

What to do with Glycerol?

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GENERAL

If you start with 40 gallons of vegetable feedstock oil, you will add 8 gallons of methoxide for a total of 48 gallons. This should produce 12 to 15 percent of glycerol byproduct, i.e., 5.8 to 7.2 gallons of glycerol. About 6 gallons is a typical yield.

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Our waste glycerol will have low grade glycerin that may have some soap, methanol, lye, and water. We can get rid of the methanol by leaving an open drum of glycerol out in the sun and letting it evaporate. We could also recycle the excess methanol by heating the glycerol to about 150 degrees F and running the fumes up into a still made of stainless steel tubing.

MAKING SOAP

Once the methanol is removed, it is possible to make crude soap, but it will have all of the unpleasant odors of the original feedstock oil.

PURIFYING THE GLYCEROL

It is technically possible, using heat and vacuum, to produce high grade glycerin. Unfortunately, this is a difficult procedure and we do not recommend it to the home biodiesel brewer.

BURNING GLYCEROL

If you have a waste oil burner, such as is often found in large truck repair shops, you can mix about 25 percent glycerol in with your engine oils and transmission fluids. Waste oil burners use large quantities of compressed air and burn very hot. It's quite necessary to burn glycerol at high temperatures. At low temperatures, it produces toxic fumes.

Another way to burn glycerol is to fill a paper milk carton with wood shavings and then add glycerol. This "glycerol log" can then be burned in a wood stove once the wood stove is burning very hot. Do not attempt to use this log as a fire starter! Remember, at low temperatures glycerol produces toxic fumes.

WASHING A CONCRETE DRIVEWAY

Glycerol can be used as a crude, biodegradable soap to wash motor oil from the driveway.

COMPOSTING

Glycerol is biodegradable and can be added in thin layers to your compost pile. Because it is biodegradable it can just be spread out on the ground if you have acreage in the country.

CONCRETE RELEASE

You can spray glycerol on your concrete forms as a release agent.

EROSION CONTROL

You can spray glycerol on a hillside as a form of erosion control.

DOWN THE SEWER

It's quite likely that you can dilute glycerol with water and run it down the drain. The lye may act as a drain cleaner and the local wastewater treatment plant is certainly used to dealing with soapy products. **However, do not use this method of disposal without first checking with your local waste treatment officials.**

NOT INTO STORM DRAINS

Do not put glycerol into storm drains. They are not equipped to deal with soap and lye. Ultimately, storm drains flow into creeks, rivers, bays and oceans. We do not want to pollute these natural resources.