

Manufacturing Biodiesel

Questions and Answers for Oregonians Interested in Manufacture of Biodiesel for Personal Use or Small Scale Commercial Production

What is biodiesel?

Biodiesel is a renewable fuel produced from oilseed crops or used cooking oils and unwanted animal fats. As a substitute for petroleum diesel, it is typically blended with petroleum diesel as B20 (20% biodiesel, 80% petroleum diesel).

Where can I purchase biodiesel?

In Oregon, you can find biodiesel in Portland, Bend, Eugene, Corvallis, Hood River, McMinnville and Medford. For the most up-to-date information on public and cardlock retail outlets visit the [National Biodiesel Board](#) website.

What goes into making biodiesel?

When making biodiesel, producers are dealing with toxic chemicals. The components are caustic chemicals, an alcohol called methanol, a heat source, and the transferring of flammable fluids from one container to another. On-site industrially certified fire extinguishing equipment must be capable of putting out an oil-based fire. Industrial ventilation and controls are required as well. Glycerol (used in pharmaceuticals and cosmetics) is produced as a co-product.

Manufacturing a roadway fuel is defined as an industrial process. Local zoning, fire, and hazardous materials rules and regulations apply as do [Material Safety Data Sheets](#).

You must also adhere to workplace health and safety standards. Roadway fuel manufacturing and/or storage may not be allowed on residentially zoned property. One should obtain specific zoning allowances in writing to stay within the guidelines of most property insurance policies, even for properties zoned for agriculture or commercial use.

How do I start a biodiesel production business in Oregon?

To ensure a safe and orderly development of alternative fuels markets in Oregon, there are a number of permitting and safety standards that need to be in place. Visit the [Biomass Energy](#) website for more information

There may also be local city and/or county regulations or permits required. Check with local planning and building officials for information.

I'm interested in on-farm biofuels production. Where do I start?

It's a good idea to learn more about potential issues with on-farm biofuels production and the crops available to produce biofuels. There are many sources of information, but a good place to start would be the [Oregon Department of Agriculture website](#).

Who should I contact if I have an emergency related to biodiesel?

For all emergencies, dial 9-1-1 and explain your emergency. If the emergency includes a fire, tell the 9-1-1 dispatcher the fire may involve an oil and/or alcohol-based product. All spills should be reported immediately to the Oregon Emergency Response System (OERS): 1-800-452-0311.

Who else can answer my questions about biodiesel?

The National Biodiesel Board maintains the largest library of biodiesel information in the U.S. Information can be requested by visiting the biodiesel website at [www.biodiesel.org](#) by e-mailing the NBB at [info@nbb.org](#), or by calling NBB's toll free number 800- 841-5849.

When do I have to pay road taxes?

For Oregon Use Fuels Tax purposes, biodiesel is treated in the same manner as petroleum based diesel. Like petroleum based diesel, biodiesel is a use fuel and is taxed when the fuel is delivered into the fuel tank of a motor vehicle. Persons who sell biodiesel for use in a motor vehicle must be licensed as a Use Fuel Seller with the Oregon Department of Transportation Fuels Tax Group. Persons who purchase biodiesel in bulk or manufacture their own biodiesel are responsible for paying the tax when the fuel is used in a motor vehicle on public roads. For more information see:

[Selling and Using Biodiesel in Oregon](#)

There is a federal excise road tax as well as tax credits for biodiesel blended fuels.

See the [IRS website](#) for information.



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Quality

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(800) 452-4011
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[www.deq.state.or.us](#)

What if it's not just for me, I want to give, maybe sell, biodiesel to others?

All motor fuel sold in Oregon, including biodiesel, must meet fuel quality standards. Visit the [Measurement Standards Division website](#) for more information.

All motor vehicle fuel and fuel additives must also be registered with the [Environmental Protection Agency](#) before being offered for sale or introduced into commerce.

The National Biodiesel Board has completed health effects testing required for registration with EPA. [Visit Biodiesel.org](#) for information about utilizing this information in registering your product.

Generally persons who sell biodiesel for use in a motor vehicle must also be licensed as a Use Fuel Seller with the [Oregon Department of Transportation Fuels Tax Group](#).

