**Handy guide on using vegetable oil for soap making**

What exactly is in vegetable oil?

The name vegetable oil is a broad term that encompasses many types of vegetable-based oils, most commonly soybean oil. In fact, when you pick up a bottle of vegetable oil from the grocery store, chances are, it’s comprising 85 percent soybean oil¹. The rest of the contents are often a blend of canola, coconut, corn, cottonseed, palm oil, peanut, olive, sesame, safflower, or sunflower oil.

A more precise term that applies to soap making is vegetable-based oil, or plant-based oil. For example, using a bottle of 100 percent pure sunflower oil (a plant-based oil), which would be suitable for making soap, is not the same as using a blended vegetable oil.

Using a blended vegetable oil in soap may prove problematic for several reasons.

The exact amount of each type of oil is unknown. It would be very difficult to calculate the amount of lye needed to saponify each oil.

Second, the quality of the vegetable oil may be less than that of a pure oil. You’ll get unpredictable results. It’s best to stick with a pure type of vegetable-based oil for a better batch of homemade soap.

**Common base oils used in soap**

A soap recipe that calls for olive oil, coconut oil, and castor oil would take on the properties of the three oils. Olive oil is known for its mild conditioning properties, coconut oil lends some hardness and cleaning power, and a splash of castor oil produces a nice lather.

**Let’s take a closer look at commonly used base oils in soap**

**Avocado oil:** A nourishing and moisturizing oil that lends a slightly green (or yellowish) hue to soap. Stick with less than 15 percent in your overall recipe to avoid an overly soft soap bar.

**Canola oil:** Affordable and widely available, canola oil creates a white bar of soap. It also provides a creamy lather. Use between 15 and 20 percent of canola in your recipe.

**Castor oil:** If you’re looking for a batch of soap that provides luxurious lather, look no further than castor oil. You can add between 20 and 25 percent to your recipe, but remember that it will become softer. We often use castor oil as a superfat.

**Coconut oil**: A popular oil available in 76 degree (most commonly used), 92 degree and fractionated. Coconut adds hardness to a bar of soap, but can dry skin if added in large quantities. It produces a fluffy, albeit short-lived lather.

**Olive oil:** Great for sensitive skin; provides a creamy, stable lather. Soap bars made with olive oil as its sole fat are soft and take a long time to cure—between six months to a year! When used in lower amounts and mixed with other oils, you’ll get a harder bar of soap.

**Palm oil:** Palm oil is a common ingredient used in commercially produced soaps for its availability and cleansing properties. However, there are some who refuse to use palm oil to make soap.

**Soybean oil:** This oil is great for creating bar of soap with a lovely creamy lather. Soybean oil is rich in vitamin E. You can use up to 50 percent in your recipe.

**Sweet almond oil:** A popular oil for use on its own, or in homemade cosmetics and soap. Sweet almond oil provides nourishing properties with a nutty aroma. Use this oil for 20 to 25 percent of your recipe.

Can you use vegetable oil instead of olive oil in soap?

Avocado oil, apricot kernel oil, canola oil, hazelnut oil, and high oleic sunflower/safflower oil.

**The importance of fatty acids in soap making**

Every oil, fat or butter used in soap has a unique fatty acid profile. This profile affects the finished soap. We can group fatty acids into saturated and unsaturated fatty acids.

**Saturated fatty acids**

Create harder bars of soap. This group of saturated acids is great at cleaning; however, if you add too much, they can make your skin dry⁴.

Most soaps made with saturated fatty acids provide a good, creamy lather.

**Lauric acid:** Very cleansing and produces a strong lather; can be harsh if added in large amounts. Fats high in lauric acid can remove healthy oils from skin and leave it feeling dry. Examples include babassu oil, coconut oil, and palm kernel oil.

**Myristic acid:** the softest fatty acid of the saturates group. It produces a hard bar and a good lather; can be harsh if added in large amounts. Examples of oils that contain high myristic acid are babassu oil, coconut oil, and palm kernel oil.

**Palmitic acid:** This type of fatty acid enjoys a long shelf life. It produces a hard bar of soap with stable lather. Aptly named, palm oil is high in palmitic acid. Other oils with high palmitic acid are avocado oil, neem oil, and rice bran oil.

**Stearic acid:** Produces a hard bar of soap with stable, creamy lather. Examples of oils with strong stearic content include cocoa butter, shea butter, kokum butter, and mango butter.

**Unsaturated fatty acids**

Unsaturated fatty acids give handmade soap a fluffier quality with a weaker lather. This group of fatty acids produce milder, softer soaps that are gentler on the skin and not as high on the cleansing scale.

One fatty acid that defies that general quality is ricinoleic acid found in castor oil: it’s the go-to oil for creating a strong, fluffy lather.

Ricinoleic: If you’re looking to make a creamy, conditioning bar of soap, look for oils high in ricinoleic acid. A good example is castor oil.

Oleic: Conditioning properties with a fairly long shelf life; monounsaturated. While you will get great conditioning properties, you won’t get much bubbles. Olive oil is very high in oleic fatty acid. You’ll find many popular soap making oils with high oleic acid such as apricot kernel oil, cocoa butter, canola oil, jojoba oil, and shea butter. Sometimes you’ll also see some vegetable oils labelled as “high oleic” such as high oleic safflower oil.

Linoleic: Very mild with conditioning properties. This is a polyunsaturated fatty acid, which gives it a brief shelf life. Soap may go rancid quickly (or develop dreaded orange spots). Use linoleic oils sparingly with other more stable oils. An example of an oil high in linoleic fatty acid is grapeseed oil, safflower oil, sunflower oil, and sweet almond oil.

Linolenic: Similar to linoleic, except with double bonds. Also prone to quick oxidization, leading to rancidity. These types of oils are rarely used in soap making hemp seed oil.

Soaps that have a shorter shelf life typically contain higher amounts of linoleic and linolenic fatty acids. For example, grapeseed oil and hempseed oil have a shelf life of about one year. Others with a shorter shelf life include flaxseed oil, safflower oil, sunflower oil, and sweet almond oil.

If you’re looking for oils with a longer shelf life, coconut oil, shea butter, olive oil, and castor oil have a shelf life of about two years.

**Hardness, softness, and brittleness**

Soft oils are those that are liquid at room temperature, such as olive oil, safflower oil, sunflower oil. They take longer to reach trace. When added in higher amounts, they can make the soap bar softer.

Especially with olive oil-based soaps, the trick is to cure the soap for a longer time to create a harder, more durable bar of soap.

Hard oils are those that are solid at room temperature, such as coconut oil, and many butters, including shea butter. Typically, harder oils make for harder bars of soap. Many “hard” fats make slow-lathering soaps such as coconut oil.

Oils with a higher SAP Value require more lye in the recipe.

Affordable types of vegetable oil for soap making

If you’re looking for a few cheap vegetable oils for soap making, canola oil, soybean oil, and palm oil are good choices.

Certain grades of olive oil are also affordable. When making soap, there’s not much need to shell out big bucks for the finest grade of extra-virgin olive oil, as you won’t be eating it.

Lower grades of olive oil are more affordable and produce: Pure/Grade A, and Pomace olive oils are perfectly fine for soap making.