

Balm Stick

This quick guide gives you everything you need at a glance when making the formula — tools, containers, ingredient lists, and step-by-step directions. Use it as your working page while you formulate. There's space to check off steps, record notes, and customize your batch if you enjoy experimenting.

For your first batch, you only need the Test Version and the core directions — print those pages and skip the rest until you're ready to scale up or customize. The Full Formula, Minimalist Blend, and Custom Blend tables can be printed later.

After printing, use the notes column to jot adjustments or observations directly onto the directions table — it's designed as your working surface while you formulate.

Difficulty: Moderate

Required Ingredients: 5


Optional Ingredients: 4

Prep Time: 30 minutes

Wait Time: 10 minutes

Refrigerate: 2 hours

Full Cure: 4 hours

 **IMPORTANT:** This quick guide is for formulation only. Before beginning, please **read the full description of the Balm Stick** for detailed safety precautions, ingredient explanations, and usage instructions.

Suggested Tools & Equipment

- gloves (optional)
- spray bottle with 70% isopropyl alcohol
- large-capacity scale (5000 g × 0.01 g)
- milligram scale (100 g × 0.001 g)
- 1 heat source (such as a hot plate, water bath, or double boiler)
- digital thermometer
- timer (optional)
- 1 glass beaker (~250 mL)
- 1 glass beaker (~25 mL)
- beakers to aid pouring (50–100 mL)
- several stainless-steel lab spatulas
- stainless-steel spoons
- disposable pipettes (optional)
- shallow bowl with ice water
- flexible silicone scrapers
- sanitized, completely dry final container
- labels

Suggested Container Options

- 2 [Empty Black Deodorant Tubes \(3.17 oz/90 mL each\)](#)

Formulation Notes

¹ Substitute for Meadowfoam Oil: Jojoba Oil.

² Substitute for Mango Butter: Shea Butter (richer) or Kokum Butter (firmer, drier). Use Mango or Kokum for acne-prone skin.

³ Substitute for Candelilla Wax: Rice Bran Wax, Sunflower Wax, and Soy Wax (cosmetic grade).

⁴ Substitute for Olivem 900: C10–18 Triglycerides (noticeably softer stick).

⁵ Optional. See ***Plant Oils for Skin Care***. If omitted, increase Meadowfoam Oil.

⁶ Optional. Substitute for Cromollient SCE: C12-15 Alkyl Benzoate or Isopropyl Myristate. If omitted, increase Meadowfoam Oil. The balm will feel richer, more oily, and will dry down more slowly.

⁷ Optional. Certain essential oils add calming, purifying, or antioxidant effects. See ***Essential Oils for Skin Care***. If omitted, increase Meadowfoam Oil.

⁸ Optional. Substitute for Bisabolol: Chamomile CO₂ (has a noticeable herbal scent). If omitted, increase the Meadowfoam Oil.

⁹ Substitute for Mixed Tocopherols: Rosemary Extract (25% standardized) at 0.1–0.3%. The “25%” refers to the strength sold by suppliers, not the amount you use in the formula.

TEST FORMULA

Makes 90 g Balm Stick / Fills one 3.17 fl oz (90 mL) tube

This version is designed for testing. Making a small batch first lets you check texture, scent, and skin feel before committing to a larger amount. Once you're happy with the results, you can make the larger batch for general use.

Phase	Ingredients	Function	%	Grams
A	Meadowfoam Oil¹	Conditions	34.00%	30.60
A	Mango Butter²	Nourishes	30.00%	27.00
A	Candelilla Wax³	Thickens	11.00%	9.90
A	Olivem 900⁴	Thickens	10.00%	9.00
B	Specialty Oil(s) ⁵	Targets concerns	8.00%	7.20
B	Cromolient SCE ⁶	De-greases	3.00%	2.70
B	Essential Oil ⁷	Scents and supports	2.00%	1.80
B	Bisabolol ⁸	Calms skin	1.00%	0.90
B	Mixed Tocopherols⁹	Keeps oils fresh	1.00%	0.90
			100.00%	90.00

