



DarkStar VI – 841 St Louis Rd. Collinsville, IL 62234 – <http://www.biodieselgear.com/>

Mix Washing Biodiesel

By Phillip Hill

Biodiesel should be washed to remove the excess catalyst, alcohol and other impurities.

When Biodiesel is first made it is quite caustic with a pH of between 8.0 and 9.0. Washing with plain water is sufficient to wash out all remaining catalyst, bringing the pH down to near neutral territory.

For mix washing, you should start off with 50% water and 50% Biodiesel. Pour the water in first and then pour in your Biodiesel. Use whatever mixing device you have to mix the water and Biodiesel up for a several minutes. Then turn it off and let it settle for 12 hours.

Since Biodiesel has a lower specific gravity than water, the water will eventually separate and settle to the bottom and the Biodiesel will remain on top of the water. As the mix settles out, the water will slowly sink, taking with it any soluble material, mainly the remaining alcohol and catalyst. Heat will speed this up nicely.

In the first wash, the water will turn almost totally white. This is because a form of soap is created when water comes in contact with the catalyst in the Biodiesel. It should clear up as the soap washes out with sub sequential washings.

Drain the wash water after each washing. Repeat the wash three times or until the drained wash water is totally clear.

If the Biodiesel remains slightly cloudy, heat it up to 55C(130F). This should clear it up. Let it cool and filter the Biodiesel through a 10-micron filter while cold.

Drying the Biodiesel requires little more than heating up the final Biodiesel to 55C(130F) and holding it there for 15 – 20 minutes. Any remaining water should evaporate out or drop out easily where it can be drained out.

Now you are ready to filter your Biodiesel into your storage containers or tank.

It is accepted that Biodiesel should be filtered through a 10-micron filter before use or dispensing into storage containers.