

The Easy Step-by-Step Solution to **Successfully Making Biodiesel**

Hello fellow and future biodiesel-makers ! I thought that it would be a good idea to have the biodiesel-making process provided to you in a super simple format so that it will be even easier to follow. Good luck !

The Three Ingredients needed:

1. At least 1 liter of new or unused vegetable oil.
2. One bottle of lye (sodium hydroxide), available as “drain cleaner” that contains sodium hydroxide.*
3. At least 200 milliliters of methanol ,available as “gas tank antifreeze” that contains methanol.*

**Be sure that if you use drain cleaner, the label says “contains sodium hydroxide”. Most drain cleaners are chlorine-based and that will NOT*

work. The brand, Red Devil Lye Cleaner, contains sodium hydroxide and works great.

**When buying the gas tank antifreeze for the methanol, be sure that the label clearly says, “contains methanol”. Some gas line antifreeze products contain isopropyl alcohol, which will NOT work.*

The Equipment needed:

- A glass container that is marked for 200 milliliters.
- A plastic or glass container that is marked for 1 liter.
- A wide-mouthed glass or plastic container that will hold at least 1.5 liters.

- A speed blender with a slow-speed option.
- A scale (for measuring the lye)
- A plastic spoon (for handling the lye)
- A plastic funnel.
- Safety glasses and rubber gloves.

Preparing the Work Area:

- Room temperature at least 70 degrees F is ideal. No lower than 60 degrees F.
- A well-lit area and well-ventilated area.
- A sink or hose close at hand to wash any chemicals that you may come in contact with and be sure all containers are dry.

Let's Begin Making Biodiesel:

- First we need to make sodium methoxide.

In order to make sodium methoxide, measure 200 milliliters of room temperature methanol into a one pint mason jar.

Then measure 3.5 grams of lye on your scale. Add the lye to the methanol in the mason jar. Be sure the lye is completely dry. Close the lid of the jar tightly.

Shake the jar until the lye is dissolved. The temperature does increase and becomes warm. This is normal. Pour the mixture (now called sodium methoxide) into the blender.

**Do not make surplus batches of methoxide; it loses its potency overtime.*

At this point, get 1 liter of new and unused vegetable oil and heat it up to 140 degrees F.

- Mixing the vegetable oil with the sodium methoxide.

Add the vegetable oil into the blender.

Now you have the sodium methoxide in the blender with the vegetable oil.

Replace the cap on the blender. Turn the blender to its lowest speed so that the mixture is barely making a vortex. Do this for 25 to 30 minutes.

After blending is done, pour the mixture into your wide-mouthed container.

The Birth of Biodiesel:

Slowly, the mixture will separate into two different things. It is very noticeable. The oil should change from a light tan brown to a darker brown. After about 25 to 35 minutes, the glycerine will begin settling at the bottom of the container. The top layer is biodiesel. Now carefully pour off

the lighter colored biodiesel from the top or you can pump it off. Then disregard the glycerin or use the glycerin to make candles.

Congratulations !

You have made Biodiesel.

- It is important to be safe when making biodiesel. This site and its contributors will not be held responsible for any injury, death, or destruction of property that occurs while attempting to make biodiesel.

