YOUR FREE READER'S COMPANION

The Soapmaker's Batch Pack

A companion to The Cold Process Soap Making Bible · by Nora Ellison

Thanks for picking up the book. This is the companion you tape to the cabinet above your soaping bench and keep beside you through the batch: the lye-and-oils cheat sheet that tells you what each oil actually does and roughly how much to use, one foolproof first recipe with the exact weights already worked out so you can make real soap this weekend, a trace-gel-ash-and-seizing quick card for when the batter does something you did not expect, a printable batch-and-cure log to photocopy, and a lye-safety card of the golden rules. Print it, fold it, keep it where the gloves live.

Almost every batch that ever scared a beginner off came down to three things, not a hundred. They rushed the lye, they poured before real trace, or they used the bar before it cured. Respect the lye, wait for trace, honor the cure. Beat those three and you will make soap better than most of what you can buy. - Nora

1. The Lye + Oils Cheat Sheet

Every oil is really a bundle of fatty acids, and each one brings something different to the bar. The saturated oils (coconut, palm, the butters, lard, tallow) make soap hard and give it lather. The unsaturated oils (olive is the great one) make it gentle and conditioning. The whole craft is a balance between those two pulls - too much cleansing and the bar strips your skin, too much conditioning and it stays soft and slow. The classic backbone is a conditioning base of olive, a controlled dose of coconut for bubbles, a hard oil for longevity, and a small splash of castor for lather.

Oil / Fat	Family	What it brings to the bar	Typical % of oils	Approx NaOH SAP
Coconut oil	Hard, saturated	Hardness, strong cleansing, big fluffy lather	Up to ~30% (drying above that)	~0.191
Olive oil	Soft, unsaturated	Conditioning and mildness - the gentle base	30-100%	~0.135
Palm oil (sustainable)	Hard, saturated	Hardness plus a stable, creamy lather and longevity	20-30%	~0.141
Castor oil	Soft, special	Boosts and stabilizes lather - bigger, longer-lasting bubbles	~5%, never above 10%	~0.128
Shea butter	Butter, saturated	Silky conditioning and a touch of hardness (luxury)	5-15%	~0.128
Cocoa butter	Butter, saturated	Real hardness and creamy lather plus conditioning	5-15%	~0.137
Lard / tallow	Hard, saturated	Hardness and a gentle, creamy, long-lasting bar - the classic palm substitute	20-30%	~0.140

About that SAP number

SAP value is the amount of lye it takes to fully turn one gram of an oil into soap. Every oil has its own, because every oil has its own blend of fatty acids - which is exactly why you can never swap one oil for another without recalculating the lye. The numbers above are approximate NaOH (sodium hydroxide, the lye for hard bar soap) values for a quick sanity check. You do not do this arithmetic by hand. Every soapmaker, beginner to veteran, runs the recipe through a free lye calculator (SoapCalc, Bramble Berry, Soapmaking Friend) that adds it all up. The point of knowing the values is so you can smell a bad number if the calculator - or a blog recipe - ever hands you one.

The two rules that keep every bar safe

- Superfat 5 percent. We deliberately use a little less lye than the oils demand, leaving about 5 percent of the oils unsaponified. That cushion guarantees no free lye is left in the bar even with a small weighing error, and it leaves the bar gentle. Nudge it up to 7-8 percent for a facial or extra-gentle bar; drop it toward 3 percent for a high-coconut bar. (Salt bars are the odd exception and run much higher, around

18 percent.)

- Water about 33-38 percent of your oil weight. This is the forgiving "full water" range that gives a beginner plenty of working time. Once you have a batch or two behind you, switch to setting a lye concentration of about 33 percent instead, which stays the same strength no matter which oils you use. Full water first. Water-discount later, on purpose, when you understand your recipe's pace.

You cannot maximize everything at once. Hardness and bubbles fight gentleness. Pick a sensible blend, set a safe superfat, and let the calculator do the lye math - every batch, every time, no exceptions.

2. The Foolproof First Recipe

This is the bar to make first: a balanced olive-coconut-palm blend that traces at a friendly pace, forgives small mistakes, and comes out reliably good. Make it two or three times before you go anywhere fancy. It is a 2 pound oils batch (32 oz / 907 g), which fills a standard loaf mold and makes roughly ten to twelve bars.

