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+ 1 PhotosFuel prices are getting out of hand in some parts of the country. Brisbane has been copping record high petrol prices and Sydney and Melbourne have been warned about looming price hikes. RELATED: Can I put 91 in my 95 or 98 car? The price rise is due to tightening global crude oil prices and a weakening Australian dollar pushing petrol prices into seriously uncomfortable territory. But what if there are more economical options out there? If you've ever stood at the bowser wondering if E10 is the fuel for you, here's what you need to know. E10 is a clear petrol mixture that contains up to 10 per cent ethanol, which is an organic alcohol sourced from grains like corn, food waste or sugar. The remaining 90 per cent consists of unleaded petrol. You may have also seen E10 marketed at the bowser as 94-octane fuel.Most of the ethanol used to make E10 comes from New South Wales or Queensland and is made by fermenting starch left over after wheat has been turned into flour, or from grain sorghum. The starch is fermented and converted into ethanol. Is E10 better than petrol? At the time of writing, the national average price for E10 was $1.92c. However, the price can vary greatly – with the cheapest option at the time of writing located in Moree, NSW, at $1.42, and the most expensive in Bowen, QLD at $3.63.Unsurprisingly, a survey by BudgetDirect reveals that drivers running their car on E10 fuel averaged lower refill costs than any other oil-based fuel car, paying an average of $63.54 to refuel during each visit to the petrol station. This compares to $63.88 per refuel for unleaded 91 or unleaded 95 fuel, or $97.78 for diesel drivers. When you look at the average cost of fuel these days, it’s definitely worth scanning the price of E10 near you next time you’re filling up at the local petrol station. It depends. Given it has a 94 octane rating, you can't use E10 in anything that requires a minimum of premium unleaded petrol with an octane rating of 95 or higher. Because E10 contains ethanol, it can be damaging for fuel systems that are not designed to use fuel with ethanol content. A lot of newer models will be able to take E10, but older cars might not. You can conduct a quick check on the NSW Government's E10 compatibility checker here.Some vehicles will make it easy by having an E10 label inside the fuel cap – indicating E10 is fine to use – but if you're unsure, check your user manual.E10 was introduced to the market about 20 years ago, so it has been tried and tested. Bear in mind that in Australia, fuel quality standards require all petrol, including E10, to meet the same high standards. Almost 90 per cent of Australians use a form of petroleum, compared to roughly 10 per cent that use diesel in their everyday car, while 16 per cent of all respondents use petroleum with a blend of ethanol, a 2022 survey conducted by Budget Direct found. Yes, E10 is slightly less efficient in most car engines, meaning it won’t give you a comparative usage figure compared to your usual fuel type. Still, it's no worse than driving on tyres without enough air pressure, so the difference is marginal. Is E10 better for the environment? Yes, it burns cleaner and cooler than an oil-based petrol, which makes it eco-friendly. The NSW Government says that E10 fuel can lower greenhouse gas and other emissions that cause serious health and environmental damage. The CSIRO found that E10 fuel produced under Australian conditions has between two per cent and five per cent lower CO2 emissions than regular unleaded petrol. Meanwhile, a study by the CSIRO into the health impacts of ethanol-blended petrol found E10 reduces particle emissions by between 20 and 30 per cent, thereby reducing health impacts, compared to regular unleaded petrol. Now that you’re in the know, make sure you keep an eye on E10 prices near you! E10 fuel is slightly less energy dense compared with E5, so car owners using E5 will get marginally better fuel economy than those using E10. However, the difference is minimal, plus it depends on the brand of fuel you’re using, the type of journey you’re making, and your driving style.Will E10 impact performance?If your car is compatible with E10 petrol, the fuel will not impact the performance of your vehicle and it should perform in the same way as E5.Although E10 petrol is now sold at all filling stations, high-volume outlets that sell more