Glypure™

Cosmetic-Grade Glycolic Acid

Formulation—Skin Care Anti-Aging Serum



Glypure[™] anti-aging serum contains 2.8% glycolic acid. This Glypure[™] formulation penetrates the skin efficiently, readjusting water percentages in the epidermis. It is an efficient pH adjuster.

- Fights the signs of aging
- Stimulates skin elasticity
- Improves the look and feel of skin
- Promotes exfoliation
- Improves skin texture

- Reduces the appearance of fine lines and wrinkles
- Helps even out skin tone
- Improves the appearance of sundamaged skin

Phase	Trade Name	Wt%	INCI Name	Supplier
A1	Purified Water	37.00	Purified Water	
A2	Dissolvine® NA2 S	0.05	Disodium EDTA	AkzoNobel
A3	Ucare™ Polymer JR-30M	1.00	Polyquaternium-10	Dow
A4	Glycerin USP	3.00	Glycerin	Vantage Specialty Ingredients/Spectrum
A5	Zemea® Propanediol	10.00	Propanediol	DuPont Tate & Lyle Bio Products
B1	Purified Water	37.00	Purified Water	
B2	Glypure™	4.00	Glycolic Acid (70%) ¹	Chemours
В3	Trolamine 99	0.80	Triethanolamine 99% NF ^{2,3} to pH 3.5–4.0 ³	Dow, Vantage Specialty Ingredients
C1	Tween [™] 80	3.00	Polysorbate 80	Croda
C2	Vitamin A Palmitate USP	0.05	Retinyl Palmitate	Spectrum
C3	Vitamin E Acetate	0.25	Tocopheryl Acetate	Spectrum
C4	BV-0SC™	0.05	Tetrahexyldecyl Ascorbate	Barnet
D1	Elestab® FL-15	2.50	Butylene Glycol (and) Glycerin (and) Chlorphenesin (and) Methylparaben	Lab. Serobiologiques/ BASF
E1	To Shade Desired	0.00	Dye	
E2	As Desired	0.00	Botanical Extracts ⁴	
E3	As Desired w/Acidic Top Notes	0.00	Fragrance	
Adjust	Adjust final pH to 3.8-4.2 with Triethanolamine or Glypure™, as necessary.			
qs	Purified Water	qs to 100%	Purified Water	

Notes:

¹Glypure™ (99%) may be substituted for Glypure™ (70%). Compensate for active Glycolic Acid Content and Purified Water percentage accordingly.



 $^{^2 \}text{May use other suitable alkalis, e.g., Potassium Hydroxide, Ammonium Hydroxide, or Sodium Hydroxide.}$

 $^{^3\!\}text{Do}$ not exceed 2.5% of Triethanolamine to comply with EU regulations. If necessary, add another neutralizing agent.

Manufacturing Procedure

- 1. To the main vessel, add A1.
- 2. Add A2, and mix until completely soluble and water clear.
- 3. Slowly add A3 to minimize agglomeration, and heat to 35-50 °C (95-122 °F) until completely clear.
- 4. Cool to 30-35 °C (86-95 °F), and add A4 and A5.
- 5. In a separate vessel, add B1-B3 in order, and mix until pH is constant. Adjust pH, if necessary, with Glypure™ or Triethanolamine. Add to main vessel.
- 6. In a separate vessel, add C1-C4 in order, and mix until vitamins are completely soluble. Warm gently, if necessary. Add to main vessel.
- 7. Add D1 and E1-E3, if desired, and mix batch until uniform and clear.
- 8. Adjust batch to indicated pH and qs to 100% with Purified Water.

Glypure[™] has proven benefits in hair, skin, and nail care formulations. To learn more about the benefits of Glypure[™], visit www.glypure.com.

For more information, visit glycolicacid.chemours.com or call (800) 441-9593.

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