

What Biodiesel is:

Biodiesel is a clean burning alternative fuel, produced from domestic, renewable resources such as plant oils, animal fats, used cooking oil and even new sources such as algae. Biodiesel contains no petroleum, but it can be blended at any level with petroleum diesel to create a biodiesel blend. Biodiesel blends can be used in compression-ignition (diesel) engines with little or no modifications. Biodiesel is simple to use, biodegradable, nontoxic, and essentially free of sulfur and aromatics.

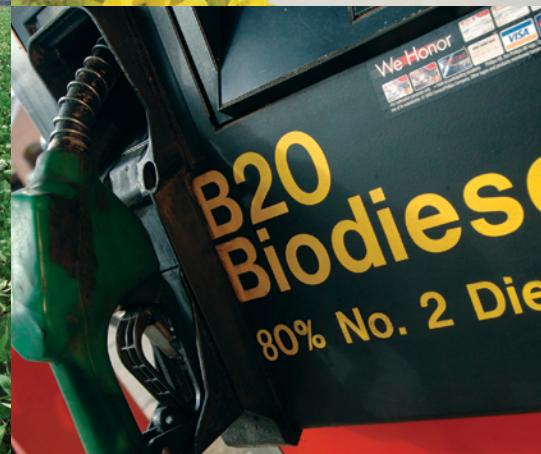
What Biodiesel is not:

Biodiesel is not raw vegetable oil. Fuel-grade biodiesel must be produced to strict industry specifications (ASTM D6751) in order to ensure proper performance. Biodiesel that meets ASTM D6751 and is legally registered with the Environmental Protection Agency is a legal motor fuel for sale and distribution. Raw vegetable oil cannot meet biodiesel fuel specifications, it is not registered with the EPA, and it is not a legal motor fuel.

Biodiesel is also not the same as ethanol. Ethanol is a renewable biofuel made primarily from corn and intended for use in gasoline-powered engines, while biodiesel is a renewable biofuel made from a variety of materials and designed for use in diesel engines, with different properties and benefits.

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BIODIESEL MYTHS **BUSTED**



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Myth: Biodiesel is an experimental fuel and has not been thoroughly tested.

FACT: Biodiesel is one of the most thoroughly tested alternative fuels on the market. A number of independent studies – performed by the U.S. Department of Energy, National Renewable Energy Lab, U.S. Department of Agriculture, Stanadyne Corp. (the largest diesel fuel injection equipment manufacturer in the U.S.), Lovelace Respiratory Research Institute, and Southwest Research Institute – have shown that biodiesel performs comparably to petroleum diesel but with greater benefits to the environment and human health.

Myth: No objective biodiesel fuel standard exists.

FACT: The biodiesel industry has been active in setting quality standards for biodiesel for more than 15 years. ASTM specifications exist for diesel fuel and biodiesel fuel blends from 6 to 20 percent (B6 – B20 (D7467-09)), biodiesel blends up to B5 to be used for on- and off-road diesel applications (D975-08a), and home heating and boiler applications (D396-08b). ASTM approved the original specification for pure B100 (D6751) in December 2001. These performance-based ASTM specifications apply regardless of the feedstock materials used to make the fuel. Copies of specifications are available from ASTM at www.astm.org.

Myth: Biodiesel does not perform as well as diesel.

FACT: One of the major advantages of biodiesel is the fact that it can be used in most existing diesel engines and fuel injection equipment in blends up to 20 percent with little impact to operating performance. Biodiesel has a higher cetane number than U.S. diesel fuel. In more than 50 million miles of in-field demonstrations, B20 showed similar fuel consumption, horsepower, torque, and haulage rates as conventional diesel fuel. Biodiesel also has superior lubricity, and it has the highest BTU content of any alternative fuel (falling in the range between #1 and #2 diesel fuel).

Myth: Biodiesel in any blend is incompatible with the new 2010+ diesel engine technologies

FACT: The new engine emission control systems in the 2010+ vehicles are all still easily compatible with blends up to at least B5. Rumors about incompatibility stem from concerns about the possibility of increased engine oil dilution that can come into play with the use of higher biodiesel blends (B10 and higher) in the few new light-duty diesel vehicles that utilize an emissions control system with in-cylinder post-injection technology.

However, recent research studies by Volkswagen as well as the National Renewable Energy Lab all concluded that despite the slightly higher oil dilution levels with biodiesel blends above B10, the oil viscosity levels still remained in an uncritical range and there were no negative impacts on vehicle emissions, engine performance, or parts wear as a result of the biodiesel use. With proactive oil change service intervals and the responsible use of high quality biodiesel blends meeting ASTM specifications, users can still fuel up confidently with blends up to B20, per manufacturers' recommendations, without concern for engine performance. More studies with higher blends of biodiesel are planned for the near future.

Myth: Biodiesel use voids manufacturers' engine warranty coverage.

FACT: All major U.S. automakers and engine manufacturers accept the use of up to at least B5, and many major engine companies have stated formally that the use of high quality biodiesel blends up to B20 will not void their parts and workmanship warranties. For a listing of specific statements from the engine companies, please visit the National Biodiesel Board Web site at www.biodiesel.org/resources/oems.

Myth: Biodiesel has fuel quality problems.

FACT: A study released in 2008 by the National Renewable Energy Laboratory (NREL) shows the biodiesel industry has substantially met national fuel quality standards. The study demonstrated that plants certified under BQ-9000 consistently hit the quality mark. BQ-9000 is a voluntary fuel quality assurance program that couples the foundations of universally accepted quality management systems with the biodiesel product specification (ASTM D6751). The program covers storage, sampling, testing, blending, shipping, distribution and fuel management practices. Biodiesel production facilities certified as producers under the program cover nearly 80 percent of the U.S. biodiesel market volume.

Myth: Biodiesel doesn't work in cold weather.

FACT: Properly managed, high quality biodiesel blends are used successfully in the coldest of climates. Biodiesel will gel in very cold temperatures, just as common #2 diesel does. Although pure biodiesel has a higher cloud point than #2 diesel fuel, typical blends of 20 percent biodiesel are managed with similar management techniques as #2 diesel. Blends of 5 percent biodiesel and less have virtually no impact on cold weather operability. See www.biodiesel.org/cold for a cold weather guide.

Myth: Biodiesel increases greenhouse gases because it causes land to be cleared.

FACT: U.S. biodiesel reduces lifecycle carbon emissions by 60 to 80 percent, depending on the source, making it the best carbon reduction tool of any liquid fuel commercially available. Biodiesel is the first advanced biofuel to make it to market. It has the highest energy balance of any fuel, returning 4.5 units of energy for every unit of fossil energy needed to produce it. New cropland is not needed to make biodiesel because it is generally produced from co-products of crops already being grown. From 2004 to 2008, when U.S. biodiesel production climbed from 25 million to 700 million gallons, soybean acres here stayed virtually the same, and soybean acres in Brazil decreased. There are surplus stocks of U.S. fats and oils sufficient to meet near and medium term biodiesel target volumes.

Myth: Biodiesel contributes to rising food prices.

FACT: Produced from a variety of renewable resources, such as plant oils, fats, recycled grease, and even algae, biodiesel is the most diverse fuel on the planet. And soybean-based biodiesel actually has a positive impact on the world's food supply. Processing biodiesel from soybeans uses only the oil portion of the soybean, leaving all of the protein available to nourish livestock and humans. By creating a new market for soybean oil, we increase the availability of protein-rich meal for human and livestock consumption. The increased meal supply results in a more cost-effective food and feed source.

For more information on sustainable biodiesel, visit
www.biodieselsustainability.com.

