

Shell Unleaded E10 FAQs

Where can I fill up with Shell Unleaded E10?

Shell Unleaded E10 is currently available at more than 210 Shell branded sites in New South Wales and 110 sites in Queensland.

You can find out if your local Shell branded service station supplies Shell Unleaded E10 by using the [Shell Fuel Finder](#) and selecting Shell fuel type Unleaded E10.

Can my vehicle use ethanol blended petrol?

While most new and many older vehicles can safely run on Shell Unleaded E10, Shell recommends that customers should follow their vehicle manufacturer's recommendations on which fuel to use. The Federal Chamber of Automotive Industries website www.fc.ai.com.au also indicates which vehicles are suitable for fuels that contain ethanol and we encourage customers to visit this site.

For information on pre-1986 cars please refer to your car's manufacturer or visit the [Australian Institute of Petroleum website](#).

If your vehicle manufacturer recommends a minimum 95 octane then Shell V-Power premium unleaded 98 may be a more suitable fuel.

What is the octane rating of Shell Unleaded E10?

Shell Unleaded E10, which contains up to 10% ethanol, has a minimum 94 octane rating.

Will I get the same fuel efficiency from an ethanol blended fuel compared to regular unleaded?

Like regular Shell Unleaded 91, Shell Unleaded E10 is designed to help improve fuel economy by reducing efficiency losses caused by engine deposits and friction*.

Ethanol has a lower energy value than regular petrol however, when ethanol is blended into petrol at 10%, its effect on fuel efficiency is reduced proportionally. However, driving style and driving conditions can have a greater impact on fuel economy than the presence of 10% ethanol.

**Based on tests using fuel without additives and may vary by vehicle.*

Can I use Shell Unleaded E10 in my leaded car?

No. These cars will generally require a premium unleaded fuel such as Shell V-Power Premium Unleaded 98 or Shell Unleaded 95 and an anti-valve seat recession (AVSR) protection additive such as Valvemaster. We recommend you refer to your car's manufacturer.

Can I use ethanol blended petrol in marine, ultra-light aircraft, or two-stroke engines?

No. Shell Unleaded E10 should not be used in boats, jet skis, ultra light aircraft or other equipment without first consulting the manufacturer.

Can I switch between Shell Unleaded E10 and other grades of unleaded petrol?

Yes, but customers should always follow the advice of their vehicle manufacturer as to which fuels to use in their car.

Myth Busting – the Facts about Ethanol in Petrol

Myth 1: Ethanol burns hot due to an earlier 'pre-detonation ratio' (i.e. it explodes too soon) and can corrode engines over time.

Ethanol has a high octane (Research and Motor Octanes) and as such ethanol based fuels have a natural tendency to resist compressive precombustion in engine combustion chambers. Its incorporation into fuel, in controlled quantities, will have the effect of lifting octane and allowing exposure to greater heat and compression in engines without 'pinging' (precombustion).

The potential for corrosion due to ethanol has, in the past, been due to improper use by other retailers of lower quality ethanol at inappropriate blend ratios without corrosion protection.

Along with this standard, Shell fuel-grade ethanol contains a corrosion inhibitor additive to ensure that corrosion due to trace impurities naturally present in ethanol is minimised.

Myth 2: Ethanol fails to lubricate the engine like petrol so there is a potential for pistons and other moving parts within the combustion chamber to 'seize up' over time.

Lubrication of piston rings in spark ignition 4 stroke engines is a result of traces of lubricating oil trapped between rings and combustion chamber wall. It is not due to the lubricating qualities of the motor spirit, so the impact of ethanol in this part of the engine will be negligible.

Lubrication of other components such as fuel pumps of moving fuel system components is, however, dependent on the lubricating property of the fuel. In these cases ethanol contents of up to 10% have not been shown to cause excessive / noticeable wear in any other countries where Shell markets ethanol containing fuels. Shell has extensive experience with biofuels and is the largest global retailer of ethanol containing fuels.

Shell markets ethanol containing petrol in several countries and has no records of adverse lubrication issues relating to these fuels. Also, a review of the available literature / studies also does not indicate that fuel system wear due to lack of lubrication is an issue.

Myth 3: Ethanol can corrode fuel lines or anything rubber, including seals.

Ethanol in high concentrations has been known to affect some plastic and rubber fuel system components. However, it is advisable to check the FCAI web site or contact your vehicle's manufacturer to determine if there are any compatibility issues with particular makes and models.

Myth 4: Ethanol always reduces fuel economy.

Like regular Shell Unleaded 91, Shell Unleaded E10 contains Shell's exclusive Fuel Economy Formula, which is designed to help improve fuel economy by reducing efficiency losses caused by engine deposits.*

Ethanol has a lower energy value than regular petrol, however, when ethanol is blended into petrol at 10%, its effect on fuel efficiency is reduced proportionally. In fact, driving style and driving conditions will have a greater impact on fuel economy than the presence of 10% ethanol.

**Based on tests using fuel without additives and may vary by vehicle.*