

# Using Biodiesel Blends in Your Vehicle

## What is biodiesel?

Biodiesel is a cleaner burning diesel fuel made from renewable sources like soybean oil, recycled cooking oil and animal fats. In its pure form, it is biodegradable, non-toxic, blends well with petroleum-based diesel fuel, and can be used in existing diesel engines, pumps, tanks, and lines.

## What is a biodiesel blend?

Biodiesel is blended with petroleum diesel. Fuel containing 5% biodiesel and 95% petroleum diesel is called B5. The most common blends are B5, B10 and B20.

## Can I use biodiesel blends up to B20 in my vehicle?

Biodiesel blends up to B20 can be used in any diesel vehicle. All US engine manufacturers approve the use of B20 and accept that using it requires no modifications to your existing diesel engine. Some foreign manufacturers do not endorse blends above B5. However, in states like Minnesota and Illinois where higher blends are common, those manufacturers have sent letters to registered car owners stating that higher biodiesel blends can be used in their vehicles. Original Equipment Manufacturer (OEM) information can be found at: <http://biodiesel.org/using-biodiesel/oem-information/oem-statement-summary-chart>

## Do biodiesel blends up to B20 have similar performance to petroleum diesel?

Consumers should see no loss of power or performance when using B10 and B20 blends. Biodiesel enhances the lubricating properties of diesel fuel, reducing wear and prolonging engine life. Biodiesel has a detergent effect to keep injectors and fuel systems clean. Biodiesel is high in cetane for quicker starts and less smoke.

## Are there any quality standards for biodiesel?

Biodiesel has very strict fuel quality standards that have been developed from years of testing. ASTM D6751 is the standard for the B100 that is blended with petroleum diesel. D975, the standard for diesel, includes up to 5% biodiesel (B5) as B5 has been proven through testing to have the same physical characteristics as petroleum diesel. Finally, D7467 was developed with the help of engine manufacturers to ensure the use and performance of B6 to B20 blends in existing diesel engines.

## Will I void my warranty if I use a biodiesel blend?

According to federal law, vehicle warranties cover parts and workmanship, not fuel.<sup>1</sup> Unless use of a higher-than recommended blend of biodiesel is the cause of engine or parts failure, the warranty must be honored. Keep in mind that if the engine parts fail because of out of specification diesel or biodiesel, the failure may not be covered by the warranty.

## How do I know what blend of biodiesel I am buying at the pump?

Because diesel fuel is allowed to have up to 5% biodiesel, there is no label at the pump for blends up to 5%. There will be a label at the pump for biodiesel blends between B5 and B20. Anything over B20 must be labeled with the exact biodiesel blend.

<sup>1</sup> U.S.C. Title 15– Commerce and Trade; Chapter 50– Consumer Product Warranties.

## Best Practices for Diesel Vehicle Owners

- ▶ For best performance, follow oil and fuel filter change intervals as directed by your owner's manual.
- ▶ If you will not be driving your vehicle for a period of time, fill the tank to capacity to prevent fuel degradation.
- ▶ Monitor your engine oil levels. If they rise, take your vehicle in for an oil change.
- ▶ Avoid water absorbing fuel filters.

Contact the Diesel Helpline with any questions.  
1-800-929-3437



# Minnesota's Biodiesel Requirement

Minnesota has been a leader in renewable fuels, as the first state to require 10% ethanol in gasoline and the first state to require that all diesel fuel contain biodiesel. Biodiesel has been blended in Minnesota's diesel fuel for more than 10 years, first requiring a 2% biodiesel blend (B2) in September 2005. The requirement increased to B5 in 2009 and then to B10 in 2014 with a planned increase to B20 in 2018. Minnesota has proven that biodiesel works in winter, experiencing some of the coldest temperatures in the U.S.

## B-20 Biodiesel Blend

contains biomass-based diesel or biodiesel in quantities between 5 percent and 20 percent

Minnesota currently has the following requirements for biodiesel:

- ▶ From April 1–September 30, all #2 diesel must contain a minimum of 10% biodiesel (B10)
- ▶ From October 1–March 31, all #2 diesel must contain 5% biodiesel (B5)
- ▶ #1 diesel is not required to contain biodiesel

Note: Owners who regularly drive their vehicles will be transitioned to lower (minimum requirement) biodiesel blends on October 1 for the winter, and then transitioned back to higher biodiesel blends on April 1 for the summer.

## For more information about Minnesota's Biodiesel Requirement:

[www.mda.state.mn.us/renewable/biodiesel](http://www.mda.state.mn.us/renewable/biodiesel)

## Minnesota Diesel Helpline 1-800-929-3437

The Helpline exists to:

- ▶ Assist diesel users with diesel- and biodiesel-related questions
- ▶ Troubleshoot and diagnose filter plugging issues
- ▶ Provide guidance on proper fuel handling and tank maintenance practices

In accordance with the Americans with Disabilities Act, this information is available in alternative forms of communication upon request by calling 651-201-6000. TTY users can call the Minnesota Relay Service at 711. The MDA is an equal opportunity employer and provider.

# Understanding Minnesota's Biodiesel Requirement



## A users guide for biodiesel blends from B5 – B20

