Hydrating Cleanser

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: 6
Optional Ingredients: 1
Prep Time: 15 minutes
pH Check: 30 minutes

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

Suggested Container Options

- 1 Amber PET Cosmo Plastic Bottle with White Disc Cap (8 oz/236 mL)
- 2 Amber PET Cosmo Plastic Bottles with White Disc Caps (4 oz/118 mL each)
- 1 Natural HDPE Bottle with Flip Top (8 oz/236 mL)
- 2 Natural HDPE Bottles with Flip Top (4 oz/118 mL each)

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 glass beaker (~500 mL)
- 2 small beakers to aid pouring (optional)
- tiny glass or ceramic dishes
- 1 stainless-steel lab spatula
- stainless-steel spoons
- whisk (optional)
- calibrated pH meter
- medium beaker with deionized water
- Citric Acid Solution (see ***Making a Formula Work***)
- Baking Soda Solution (see ***Making a Formula Work***)
- 3M KCl Storage Solution for pH meter
- lint-free tissue
- small funnel (optional)
- sanitized, completely dry final container
- labels

Formulation Notes

[1] Substitute for Deionized Water: Chamomile, Rose, or Lavender Hydrosol, or Distilled Water. Hydrosols spoil quickly; buy only what you'll use and discard any unused portion. Do not use tap water, as it may contain minerals or microbes that can spoil your formula.

[2] Substitute for Sodium Phytate: Sodium Citrate or EDTA (cosmetic grade). Follow the supplier's guidance.

[3] Optional. Substitute for Sodium PCA: Sodium Lactate. If omitted, increase water.

[4] Substitute for 1,3-Propanediol: Glycerin (heavier, stickier).

[5] Substitute for Euxyl PE 9010: A broad-spectrum preservative such as Liquid Germall Plus (used at 0.1–0.5%) or Optiphen. Both are effective in a wide range of products. If using a different preservative, always follow the supplier's recommended usage rate and pH requirements.

[6] Substitutes for Caprylyl/Capryl Glucoside: Decyl Glucoside or Polyglyceryl-4 Caprate.

[7] Prepare a Citric Acid Solution (25% Citric Acid Powder with 75% Deionized Water) to adjust pH. See ***Making a Formula Work***.

TEST FORMULA

Makes 20 g Hydrating Cleanser

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	**Deionized Water**[1]	Hydrates	90.33%	18.07
A	**Sodium Phytate**[2]	Boosts stability	0.20%	0.04
A	Sodium PCA[3]	Hydrates & improves glide	2.00%	0.40
A	**1,3-Propanediol**[4]	Boosts hydration	4.50%	0.90
A	**Euxyl PE 9010**[5]	Preserves the formula	1.00%	0.20
A	**Caprylyl/Capryl Glucoside**[6]	Lifts debris	1.75%	0.35
B	**Citric Acid Solution**[7]	Balances pH to 5.2–6.0	0.22%	0.04
			100.00%	20.00

FULL FORMULA (Includes Optional Ingredients)

Makes 225 g Hydrating Cleanser / Fills one 8 fl oz (236 mL) bottle

Phase	Ingredients	Function	%	Grams
A	**Deionized Water**[1]	Hydrates	90.33%	203.24
A	**Sodium Phytate**[2]	Boosts stability	0.20%	0.45
A	Sodium PCA[3]	Hydrates & improves glide	2.00%	4.50
A	**1,3-Propanediol**[4]	Boosts hydration	4.50%	10.13
A	**Euxyl PE 9010**[5]	Preserves the formula	1.00%	2.25
A	**Caprylyl/Capryl Glucoside**[6]	Lifts debris	1.75%	3.94
B	**Citric Acid Solution**[7]	Balances pH to 5.2–6.0	0.22%	0.50
			100.00%	225.00

MINIMALIST FORMULA (Required Ingredients Only)

Makes 225 g Hydrating Cleanser / Fills one 8 fl oz (236 mL) bottle

This version uses only the essential ingredients needed for gentle cleansing, hydration support, and balanced pH. It omits the optional Sodium PCA, so you won't get the added glide or soft, cushioned feel it provides. Even so, it delivers a light, comfortable cleanse with dependable performance.

Phase	Ingredients	Function	%	Grams
A	**Deionized Water**[1]	Hydrates	92.33%	207.74
A	**Sodium Phytate**[2]	Boosts stability	0.20%	0.47
A	**1,3-Propanediol**[4]	Boosts hydration	4.50%	10.62
A	**Euxyl PE 9010**[5]	Preserves the formula	1.00%	2.36
A	**Caprylyl/Capryl Glucoside**[6]	Lifts debris	1.75%	4.13
B	**Citric Acid Solution**[7]	Balances pH to 5.2–6.0	0.22%	0.50
			100.00%	225.00

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.

