

Congratulations! You are about to join the world of herbal soap making. This kit includes premeasured materials for one batch of soap. These instructions will guide you through the cold-process method of soap making. At first, these instructions may seem a bit overwhelming, so read them first and familiarize yourself with them. When you make the soap, however, you will see how easy and fun this is.

MATERIALS IN KIT:

- Base Oils – (3.5 lbs.) in the plastic container (tub) with the white lid. These oils are a blend of safflower (high-oleic), palm, and coconut oils in proportions that will provide a moisturizing soap with a quick-forming, durable lather
- Lye (0.5 lbs.) – white granules in the white plastic container
- Herbs – (qty varies) may be whole, crushed, or powdered, depending on the kit
- Essential Oil(s) – (1 oz.) in the small, amber-colored bottle

MATERIALS/TOOLS YOU WILL NEED:

- Spatula – heavy duty rubber spatula (do not use Teflon, plastic, or wood)
- Metal wire whisk (be sure it's steel, and not aluminum)
- A pot for heating the soap and a container for stirring the soap. These can be either:
 - A stainless steel pot (8 quart), which you can use for BOTH heating the base oils and stirring the soap, or
 - Any non-aluminum pot for heating the base oils AND a 2 gallon white, high density plastic bucket for stirring the soap. (You can find a 2 gallon white, high density plastic bucket in the paint department of your local home improvement store)
- Water
- Liquid measuring cup (for water)
- Rubber dishwashing gloves
- Safety goggles
- Thermometer (can be digital or analog; make sure the measuring stem is metal and does not contain any plastic)
- One quart milk cartons (or half & half cartons) that have been rinsed out several times with hot water:
 - You will need 3 cartons
- Blankets or a Styrofoam ice cooler tall enough to hold the milk cartons standing upright.

NOTE ↓

For the stirring stage, our instructions discuss stirring by hand. However, we highly recommend using an immersion/stick blender (plastic is fine). This will speed up the mixing process. It is not required but makes things a lot easier and faster!

PREPARATION:

- Decide where you will make the soap. A kitchen is best.
- Gather all materials and tools in one area. Don't forget some music for when you are stirring the soap.

- Set aside about 3 hours of time. With experience, you will be able to go more quickly, but it is best not to rush the process.

WORKING WITH LYE

This kit contains Sodium Hydroxide (“Lye”, NaOH). This is a very caustic chemical that will create burns on contact with skin. Always use extreme caution when working with it.

* * Lye should not be used by minors without adult supervision. * *

Although lye is dangerous, it can be worked with safely. By taking appropriate precautions, you can safely enjoy making “true soap” with lye.

PRECAUTIONS:

- ALWAYS wear goggles, gloves, and protective clothing when handling lye.
- NO short sleeved shirts, short pants, or sandals.
- ALWAYS work with lye in a well ventilated area.
- Remove contaminated clothing immediately
- Clean up spills immediately

FIRST AID TREATMENT:

- EYE CONTACT – Flush with lukewarm, gently running water while holding the eyelid(s) open. Take the person to the hospital.
- SKIN CONTACT – Flush with lukewarm, gently running water and take the person to the hospital.
- INGESTION – Administer large quantities of water followed by milk and take the person to the hospital.
- INHALATION – Remove the person afflicted to fresh air and take the person to the hospital.

INSTRUCTIONS OVERVIEW:

(This is just a summary. Please use the detailed instructions to make the soap.)

- Heat oils
- Prepare lye/water solution
- Allow oils & lye/water solution to cool to 95 degrees Fahrenheit
- Add lye/water solution to base oils and mix thoroughly
- At trace, add herbs and stir
- Add essential oils and stir
- Pour into molds
- Wait 4-5 days; open molds; cut soap

[Notes/Images](#)

DETAILED INSTRUCTIONS:

Prepare the base oils:

1. Pour the base oils into a pot.
 - a. Use the spatula to scrape the plastic tub clean, getting all the oil into the pot. If the oils are too solid to pour out, place the plastic tub in a hot (not boiling) water bath for a few minutes.
 - b. If you are using a stainless steel pot to make soap, the pot you use to heat the oils is the same one you will use for mixing the soap.
 - c. If you are using a high density plastic bucket to make soap, then choose any pot to heat the oils.
2. Heat the oils (over medium heat) until they are clear.
 - a. If you are making soap in a stainless steel pot, remove the pot from heat.
 - b. If you are making soap in a plastic bucket, pour the heated oils into the bucket and use the spatula to transfer all oil into the bucket.