than three million litres of fuel a year are also allowed to stock ‘protection grade’ E5, so that owners of older cars will be able to fill up with this. E5 is expected to remain on sale until 2026, when its use will then be reviewed.It's also worth noting that E5 petrol has been renamed super-unleaded and it usually costs 10-12p per litre more than E10. Although car owners using E5 will get marginally better fuel economy than those using E10, the additional cost of buying it could put a strain on drivers who are on a tight budget.E10 is a mixture of unleaded petrol and bioethanol, so it’s only suitable for petrol-powered vehicles. B7 is the equivalent of E10 for diesel-powered vehicles, because it contains a mixture of diesel and 7% bioethanol.For all the latest reviews, advice and new car deals, sign up to the What Car? newsletter hereRead more: Best and worst hybrid SUVs >> This depends on who you speak to. Environmental groups will point to carbon-offsetting properties, while the government has introduced E10 as a step towards meeting its emissions targets.But E10 is less efficient than the current E5 blend of fuel, with the problem exacerbated in smaller-engined cars.RAC fuel spokesman Simon Williams said: “those drivers who have no choice but to use super unleaded E5 petrol will be paying through the nose, as it's more expensive than the current UK average for standard unleaded.“This will quickly mount up for anyone who has to drive a lot of miles to get to work every week. It’s also probably the case that many of those driving older cars will already be from lower income backgrounds, so they will end up being even worse off.“And those with E10 compatible cars will unfortunately find they are getting fewer miles to the gallon as the fuel is less efficient than E5 fuel, due to it containing 5% more ethanol.The US Energy Information Administration (EIA) claims the energy content of ethanol is about 33% less than pure unleaded and that "the impact of fuel ethanol on vehicle fuel economy varies depending on the amount of denaturant that is added to the ethanol."2The EIA states: “The energy content of denaturant is about equal to the energy content of pure gasoline (petrol). In general, vehicle fuel economy may decrease by about 3% when using E10".Reacting in 2019 to proposals to introduce E10 petrol in the UK, RAC fuel spokesman Simon Williams said:“Everybody agrees that steps must be taken to reduce emissions from road transport, however introducing E10 as the standard petrol will pose some challenges. "Firstly, as the RAC Foundation points out, there could be as many as 600,000 vehicles on our roads that aren’t compatible with the fuel."Many of these are likely to be owned by those from lower income backgrounds and while it is welcome that E5 petrol is not being phased out altogether, owners of these vehicles will face higher fuel costs – and will also have to hunt out those forecourts that still sell E5."Some retailers will also not have the capacity to be able to provide both E5 and E10 fuels on forecourts, so the impact is likely to be most keenly felt by those with incompatible vehicles in rural areas."It is also vital that owners of affected vehicles are aware of the changes. We’d like to see the DVLA writing to these owners to inform them that E5 will no longer be the standard premium grade, and to let them know their options."This, alongside a trusted online resource where drivers can quickly identify if their vehicles are E10 compatible or not, will go a long way to avoiding any expensive problems from filling up wrongly with the new blend."For the overwhelming majority of drivers with compatible vehicles, the introduction of E10 petrol will make little difference other than a possible slight reduction in fuel economy."Drivers of older, incompatible cars may have to shell out for more expensive fuel, since forecourts still only offer E5 as a premium option.Thankfully, an online resource has since been published. You can find the government’s E10 fuel compatibility checker here. Is E10 Gas The Same As 87? You’ve pulled up to the pump, ready to fill up, but all you see are E10 and 87 octane options. This can be confusing! While E10 gas often refers to regular unleaded gasoline with 10% ethanol blended in, is it truly the same as plain 87 octane fuel? Let’s break down the key differences and help you choose the right gas for your car. E10 gas and 87 octane gas are closely