

# Everything You Need to Know About E15

June 30, 2022

#### What is E15?

E15 is a fuel blend containing 15% ethanol and 85% gasoline. It contains slightly more ethanol than the regular E10 gasoline blend (which contains 10% ethanol) that is ubiquitous in the market today.

## Can I use E15 in my vehicle?

E15 is fully approved for use in cars, SUVs, pickups, vans, or other light-duty vehicles that were manufactured **after the year 2000**. That means more than **96%** of the vehicles on the road today are legally approved to use E15. If you do not know what year your vehicle was made, check your owner's manual or the sticker on the driver's side door jamb.

## Do auto manufacturers approve the use of E15?

**Yes**, the overwhelming majority of auto manufacturers explicitly approve the use of E15 in modern vehicles. For example, **95%** of model year 2022 vehicles sold carry the manufacturer's unequivocal approval to use E15.

#### Where can I find E15?

E15 is available today at nearly **2,600 retail stations in 30 states**. To find a station near you, go to this website and click the red "Show E15" button above the map, then zoom in on your area. E15 is available at one out of every five gas stations in Iowa and Minnesota, and one out of every 10 stations in Kansas, Nebraska, and Wisconsin. It is also commonly available in states like Florida, Ohio, North Carolina, Pennsylvania, Texas, Virginia, and West Virginia. E15 is offered by leading retail chains like Sheetz, Casey's, Kwik Trip/Kwik Star, Kum & Go, RaceTrac, Family Express, Cenex, Royal Farms, and others. If E15 isn't offered near you today, encourage your local retail station to begin selling the fuel. For most retailers, making the switch to E15 is quick and does not cost much.

#### Is E15 a new fuel?

**No**, the U.S. Environmental Protection Agency (EPA) legally **approved E15 in 2011** and it was first sold at a retail station in Kansas in July 2012. Thus, E15 has been in the marketplace for a full decade. RFA <u>estimates</u> that roughly **2.2 billion gallons** of E15 have been sold since 2012, with a new record volume being sold in 2021. That means consumers have driven some **55 billion miles** on E15 since 2012 without any verified reports of performance issues or engine problems, nor have any warranty claims been made.

# Does E15 go by other names at the pump?

**Yes**, retail stations that sell E15 often give the fuel a marketing name like Unleaded 88, Regular 88, Clean 88, eBlend, Unleaded15, and others. But regardless of what it is called, every pump offering E15 will have the same Federally required label affixed to the pump (usually near the hose and nozzle that dispense the fuel). It is common for fuel retailers to use branding names for their fuel, and E15 is no different.





#### How much will E15 cost me?

In recent months, E15 has typically been sold at a **10-40 cent per gallon** discount to regular gasoline that contains 10% ethanol. In some cases, the discount has been as much as **60-70 cents per gallon**. E15's price is often 4-10% lower than the price for E10 (and 12-15% below the price of E0). In the case of <u>Sheetz's Independence Day promotion</u>, the savings for E15 (marketed by Sheetz as "Unleaded 88") is typically 60 cents to \$1 per gallon! Each day, drivers across the country report E15 and E85 prices from their local stations on this <u>website</u>. Click the red "Show E15" button under the map to see the latest reported E15 prices.

## Will E15 reduce my fuel economy?

While a gallon of E15 contains 1.5% less energy than a gallon of regular gasoline (E10), drivers rarely notice any impact on fuel economy (miles per gallon). If fuel economy was perfectly correlated with energy density, then a vehicle that gets 30 miles per gallon when operating on regular gasoline would be expected to get 29.6 miles per gallon when operating on E15. However, many variables can impact fuel economy in the real world, and a recent study conducted by the University of California showed some vehicles experienced slightly **better fuel economy** when using E15 instead of E10. Also, even if fuel economy dropped by 1.5% when operating on E15, the fuel is typically sold at a **4-10% discount** to E10. That means E15 would still provide a **lower cost per mile** traveled.

## Has E15 been tested well enough?

E15 is the **most thoroughly tested fuel in history**. Before approving the fuel in 2011, EPA and the U.S. Department of Energy rigorously tested the use of E15 in **80 vehicles**, accumulating more than **6 million miles** while operating on the fuel. Scientists carefully analyzed the impact of E15 on drivability, catalyst durability, fuel pumps, seals, diagnostic systems, fuel system components, fuel economy, and exhaust emissions. They definitively concluded that E15 is safe for use in all vehicles built after 2000.

#### Does E15 have more octane?

In most cases, E15 offers slightly higher octane (88 AKI) than regular E10 gasoline (87 AKI). That's why many retailers choose to include "88" in the marketing names they give to E15. The higher octane rating means E15 offers greater **horsepower** and increased resistance to premature fuel combustion (i.e., greater efficiency). Be aware, however, that E15 is not offered at 88 octane in every case. While 88 octane is most common, E15 has also been sold at 86, 87, 89, 91 and even 94 octane.

# What are the emissions impacts of E15?

Because ethanol is a renewable fuel that is burns cleaner and reduces carbon, the use of E15 results in lower emissions than using regular E10 gasoline. Using E15 in place of E10 <u>reduces greenhouse gas emissions</u> by about **3%**, while the use of E15 also reduces emissions of the pollutants that lead to <u>ground-level ozone</u> and smog.

#### Can I use E15 in my boat, motorcycle, mower, or other non-road equipment?

No, E15 is <u>not approved</u> by EPA for use in motorcycles, boats, snowmobiles, lawnmowers, chainsaws, and other non-road equipment. However, E10, which is available at virtually every gas station in the country today is generally approved for use in this equipment and ethanol-free gasoline (E0) remains broadly available for those consumers who wish to use it. Drivers should note, however, that E0 is the most expensive and highest-emitting grade of gasoline sold today.