

Balm Base

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: 6

Prep Time: 30 minutes

Refrigerate: 1 hour

Full Cure: 4 hours

 **IMPORTANT:** This quick guide is for formulation only. Before beginning, please **read the full description of the Balm Base** 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 (~50 mL)
- 1 glass beaker (~25 mL)
- beakers to aid pouring (50–100 mL)
- several stainless-steel lab spatulas
- stainless-steel spoons
- disposable pipettes (optional)
- flexible silicone scrapers
- shallow bowl with ice water
- sanitized, completely dry final container
- labels

Suggested Container Options

- 1 [Amber Straight-Sided Glass Jar with Smooth Black Lid \(4 oz/118 mL\)](#)
- 2 [Amber Straight-Sided Glass Jars with Smooth Black Lids \(1.7 oz/50 mL each\)](#)
- 1 [Amber PET Heavy Wall Plastic Jar with Black Dome Lid \(4 oz/118 mL\)](#)

Formulation Notes

- ¹ Substitute for Olivem 900: C10–18 Triglycerides.
- ² Substitute for Mango Butter: Shea Butter (richer) or Kokum butter (firmer, drier). Use Mango or Kokum for acne-prone skin.
- ³ Substitute for Meadowfoam Oil: Jojoba Oil.
- ⁴ Substitute for Caprylic/Capric Triglycerides (MCT Oil): Fractionated Coconut Oil, Jojoba Oil, or Squalane. This lightweight oil reduces the heaviness of the balm.
- ⁵ Optional. Kojic Acid Dipalmitate¹ (KAD) provides targeted brightening. If omitted, increase oil. Pre-dissolve in Isopropyl Myristate at 50–60 °C before adding to the balm. Do not substitute with Kojic Acid (plain), which is unstable and prone to oxidation and discoloration.
- ⁶ Isopropyl Myristate is needed to dissolve KAD and prevent crystallization. Omit if not using KAD and increase oil.
- ⁷ Optional. See ***Plant Oils for Skin Care***. If you wish to use this balm to protect a dog's paws or nose, omit the specialty oil. If omitted, increase Meadowfoam Oil.
- ⁸ Optional. Cromollient SCE is a dry-feel ester that reduces greasiness and improves glide. Substitute: C12-15 Alkyl Benzoate or Isopropyl Myristate at the same percentage. If omitted, increase Olivem 900. The balm will feel richer and more oily with a slower dry-down.

⁹ Optional. Certain essential oils add calming, purifying, or antioxidant effects. Use at 0.25–0.5% for eye-area safety; choose gentle options such as copaiba, chamomile, rose, or lavender, or omit if sensitive. See ***Essential Oils for Skin Care***. If you wish to use this balm to protect a dog's paws or nose, omit the essential oil or use a maximum of 1% Copaiba Oil. If omitted, increase Meadowfoam Oil.

¹⁰ Optional. Substitute for Bisabolol: Chamomile CO₂ (has a noticeable herbal scent). If omitted, increase the main oil.

¹¹ 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 30 g Balm Base / Fills one 1 fl oz (29 mL) jar

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	Olivem 900¹	Thickens	25.50%	7.65
A	Mango Butter²	Nourishes	20.00%	6.00
A	Meadowfoam Oil³	Supports the barrier	15.00%	4.50
B	Caprylic/Capric Triglycerides⁴	Softens skin	21.00%	6.30
B	Kojic Acid Dipalmitate ⁵	Brightens spots	2.50%	0.75
B	Isopropyl Myristate ⁶	Dissolves Kojic Acid	1.00%	0.30
C	Specialty Oil(s) ⁷	Targets concerns	8.00%	2.40
C	Cromollient SCE ⁸	De-greases	3.00%	0.90
C	Essential Oil ⁹	Scents and supports	2.00%	0.60
C	Bisabolol ¹⁰	Calms skin	1.00%	0.30
C	Mixed Tocopherols¹¹	Keeps oils fresh	1.00%	0.30
			100.00%	30.00

FULL FORMULA (Includes Optional Ingredients)

Makes 120 g Balm Base / Fills one 4 fl oz (118 mL) jar

Phase	Ingredients	Function	%	Grams
A	Olivem 900¹	Thickens	25.50%	30.60
A	Mango Butter²	Nourishes	20.00%	24.00
A	Meadowfoam Oil³	Supports the barrier	15.00%	18.00
B	Caprylic/Capric Triglycerides⁴	Softens skin	21.00%	25.20
B	Kojic Acid Dipalmitate ⁵	Brightens spots	2.50%	3.00
B	Isopropyl Myristate ⁶	Dissolves Kojic Acid	1.00%	1.20
C	Specialty Oil(s) ⁷	Targets concerns	8.00%	9.60
C	Cromollient SCE ⁸	De-greases	3.00%	3.60
C	Essential Oil ⁹	Scents and supports	2.00%	2.40
C	Bisabolol ¹⁰	Calms skin	1.00%	1.20
C	Mixed Tocopherols¹¹	Keeps oils fresh	1.00%	1.20
			100.00%	120.00