Prepare the lye solution:

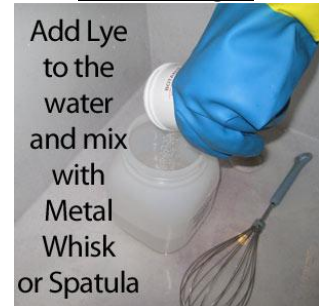
3. Wipe out the inside of the plastic tub and lid that the base oils came in (a paper towel works well).
4. With hot and very soapy water, thoroughly clean the inside of the plastic tub and the lid; rinse the tub thoroughly and set it upside down to drain all the water out. This tub will be the container that will hold the lye/water solution.
5. Measure 2.5 cups (20 fl. oz.) of water and pour the water into the plastic tub.

6. Plug the drain of your sink. Place the tub (filled with the measured water) in sink.
7. Put on rubber dishwashing gloves and goggles. Make sure you are wearing a long-sleeved shirt.
8. While holding your breath, carefully pour the lye into the water:
 - a. Immediately, stir the solution with the metal spatula, being careful not to splash (if you wait to stir, the lye will form a solid layer on the bottom of the tub, which is difficult to dissolve).
 - b. Set the lid, upside down, on top of the tub. (If you set it right-side up, the lye steam will destroy the liner in the lid.)
 - c. This entire process, from pouring the lye to setting the lid on top, should not take more than about 10 seconds. Don't take too long. The longer you take for this step, the greater your exposure to the fumes.
9. The plastic tub with the lye/water solution will get very hot. Do not touch it.
10. Fill your sink with about 1 inch of cold water, being careful not to get any in the tub. This will provide a water bath to help cool the lye/water solution more quickly.
11. Thoroughly rinse off the metal whisk you used to stir the lye/water solution; set aside for use later.
12. **CAUTION!** This lye/water solution is very caustic and will create burns if it comes in contact with skin. Treat it with caution.

Observe and Adjust Temperatures:

13. It is best to use two thermometers, one for the oils and one for the lye.
 - a. If you are using two thermometers, be sure to calibrate them. Note any difference between the two and account for it when taking measurements.
 - b. If you have only one, be sure to thoroughly wipe it clean after each use. Use a new, clean paper towel to wipe it each time.
14. Stir the oils with the spatula and measure the oil temperature. If you are using an analog thermometer, be patient until the temperature line stops rising. You can leave the spatula in the oils. (Be sure to stir the oils each time before checking their temperature.)
15. Stir the lye/water solution with the metal whisk and check

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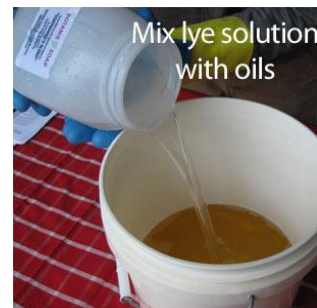
its temperature. Rinse off the whisk. (Be sure to stir the lye/water solution each time before checking its temperature.)

16. Write down the temperatures of both the oils and the lye/water solution.
17. Both temperatures need to be 90-95 degrees Fahrenheit. Both temperatures need to be the same. For example: if your oils are 91 degrees, your lye solution needs to be 91 degrees; if your oils are 95 degrees, then your lye solution needs to be 95 degrees.
18. Using hot water baths and cold water baths, raise or lower the temperatures of the oils and lye/water solution so that they are the same
 - a. If either the base oils or the lye solution is too cold, partly fill the sink with hot water and place the pot/bucket/tub in it until the temperature rises to 90-95 degrees.
 - b. If either the oils or the lye solution is too hot, partly fill the sink with cold water and place the pot/bucket/tub in it until the temperature drops to 90-95 degrees.
19. Repeat Steps #14-18 until both the base oils and the lye/water solution are 90-95 degrees Fahrenheit and are the same.

Saponification:

20. When both the base oils and the lye/water solution are the same and are between 90-95 degrees Fahrenheit, you are ready to mix the soap.
21. Be sure you are wearing gloves, goggles, and a long-sleeved shirt. When mixing the soap, you are only beginning the saponification process. During this time, the soap mixture remains very caustic and will cause burns if it comes in contact with your skin.
22. While stirring the base oils, slowly pour all of the lye/water solution into the oils.
 - a. To stir by hand, you can use either the spatula or the whisk. For small batches, the whisk works more effectively; for larger batches, you will probably prefer the spatula.
 - b. We highly recommend using an immersion/stick blender (plastic is fine). This will speed up the mixing process. It is not required but makes things a

Notes/Images



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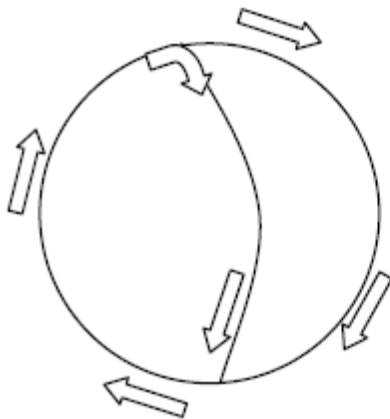
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- c. Avoid splashes while pouring and stirring.
23. Your stirring should be circular and in one direction only (clockwise or counter-clockwise).

