Foaming Cleansers

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: Easy (Thin) Moderate (Thick)
Required Ingredients:
7 (Base), 0 (Body Wash), 0 (Shampoo)
Optional Ingredients:
5 (Base), 1 (Body Wash), 4 (Shampoo)
Prep Time: 20-60 minutes
pH Check: 24 hours

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

Suggested Container Options

Thickened:

- Amber PET Boston Round Bottle with White Pump (8 oz/236 mL each)
- Natural HDPE Plastic Bottle with White Disc Cap (8 oz/236 mL each)

Unthickened:

- PET Bottle with Foamer Pump (8 oz/236 mL each)
- Natural HDPE Plastic Bottle with White Disc Cap (8 oz/236 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 (~1000 mL)
- 2 glass beakers (500 mL)
- 1 glass beaker (~50 mL)
- beakers to aid pouring (50–100 mL)
- several stainless-steel lab spatulas
- stainless-steel spoons
- 1 flexible scraper
- 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] Optional. If omitted, increase water.

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

[4] Substitute for AOS-40 (Alpha Olefin Sulfonate): Sodium Laureth Sulfate (SLES) or Sodium C14-16 Olefin Sulfonate. At least one surfactant must be present for cleansing.

[5] Substitute for Caprylyl/Capryl Glucoside: Decyl Glucoside.

[6] Optional. Substitute for Cocamidopropyl Betaine: Disodium Cocoamphodiacetate. If omitted, increase Caprylyl/Capryl Glucoside.

[7] Substitute for 1,3-Propanediol: Glycerin.

[8] 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.

[9] Optional. Substitute for Cromollient SCE: PEG-7 Glyceryl Cocoate. If omitted, increase 1,3-Propanediol.

[10] Mixed Tocopherols are only needed if an essential oil is used. Substitute: 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.

[11] 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're sensitive or unsure, omit the essential oil.

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

[13] Optional. There is no substitute for SurfThix DOE. If omitted, use the product thin in a foamer pump bottle.

[14] Optional. Substitute for PEG-7 Glyceryl Cocoate: PEG-6 Caprylic/Capric Glycerides, PEG-18 Glyceryl Oleate/Cocoate. If omitted, increase cleanser base.

[15] Optional. There is no substitute for Polyquaternium-7. If omitted, increase cleanser base.

[16] Optional. Substitute for Rice Water SF: Hydrolyzed Rice Protein (slightly firmer, less slippery) or Keratin (for bleached, highlighted, high-porosity, or damaged hair). If omitted, increase cleanser base.

[17] Optional. Substitute for Bisabolol: Chamomile CO_2 (has a noticeable herbal scent). If omitted, increase cleanser base.

TEST FORMULA (Includes Optional Ingredients)

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.

Cleanser Base

Makes 169 g Cleanser Base / Fills three 2 fl-oz bottles

Phase	Ingredients	Function	%	Grams
A	**Deionized Water**[1]	Hydrates	58.80%	99.37
A	dl-Panthenol[2]	Soothes	1.00%	1.69
A	**Sodium Phytate**[3]	Stabilizes the formula	0.20%	0.34
A	**AOS-40**[4]	Boosts cleansing and foam	5.00%	8.45
A	**Caprylyl/Capryl Glucoside**[5]	Primary cleanser	15.00%	25.35
A	Cocamidopropyl Betaine[6]	Improves foam	10.00%	16.90
B	**1,3-Propanediol**[7]	Hydrates	5.00%	8.45
B	**Euxyl PE 9010**[8]	Preserves the formula	1.00%	1.69
B	Cromollient SCE[9]	Improves mildness	2.00%	3.38
B	Mixed Tocopherols[10]	Keeps oils fresh	0.50%	0.85
B	Essential Oil[11]	Scents and supports	0.40%	0.68
C	**Citric Acid Solution**[12]	Balances pH 6.0-6.8	1.10%	1.86
			100.00%	169.00