MINIMALIST FORMULA (Required Ingredients Only)

Makes 120 g Balm Base / Fills one 4 fl oz (118 mL) jar

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	Olivem 900¹	Thickens	25.50%	30.60
A	Mango Butter²	Nourishes	20.00%	24.00
A	Meadowfoam Oil³	Supports the barrier	32.50%	39.00
B	Caprylic/Capric Triglycerides⁴	Softens skin	21.00%	25.20
C	Mixed Tocopherols¹¹	Keeps oils fresh	1.00%	1.20
			100.00%	120.00

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 Base

Phase	Ingredients	Function	%	Grams
A	Olivem 900¹ (23-28%)	Thickens		
A	Mango Butter² (18-24%)	Nourishes		
A	Meadowfoam Oil³ (12-25%)	Supports the barrier		
B	Caprylic/Capric Triglycerides⁴ (18-28%)	Softens skin		
B	Kojic Acid Dipalmitate ⁵ (Max 4%)	Brightens spots		
B	Isopropyl Myristate ⁶ (Max 2%)	Dissolves Kojic Acid		
C	Specialty Oil(s) ⁷ (Max 10%)	Targets concerns		
C	Cromollient SCE ⁸ (Max 3%)	De-greases		
C	Essential Oil ⁹ (Max 0.5% Eyes, 1% Face, 2% Body)	Scents and supports		
C	Bisabolol ¹⁰ (Max 2%)	Calms skin		
C	Mixed Tocopherols¹¹	Keeps oils fresh	1.00%	
			100.00%	

Difficulty Note

This formula appears lengthy because the instructions are thorough; however, the actual process is simple once you begin.

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. Prepare an ice bath : a shallow bowl with ice water. Ensure the water level stays below the halfway point of the beaker.		
3. Weigh out ingredients before heating and combining.		
Phase A: Combine 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 large spoon to slowly transfer Olivem 900 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 spoon or small beaker to carefully drizzle Meadowfoam Oil into the beaker to reach the target weight.		
5. Stir with a lab spatula to pre-mix Phase A.		

Formulation Method	Notes	✓
Phase B: Dissolve Kojic Acid Dipalmitate		
1. Place a clean beaker that holds at least 50 mL on the milligram scale.		
2. Press Tare. Use a small beaker or large spoon to drizzle Caprylic/Capric Triglycerides (MCT oil) into the beaker to reach the target weight.		
3. Optional. Press Tare. Use the flat end of a lab spatula to slowly sprinkle Kojic Acid Dipalmitate (KAD) into the beaker to reach the target weight.		
4. This step is only required if adding KAD to the balm. Press Tare. Use a large spoon to drizzle Isopropyl Myristate into the beaker to reach the target weight.		
5. This step is only required if adding KAD to the balm. Place the beaker on a heat-safe surface or in a warm bath, and gently warm to 90-95°C (190-203°F) until the Kojic Acid Dipalmitate dissolves completely (a clear solution, no graininess). Stir occasionally, scraping the sides of the beaker with a flexible scraper. Do not hold at temperature; add to the Phase A oil blend promptly once dissolved.		
6. Scrape the Phase B mixture into the Phase A oil mixture beaker.		
Adjust Temperature of Phase A/B		
1. Heat or cool as needed until the Phase A/B mixture is between 70-75°C (158-167°F) , stirring occasionally with a lab spatula until uniform. Stir gently to avoid introducing air bubbles.		

Formulation Method	Notes	✓
Phase C: Add After Heating		
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 small 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 same beaker to reach the target weight.		
7. When the Phase A/B mixture has reached 70–75°C (158–167°F), use a flexible scraper to transfer the Phase C ingredients to the main beaker.		
8. Gently stir with a lab spatula or flexible silicone scraper to ensure even distribution.		
Cool Rapidly		
1. Immediately place the beaker into your prepared ice bath. Stir constantly until the mixture thickens to a smooth, soft balm as it cools to 32–34°C (89–93°F) . This promotes the formation of stable beta crystals and prevents graininess.		
Refrigerate		
2. Wipe off the outside of the beaker with a clean paper towel and refrigerate for at least 1 hour to prevent graininess. A timer can be helpful.		

Package	Notes	✓
1. Use a scraper to stir the cold balm until smooth. This breaks up the chilled surface layer and ensures an even texture.		
2. Scrape the balm into a clean, dry jar.		
3. Allow to return to room temperature for 4 hours before capping. A timer can be helpful.		
4. Wipe the rim, then cap tightly.		
5. Label the container(s) with the product name and a 12-month expiration date.		
6. 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.	