Handmade Soap – Conventional and Made with Organic

How It's Made

Saponification is the process of making soap where oils (fatty acids) are combined with Sodium Hydroxide (Lye, a very strong base) to create new molecules of soap and glycerin. This process is an irreversible chemical reaction that alters the ingredients into new substances at a very predictable rate.

When creating a soap recipe, the soap maker calculates the amount of oil and lye that will be "used up" in the reaction, then allows extra oils (called "super fatting") to give the finished product additional benefits based on the oils being used.

The actual soap making process is a lot like cooking, and much like in the world of professional chefs, there are techniques for combining, coloring, and shaping the soap that are unique to each soap maker. Combinations of different ingredients create soaps that look, feel, and behave differently. The steps of soap making are shown below.

How it works

Using soap is important for humans because our biology creates a layer of waste products on our skin that are not water soluble. Soap is a "surfactant", a substance that chemically attracts these waste products, a process we see as soap bubbles, which can then be rinsed away. It is important to use a cleaning agent that will not strip skin. A surfactant that has a very strong chemical attraction for non-water soluble dirt, like laundry detergent, will certainly remove all the dirt, but will also attract substances that are not dirt, but are the normal oils in our skin. The task is to remove the extraneous matter without stripping away the goodness from the skin.

Steps of Soap Making

Mixing	Cutting	Curing
This is where most of the effort is involved. Preparing and clean up take about 75% of the time. The steps of mixing and pouring happen in rapid succession as the saponification process advances.	After a day in the mold, individual bars are cut from logs. The molds at Flowersong Soap Studio can make 12, 24, 36, or 72 bars at a time.	The soap is left to "air dry" for 4-6 weeks. During this time, water evaporates, and the ingredients in the soap "mellow out" together into the finished product. After curing, the soap is packaged and labeled.

What's in it?

Ingredient	Characteristics in Soap	Benefit	Type and Source
Palm Kernel Oil	Creates a hard bar of soap	Strong barrier of moisture retention on the skin	Organic – Pressed, from sustainable sources
Coconut Oil	Contributes large size and quantity of bubbles	Softening without a greasy feel and moisture retention barrier	Organic - Expeller pressed
Cocoa Butter	Creates a hard bar of soap	Protective layer on skin, moisture barrier, humectant (holds water to skin)	Organic - Pure prime pressed, deodorized from North America, South America, Southeast Asia, and/or West Africa
Olive Oil	Adds gentle cleansing	Softening	Organic - Cold pressed in Tuscany
Rosemary Oleoresin	Anti-oxidant	Lengthens shelf life of other oils by preventing aging through oxidation	Organic - CO_2 extracted, blended with Olive Oil
Fragrances	None	Scent	Organic and conventional – various sources
Minerals, Clays, Botanicals	None	Color, exfoliating	Organic or approved for organic in soaps with "made with organic" titles, various sources

Flowersong's Formula

The recipe for our soap was developed to be sudsy even in hard water. During the 3 months of formulation in the hard Arizona desert water, there were endless experiments with combinations of ingredients to see how each behaved and impacted the finished product. We did hands on testing, meaning a LOT of time in the shower trying to wear down the bars to see which formulations were longest lasting. The soap recipe I use today is the result of that work. We use organic oils as much as possible, even in our bars that contain non-organic materials, because the quality of the oils is just that much better. The label lists which ingredients are organic in each bar. Soap is a product that can never be completely organic, due to the amount of lye (not an organic material) that is required to complete the saponification process.