related, but not exactly the same. Here’s the breakdown: E10: This refers to gasoline that contains 10% ethanol, a type of alcohol fuel made from plants. It’s often the standard option for regular unleaded gas. 87 Octane: This indicates the fuel’s octane rating, a measure of its resistance to knocking (engine pre-ignition). Regular unleaded gas typically has an octane rating of 87. Regular unleaded gas and E10 gasoline share many similarities, but there are a few key differences: Read More About Refining Gasoline: From Crude To Car Regular Unleaded: Contains up to 5% ethanol. E10: Contains 10% ethanol, which is where the “E” in E10 comes from. Ethanol is a biofuel made from plants like corn or sugarcane. Regular Unleaded: Typically has an octane rating of 87. Octane rating measures a fuel’s resistance to knocking (pre-ignition). E10: E10 gasoline can have the same octane rating (87) as regular unleaded, but it can also have slightly higher ratings depending on the specific blend. Regular Unleaded: May offer slightly better fuel economy due to the higher energy density of gasoline compared to ethanol. E10: Might result in slightly lower gas mileage because ethanol contains less energy per gallon. Regular Unleaded: Generally safe for most gasoline-powered vehicles. E10: Compatible with most modern cars, but some older vehicles (pre-2007) may not be designed for the higher ethanol content. Regular Unleaded and E10: The price can vary depending on location and market conditions, but the difference is often minimal. Here’s the breakdown of 87 vs. 89 E10 gas: Fuel Property87 E1089 E10Octane Rating8789Ethanol Content10%10%PriceLowerSlightly higherEnvironmental ImpactBetterSimilar E10 isn’t directly equivalent to a single type of fuel because it focuses on the ethanol content (10%) rather than the overall octane rating. Here’s how to think about it: E10 itself: This refers to gasoline blended with 10% ethanol. It can have various octane ratings depending on the specific blend, but commonly it’s 87 octane. Regular Unleaded: Traditionally, regular unleaded gas contained up to 5% ethanol. Read More About 7 Best Duramax Fuel Filter Housing Maintenance And Replacement Guide E15 gas isn’t directly equivalent to a specific octane rating. It contains 15% ethanol, reducing energy content compared to regular gas, but often has an octane rating of 88. Not necessarily. While most 89 octane gas stations offer E10 (10% ethanol blend), some stations may sell 89 octane with a different ethanol content or even ethanol-free. E10 gas is regular unleaded gasoline blended with 10% ethanol, a plant-based alcohol fuel. It’s a more eco-friendly option but might have slightly lower mileage. No, E10 isn’t always premium gas. E10 refers to the ethanol content (10%), while premium gas has a higher octane rating (usually 91+). Some E10 can be premium grade, but check your octane rating for the best choice. E10 isn’t always the same as 95. E10 refers to the ethanol content (10%), while 95 indicates octane rating. E10 gasoline can be 95 octane, but it can also be lower depending on the blend. E10 itself isn’t guaranteed to be 91 or 95 octane. It’s usually 87 octane with 10% ethanol, but some E10 blends can reach 94 octane. Check the pump for the specific octane rating. E10 is often called regular gas because it’s the standard unleaded option with 10% ethanol blended in. However, some true regular unleaded gas may only have 5% ethanol. Check your owner’s manual for the recommended fuel for your car. E85 and Unleaded 88 differ wildly in ethanol content. E85 is a flex-fuel option with a whopping 51-83% ethanol, ideal for specially designed vehicles. Unleaded 88, on the other hand, is regular unleaded gas with a boost – 15% ethanol – suitable for most cars made after 2001. While Unleaded 88 might be cheaper, E85 boasts environmental benefits but delivers less mileage. Ethanol-free 87 boasts purer gasoline, potentially improving mileage. However, E10 Premium (91) packs a higher octane punch, ideal for performance-hungry engines. At the pump, you’ll typically find three main types of gas differentiated by octane rating: Regular Unleaded (87 Octane): This is the most common and affordable option. It has an octane rating of 87, which means it has a medium resistance to knocking (pre-ignition) in the engine. Mid-Grade (Usually 89 Octane): This is a blend between regular and premium gas, often with an octane rating of 89. It offers