

Singapore Synergy Fuel System

Frequently asked questions on Singapore Synergy Fuels

What is Synergy Fuel System?

The Synergy Fuel System is a full slate of high performance fuel products for Esso customers in Singapore, each one enhanced with high performance fuel additives:-

Synergy 8000

Synergy 8000 (RON 98) is a premium grade petrol enhanced with a high quality multifunctional additive package for high performance vehicles. Synergy 8000 is of premium quality and our highest octane.

Synergy 8000 helps to improve:

- Engine responsiveness
- Performance
- Efficiency
- Combustion cleanliness
- Corrosion protection

Synergy 5000

Synergy 5000 (RON 95) is a high performance petrol suitable for most cars which helps to clean up intake valves. Synergy 5000 also helps to improve:

- Combustion cleanliness
- Efficiency
- Emissions

Synergy 2000

Synergy 2000 (RON 92) helps to clean up intake valves and assure engine performance

Synergy Diesel

Synergy Diesel helps to keep diesel injectors clean and formulated with anti-foaming formula to make re-fueling faster.

Synergy 8000

What is different about Synergy 8000?

Synergy 8000 is the highest-octane (98 RON) unleaded petrol from Esso in Singapore. It includes a multifunctional additive package, which can help to clean up the intake valves and keep the fuel injectors and intake valves of an engine clean. In addition, it provides corrosion protection to the vehicle's fuel system.

What are the benefits of Synergy 8000?

High Octane

Synergy 8000 has highest octane in Synergy petrol lineup. To find out what octane your car engine needs, first check your car owner's manual. Some models have high compression engines, which require the octane level in Synergy 8000.

Ordinarily, your car will not benefit from using a higher octane than recommended in the owner's manual. But if your engine knocks or pings at the recommended octane level, a higher-octane petrol may help to prevent the knock.

Many modern cars are equipped with an electronic device that detects and eliminates light knocking before you hear it. The devices suppresses knock by retarding the spark. We believe that some of these cars may experience some deterioration of acceleration performance, without knocking, when operating under high engine demand conditions.

Added Corrosion Protection

The corrosion inhibitor is added into Synergy 8000 to prevent corrosion during storage and delivery. It also helps prevent corrosion occurring on the vehicle's fuel system. This added protection is important as corrosion occurring deposits can build up in carburetors, injectors nozzles or fuel filters.

Can I mix Synergy 8000 with other fuels?

Yes, Synergy 8000 is fully compatible with other petrol. However, when mixed with other fuels, the full benefits of Synergy 8000 will be diluted.

Synergy 5000

What is Synergy 5000?

Synergy 5000 is a high grade unleaded petrol(95RON) which provides many of the same benefits as Synergy 8000, but it is intended for those vehicles which do not need the higher octane. Synergy 5000 petrol contains a multi-functional additive package. This advanced additive will help to clean up intake valves and keep the fuel injectors and intake valves of an engine clean. In addition, it provides corrosion protection to the vehicle's fuel system.

Synergy 2000

What is Synergy 2000?

Synergy 2000 is the lower octane (92 RON) petrol offered by Esso. Synergy 2000 is intended for those vehicles which do not need the higher octane (See note below on octane and knock) This grade enables a driver to operate with a lower cost fuel, while still helping to clean up intake valves and keep intake valves and fuel injectors clean and maintaining the corrosion protection.

Octane

What is Octane Number?

Octane number is a measure of a fuel's ability to resist knock. The higher octane number of a fuel, the greater its resistance to knock. The octane requirement of an engine varies with design features such as compression ratio, geometrical & mechanical considerations and operating conditions such as engine speed and acceleration conditions as well as altitude and ambient temperature. To find out what Octane your engine needs, first check your car owner's manual. But if your engine knocks or pings at the recommended octane level, a higher-octane petrol may help to prevent the knock. Knocking may occur under certain conditions. A small percentage of cars knock because of variations in engines of the same model due to manufacturing tolerance, or because of an unusual build-up of engine deposits in the engine combustion chamber. The conditions may result in pinging and a higher octane requirement for an engine as its get older, compared to when it is new.

What is "engine knock?"

Knock is a sharp, metallic-sounding or pinging noise that results from uncontrolled combustion.

What causes knock and why is it bad for your car?

Normally, when the fuel/air mixture in the combustion chamber is ignited by the spark plug, the resulting flame front moves smoothly across the chamber, consuming fuel at a controlled rate while exerting an increasing downward pressure to the piston. However, the increasing pressure and temperature in the combustion chamber can cause fuel with insufficient octane to ignite before the flame front reaches it. This results in sudden rise in pressure, accompanied by knock. When this occurs, the knock sensor (if installed) will just adjust (retard) spark timing to eliminate knock, reducing optimal engine performance with some loss of power and acceleration. While occasional light knocking is not harmful to the engine, heavy knocking or continuous operation with audible knock can cause engine damage.

Keeping the engine clean

Why is it so important to keep my engine's intake system clean?

Due to the inherent nature of combustion engine operation, all petrol produce reaction by-products, which can be laid down as deposits in the engine's intake system. These deposits are complex oxidation/combustion by-product derived from the reactions of fuel, engine oil, combustion gases and blow by gases. Such deposits can degrade the correct operation of the engine when they occur in critical areas such as fuel injectors and intake valves.

Synergy Diesel

What is Synergy Diesel?

Synergy Diesel is a high quality fuel blended with a multi-functional detergent additive package.

This package is designed to:

Keep fuel injectors clean resulting in improved combustion and reduced emissions

Provide corrosion protection to fuel system

Enhances fuel stability in storage

Reduce foaming characteristics of the fuel to enable faster fuel fill up without overflow

Why is it so important to keep fuel injectors clean?

Fuel injectors are the heart of a diesel engine. They are highly precision components designed to meter diesel fuel with great accuracy. Proper functioning injectors are essential to ensure optimal performance of all diesel engine types.

The advanced detergent additive in Synergy Diesel helps to keep fuel injectors clean in both indirect & direct injection diesel engines. This assures that injectors can do their job properly and gives optimal operation of the engine as designed by its manufacturer.