Hand/Body Wash

Makes 120 g / one 2 fl oz (60 mL) Hand Wash and one 2 fl oz (60 mL) Body Wash

Phase	Ingredients	Function	%	Grams
D	**Cleanser Base (Phases A-C)**	Cleanses	93.80%	112.56
E	**SurfThix DOE**[13]	Thickens, improves glide	5.00%	6.00
F	**Citric Acid Solution**[12]	Balances pH 5.2–5.6	1.20%	1.44
			100.00%	120.00

Shampoo

Makes 60 g / one 2 fl oz (60 mL) bottle

Phase	Ingredients	Function	%	Grams
G	PEG-7 Glyceryl Cocoate[14]	Conditions	2.00%	1.20
G	Polyquaternium-7[15]	Detangles	2.00%	1.20
G	Rice Water SF[16]	Smooths & strengthens	1.00%	0.60
G	Bisabolol[17]	Soothes scalp	0.30%	0.18
G	**Euxyl PE 9010**[8]	Preserves the formula	0.15%	0.09
H	**Cleanser Base (Phases A-C)**	Cleanses	84.91%	50.94
I	SurfThix DOE[13]	Thickens, improves glide	8.00%	4.80
J	**Citric Acid Solution**[12]	Balances pH 5.0–5.2	1.65%	0.99
			100.00%	60.00

FULL FORMULA (Includes Optional Ingredients)

Cleanser Base

Makes 739 g Cleanser Base / Fills three 8 fl oz (236 mL) bottles

Phase	Ingredients	Function	%	Grams
A	**Deionized Water**[1]	Hydrates	58.80%	434.53
A	dl-Panthenol[2]	Soothes	1.00%	7.39
A	**Sodium Phytate**[3]	Stabilizes the formula	0.20%	1.48
A	AOS-40[4]	Boosts cleansing and foam	5.00%	36.95
A	**Caprylyl/Capryl Glucoside**[5]	Primary cleanser	15.00%	110.85
A	Cocamidopropyl Betaine[6]	Improves foam	10.00%	73.90
B	**1,3-Propanediol**[7]	Hydrates	5.00%	36.95
B	**Euxyl PE 9010**[8]	Preserves the formula	1.00%	7.39
B	Cromollient SCE[9]	Improves mildness	2.00%	14.78
B	Mixed Tocopherols[10]	Keeps oils fresh	0.50%	3.70
B	Essential Oil[11]	Scents and supports	0.40%	2.96
C	**Citric Acid Solution**[12]	Balances pH 6.0-6.8	1.10%	8.13
			100.00%	739.00

Body/Hand Wash

Makes 472 g / one 8 fl oz (236 mL) Hand Wash and one 8 fl oz (236 mL) Body Wash

Phase	Ingredients	Function	%	Grams
D	**Cleanser Base (Phases A-C)**	Cleanses	93.80%	442.74
E	SurfThix DOE[13]	Thickens, improves glide	5.00%	23.60
F	**Citric Acid Solution**[12]	Balances pH 5.2–5.6	1.20%	5.66
			100.00%	472.00

Shampoo

Makes 236 g / one 8 fl oz (236 mL) bottle

Phase	Ingredients	Function	%	Grams
G	PEG-7 Glyceryl Cocoate[14]	Conditions	2.00%	4.72
G	Polyquaternium-7[15]	Detangles	2.00%	4.72
G	Rice Water SF[16]	Smooths & strengthens	1.00%	2.36
G	Bisabolol[17]	Soothes scalp	0.30%	0.71
G	**Euxyl PE 9010**[8]	Preserves the formula	0.14%	0.34
H	**Cleanser Base (Phases A-C)**	Cleanses	84.91%	200.38
I	SurfThix DOE[13]	Thickens, improves glide	8.00%	18.88
J	**Citric Acid Solution**[12]	Balances pH 5.0–5.2	1.65%	3.89
			100.00%	236.00

MINIMALIST FORMULAS (Required Ingredients Only)

Cleanser Base

Makes 710 g Cleanser Base / Fills three 8 fl oz (236 mL) bottles

The minimalist Cleanser Base gives you a simple, gentle wash using only the required ingredients. It still cleans effectively, rinses easily, and stays preserved and pH-balanced, making it safe for face, body, and scalp. It's perfect for people who want the lightest possible formula or prefer to customize their products later.