IMPORTANT!

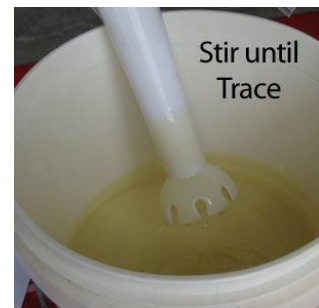
IF YOU STIR BY HAND, STEPS 24 AND 25 ARE THE LONGEST PART OF THE SOAPMAKING PROCESS. DO NOT RUSH THEM. STIRRING UNTIL TRACE OCCURS MAY TAKE 40-60 MINUTES, DEPENDING ON YOUR EXPERIENCE. (PUT ON YOUR FAVORITE ALBUM AND ENJOY THE PROCESS...)

24. Stir as briskly and steadily as you can without splashing or creating air bubbles.
- a. Scrape the edges and bottom of the pot/bucket several times as you stir to be sure to evenly incorporate all materials.
 - b. Stir around the perimeter of the pot/bucket as well as through the center (see diagram).



Stirring Pattern:
Around perimeter and
through center (always
in one direction)

- c. Improper/inadequate stirring is one of the primary reasons for failed soap batches. Be sure to stir as firmly, quickly, and steadily as you can without splashing or creating air bubbles.
25. Continue to stir as the mixture thickens to "trace." Trace is the moment when the soap mixture is thick enough that drizzled mixture rests on top of the remaining soap before sinking in. Check trace by lifting the spatula or whisk out of the mixture and drizzling this soap on the soap in the pot/bucket. If the drizzled soap quickly incorporates back into the main mixture, keep stirring. (Some people find this similar to stirring gravy.) Do not rush trace. Stirring may take



a long time.

TIP: IF STIRRING IS TAKING LONGER THAN 20 MINUTES PUT YOUR BUCKET/POT IN A WARM WATER BATH SO THE MIXTURE DOESN'T LOOSE TOO MUCH HEAT.

26. At trace, add the herbs and mix in thoroughly.
27. Add the essential oils and mix thoroughly. Only stir the essential oils for 10-15 seconds.
28. Carefully pour the soap mixture into the milk cartons. Stop each pour about 1/4–1/2 inches from the crease that separates the main carton body from the top section. Do not fill the cartons, as you will not be able to close them.
29. Staple the cartons shut.
30. **IMPORTANT!** Insulate the cartons to keep them warm. It is best not to place them in a cold part of your house. Failure to properly insulate the soap is one of the primary reasons why a batch of soap may not saponify.
 - a. Several blankets will work (don't forget to insulate the bottom).
 - b. The ideal insulator is a small styrofoam ice cooler. They work very well and cost only about \$1.50. Make sure the cartons fit inside standing up and that you can put the lid on completely.
 - c. Leave the soap in the cartons in the insulated space for 4-5 days.
31. Clean any equipment used for lye. Rinse it with water first, and then use soap and water.
32. It is best to wait 1-3 days before cleaning up the equipment used to mix the soap. During this time, the soap mixture on the spatula, whisk, and pot/bucket will harden. Simply scrape it off, throw it away, and clean the equipment with hot, soapy water. (Do not try to use these soap scraps, as they have not saponified properly.) Remember: the soap mixture on the equipment will still be caustic after you make and pour the soap, so it is best not to clean it immediately.

Notes/Images



Opening and Cutting the Soap:

33. After 4-5 days, open the stapled tops of the cartons and unwrap the soap by tearing off the carton. Because of the waxed surface of the cartons, they should come off very easily.
34. To cut the soap into bars, measure and mark where you will cut. A butter knife or thin wire will cut easily through the soap.
 - a. For straighter cuts, consider using a larger, chopping knife.
 - b. An approximate formula for bar size is $\frac{1}{4}$ inches = 1 oz. If you want 4 oz. bars, cut them 1 inch thick. 3 oz. bars will be $\frac{3}{4}$ inches thick.
35. If any parts of the soap bars appear chalky, cut them off and discard them. Chalky soap has not saponified properly.
36. Place the bars in a well-ventilated part of your house and allow them to cure for three weeks. As they cure, the bars evaporate out excess water and shrink a bit. If you label them too early, the labels may not fit properly.
37. ENJOY THE SOAP!

Notes/Images



CONGRATULATIONS!
ENJOY YOUR NEW SOAP AND FEEL GOOD
ABOUT SUCCESSFULLY MAKING YOUR OWN
NATURAL, HERBAL SOAP.