



# Biodiesel: The 'Pour-and-Go' Alternative

10<sup>th</sup> National Clean Cities Conference – Ft. Lauderdale, Florida

# **Biodiesel is a simple and effective alternative to Petroleum Diesel**

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- ✓ **Reduces Oil Dependence**
- ✓ **Stimulates Our Economy**
- ✓ **Reduces Emissions**
- ✓ **Runs in Diesel Engines**
- ✓ **Meets Federal Standards**



# Biodiesel: A General Definition

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- ❑ Biodiesel is not raw vegetable oil. It is produced by a chemical process that removes glycerin from the oil.
- ❑ Biodiesel is a domestic, renewable fuel for diesel engines derived from natural oils such as soybean oil, and which meets the specifications of ASTM D 6751.
- ❑ Biodiesel is registered with the U.S. EPA as a legal fuel and has completed rigorous Tier I and Tier II Health Effects Testing.
- ❑ Biodiesel can be used in any concentration with petroleum-based diesel fuel in existing diesel engines with little or no modification.

# Describing Biodiesel Blends

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- **B100** = 100% Biodiesel
- **B20** = **80%** Petroleum Diesel / **20%** Biodiesel
  - 1500 gallons B100 + 6000 gallons petroleum = B20  
Transport Load
- **B5** – 95% Petroleum Diesel / 5% Biodiesel

# How Does Biodiesel Perform Compared to Petroleum Diesel Fuel?

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- High Cetane (>50 vs. 42)
- Comparable BTU content
  - ✓ (120,000 BTU/gal vs. 126,000)
- High lubricity (> 6000g vs 3100g SLBOCLE)
- Readily mixes with diesel
- Flashpoint exceeds 300 F

# What Is Driving the Switch to Biodiesel?

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# Emissions Reductions

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## **B20 emissions reductions compared to petroleum diesel:**

- Carbon monoxide -20%
- Unburned hydrocarbons -30%
- Particulate matter -22%
- Sulfates -20%
- NPAH -50%
- Mutagenicity -20%

# EPAct Regulatory Compliance

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- The Energy Policy Act of 1992 (EPAct) was amended in 1998 to include [biodiesel](#) as an option for covered fleets to meet a portion of their annual Alternative Fuel Vehicle (AFV) acquisition requirements through the purchase and use of biodiesel.
- Fleets may choose to operate existing diesel vehicles that weigh more than 8500 lbs on blends of biodiesel in lieu of purchasing a new AFV.
- The biodiesel component of the fuel blend must constitute at least 20% of the volume of the fuel ([B20](#)).



# Opportunity to Reduce Petroleum Dependence

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- Executive Order 13149
  - Calls for a 20 percent petroleum reduction
- Displace 2.9 billion barrels of crude from 2002-2016





## Checklist to Implementing B20

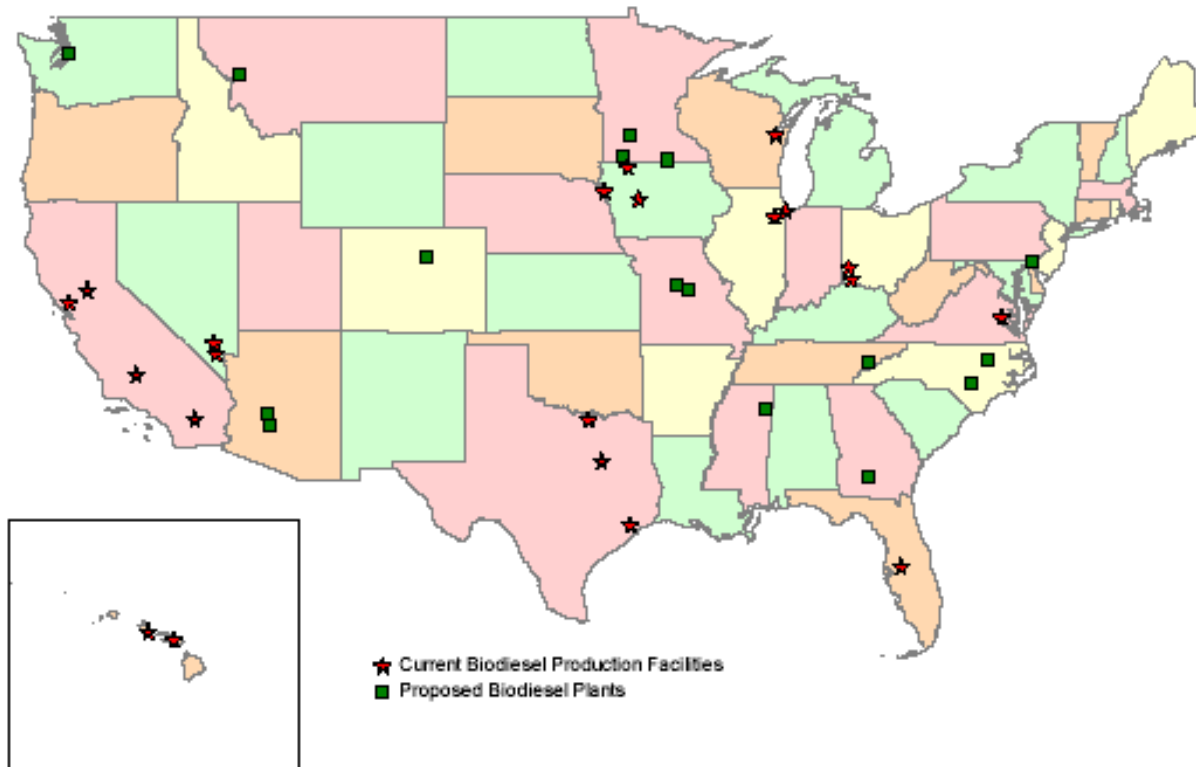
- ✓ Specify D6751-02
- ✓ Specify cloudpoint
- ✓ Use 20% blend, B20
- ✓ Does not Void Warranty
- ✓ Pay +.25 to +.30 per gallon
- ✓ Pour into tank
- ✓ Schedule early filter change
- ✓ Resume business as usual



# Growing Production Capacity

## Current and Proposed Biodiesel Production Plants

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\* Courtesy of the National Biodiesel Board

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