slightly higher knock resistance than regular unleaded gas. Premium Unleaded (Usually 91-94 Octane): This gas boasts the highest octane rating (typically 91-94) at the pump. It’s designed for high-performance engines with higher compression ratios. Here’s how these gas types affect your car: Engine Performance: Premium gas can improve performance in high-performance engines designed for it. For regular cars, the difference is negligible. Fuel Economy: Regular unleaded gas usually offers the best fuel economy due to its higher energy content compared to gas with ethanol blends (explained below). Price: Premium gas is generally the most expensive, followed by mid-grade and then regular unleaded. E10 is widely available throughout the USA. You’ll find it at most gas stations that sell regular unleaded gasoline. Look for pumps labeled “E10” or “Regular Unleaded.” 87 E10 gas combines affordability (regular unleaded) with a touch of eco-friendliness (10% ethanol). It works for most cars, but check your owner’s manual for compatibility. E10 gas is essentially regular unleaded gas (usually 87 octane) with 10% ethanol blended in, offering a slightly eco-friendly alternative. E10 gas can vary, but most commonly it is 87 octane. However, it can also be offered in higher octane blends. Check your owner’s manual for the recommended octane level for your car. E10 gas is often 87 octane in the USA, but not always. It refers to the ethanol content (10%) not guaranteed octane level. Check your owner’s manual for the recommended octane rating for your car. Read More About STP Fuel Injector Cleaner Review: Discover The Effectiveness, Benefits E10 gas is regular unleaded gasoline mixed with 10% ethanol, a plant-based alcohol fuel. It’s often the standard option for regular gas, offering a slightly eco-friendly alternative with a minor fuel economy trade-off. E10 and 91 fuel differ in two key aspects: ethanol content and octane rating. Here’s a breakdown: E10: Contains 10% ethanol, a renewable biofuel made from plants like corn or sugarcane. 91 Fuel: Contains no ethanol, made entirely from refined petroleum. E10: Can have an octane rating of 87 or higher, depending on the specific blend. 87 octane is most common, but some E10 stations might offer options with 89 or even 91 octane. 91 Fuel: Typically has a fixed octane rating of 91. This rating indicates the fuel’s resistance to knocking (pre-ignition) in the engine. Here’s a table summarizing the key differences: FeaturesE1091 FuelEthanol Content10%0%Octane Rating 8791Fuel EconomyLowerHigher Mixing 95 octane fuel and E10 (which can be 87 octane or higher) is perfectly safe for most modern vehicles. Here’s why: Compatibility: Both 95 octane and E10 are gasoline-based fuels. Modern cars are designed to handle a range of gasoline blends, including those with ethanol content like E10. Mixing Effect: When you add E10 to a tank already containing 95 octane fuel, the overall octane rating will end up somewhere between 87 (E10’s minimum octane) and 95. In the US, most 87 octane gas contains 10% ethanol. You might find ethanol-free 87 octane at some stations, but it’s less common. 87 octane non-ethanol gas is a type of gasoline that does not contain any ethanol, a type of alcohol. It is typically used in small engines, such as those found in lawnmowers, boats, and snowmobiles, as well as in older cars that are not compatible with ethanol-blended fuels. Unleaded 88 has 15% ethanol (grain alcohol) for a higher octane rating (88) than 87 octane unleaded (10% ethanol). This can be better for the environment but check your car’s manual – some older cars don’t like it. 87 and 88 octane gas are both regular unleaded, but 88 has a bit more ethanol (15% vs 10%). It might offer slight performance gains for compatible engines and is better for some environments, but check your car’s manual first. Unleaded E 87 likely refers to a typo. There’s no E87 fuel grade. It might be: Unleaded 87 (regular gas): This has an octane rating of 87 and is suitable for most cars. E85 (ethanol blend): This has 51-83% ethanol and is only for flex-fuel vehicles. E85 is mostly ethanol (up to 85%) for flex-fuel vehicles. Unleaded 88 is gasoline with 15% ethanol, good for newer cars (2001+). Both have higher ethanol than regular unleaded. E85 is mostly ethanol (85%) for flex-fuel vehicles, offering higher octane but lower gas mileage than regular 87 octane gasoline. It’s better for the environment