



# Lye Calculator

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New soap makers should make many smaller batches (one lb each) instead of fewer large batches (a ten lb batch). Working through the process 10 times vs once makes a better soap maker and the same amount of finished soap.


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## Majestic Mountain Sage

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Monday - Friday  
8:00 am - 4:00 pm  
Mountain Time

## Pine Tar Soap

Created by

Service provided by Majestic Mountain Sage  
<http://www.thesage.com>

### Liquids

For the size of fat batch that you are using, we recommend that you use approximately **10 to 15 fluid ounces of liquid.**

**WARNING:** Always add your solid form lye, sodium hydroxide or potassium hydroxide, to the liquid. If the liquid were added to the solid form lye a violent reaction could result. This means you could have a "volcano" erupt out of your container.

### Fats & Oils

Fat	Amount (ounces)	% in recipe
Olive Oil	13.5	32.93
Palm Kernel Oil	8.2	20.00
Sunflower Oil	5.8	14.15
Lard	13.5	32.93
Total Weight	41	

### Lye Table (NaOH)

% excess fat	Lye Amount (ounces)
0	5.88
1	5.82
2	5.76
3	5.71
4	5.65
5	5.59
6	5.53
7	5.47
8	5.41
9	5.35
10	5.29

0% to 4% excess fat range: Proceed with caution! We do not recommend this unless actual saponification values are known and used.

5% to 8% excess fat range: This is the range we use most often.

9% to 10% excess fat range: Creates a softer soap because of the amount of excess fat.

**DISCLAIMER:** Every effort has been made to ensure that the information contained here is accurate. However due to differing conditions, tools, and individual skills we cannot guarantee the information is applicable in your situation. We are not responsible for any injuries, losses, or other damages that may result from the use of the information available here.

Always wear protective goggles, gloves and other safety clothing when handling sodium hydroxide or potassium hydroxide. Refer to the appropriate MSDS for complete details.

### Notes

This is the About.com version of the recipe. David added 7.2 oz of Pine Tar.

### Basic Soapmaking Instructions

- While wearing safety goggles and neoprene gloves, combine solid lye and liquid, stir well. Set aside and allow to cool (100° F to 125° F). This is best done outside while you are standing upwind.
- Combine oils and heat gently. Once the fats and oils are melted allow the temperature to drop to 100° F to 125° F.
- Combine lye solution and melted oils. Be careful not to splash while combining the mixtures. Stir until the mixture traces. If tracing takes more than 15 minutes, which it often does, stir for the first 15 minutes, then stir for 5 minutes at 15 minute intervals. Tracing looks like a slightly thickened custard, not instant pudding but a cooked custard. It will support a drop, or your stir marks for several seconds. Once tracing occurs...
- Pour raw soap into your prepared molds. After a few days the soap can be turned out of the mold. If the soap is very soft, allow it to cure for a few days to firm the outside.
- Cut soap into bars and set the bars out to cure and dry. This will allow the bar to firm and finish saponification. Place the bars on something that will allow them to breathe.

41	41	Ounces ▴ ▾
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