

Home Made Energy

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In this first issue of *Home Made Energy* we will be teaching you how to create your own ethanol (Alcohol) fuel.

Ethanol fuel is an effective car fuel. It can be relatively cheap to make, and it produces less harmful emissions than gasoline.

Step 1: Acquire a license for the distillation of ethanol fuel.

Distillation of Ethanol fuel in the United State requires a license from the Alcohol and Tobacco Tax and Trade Bureau (TTB). The form requesting this license can be found here <http://www.ttb.gov/forms/f511074.pdf>.

Step 2: Gather the necessary equipment.

You will need:

- A container (any size)
- Fermentable materials (preferably fruits)
- Yeast (preferably Distillers yeast, or Wine yeast)
- Hydrometer
- A Reflux Still (you can buy one or make one yourself)
- Fuel Filter (if necessary)
- Containers to store ethanol
- Gasoline (to mix with the ethanol)



Step 3: Add Fruit, Water, and Yeast into container (any size).

1. Add fruit to the container until it is 1/3 full.
2. Mash fruit into a mush.
3. Add yeast.
4. Fill container with water.

Step 4: Let the ingredients ferment.

Depending on the yeast and fruit, the mash will take 10-15 days to ferment. Use the Hydrometer to measure the sugar content of the mash. When the Hydrometer reaches zero, the mash is ready to be distilled.

Step 5: Distill the Mash. Filter water from the ethanol (if necessary)

Using your reflux still, follow the direction provided in distilling.

Once finished, if necessary, use a fuel filter to separate any water that may still be mixed with the ethanol.

Step 6: Mix Ethanol with Gasoline.

It is necessary to mix ethanol with gasoline. The law requires a mix of 85% ethanol and 15% gasoline.

And there you have it, your very own ethanol fuel. We hope that this guide has been helpful to you. Next week's issue: Electric pulse technology.

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