



# Shell Renewable Diesel

Our Cleaner-Burning Diesel Alternative

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## What is renewable diesel?

Renewable diesel is a substitute for conventional diesel and derived from a feedstock of plant oils, such as soybean oil, as well as waste cooking oil and tallow. It is unlike conventional diesel which is manufactured from crude oil. Renewable diesel is highly refined by hydrotreating this feedstock which makes it physically and chemically very similar to conventional diesel. This manufacturing process produces more consistent, uniform molecules of a paraffinic nature when compared to conventional crude oil refining. Renewable diesel therefore has improved combustion properties inside diesel engines which helps reduce emissions of air pollutants compared to conventional B0 diesel. It is also free of unwanted components such as sulfur, metals, and aromatics, making it less harmful to the environment.

## Is renewable diesel the same as biodiesel?

No, while biodiesel uses the same feedstock components as renewable diesel it undergoes a different manufacturing process called transesterification which does not result in the enhanced properties of renewable diesel. Biodiesel is typically only used in diesel blends up to 20%.

## Can I use Shell Renewable Diesel in my diesel vehicle?

Shell Renewable Diesel is a drop in fuel and can be used directly in diesel engines when switching from conventional diesel, based on Shell's operability studies and market experience to date. Shell Renewable Diesel also complies with the ASTM D975 fuel standard, which is like conventional diesel but unlike biodiesel in levels over 5%. As a result, Shell Renewable Diesel can be used at levels up to 100% also unlike biodiesel which typically has a maximum blend level of 20%. Shell limits the amount of biodiesel to a maximum of 5% in our product which further reduces the possible compatibility issues of blends such as R80B20 (80% renewable diesel and 20% biodiesel).

## What are the benefits of Shell Renewable Diesel?

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### Cleaner Burning

Shell Renewable diesel is our Cleaner-Burning Diesel Alternative resulting in less tailpipe emissions compared to conventional B0 diesel. It reduces greenhouse gas emissions by approximately 65% on a life cycle basis when compared to conventional diesel (B0) using life cycle emissions data from CARB LCFS and CA-GREET 3.0. **CA AB 1305 Disclosure**



### **Significantly Higher Cetane**

Due to the hydrotreating process, Shell Renewable Diesel has significantly higher cetane when compared to conventional diesel (USLD B0). Whereas conventional CARB conventional diesel has a cetane rating of 53, Shell Renewable Diesel has a cetane number rating of at least 70. These higher cetane levels and along with the absence of aromatics results in Shell Renewable Diesel having a more complete combustion in diesel engines.

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### **99.9% Renewable Fuel**

Shell sells two blends of Shell Renewable Diesel, R95B5 (95% renewable Diesel and 5% biodiesel) and R99.9 (99.9% renewable diesel) both of which result in at least a 99.9% renewable fuel product.

## **Where can I purchase Shell Renewable Diesel?**

Shell Renewable Diesel is currently available at select Shell locations in California. **Please click here to see all the sites that currently offer Shell Renewable Diesel.**

' Conversion: