



BOTTEGA ZERO WASTE

# 3 Steps to Get Started

## SOAP MAKING FOR ZERO WASTERS

My 3 exact steps on how to start making soap & formulate your own vegan, palm oil free recipes that will help you reduce waste!

What tools do we need to start making soap, and how do I get these tools without producing extra waste?

### 1) use what you have

Making soap doesn't require any fancy or expensive tools and equipments and most of the stuff you need to start it's very likely already in your kitchen. Just make sure that if you are converting a kitchen tool into a soap making tool, you don't use it for food anymore.

### 2) buy second hand

Many tools are very easy to find in second hand shops, car boot sales or even on online websites selling second hand stuff! If you are struggling to find second hand items, check out your local department store as they will likely have a section with tools, and most of these will likely come already unpackaged. For example, I picked up my large soap making stockpot as well as a few silicone spatulas from IKEA.

### 3) reuse, reuse, reuse

Try to get everything reusable: look into durable and lye-safe materials such as stainless steel or pyrex glass. For soap moulds I recommend silicone moulds as they are easy to use, wash and you can reuse them for a very long time. I would avoid using wood or plastic because over time lye will damage them.

# Tools



## STEP 1

LEARN HOW TO GET  
STARTED: TOOLS &  
INGREDIENTS





In soap making you could use a variety of oils, depending on the qualities you wish to achieve in your soap. When I first started soap making, I really wanted to experiment with any oil available because I was so curious to find out what property every single oil could give to my soap!

After doing this for a while, I realized that this practice was not necessarily that sustainable. Remember, simplicity is key! You can obtain a wonderful soap with just 2, 3, 4 oils or even 1 oil! This can help you control better the waste you are producing. When I first started, I was creating these very complex recipes with so many oils but then I ended up realising that sometimes, using less is better.

Another major obstacles you may encounter when learning how to make soap is packaging. My advice is to go look for oils and butters that in your country come in more sustainable packaging than plastic. Try to find ingredients packaged in cardboard, tin or glass. Whenever this is not possible, try to buy the ingredient in bigger quantities. For example, as opposed to get 1 L of castor oil, get a 5 L batch. When doing so, make sure the oil you are buying in a larger quantity has a longer shelf life.

# Ingredients



---

## STEP 1

LEARN HOW TO GET  
STARTED: TOOLS &  
INGREDIENTS



# TOOLS

**safety tools, measuring tools and mixing tools**

Find the links to the specific tools I used on my blog,  
click [here](#)

## SAFETY TOOLS

Rubber Gloves & Goggles

Apron

## MEASURING TOOLS

Stick Blender

2 Lye Safe Containers: Stainless steel/Pyrex Glass

High Precision Scale

## MIXING TOOLS

1 Stainless Steel Tablespoon

1 Silicone Spatula

1 Mould

1 Thermometer





# STEP 2

## WHAT EVERY SOAP MAKER MUST KNOW BEFORE MAKING SOAP



### BE SAFE

It is essential for every soap maker to follow some essential safety measures. Cold process soap involves handling sodium hydroxide, also called lye, which is a very caustic material. When in contact with water, sodium hydroxide can burn down tissues very easily. But don't worry: just like driving, if you take the necessary safety measures, soap making is safe. Check the next page for the steps you must follow to safely make soap.

### BE PRECISE

Each soap making ingredients, whether liquid or solid, is always measured in weight and not volume. This is because different oils might have very different weights even if they cover the same volume. For example, castor oil is such a heavy and thick liquid which will weight much more than sweet almond oil, even though they will both cover the same volume when poured at the same quantity. Soap making is truly a precision game! In the next page I will give you some tips on how to be precise when making soap.

### BE PATIENT

When making soap using the cold process method, there is no added heat in this process, therefore, the soap will maintain the essential qualities of the ingredients used. Because we are soaping at medium-low temperatures, any water used to prepare the lye solution will need to evaporate before the soap can be used. This is why this methods requires a long "curing" time of about 4-6 weeks before the soap can be used.

# SOAP MAKERS ESSENTIALS

## Cheatsheet

### BE SAFE

- Wear safety goggles, gloves
- Wear long sleeves and long pants
- Prepare the lye solution in a well ventilated area or next to a window
- Always, always add the lye to the water and never the opposite
- Wear a respirator or hold your breath when preparing the lye solution
- Keep children and pets away when handling lye and raw soap

### BE PRECISE

- Use a high precision digital scale to weight the ingredients in grams/ounces
- Keep the work area tidy
- Weight all the ingredients in advance
- Respect the correct soaping temperatures
- Be focused and ready when mixing soap so you can control trace (which determines when the soap is ready to be poured)

### BE PATIENT

- Allow your soap to sleep in the mould for at least 24 hours
- Let the soap cure for at least 4 weeks, always better if 6 weeks or more





# YOUR FIRST SOAP

## Simple Soap Recipe

*makes 7 muffin shaped soaps*

75% Olive Oil: 150 grams/5.2 oz

25% Coconut Oil: 50 grams/1.76 oz

33% Sodium Hydroxide: 28.01 grams/0.99 oz

Water: 56.87 grams/2.01 oz

Essential Oils (optional): up to 3% of your total oils. This recipe uses 200 grams of oil, therefore, use up to 6 grams of essential oils.



# STEP 3

## FORMULATE!

If you want to learn how to make your own soap, there are a few terms which are very specific to soap making that you need to first understand fully. These terms are used to describe the way a soap maker decides to handle the recipe to create a particular soap.

### Superfatting

Every oil has a unique saponification value – the SAP value. This value determines the amount of sodium hydroxide necessary to transform the oil into soap. If you use less sodium hydroxide than what the recipe calls for, you can obtain a more moisturising – or to better say – "superfatted" soap.

### Water Discounts

Sodium Hydroxide is normally formed by small granules or flakes and needs to be dissolved into a liquid in order to form a "lye solution". The liquid doesn't necessarily need to be water, but you could also use different liquids such as milks, aloe vera, tea, herbal infusions to name a few.

Technically there is no maximum amount of water you could use, but the more water you use, the softer the soap and the longer it will need to cure. Whatever liquid you are using, remember that lye cannot dissolve itself into a solution smaller than its weight.

You can however apply what it's called a "water discount". This simply means deducting some water to whatever your recipe is calling for. Keep in mind that every bit of water in your soap will need to evaporate for the soap to become mild and usable. A standard cure time is 4-6 weeks.



In order to formulate your own recipes you need to learn how to use Soap Calc.

Soap Calc is free online tool where you can just plug in the your formulation to then obtain a calculation of the exact quantities of ingredients you need to use to achieve your desired result.

**[Click here to discover Soap Calc\\*](#)**

\* a detailed step by step guide on how to use Soap Calc is included in my online course Soap Making for Zero Wasters



# FORMULATION

## TERMS

### SAP

*Saponification Value*

Determines the amount of sodium hydroxide required to transform oil into soap

### SUPERFATTING

Removing some sodium hydroxide from the amount required to completely transform the oil into soap so that the soap becomes milder and more nourishing

### WATER DISCOUNT

Reducing the water amount used to dissolve sodium hydroxide so that the soap becomes harder faster and you can also shorten its cure time



# (not) THE END!

let's keep in touch

## WEBSITE

[www.bottegazerowaste.com](http://www.bottegazerowaste.com)

## SOCIAL MEDIA

Instagram: @bottegazerowaste

Youtube: Bottega Zero Waste

Pinterest: Bottega Zero Waste

Tik Tok: Bottega Zero Waste

## E-SCHOOL

Soap Making for Zero Wasters



BOTTEGA ZERO WASTE

