# Pieridae Beauty – Protein Balance Spritz

Aloe-Free, No-Shake Version for Over-Moisturized 4C Hair

Batch Size: 50 g  
pH Target: 4.7  
Appearance: Clear to slightly opalescent liquid, fine mist

## Formula

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Phase | Ingredient | % w/w | g (50g batch) | Function |
| A | Distilled Water | 90% | 45.0 | Base solvent |
| A | VegeKeratin | 2% | 1.0 | Strength, curl structure, film-forming |
| A | Hydrolyzed Rice Protein (LC1550) | 2% | 1.0 | Elasticity, cuticle smoothing, light volume |
| B | Panthenol (Vitamin B5) | 1% | 0.5 | Shine, frizz control |
| B | Niacinamide | 1% | 0.5 | Strengthens cuticle, scalp health |
| C | Argan Oil | 2% | 1.0 | Light sealing, frizz reduction |
| C | SurfPro CC-6 (PEG-6 Caprylic/Capric Glycerides) | 1% | 0.5 | Solubilizer/emulsifier (no-shake formula) |
| C | Liquid Germall Plus | 1% | 0.5 | Preservative |

## Manufacturing Instructions

Preparation Notes:  
- Sanitize all tools, containers, and work surfaces.  
- Use gloves to prevent contamination.  
- Weigh accurately — small batch precision matters.

Step 1 – Water Phase (Phase A):  
1. In a sanitized beaker, weigh distilled water (45.0 g).  
2. Add VegeKeratin (1.0 g) and stir until fully dissolved.  
3. Add LC1550 Hydrolyzed Rice Protein (1.0 g) and mix until uniform.  
  
Step 2 – Additives (Phase B):  
4. Add Panthenol (0.5 g) and Niacinamide (0.5 g) to Phase A. Stir until fully dissolved.  
  
Step 3 – Cool-Down Phase (Phase C):  
5. In a small cup, premix Argan Oil (1.0 g) with SurfPro CC-6 (0.5 g) until fully blended.  
6. Add the oil/solubilizer mix to Phase A/B and stir until uniform.  
7. Add Liquid Germall Plus (0.5 g) and stir gently.  
  
Step 4 – pH Adjustment:  
8. Check pH — adjust to 4.70 with a 10% NaOH solution (add dropwise and stir, rechecking after each addition).  
  
Step 5 – Packaging:  
9. Transfer to a fine-mist spray bottle.  
10. Label with product name, batch date, and 'No shaking required.'

## Usage

- Mist lightly over dry hair, focusing on areas that feel overly soft or mushy.  
- Avoid soaking — a fine, even layer is enough.  
- Let air dry or set in twists/braids to lock in structure.

## Storage & Shelf Life

- Store in a cool, dry place away from direct sunlight.  
- Shelf life: ~12 months with Liquid Germall Plus at 1%.