The Foolproof Beginner Bar (32 oz oils, 5% superfat)

Ingredient	Percent	Ounces	Grams
Olive oil	40%	12.8 oz	363 g
Coconut oil	30%	9.6 oz	272 g
Palm oil (or lard/tallow)	30%	9.6 oz	272 g
Lye - NaOH (sodium hydroxide)	-	4.6 oz	131 g
Distilled water	-	10.5 oz	299 g

ALWAYS re-run these exact oils through your own lye calculator before you make the batch. SAP values shift a hair with the source and grade of your oils, a mistyped digit is the easiest mistake in this craft, and there is no cure long enough to fix a lye-heavy bar. If your calculator hands you a number a touch different from mine with your oils, trust your calculator over this card. Use pure sodium hydroxide only - never drain cleaner.

The order of operations

1. Gear up and set the stage. Goggles, gloves, long sleeves, closed shoes. Cover the counter. Get everything in place before the lye jar opens - stick blender, spatulas, thermometer, lined mold, and a sink with running water within reach.
2. Weigh everything by weight, never by volume. Zero the scale on each container.
3. Mix the lye solution. Weigh the water into a heat-safe pitcher; weigh the lye separately. Then, near an open window or vent, sprinkle the lye INTO the water (never water into lye), turn your face away from the fumes, and stir gently until it goes from cloudy to clear. It will heat past 180 F on its own. Set it aside to cool.
4. Melt and combine the oils while the lye cools. Melt the coconut and palm gently, then stir in the olive.
5. Meet on temperature. Bring both the lye solution and the oils to about 110-120 F and within about 10 degrees of each other.
6. Blend to trace. Pour the lye into the oils down the blender shaft. Pulse the stick blender in short bursts, stirring between, until you reach light trace - a drizzle of batter leaves a faint line that sits on the surface a second before sinking, like thin cake batter. Stop there. You can always blend more; you cannot un-thicken.
7. Pour, tap, and insulate. Pour into the lined mold, tap out the air bubbles, smooth the top, cover and wrap in a towel to encourage an even gel.

8. Wait, cut, cure. Leave it alone 24-48 hours. When it is firm and pulls from the mold, glove up, unmold, and cut into bars. Then stand the bars on edge with air space between them, somewhere cool and dry, and cure 4-6 weeks. This is not optional - curing evaporates the water and makes the bar harder, milder, and longer-lasting.

3. Trace, Gel, Soda Ash & Seizing - Quick Card

Most soap "failures" are cosmetic - ugly, not dangerous. Only a lye-heavy bar is genuinely unsafe, and it announces itself with a sharp zap. Everything else still washes your hands. Here is what you are looking at.

Symptom	Likely cause	Fix
Batter will not thicken (no trace)	Under-blended, or too much water / too little lye, or oils too cool	Keep pulsing - it usually comes. If it splits into an oily layer over a watery one, you mismeasured (see separation)
False trace (thickens then thins)	Hard oils congealing, not a real emulsion	Warm the oils back toward 100 F and keep blending until true trace
Traces too fast / thick glob	Over-blending, an accelerating fragrance, batter too hot, or a water discount	Pulse, do not run the blender continuously; soap cooler; hand-stir fragrance in
Seizing (batter sets to a solid mass)	Accelerating fragrance (spice, floral) or too-hot batter	Glob it into the mold, press hard to remove air, texture the top - still good soap. Next time soap cool and hand-stir the scent
Ricing (grainy little clumps)	Fragrance not mixing in	A quick stick-blender burst often smooths it back out
No gel or partial gel (a lighter oval in the middle when cut)	Uneven heat in the loaf	Cosmetic only. For full gel, insulate warm; for no gel, keep it cool/uncovered. Pick one and commit
Overheating / volcano / cracked top	Too much insulation, or sugary additives (honey, milk), or soaped too warm	Uncover and move it somewhere cool, even the fridge. Never insulate honey or milk soaps
Soda ash (chalky white film on top)	Harmless surface reaction with air	Nothing to fix - it is safe. Wipe or steam it off, or peel the top with a vegetable peeler
Glycerin rivers (crackled translucent veins)	Overheating during gel plus too much water	Purely a look. Use less water and less heat next time, or enjoy the marbling
Orange spots (DOS)	Rancid oils - "dreaded orange spots"	Keep bars dry and airy; use fresh oils and store cool. Cut away spots or discard if widespread
Zap (sharp battery sting on a lathered fingertip)	Lye-heavy bar - mismeasured lye	UNSAFE. Set it aside, recheck your calculation, and rebatch or discard. This is the one real safety failure

