

# Biodiesel

## BIOREFINING PROCESS SOURCE

[Esterification/transesterification](#)

## DESCRIPTION

Biodiesel is a fuel-grade methyl ester. Unlike petroleum-based diesel, it is biodegradable and nontoxic, with reduced emissions and almost no sulfur or aromatic compounds. Most diesel equipment can run, without modification, on fuel in which 20 percent of the diesel has been replaced with biodiesel. Newer equipment can run on 100 percent biodiesel.<sup>1</sup>

## PRICE

\$476.54<sup>2,3</sup>

## MARKET SIZE

80 million gallons, or about 9 percent of the diesel market<sup>4</sup>

## REFERENCES

<sup>1</sup> Alternative Fuels Data Center. "What is Biodiesel?" US Department of Energy.  
[http://www.eere.energy.gov/cleancities/afdc/altfuel/whatis\\_biodiesel.html](http://www.eere.energy.gov/cleancities/afdc/altfuel/whatis_biodiesel.html) (28 May 2004)

<sup>2</sup> Lott, Melissa. 2003. The Alternative Fuel Report: Alternative Fuel Prices Across the Nation. . U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Washington, DC.  
[http://www.afdc.doe.gov/pdfs/afpr\\_3\\_3\\_03.pdf](http://www.afdc.doe.gov/pdfs/afpr_3_3_03.pdf) (16 April 2004)

<sup>3</sup> Schumacher, Leon G., Borgelt, Steven C., Russell, Mark D., and Hires, William G. 2003. Fueling 5.9L & 7.3L Navistar Engines with Biodiesel-20. Agricultural Engineering Department, University of Missouri, Columbia. [http://www.missouri.edu/~pavt0689/Fueling\\_5.9L\\_and\\_7.3L\\_Navistar\\_Engines\\_with\\_Biodiesel-20.pdf](http://www.missouri.edu/~pavt0689/Fueling_5.9L_and_7.3L_Navistar_Engines_with_Biodiesel-20.pdf) (16 April 2004)

<sup>4</sup> Pech, Craig. 2004. BioDiesel Training Presentation. Renewable Alternatives, Green Bay, WI.  
[http://www.doa.state.wi.us/docs\\_view2.asp?docid=2303](http://www.doa.state.wi.us/docs_view2.asp?docid=2303) (16 April 2004)

National Biodiesel Board. Biodiesel: Biodiesel Basics.  
[http://www.biodiesel.org/resources/biodiesel\\_basics/](http://www.biodiesel.org/resources/biodiesel_basics/) (16 April 2004)