but requires a compatible car. E85 (85% ethanol) is a higher ethanol blend than E10 (10% ethanol). E85 is cheaper per gallon but reduces fuel efficiency. You need a flex-fuel vehicle to use E85. E10 gas is a type of regular unleaded gas with 10% ethanol, a biofuel, blended in. It’s mostly similar, but check your car’s manual to ensure compatibility. E10 gas can vary, but it’s most commonly 87 octane. Some stations offer E10 with higher octane ratings like 89 or even 91. Check the pump for the specific octane level. Yes, mixing E10 and regular gas is perfectly fine. They’re both gasoline, just with varying ethanol content. Use the octane rating recommended by your car’s manual. No, E10 isn’t a flex fuel. Flex fuels allow using a wider range of ethanol blends (like E85), while E10 is a specific 10% ethanol blend gasoline. So, is E10 gas the same as 87? Not quite! E10 refers to gasoline with 10% ethanol, while 87 octane describes the fuel’s knock resistance. Most E10 is 87 octane, but it can be higher. Ultimately, consult your owner’s manual to ensure you’re filling up with the right fuel for optimal performance and engine health. Happy driving! *This post contains affiliate links. That means that if you make a purchase after clicking on a link I may earn a small commission at no extra cost to you. As an Amazon Associate, I earn from qualifying purchases.” Click here for more Info. Standard grade (95 octane) petrol became E10 in Great Britain in September 2021 and in Northern Ireland in November 2022. These changes apply to petrol only. Diesel fuel has not changed. Almost all (95%) petrol-powered vehicles on the road today can use E10 petrol and all cars built since 2011 are compatible. If your petrol vehicle or equipment is not compatible with E10 fuel, you will still be able to use E5 by purchasing the ‘super’ grade (97+ octane) petrol from most filling stations. Petrol pumps will clearly label petrol as either E10 or E5. You can check if your car, motorbike or moped can use E10 petrol by using our E10 vehicle checker. About E10 petrol E10 petrol contains up to 10% renewable ethanol, which will help to reduce carbon dioxide (CO2) emissions associated with petrol vehicles and tackle climate change. Petrol in the UK currently contains up to 5% renewable ethanol (known as E5). E10 petrol is already widely used around the world, including across Europe, the US and Australia. It has also been the reference fuel against which new cars are tested for emissions and performance since 2016. Reducing emissions CO2 is one of the greenhouse gases that contribute to climate change and the main benefit of E10 petrol is that it reduces overall levels of CO2-based vehicle emissions. By blending petrol with up to 10% renewable ethanol, less fossil fuel is needed, helping us reduce carbon emissions and meet climate change targets. The introduction of E10 petrol at UK forecourts could cut transport CO2 emissions by 750,000 tonnes a year – the equivalent of taking 350,000 cars off the road, or all the cars in North Yorkshire. Renewable fuel blends, such as E10 petrol, are generally introduced to reduce overall CO2 emissions. They have little impact on emissions associated with air quality and public health. The production of renewable ethanol for blending with fossil petrol also results in valuable by-products, including animal feed and stored CO2. Fuel economy Using E10 petrol can slightly reduce fuel economy (the number of miles you are able to drive on a gallon of fuel). You may see a reduction of around 1%, but it is unlikely to be noticeable in everyday driving. Other factors – such as your driving style or driving with under-inflated tyres or a roof rack – have a much more significant impact on fuel economy than using E10 petrol. Compatibility Vehicles Around 95% of petrol-powered vehicles on the road are compatible with E10 petrol and this figure is increasing all the time. All new cars manufactured since 2011 are compatible with E10 petrol, and most cars and motorcycles manufactured since the late 1990s are also approved by manufacturers to use E10. The following vehicles, however, may not be compatible with E10 petrol: classic, cherished and older vehicles some specific models, particularly those from the early 2000s some mopeds, particularly those with an engine size of 50cc or under You can check whether your vehicle is approved to use E10 petrol using our E10 vehicle checker, which covers