4. Printable Batch + Cure Log

Photocopy this page. Fill one row per batch and keep the pages in a binder - a notebook of your own real results, in your own hand with your own oils, is worth more than any recipe you find online. Mark the cure-done date on a piece of tape on the loaf too, then forget about it and go start another batch.

Date	Recipe / name	Oil blend (%)	Lye NaOH (g)	Superfat %	Trace time	Gel? Y/N	Unmold date	Cure-done date	Notes (scent, color, behavior)

How to use it: Log the lye and superfat straight off your calculator screen so you can reproduce the batch exactly. Note the trace time and whether you insulated for gel - those two lines explain most of how a bar turns out. When a batch delights you, copy that whole row onto a recipe card. When one disappoints, the row tells you what to change. Weigh a test bar now and again during cure; when it stops losing weight, the water has evaporated and the bar is ready.

5. The Lye-Safety Card - The Golden Rules

Tape this one at eye level above the bench. Lye is caustic and can burn skin and eyes, but millions of people handle it safely at their counters every day. The difference between calm and scared is not courage - it is these rules, made automatic.

Before you open the jar

- [ ] Goggles that seal, gloves, long sleeves, long pants, closed shoes. On from the moment the jar opens until everything is cleaned up. Eyes are the one part a lye injury can harm permanently.
- [ ] Weigh EVERYTHING on a digital gram scale. Never measure lye or oils by volume - weight is truth, volume lies.
- [ ] No kids, no pets, no distractions in the workspace. Set up when they are out or asleep.
- [ ] Cover the whole surface and keep running water within reach.

Mixing the lye

- [ ] ALWAYS add lye to water, never water to lye. Snow floats on the lake - sprinkle the light lye down onto the heavy water. The reverse can erupt and spit caustic solution at your face.
- [ ] Mix by an open window, a vent, or outdoors, and turn your face away. Do not breathe the first minute of fumes.
- [ ] Label the lye solution the instant you make it. It looks exactly like a glass of water. That clear-liquid trap is what catches careless people.

Materials and cleanup

- [ ] Never aluminum - and never tin, zinc, or unlined cast iron. Lye eats them and gives off flammable hydrogen gas. Use stainless steel, heat-safe plastic, silicone, or tempered glass only.
- [ ] Keep soap tools separate from kitchen tools, permanently. A dedicated soap kit removes the confusion that causes accidents.
- [ ] Gloves stay on for cleanup - raw batter is still caustic until it saponifies. Let dirty gear sit a day, then wash it easily.

If it spills

- [ ] On skin: flush with cool running water for 15-20 minutes. Do NOT reach for vinegar - acid on concentrated lye adds a heat burn on top of the chemical one. Water first, always.
- [ ] In eyes: flush with cool water for at least 15 minutes and get medical help - do not wait to see how it feels.
- [ ] On the counter: flood with water to dilute, wipe up, rinse again. Vinegar only as a final wipe on an already-diluted mess.

And always

- [ ] Run every recipe through a lye calculator, every time. I have made soap for a long time and I still do

it on every batch, without exception. That is not leftover beginner caution - it is the discipline that keeps the craft safe enough to enjoy.

That is the pack. The one habit worth more than any tool on the bench: get everything in its place before the lye ever comes out of the jar, weigh to the calculator's numbers, and wait for real trace and the full cure instead of rushing either one. Make the foolproof beginner bar first to learn the choreography - the melt, the mix, the trace, the pour, the wait - and once it is calm in your hands, climb the ladder to oatmeal-honey, bastille, and the rest, all drawn up complete in the book. When you cut your very first loaf into bars and stand them up to cure, mark the date and be patient, and in a couple of emails I will tell you how a quick word from you helps this book reach the next person standing at their counter, gloves on, about to make their first batch.

Respect the lye, wait for trace, honor the cure,

Nora Ellison