THE SOAP MAKING DICTIONARY

Castile/Castille Soap
Castile soap (also: Castille soap) is a mild soap made using primarily olive oil. You should always be careful when you see the term, however, as usage is not standardized. Because olive oil alone makes for a very soft bar, some people use the term generically as a marketing term to describe a gentle soap, but add other types of fat (including animal fats) to increase the hardness of the bar. I've seen it used online to mean:

- soap made using olive oil as the only fatty acid
- soap made using mostly olive oil, but with other oils included
- soap made using only vegetable oils, no animal products
- any mild soap

Cure
The process of allowing new soap to complete saponification and for excess moisture to evaporate out. This allows any excess water to evaporate, and creates a harder soap that's easier to use, produces better lather, and is milder.

Discount
A reduction in the amount of an ingredient. For cold-process soap-making, lye is often discounted to ensure that the lye will be completely used up, and to allow for excess oils as moisturizers (superfatting). Discounts are often shown as a percentage.

Example: A 3% lye discount would mean that the recipe uses 3% less lye than what is required to use up all of the oils. Most recipes will include the discounted amount of lye required (so that you don't have to worry about soap math.) If you are creating your own recipe, you would use a LYE CALCULATOR to determine the total amount of lye required for your oils.

For a 3% discount, you would reduce the total amount of lye by 3%. You can easily do this with a calculator by multiplying the total amount of lye by 0.97 (100% - 3% discount = 97% remaining).

Flashing   Off
Evaporation of a fragrance oil that has been added to hot soap. If the temperature of the soap is higher than the temperature at which the oil evaporates, the oil will evaporate immediately when added to the soap. Imagine letting a drop of water fall on a very hot frying pan - the water immediately goes "poof" (because the pan is hotter than the temperature at which water turns to steam).

Gel
Gel, or "gel phase", is a phase that occurs during SAPONIFICATION. During the gel phase, the soap will begin to look more translucent and shiny, like Vaseline, and give off heat. In cold-process soap-making, this often occurs within a few hours after you've poured the soap into moulds.

Hand   Milling
Hand milling (see: REBATCHING) is a way to produce soap from already existing soap. This allows you to make soap - adding the colors and scents that you prefer - without actually

going through the chemical process of making soap from scratch. Existing soap is grated, melted down, then reformed after colors, fragrances, and any other "extras" have been added.

Lye (Sodium Hydroxide, NaOH, Caustic Soda)
Lye is the base, or alkaline, used in making hard soaps (as opposed to liquid soaps, which use potassium hydroxide.) Lye is extremely caustic and should be handled with care. Soap makers used to create "lye water" by running water through hardwood ashes, but today lye is commercially available.

Potash (Potassium Hydroxide, KOH, Caustic Potash)
Potassium Hydroxide is the base, or alkaline, used in making liquid soaps. It replaces the lye used in hard soaps. The different chemical structure of potassium hydroxide, compared to lye, allows liquid soaps to stay liquid.

Rancid
Soap, like other organic material, spoil, or go bad. A good quality, basic soap can usually be stored for at least a year, easily (and likely longer). However, soaps that include fruits or vegetables (for fragrance, color, or texture) can go bad much faster, as these items may begin to rot or mold. Some delicate oils can also shorten the shelf-life of soap.

Rebatching
The process of melting down existing soap to create new soap. The term "rebatching" is often used when a soap-maker creates a soap that doesn't quite work. Rather than throw the soap away, it can be melted down and "fixed" (for example, if the soap has lye remaining in it - it is not usable. But, by melting the soap down, you can add additional oils to correct the lye imbalance, and salvage the soap.)

Saponification
The chemical process by which an alkaline base (lye, potassium hydroxide) reacts with fatty acids to produce soap.

Saponification Value (Saponification Number, Sap Number, Sap Value)
The number of milligrams of lye or potassium hydroxide required to completely saponify one gram of a specific fat. If you are creating your own soap recipe, you need to know the saponification values for each oil that you are using in your soap, to properly balance the oils and lye. NOTE: this number is DIFFERENT for lye (solid soap) and potassium hyroxide (liquid soap). You should always be clear, when looking up a saponification value online, which hydroxide is referred to!

Saponification or LYE Calculator
An application online or spreadsheet that calculates the amount of lye required to react with the oils in a soap recipe.

For Soap Cakes or Bars I recommend using: **www.soapcalc.net**

For All Liquid Soaps: **Soap Calc** as above or **Summer Bee Meadows Lye Calculator**

Seize
Seizing is a sign that something has gone wrong while making soap. When soap seizes, it goes from a smooth, liquid consistency to an incredibly thick, nearly solid (like cookie-

dough) state. It can be caused by fragrance oils that were added, issues with the temperatures of the soap or ingredients, or other problems with the batch of soap.

Superfatting
Adding additional oils to soap, beyond what is needed to use up all of the lye. This serves two purposes: it gives you a margin of error in your lye measurements (you can be absolutely sure that all of the lye in your soap will be saponified, thus eliminating the risk of lye remaining to burn you!) and it creates a moisture-rich bar of soap. The extra oils serve as moisturizes for your skin. Note: Most recipes call for superfatting by using a LYE DISCOUNT of 3% to 8%. Using too much extra oil can lead to a greasy, unpleasant soap!

Tallow
Processed (rendered) fat from cows or sheep. Historically, tallow was the fatty acid used in soap making. Today, it is used much less frequently.

Tare (Zero Out)
A function on scales that allows you to temporarily reset the weight to zero. This is useful if you are adding multiple ingredients to one bowl. You place the empty bowl on the scale and the weight of the bowl is shown. When you "tare" the scale at this point, the scale will display zero, although the bowl is still there. You can now add the first ingredient and see its weight alone, without the bowl's weight. You can then tare your scale again, and add a second ingredient. If you do not have a tare function, you will need to manually track the weight of each ingredient.

Trace
The state, when mixing lye and oils, where saponification begins. At this point, the chemical reaction has started, and the ingredients cannot be separated from each other. Trace can be identified by dripping a little bit of the liquid soap on top of the mixture, and noticing how it tends to hold its shape for a few seconds before melting back into the mixture.

Variegated
A fancy way of saying that the soap has many different colors, rather than a single shade.