What DEQ requirements do I need to meet if I want to make biodiesel for my own personal use?

DEQ does not have any air quality requirements for individuals who make biodiesel for their own use.

What DEQ air quality requirements do I have to meet?

The requirements that must be met will depend on how much air pollution will be emitted from the facility. Making biodiesel involves the use of methanol, which is a Volatile Organic Compound (VOC, Criteria Air Pollutant) and a Hazardous Air Pollutant (HAP). In addition, there may be other emissions from other chemicals used or processed, or from fuel burning equipment (boilers or process heaters) used in the process.

Any biodiesel manufacturer, other than an individual who makes biodiesel for their own use, must submit a [Notice of Intent to Construct](#) and include an estimate of all air pollutant emissions.

If emissions of any single criteria pollutant will be 1/2 (one-half) ton per year or more, an [Air Contaminant Discharge Permit](#) will be required. If emissions of any single Hazardous Air Pollutant will or could be 10 tons per year or more, a [Title V Operating Permit](#) will be required.

Air pollution control equipment may be required in some cases. [Contact the DEQ Regional Office](#) for your area to get more detailed information.

What rules apply to biodiesel storage? (How much biodiesel can I store?)

Planning obligation: Biodiesel manufacturers and distributors should be aware that federal law (40CFR112) requires that people who have an aboveground combined storage capacity of more than 1,320 gallons of any type of oil (petroleum, mineral, vegetable, etc.) must prepare a plan to prevent spills and respond to them if they occur.

This plan is called a Spill Prevention, Control and Countermeasures Plan (SPCC). The [U.S. Environmental Protection Agency](#) enforces the requirement for this plan and inspects SPCC plan holder's facilities.

What must I do if I spill biodiesel?

Spill or Release Reporting: Both Oregon and federal law require reporting when a reportable quantity (RQ) of oil or hazardous substances has been spilled. These calls must be made immediately upon discovery of the spill or release.

- The State of Oregon requires reporting to the Oregon Emergency Response System (OERS) at 1-800-452-0311.
- Federal law requires reporting to the National Response Center (NRC) at 1-800-424-8802.

Reportable Quantities (RO):

At the federal level, the reportable quantity for oil is any amount that causes or threatens to cause sheen on surface waters. At the state level, all spills to waterways in Oregon must be reported. In addition to reportable quantities for oil, biodiesel made of blended hazardous substances may also trigger reporting for those individual constituents. Depending on the quantities of hazardous substances stored at a facility, additional management requirements may also apply. The following table summarizes the reportable quantities for oil at the federal and state level.

Reportable Quantities - Oil (including biodiesel) *		
	Federal	State
Spilled to streams, lakes, or adjoining shorelines	Any amount that produces a sheen	Any amount producing a sheen
Threatening streams, lakes or adjoining shorelines	Any amount that could produce a sheen	Any amount that could produce a sheen
To soil **	Not reportable	42 gallons



* Actual laws on what is “reportable” are complex. DEQ will be happy to discuss specific cases. The Table above covers 99% of the reporting issue.

** Soil contaminated with biodiesel may require cleanup under Federal law.

Failure to report a spill can expose the spiller to Federal and State criminal and civil penalties in addition to the cost of cleanup, which is always paid by the spiller. You should always err on the side of making a report if you have any question as to whether a reportable quantity has been spilled.

What about spilling chemicals used in biodiesel production?

Blending materials such as alcohols or waste oil into biodiesel does not reduce reporting requirements related to oil spills and may add hazardous substance spill reporting requirements to the reporting obligations of the spiller. If you have questions about evaluating the storage,

handling and reporting of chemicals other than pure oil, please contact DEQ’s Emergency Response section at: 503-229-5256. All spills should be reported immediately to the OERS: 800-452-0311.

Agency Contact Information

Department of Agriculture (ODA)
503-986-4550

Department of Energy (DOE)
Diana Enright – 503-378-8278

Department of Environmental Quality (DEQ)
Kevin Downing – 503-229-6549

[State Fire Marshal](#) – contact your local fire department