What you don't get are the optional ingredients that add glide, foam richness, thickness, or soothing benefits. The texture is thinner, the lather is softer, and the feel is more basic—but still completely functional.

Phase	Ingredients	Function	%	Grams
A	**Deionized Water**[1]	Hydrates	77.90%	553.09
A	**Sodium Phytate**[3]	Stabilizes the formula	0.20%	1.42
A	**Caprylyl/Capryl Glucoside**[5]	Primary cleanser	15.00%	106.50
B	**1,3-Propanediol**[7]	Hydrates	5.00%	35.50
B	**Euxyl PE 9010**[8]	Preserves the formula	1.00%	7.10
C	**Citric Acid Solution**[12]	Balances pH 6.0-6.8	0.90%	6.39
			100.00%	710.00

How to Use the Custom Blend Table

The following 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

Cleanser Base

Phase	Ingredients	Function	%	Grams
A	**Deionized Water[1] (remainder)**	Hydrates		
A	dl-Panthenol[2] (Max 2%)	Hydrates		
A	**Sodium Phytate[3]**	Soothes	0.20%	
A	**AOS-40[4]**	Stabilizes the formula		
A	**Caprylyl/Capryl Glucoside[5] (10-20%)**	Primary cleanser		
A	Cocamidopropyl Betaine[6] (Max 15%)	Improves foam		
B	**1,3-Propanediol[7] (Max 5%)**	Improves mildness		
B	**Euxyl PE 9010[8]**	Preserves the formula	1.00%	
B	Cromollient SCE[9] (Max 4%)	Keeps oils fresh		
B	Mixed Tocopherols[10] (Max 0.5%	Scents and supports		
B	Essential Oil[11] (Max 0.5%)	Balances pH 5.2–5.6.		
C	**Citric Acid Solution[12] (as needed)**	Thickens, improves glide		
			100.00%	

Body/Hand Wash

Phase	Ingredients	Function	%	Grams
D	**Cleanser Base (Phase A-C) (remainder)**	Cleanses		
E	SurfThix DOE[13] (Max 8%)	Thickens/improves glide		
F	**Citric Acid Solution[12]**	Balances pH 5.2–5.6		
			100.00%	

Shampoo

Phase	Ingredients	Function	%	Grams
G	PEG-7 Glyceryl Cocoate[14] (Max 3%)	Conditions		
G	Polyquaternium-7[15] (Max 2%)	Detangles		
G	Rice Water SF[16] (Max 2%)	Smooths & strengthens		
G	Bisabolol[17] (Max 0.5%)	Soothes scalp		
G	**Euxyl PE 9010[8]**	Preserves the formula		
H	**Cleanser Base (Phase A-C) (remainder)**	Cleanses		
I	SurfThix DOE[13] (Max 8%)	Thickens, improves glide		
J	**Citric Acid Solution[12] (as needed)**	Balances pH 5.0–5.2		
			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. Read all instructions before beginning. If you want to thicken your products, there are specific steps that require the Cleanser Base to reach a certain pH before thickening. All products need to have pH adjusted at the end before use.		
SECTION 1 — Make the Cleanser Base (Always Required)		
Phase A: Water + Chelator + Surfactants		
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 the **Tare** button to show 0.00 g. Use a clean small beaker to slowly pour **Deionized Water** into the large beaker to reach the target weight.		
3. Optional. **Press Tare**. **dl-Panthenol** can clump. Break up the clumps with a spoon before measuring. Use the flat end of a lab spatula to carefully sprinkle **dl-Panthenol** into the beaker to reach the target weight.		
4. **Press Tare**. Use the flat end of a lab spatula to carefully sprinkle **Sodium Phytate** into the beaker to reach the target weight.		
5. Remove the beaker from the scale. **Stir** with a lab spatula or whisk to **completely dissolve the powder**.		
6. **Return the beaker to the scale. Press Tare.** Use a spoon or small beaker to slowly pour **AOS-40** into the beaker to reach the target weight. **Stir** gently about 5 seconds to avoid foaming.		
7. **Press Tare**. Use a spoon or small beaker to slowly pour **Caprylyl/Capryl Glucoside** into the beaker to reach the target weight. **Stir** gently about 5 seconds to avoid foaming.		
8. Optional. **Press Tare**. Use a spoon or small beaker to slowly pour **Cocamidopropyl Betaine** into the beaker to reach the target weight. **Stir** gently about 5 seconds to avoid foaming.		