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.

Some percentages are already filled in for you because these ingredients must stay at fixed levels 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: 50×0.07=3.5 g
- If you choose a 200 g batch and an ingredient is 1%, multiply: 200×0.01=2 g
- If you choose a 112 g batch and an ingredient is 0.5%, multiply: 112×0.005=0.56 g

MY CUSTOM BLEND

Hydrating Cleanser

Phase	Ingredients	Function	%	Grams
A	**Deionized Water[1] (Remainder)**	Hydrates		
A	**Sodium Phytate[2]**	Boosts stability	0.20%	
A	Sodium PCA[3] (0.5-2.0%)	Hydrates & improves glide		
A	**1,3-Propanediol[4] (Max 7%)**	Boosts hydration		
A	**Euxyl PE 9010[5]**	Preserves the formula	1.00%	
A	**Caprylyl/Capryl Glucoside[6]**	Lifts debris	1.75%	
B	**Citric Acid Solution[7] (as needed)**	Balances pH to 5.2–6.0		
			100.00%	

Date:

Formulation Method	Notes	✔
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.		
Phase A: Blend Water-based Ingredients		
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 small beaker to slowly pour the **Deionized Water** into the beaker to reach the target weight. Do not use tap water!		
3. Place a clean **tiny dish** on the milligram scale and **press Tare** to show 0.000 grams.		
4. Use the flat end of a lab spatula to sprinkle **Sodium Phytate** to the dish to reach the target weight. **Transfer to the beaker.**		
5. Remove the main beaker from the scale. Use a lab spatula or whisk to **completely dissolve the powder**.		
6. Return the beaker to the scale. **Press Tare**. Use a small spoon to slowly drizzle **Sodium PCA** into the beaker to reach the target weight.		
7. **Press Tare**. Use a small spoon or beaker to slowly drizzle **Propanediol** into the beaker to reach the target weight.		
8. **Press Tare**. Use a small spoon, skewer, or a disposable pipette to slowly drizzle **Euxyl PE 9010** into the beaker to reach the target weight. Measure your preservative carefully—it keeps your products safe to use.		
9. **Press Tare**. Use a small spoon to slowly drizzle **Caprylyl/Capryl Glucoside** into the beaker to reach the target weight.		
10. Use a lab spatula to **stir** gently to avoid creating bubbles.		

Formulation Method	Notes	✔
Phase B: Adjust pH (Target pH: 5.2–6.0)		
1. Ensure your **Citric Acid Solution** and **Baking Soda Solution** are ready.		
2. Prepare a **beaker of Deionized Water** for rinsing the probe.		
3. **Rinse** the pH probe very well with Deionized Water to remove the storage solution.		
4. **Measure pH:** Gently **shake** off excess water and **touch** the outside of the plastic housing to a lint-free tissue. **Submerge** the probe tip fully into the middle of the beaker, then **swirl** gently. **Wait** for the reading to stabilize (15-30 seconds), then **record the pH.**		
5. **Between subsequent readings,** after the cleanser has touched the probe, gently **wipe** the probe with a paper towel, then **rest it in Deionized Water for no more than 2 minutes while adding Citric Acid or stirring.**		
6. **Return the beaker to the scale and press Tare. Slowly add the Citric Acid Solution.** Begin by adding about half of the estimated Citric Acid Solution from your formula table. When you get close to your target range, add the Citric Acid Solution one or two drops at a time (1 drop of solution is approximately 0.04-0.05 g).		
7. Immediately **stir for 45 seconds.**		
8. **Repeat** pH adjustment steps 4–7 as needed to reach the target pH of 5.2–6.0.		
9. **Fix**. If you go below the target, use the Baking Soda Solution, a drop at a time, to gently raise the pH.		
10. **Cover the beaker and wait 30 minutes** for air bubbles to escape and the pH to stabilize.		

Package	Notes	✔
1. **Stir** the mixture with a clean stainless steel spoon.		
2. **Adjust pH** as needed (see instructions above).		
3. **Record** how much Citric Acid Solution you used. This serves as your reference for future batches, making the process faster and more predictable.		
4. **Wipe and rinse** the pH probe well with clean Deionized Water and **store** in 3M KCl storage solution.		
5. Use a funnel or just a steady hand to carefully **pour** the cleanser into a clean, completely dry bottle.		
6. **Wipe** the rim, then cap tightly.		
7. **Label** the container(s) with the product name and a 6-month expiration date.		
8. **Store** in a cool, dark place away from moisture and sunlight.		

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.	