits.

Benefits

Wynn's Throttle Body Cleaner is professionally formulated to provide the following benefits:

- Cleans air throttle plates and throttle plate shafts.
- Safely blasts away gum and varnish deposits.
- Improves air flow for smoother idling.
- Restores fuel economy.

- Lubricates air-intake throttle plates.
- Protects against rust and corrosion.
- Stops engine knock and run-on.
- Reduces exhaust emissions and octane requirement.
- Eliminates engine surging, stalling and hesitation.
- Restores lost power.
- Contains no CFC's which have been proven to be harmful to the ozone layer.
- Contains no aerosol propellants that harm the environment.
- Safe for oxygen sensors and catalytic converters.

Do not spray Wynn's Throttle Body Cleaner on painted surfaces. If accidentally sprayed on paint, wash off immediately with water. Avoid prolonged contact with rubber and plastic components.

Do not spray or store Wynn's Throttle Body Cleaner near sparks, heat, or open flames. Keep area ventilated during use.

Typical characteristics

Appearance	Clear Thin Liquid
Colour (Visual)	Pale Yellow
Colour (ASTM D 1500)	<0.5
Density @ 15°C	0.896 (ASTM D 4052)
Flash Point (°C) PMCC	4 (ASTM D93)
Boiling Point (°C)	56
Volatiles (% Vol)	99.9

(c) **TOYOTA CELICA**

Wynn's Treatment and Cleaning

<u>Test</u>	<u>Before</u>	<u>After</u>	<u>Benefit</u>
HC Emission (ppm)	436	184	58% Reduction
CO Emissions (%)	1.83	0.08	96% Reduction
CRC Rating (Intake Valves # 1/# 3)	6-7	8-9	2-3 Improvement

Appearance

Both the intake plenum and throttle body had substantial sludge removal. Intake valves had good coking removal. Vehicle valve cleaning was good.

(d) **GM COMMODORE**

Wynn's Treatment and Cleaning

<u>Test</u>	<u>Before</u>	<u>After</u>	<u>Benefit</u>
HC Emission (ppm)	14	6	57% Reduction
CO Emissions (%)	0.06	0.06	Stable
CRC Rating (Intake Valves # 1/# 5)	5-6	6-7	1-2 Improvement

Appearance

The throttle body and intake plenum along with the mass air flow sensor, showed substantial sludge removal. Heavy coking and deposits reduced.

(e) **FORD RANGER**

Wynn's Treatment and Cleaning

<u>Test</u>	<u>Before</u>	<u>After</u>	<u>Benefit</u>
HC Emission (ppm)	151	46	70% Reduction
CO Emissions (%)	0.00	0.00	Stable
CRC Rating (Intake Valves # 1/# 5)	6-7	8-9	1-2 Improvement

Appearance

The throttle body and intake plenum are sludge-free after the cleaning process. Removal of all or most coke deposits.

(f) **TOYOTA CELICA**

Wynn's Treatment and Cleaning

<u>Test</u>	<u>Before</u>	<u>After</u>	<u>Benefit</u>
HC Emission (ppm)	466	106	77% Reduction
CO Emissions (%)	1.37	0.87	36% Reduction
CRC Rating (Intake Valves # 2/# 4)	7-8	8-9	1-2 Improvement

Appearance

The throttle body and air intake plenum had good sludge removal. Both intake valves had a marked reduction in coke deposits.