Formulation Method	Notes	✔
Phase B: Additional Ingredients		
1. Place a **clean glass beaker that holds at least 50 mL** on the milligram scale.		
2. **Press Tare**. Use a spoon to drizzle **1,3-Propanediol** into the beaker to reach the target weight.		
3. **Press Tare**. Use a spoon to carefully drizzle **Euxyl PE 9010** into the beaker to reach the target weight. Measure your preservative carefully—it keeps your products safe to use.		
4. Optional. **Press Tare**. Use a spoon or small beaker to slowly pour **Cromollient SCE** into the beaker to reach the target weight. **Stir** to combine.		
5. Optional. **Press Tare**. Use a lab spatula to carefully drizzle **Mixed Tocopherols** into the beaker to reach the target weight. **Stir** to combine.		
6. 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***).		
7. **Scrape** the sides with a flexible scraper and **stir** until uniform.		
8. **Pour a little of the water mixture** into the beaker and gently **stir**. **Scrape all of the mixture** into the main beaker and **stir** gently to combine.		

SECTION 2 — Prepare for Thick or Thin Products		
If you want a thick hand wash, body wash, or shampoo, go to Phase C (Adjust pH to 6.0–6.8 for thickening). If you want only thin products, skip Phase C. **Important:** If you are making more than one product, complete all products first. If you are making thin products, start with the Cleanser Base, make the shampoo first, and the remaining base becomes your thin hand/body wash. Only begin Section 5 — Final pH Adjustment after every product you plan to make is fully mixed.		

Formulation Method	Notes	✔
Phase C: Adjust pH to 6.0-6.8 for THICKENING		
Follow this step only if you plan to thicken at least one product (thick hand/body wash and/or thick shampoo). SurfThix DOE requires the Cleanser Base to be in this pH range to bloom. If you are making only thin products, skip Phase C and continue to SECTION 4 — Create Shampoo.		
1. Ensure your **Citric Acid Solution** and **Baking Soda Solution** are ready (see ***Making a Formula Work***).		
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 mixture 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 **6.0-6.8**.		
9. **Fix.** If you go below 6.0, use the **Baking Soda Solution**, a drop or two at a time, to gently raise the pH.		
10. **Record** the total amount of **Citric Acid Solution** used before thickening. This becomes your personal reference for future batches and will make the process faster and more predictable.		
11. **Wipe** and **rinse** the pH probe very well with Deionized Water and **store** it in 3M KCl storage solution.		

Formulation Method	Notes	✔
SECTION 3 — Create HAND/BODY WASH (Thick Only)		
Optional. If you prefer a thin product, skip this step and continue with the next product you plan to make. Only go to SECTION 5 — Final pH Adjustment after all products are created.		
Phase D: Add Cleanser Base		
1. **After the base cleanser has a pH of 6.0-6.8 (see Phase C), place a clean glass beaker that holds at least 500 mL** on a large-capacity scale.		
2. **Press Tare**. Slowly pour the **Cleanser Base** into the beaker to reach the target weight.		
Phase E: Thicken		
1. **Press Tare**. Use the flat end of a lab spatula to transfer **SurfThix DOE** onto the inside rim of the beaker. When you've reached the target weight, use the spatula to move the thickener into the liquid.		
2. **Stir** gently to combine. You will feel the liquid begin to "grip" the spoon and turn into a thick gel almost immediately.		
Phase F: Adjust pH and Rest		
1. **Go to SECTION 5 — Final pH Adjustment.**		