cars, motorcycles and mopeds. Start now If your brand or model is not listed, consult your manual or contact your vehicle or equipment manufacturer. Vehicle MOT garages or workshops may also be able to advise on cars, vans and motorcycles. If in doubt, continue to use E5 (97+ octane) petrol. Classic vehicles Many manufactures of classic cars are not listed in the vehicle checker. Where older brands are no longer trading, we cannot provide specific information on vehicle compatibility. Owners of vehicles not listed in the vehicle checker should continue to use E5 (97+ octane) petrol, which will remain available in the ‘super’ grade. For further information, we recommend contacting classic vehicle owners’ clubs and associations, as well as garages that may be able to provide advice. What to do if your vehicle is not compatible with E10 petrol Continue to use E5 petrol in the ‘super’ grade (97+ octane), which will remain available at many larger filling stations. Make sure you check the label before you fill up. What to do if you put E10 petrol in a non-compatible vehicle Simply fill up with E5 (‘97+ octane) petrol next time. Using a single tank of E10 petrol in a vehicle that is not compatible should not be a major problem. Just make sure you fill up with the correct E5 (‘97+ octane) petrol grade next time. Unlike putting petrol into a diesel engine, you shouldn’t need to drain the tank. On a one-time basis, your vehicle will not suffer engine damage as a result. Prolonged use of E10 petrol in a non-compatible vehicle, however, may cause harm and is not recommended. Mixing E10 and E5 petrol If your vehicle is compatible with E10 petrol, there’s no reason you can’t mix the 2 grades of petrol (E5 97+ and E10 95+). It’s perfectly safe to mix them in the same tank or fill up with E5 if E10 is not available. Boats, aircraft and other petrol-powered equipment Some other petrol-powered equipment may not be compatible with E10 petrol including: boats petrol-powered garden equipment or machinery, such as lawnmowers and chainsaws Owners and operators should check their manual or ask the manufacturer or dealer before using E10. Owners of light aircraft that currently use E5 petrol known as MOGAS should continue to use E5 petrol unless expressly approved by their manufacturer or regulating body. Availability E10 is the standard grade petrol available at almost all petrol stations the UK. Petrol stations that offer 2 grades of petrol will stock E10 (95 octane) and E5 (97+ octane) petrol. E5 (97+ octane petrol with no more than 5% renewable ethanol), however, will remain available at filling stations that sell 2 grades of petrol. Some rural, remote or very small filling stations may sell only either E5 or E10 petrol as standard. Labelling At the filling station At the petrol station, a circular ‘E10’ or ‘E5’ label will be clearly visible on both the petrol dispenser and nozzle, making it easy for you to identify the correct petrol to use. The ‘E10’ and ‘E5’ labels look like this: On your vehicle New vehicles manufactured from 2019 onwards should have an ‘E10’ and ‘E5’ label close to the filler cap showing the fuel(s) they can use. If your vehicle or equipment doesn’t have this label, you can check their compatibility using our E10 vehicle checker. If you’re still unsure, consult your manual or contact the vehicle manufacturer. Driving in clean air and ultra-low emission zones Using E10 fuel will not affect whether you are able to drive in, or have to pay to enter, a clean air zone (CAZ), low emission zone (LEZ) or ultra-low emission zone (ULEZ). This is determined by your car’s Euro emissions standard and not by the fuel used. Different types of petrol can be identified by a numbering system (91, 94, 95, 98, 105 etc), which is the octane rating of the fuel. Octane is a measure of petrol’s resistance to igniting prematurely in the engine’s combustion chamber when the car is accelerating. There are two types of octane rating – the Motor Octane Number (MON) and the Research Octane Number (RON). The RON is more commonly referred to, and that’s the one you see displayed on bowsers and nozzles at service stations and petrol price signs in NSW. The higher the octane rating, the more resistant the petrol is to burning uncontrollably (‘knocking’ or ‘pinging’) before it is supposed to. Generally then, a higher octane rating results in a more complete burn of the available fuel, thereby maximizing engine