FULL FORMULA (Includes Optional Ingredients)

Makes 180 g Balm Stick / Fills two 3.17 fl oz (90 mL) tubes

Phase	Ingredients	Function	%	Grams
A	Meadowfoam Oil¹	Conditions	34.00%	61.20
A	Mango Butter²	Nourishes	30.00%	54.00
A	Candelilla Wax³	Thickens	11.00%	19.80
A	Olivem 900⁴	Thickens	10.00%	18.00
B	Specialty Oil(s) ⁵	Targets concerns	8.00%	14.40
B	Cromolient SCE ⁶	De-greases	3.00%	5.40
B	Essential Oil ⁷	Scents and supports	2.00%	3.60
B	Bisabolol ⁸	Calms skin	1.00%	1.80
B	Mixed Tocopherols⁹	Keeps oils fresh	1.00%	1.80
			100.00%	180.00

MINIMALIST FORMULA (Required Ingredients Only)

Makes 180 g Balm Stick / Fills two 3.17 fl oz (90 mL) tubes

This streamlined version uses only the essential ingredients needed to create a firm, nourishing balm base. With the optional boosters removed, the core emollients take center stage, giving the formula a simple, reliable structure that melts smoothly on contact. It won't have the added plushness or enhanced hydration of the full formula, but it delivers a dependable, protective balm that's easy to make and comfortable to use.

Phase	Ingredients	Function	%	Grams
A	Meadowfoam Oil¹	Conditions	48.00%	86.40
A	Mango Butter²	Nourishes	30.00%	54.00
A	Candelilla Wax³	Thickens	11.00%	19.80
A	Olivem 900⁴	Thickens	10.00%	18.00
B	Mixed Tocopherols⁹	Keeps oils fresh	1.00%	1.80
			100.00%	180.00

How to Use the Custom Blend Table

This table is provided to help you customize your blend. Only fill it out if you enjoy experimenting and feel comfortable working with percentages. The full formula above is already balanced and ready to use. These ranges preserve the balm's structure. Even the firmest and softest combinations remain stable, scoopable, and melt on contact.

You may choose any batch size you like. Percentages always stay the same; only the grams change. Enter the percentage you want for each ingredient and adjust the values until your total reaches 100%. Then calculate the grams so they add up to your chosen batch size. Add the % column to ensure it equals 100%, and add the grams column to ensure it equals your batch size. Items shown in bold are required components of the formula.

One percentage is already filled in because this ingredient must stay at a fixed level for safety, stability, or performance. Only adjust the blank cells.

Examples of the math:

- If you choose a 50 g batch and an ingredient is 7%, multiply: $50 \times 0.07 = 3.5$ g
- If you choose a 200 g batch and an ingredient is 1%, multiply: $200 \times 0.01 = 2$ g
- If you choose a 112 g batch and an ingredient is 0.5%, multiply: $112 \times 0.005 = 0.56$ g

MY CUSTOM BLEND

Balm Stick(s)

Phase	Ingredients	Function	%	Grams
A	Meadowfoam Oil¹ (29-50%)	Conditions		
A	Mango Butter² (25-32%)	Nourishes		
A	Candelilla Wax³ (10-11%)	Thickens		
A	Olivem 900⁴ (9-10%)	Thickens		
B	Specialty Oil(s) ⁵ (8-10%)	Targets concerns		
B	Cromolient SCE ⁶ (Max 3%)	De-greases		
B	Essential Oil ⁷ (Max 1% Face, 2% Body)	Scents and supports		
B	Bisabolol ⁸ (Max 2%)	Calms skin		
B	Mixed Tocopherols⁹ (0.5-1%)	Keeps oils fresh		
			100.00%	

Date:

Formulation Method	Notes	✓
1. Prepare your workspace and a sanitized, completely dry container. Wash and dry your hands or put on gloves. Spray all tools and equipment with 70% Isopropyl Alcohol and let them air-dry before beginning.		
2. Weigh out ingredients before heating and combining.		
Phase A: Weigh Primary Oils		
1. Place a clean beaker that holds at least twice the amount of product you plan to make on the large-capacity scale.		
2. Press Tare to show 0.00 g. Use a spoon or small beaker to carefully drizzle Meadowfoam Oil into the beaker to reach the target weight.		
3. Press Tare. Cut off small portions of Mango Butter with the flat end of a spatula or a clean knife, then transfer with a spoon to the beaker to reach the target weight.		
4. Press Tare. Use a large spoon to slowly transfer Candelilla Wax into the beaker to reach the target weight.		
5. Press Tare. Use a large spoon to slowly transfer Olivem 900 into the beaker to reach the target weight.		
6. Stir with a lab spatula to pre-mix Phase A. Set aside.		

Formulation Method	Notes	✓
Phase B: Weigh Additional Ingredients		
1. Place a clean beaker that holds at least 25 mL on the milligram scale.		
2. Optional. Press Tare . Use a spoon or small beaker to carefully drizzle your chosen Specialty Oil(s) into the beaker to reach the target weight.		
3. Optional. Press Tare . Use a small spoon or a disposable pipette to slowly drizzle Cromollient SCE into the beaker to reach the target weight.		
4. Optional. Press Tare . Use a small spoon, skewer, or a disposable pipette to add the Essential Oil drop by drop to the beaker to reach the target weight. Let the scale stabilize after each drop. If your bottle has a dropper insert, remove it before measuring (see Making a Formula Work).		
5. Optional. Press Tare . Use a small spoon or a disposable pipette to slowly drizzle Bisabolol into the same beaker to reach the target weight.		
6. Press Tare . Use a small spoon or a disposable pipette to slowly drizzle Mixed Tocopherols into the beaker to reach the target weight.		
Warm and Combine		
1. Place the Phase A beaker on a heat-safe surface and warm gently to 70–75°C (158–167°F) , stirring occasionally with a lab spatula until fully melted and uniform. Stir gently to avoid introducing air bubbles.		
2. When Phase A oils have reached 70–75°C (158–167°F), transfer the Phase B ingredients from the small beaker to the main beaker and stir gently until uniform.		
3. Wipe off the thermometer with a clean paper towel.		

Package	Notes	✓
1. Quickly pour into large tubes while still fluid at 70–75°C (158–167°F). If required, gently warm again until liquid. If filling tins, pour in a thin stream to avoid surface ripples.		
2. If you get wax on the outside of the tube, just leave it until the wax hardens.		
3. Wait 10-20 minutes to allow the liquid to set until the balm hardens enough to safely move the containers without spilling. A timer can be helpful.		
4. Refrigerate for at least 2 hours to lock in the crystal structure. A timer can be helpful.		
5. Remove from the refrigerator and wait 4 hours. Allow to return to room temperature before capping. A timer can be helpful.		
6. Wipe or scrape away any wax that got on the outside of the tube/tin rims before capping.		
7. Label the containers with the product name and a 12-month expiration date.		
8. Store below 30°C / 86°F, away from sunlight and moisture.		

Cleanup	✓
Tools	
1. Immediately after making the product, wipe down tools with a clean, dry paper towel.	
2. Rinse all tools under warm running water to loosen residue.	
3. Wash with hot, soapy water using a soft sponge or bottle brush.	
4. For stubborn residue, soak tools in warm water with dish soap for 10–15 minutes before scrubbing.	
5. Sanitize tools in a dishwasher if they are dishwasher-safe.	
Workspace	
1. Wipe down counters and scales with a damp cloth.	
2. Sanitize surfaces with 70% isopropyl alcohol (spray or wipes), then allow to air-dry.	
3. Store clean tools in a covered container or drawer to prevent dust and contamination.	