Formulation Method	Notes	✔
SECTION 4 — Create SHAMPOO (Thick or Thin)		
If you prefer a simpler shampoo with no added actives, you may use the Hand/Body Wash as your shampoo. It will cleanse well, but you will miss the extra slip, detangling, and scalp-soothing benefits provided by the optional shampoo actives. If you are making both a body/hand wash and a shampoo, complete both products before moving to SECTION 5.		
Phase G: Combine Shampoo Actives		
1. **After the base cleanser has a pH of 6.0–6.8 (see Phase C), place a clean glass beaker that holds at least 500 mL** on a large-capacity scale.		
2. **Press Tare**. Use a spoon to slowly pour **PEG-7 Glyceryl Cocoate** into the beaker to reach the target weight.		
3. **Press Tare**. Use a spoon to slowly pour **Polyquaternium-7** into the beaker to reach the target weight. **Stir** gently.		
4. **Press Tare**. Use a small spoon to carefully drizzle **Rice Water SF** into the beaker to reach the target weight. **Stir** gently.		
5. **Press Tare**. Use a small spoon to carefully drizzle **Bisabolol** into the beaker to reach the target weight. **Stir** gently until the mixture looks like thick syrup.		
6. **Press Tare**. Use a spoon to carefully drizzle **Euxyl PE 9010** into the beaker to reach the target weight. Measure your preservative carefully—it keeps your products safe to use. As a rule, add only enough extra preservative to bring the finished shampoo back up to the same 1.00% of the product. **To calculate how much extra preservative to add:** 1. Start with the percentage of Cleanser Base in your shampoo. For example, this formula uses 85.72% Cleanser Base when all shampoo actives are included. 2. Determine how much preservative the Cleanser Base already contributes: 85.72%×1.00%=0.8572% preservative from the base. 3. Subtract that amount from the total 1.00% you need in the finished shampoo. 1.00%−0.8572%=0.1428% 4. Add that extra 0.14% (rounded) Euxyl PE 9010. If you omit optional actives and use a different percentage of Cleanser Base, your numbers will change slightly. Repeat the same pattern and record the total amount of preservative you used for future batches.		

Formulation Method	Notes	✔
SECTION 4 — Create SHAMPOO (Thick or Thin)		
Phase H: Add Cleanser Base		
1. **Press Tare**. Slowly pour the **Cleanser Base** into the beaker to reach the target weight or until you reach the 8 oz (250 mL) line on the beaker. **Stir** to combine.		
Phase I: Thicken (Optional)		
1. Rinse the pH meter and **recheck the pH** to ensure it is **still between 6.0–6.8** before adding SurfThix DOE. Adjust as needed using the pattern described in Phase C.		
2. **Press Tare**. **SurfThix DOE** is thick. Use the flat end of a lab spatula to transfer SurfThix DOE onto the inside rim of the beaker. When you've reached the target weight, use the spatula to move the thickener into the liquid.		
3. **Stir gently to combine for 2-3 minutes.** The presence of Polyquaternium-7 may make the thickening feel "slippery" at first, but it will build into a rich gel as you **stir**.		
Phase J: Adjust pH and Rest		
1. **Go to SECTION 5 — Final pH Adjustment.**		

Formulation Method	Notes	✔
SECTION 5 — Final pH Adjustment		
Body/Hand Wash Target: 5.2–5.6 **Shampoo Target: 5.0–5.2** **Important! Do not begin this section until all products you plan to make (thin or thick) are fully mixed.**		
1. Ensure your **Citric Acid Solution** and **Baking Soda Solution** are ready (see ***Making a Formula Work***).		
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 mixture 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). The exact amount needed varies by product and whether it was thickened.		
7. Immediately **stir** for 45 seconds.		
8. **Repeat** pH adjustment steps 4–7 as needed to reach the target pH (**5.2–5.6 for body/hand wash, 5.0–5.2 for shampoo**).		
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 24 hours** for air bubbles to escape and the pH to stabilize.		
11. **Wipe** and **rinse** the pH probe well with clean Deionized Water and **store** in 3M KCl storage solution.		

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 for the final adjustment. 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 cleansers into clean, completely dry bottles.		
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.	