

Biodiesel Helping Us All Breathe Cleaner Air

Biodiesel is a renewable, domestically produced fuel. It may be obtained from new or used vegetable oils, animal fats and recycled restaurant grease. Its physical properties are very similar to the ones of petroleum diesel. However its greenhouse gas emissions and toxic air pollutants are much lower. Biodiesel is one of the only alternative fuels that can be used on existing diesel engines without having to make any modifications. Biodiesel is available in different blends. These blends include: B100 (pure biodiesel), B20 (20% biodiesel, 80% petroleum diesel), B5 (5% biodiesel, 95% petroleum diesel), and B2 (2% biodiesel, 98% petroleum diesel).

How is Biodiesel made?



Vegetable Oil used in the production of Biodiesel

Biodiesel is made by chemically reacting used and/or new vegetable oils and animal fats with alcohol (methanol). There are different technologies available to produce biodiesel; those vary as the raw material changes. Oils and fats are filtered and preprocessed to remove water and contaminants. Then they are mixed with methanol and substances that alter chemical reactions (sodium or potassium hydroxide), leaving as a product the Biodiesel.

What is B20 biodiesel?

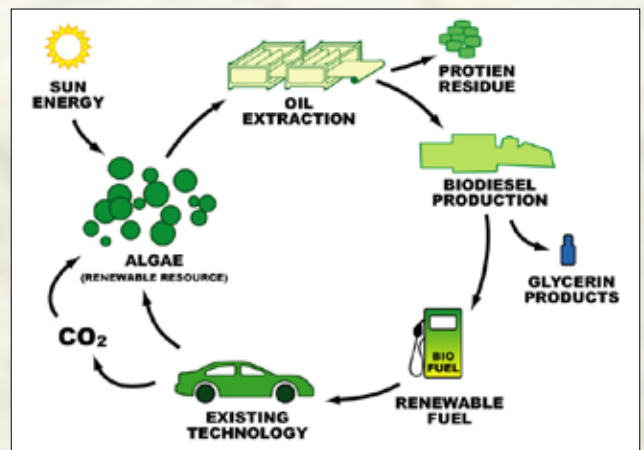
B20 is the most common biodiesel blend in the U.S. made of (20% biodiesel and 80% petro-diesel). It provides many benefits and avoids the compatibility and cold weather performance problems encountered by B100. According to the U.S. Environmental Protection Agency (EPA), there are currently 663 B20 stations in the U.S.

Local Action

- According to the EPA, there are four Biodiesel refueling stations in South Florida.
- The Fort Lauderdale-Hollywood International Airport is using B20 for their diesel shuttle buses and their hybrid-electric buses.
- Since 2008 Palm Tran is using Biodiesel fuel and nitrogen filled tires.

Advantages of Using Biodiesel

- Domestically produced
- Renewable
- Improves public health
- Improves environmental conditions
- Contains 3.2 times the amount of energy it requires for production
- B20 reduces carbon dioxide emissions by 15%
- B100 reduces carbon dioxide emissions by 75%
- Safe to handle, store, and transport
- Increases demand for agricultural products
- B100 can eliminate as much as 90% of air toxins



Biodiesel Production Process

What vehicles run on Biodiesel?

All diesel engines can be operated on Biodiesel. B20 may be used in any diesel engine without making any adaptations.

How much does Biodiesel cost?

The cost of Biodiesel varies state by state. The average cost of B20 is \$.10 per gallon more than diesel and price for B100 is \$.55 per gallon more than diesel.



Since 2008 Tri-Rail began powering locomotives with 99% pure Biodiesel



Biodiesel and Ethanol Fueling Station

The Gold Coast Clean Cities Coalition is managed by the South Florida Regional Planning Council (SFRPC). The SFRPC is a regional planning and public agency whose mission is to work with South Florida's public, private, non-profit, and civic leadership to create a better future for south Florida. The SFRPC is one of 11 Regional Planning Councils in Florida and serves three counties: Miami-Dade, Broward, and Monroe; 71 municipalities; and almost 4.3 million residents. For additional information about the SFRPC please visit www.sfrpc.com

The South Florida Regional Planning Council.
3440 Hollywood Boulevard, Suite 140
Hollywood, Florida 33021

For more information about incentives, alternative fuels and alternative fuel vehicles please visit www.floridagoldcoastcleancities.com