efficiency. Vehicle manufacturers design engines to be run on petrol with a minimum octane rating. You should always use petrol in your car that has an octane rating at least equal to that specified by the manufacturer. An engine’s octane requirement is usually outlined in the vehicle’s handbook, or in some cars, this information can be found written on the inside of the fuel flap. Alternatively, refer to the manufacturer’s website. Regular unleaded petrol in Australia is RON 91, and most petrol cars sold here since 1986 were designed to run on RON 91. In turn, the majority of petrol engines designed for RON 91 are compatible with E10. If the manufacturer has recommended that you use premium unleaded in the vehicle, this means you should fill the tank with either RON 95 or RON 98. Neither E10 (RON 94) or regular unleaded petrol should be used in those vehicles. Since September 2021, British fuel retailers have had to adopt a new petrol formula to reduce emissions Close The widespread adoption of E10 fuel is now long complete, with almost every forecourt across the UK dispensing it from the green pump. It was in September 2021 that the government announced the enhanced ethanol-mix fuel would become the new standard grade of unleaded petrol across Great Britain, citing its lower CO2 emissions compared with the previous E5 blend. Northern Ireland followed suit in November 2022. Many may not have noticed the changeover to E10 fuel, but question marks remain over its adoption – from whether your car can run on it, to whether it reduces fuel economy, if it’s okay to mix it with E5 petrol, and much more. This comprehensive guide explains everything you need to know about E10 fuel. What is E10? To make conventional fuels less environmentally harmful, it was decided to blend in some renewable content such as biodiesel and ethanol. This is nothing new: it has been going on with petrol and diesel in the UK since the early 2010s. Ethanol is an alcohol fuel produced from a range of plants, including sugar cane and grains. The upside is that, unlike regular unleaded petrol, growing the crops that make ethanol actually absorbs CO2, partially offsetting greenhouse gas emissions. Before the introduction of E10, the standard unleaded petrol was called E5 and made up of 95% regular unleaded petrol and 5% renewable ethanol – hence the name. Diesel remains as B7 and is made up of 7% biodiesel. Blending renewable fuels in this way has reputedly contributed to a CO2 emissions reduction equal to taking more than a million cars off the road. E10 was introduced to further reduce the emissions produced by petrol vehicles by doubling the amount of ethanol used to 10%. The UK government estimated that its widespread adoption could reduce CO2 output by 2%. That might not seem like a huge amount, but as Britain moves towards a net-zero-carbon future, every little helps. Can my car run on E10? Most cars built in the past 20 years or should be able to run on E10, because the fuel has been widely available in other countries for years. In fact, of the roughly 30 million cars in the UK, the RAC Foundation has estimated that just over 634,000 won’t be able to use E10. Of these, only 150,000 were built after 2000, meaning most are classic or vintage machines. For these older cars, experts have warned that the increased ethanol content is likely to lead to issues in the long term, the most common being blocked fuel filters, damaged fuel pumps, the rapid degradation of fuel lines and corroded carburettors. However, the government has confirmed that owners of these cars will be able to purchase less problematic E5 fuel, albeit in more expensive, higher-octane super-unleaded form. The Petrol Retailers Association said in 2021: “E5 will still be available in five years' time, but only as the protection grade in ‘super’. It will be reviewed in five years' time.” Should I use E5 or E10 petrol? If your petrol car is unable to run on E10 (see above), then E5 fuel is still available, albeit in more expensive (and higher-octane) super-unleaded form. But if your car’s user manual says it's compatible with E10 fuel, then there’s no reason why you shouldn’t use it. Apart from a drop in fuel economy compared with the E5 alternative, there should only be a minimal difference at all in the way your car drives. Which cars cannot run on E10? Most petrol cars manufactured since the 1990s are able to run on E10 fuel without issues, but there were