### Can you <mark>make so</mark>ap without lye?

The answer is NO! There is no way to make bar soap without lye (sodium hydroxide). Sodium hydroxide creates the chemical reaction to convert the fats or oils to soap. *Well-made soap has NO lye left over. The chemical reaction changes the oil/lye mixture into soap.* Making soap is chemistry. You need the correct proportions of fat to lye to have the complete chemical transition into soap.

Most commercial soaps are detergents, not real soap. However, some *contain* real soap. Notice on commercial labels words such as "sodium tallowate", "sodium cocoate," etc... That means tallow or coconut oil that has been made into soap with the use of *sodium hydroxide (lye)*... that's the sodium part.



#### Marti's Soap marti@martissoap.com

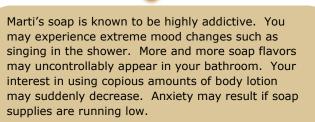
Phone: 760-878-5060

Soap



Marti is also an artist. Check out her website for hand built pottery soap dishes.

#### www.martissoap.com



CAUTION



### Hand Made Olive Oil SOAP

This is **NOT** Grandma's take-your-skin-off soap. This is **NOT** a foul-smelling herbs-gone-bad soap.

This soap is gentle on your skin, and it smells so good you could eat it (not recommended).

My soaps are all made with high quality ingredients. They have to please me before I would sell them to anyone else. I tend to be a perfectionist about anything I create.

I create Castile soap, which is named for soap made with olive oil originating from the Castile region of Spain. My soap contains 77% olive oil with coconut and jojoba oil. The combination of these oils creates a rich bubbly lather, even in hard water.

I also make 100% olive oil soap called Spanish Castile. This soap is incredibly mild, hypoallergenic, and has a creamy lotion-like lather.

Placing this uniquely shaped soap on its round end after use will aid drying.

www.martissoap.com

# Hand Crafted Soap Made From Olive Oil

#### How is Soap Made?

Soap is made by mixing animal or vegetable oils/ fats with lye that has been dissolved in water.

Animal and vegetable fats are made up of fatty acids and glycerin. There are many kinds of fatty acids, and one oil can contain several different kinds. The kinds of fatty acids in the oil are what determine many of the qualities of the soap such as bar hardness or lather.

Whether the final soap is solid or liquid is determined by the *type of lye* used. Sodium hydroxide (also called caustic soda) makes a solid soap. Potassium hydroxide (also called potash) makes a liquid or soft soap.

When lye solution is mixed with the oils, a chemical reaction occurs. The lye and fatty acids combine to make soap and *glycerin is left over.* The water helps to bring everything together. This process is called **saponification**.

# **Essential Oil vs. Fragrance Oil**

**Essential oils** are a pure natural product obtained by distillation of plant material. **Fragrance oils** are generally made from a combination of essential oils and synthetic aromatic compounds. They are rarely *all natural* although it can be done.

I use the highest quality scents and colors. Essential oils are *all natural*, but even that does not always mean safe. I love *all natural*, but I also love great smells. There are many scents that are not available as an essential oil. Scent is very important. There's nothing like a great smelling bar of soap.

If I add color, I use natural herbs, minerals, and occasionally cosmetic grade pigments. My labels always reflect the ingredients I use.

#### Soap vs. Detergent

A surfactant is something that increases the ability of water to wet a solid placed in it. Both soap and detergents are surfactants, but detergents are synthetic. They differ from soap because they contain petroleum distillates instead of fats or oils.

Synthetics can be harsher to your skin than natural soap, especially without the natural glycerin.



## **Natural Glycerin**

Glycerin is a byproduct of the soap making process. Hand made soap retains all the natural glycerin, unlike most commercial bars. Glycerin is a natural emollient that dramatically boosts lather and provides a milder soap that is gentler to the skin. Glycerin is removed from commercial bars since it is a valuable chemical in its own right - more valuable than the soap.

## **Oil Properties**

**Olive Oil:** Pressed from the olive fruit. An excellent moisturizer with its own healing properties. Does not block the skin's natural functions such as sweating, skin shedding, etc.

**Coconut Oil:** Obtained from the coconut meat. Truly a "gift" to soapmaking. It makes incredibly rich, moisturizing lather. Yet, if too much is used, it can be very drying. Balance with other oils is key.

**Jojoba Oil:** Actually a liquid wax. A wonderful moisturizer that regulates the flow of human sebum (skin oils) without plugging pores and maintains balanced moisture.

**Aloe Vera Oil (or gel):** Found in the aloe vera's succulent leaves. An effective healing agent in treating burns, injuries, and acne. Stimulates cell and tissue growth.



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