some exceptions – particularly during the early 2000s. The government’s website hosts an E10 compatibility checker, which asks you to enter the manufacturer of your car. It will then tell you which petrol cars from that brand are compatible with E10, and which are not. For example, entering Alfa Romeo tells you that all petrol engines used in the Mito supermini are compatible with E10. However, only a select few in the 159, Brera and Spider can run on it. If you still aren’t sure after checking online, look inside your car’s fuel filler flap or check the owner’s manual. Failing that, ask the manufacturer, or consult a specialist forum such as an owner’s club. Since 2011, all new cars sold in this country have had to be E10-compatible. What happens if I put E10 petrol in my old car? If you make a mistake at the pumps and brim your older car with E10, all is not lost. Unlike the fuel-tank draining consequences of a petrol-diesel misfuel, simply dilute it with E5 from then on and it should be fine. But don’t make a habit of it, say the fuel manufacturers, including Shell. E10 can affect older cars in the following ways: Cold start Higher ethanol content in petrol can make it harder to turn over an engine from cold. Vapour lock Ethanol’s higher volatility can contribute to vapour lock (petrol becoming gaseous) when operating temperatures are higher, causing stalling. Leaks Ethanol’s high solvency can cause problems with many seal and gasket materials that are used in fuel systems, as well as with glassfibre resins. More leaks Besides a risk of fuel leaks, rubbers and resins can get partially dissolved, producing deposits that could foul carburettor jets. Corrosion Ethanol can become acidic and cause corrosion of aluminium, zinc and galvanised materials, as well as brass, copper and steels coated in lead or tin. Should I use E10 petrol in my sports car? Many performance cars – the BMW M5, Mercedes-AMG A45 and Porsche 911, to name a few – are designed to run on high-octane fuels, typically demanding 98 RON or better. Currently, fuels with these octane ratings are still E5 blends. That isn’t to say that you can’t run them on E10, but you might notice a slight change in the engine’s power delivery: regular users of super-unleaded often report that their car ‘feels’ more responsive, especially in the low to medium rev ranges. Many independent studies have revealed the modest power gains that can be gleaned from higher-octane fuels, with testers reporting subjective improvements on the road. If you want to make sure you’re getting the most out of your car’s engine in terms of performance and fuel efficiency, then super-unleaded is still the way to go. Yes, it’s more expensive to buy, but factor in a slight increase in fuel efficiency over 95 RON unleaded – particularly E10 – and the cost difference might not be as noticeable as you expect. Does E10 fuel give lower MPG figures? The US’s Environmental Protection Agency has estimated that E10 can reduce fuel economy by 3-4% compared with fuel that does not contain any ethanol. This happens because ethanol contains around 33% less energy than pure petrol. So you have to burn more of it to achieve the same power output. Nonetheless, if your car’s user manual says it's compatible with E10 fuel, then there’s no reason why you shouldn’t use it. Apart from that drop in fuel economy compared with the E5 alternative, there should be only a minimal difference at all in the way your car drives. If you’re unsure which fuel to use, always consult the car’s manual. Is it okay to mix E5 and E10 petrol? Yes, it is okay to mix E5 and E10 petrol. The risk of using E10 in a car that is not built to use it is to do with the corrosion of rubber and plastic components, rather than any issues with how the engine runs. This corrosion takes place over an extended period of time, so one-off use shouldn’t cause any problems. If you fill a car that isn’t E10-compatible with the fuel, the RAC recommends topping it up with E5 after using a quarter of a tank. As long as you don’t make a habit of using E10 regularly in a car that does not support its use, you should be fine. If you’ve filled a car that isn’t E10-compatible with the fuel and plan to let it sit for an extended period – such as putting it into storage for the winter – make sure you’ve cleared as much E10 from its fuel system as you can using the above method. 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