

# Glypure™

## Cosmetic-Grade Glycolic Acid

### Formulation—Men's Care Daily Moisturizer with Sunscreen



Glypure™ penetrates the skin efficiently—readjusting water percentages in the epidermis, stimulating collagen synthesis, and promoting cell turnover. It is also an efficient pH adjuster.

- Improves the look and feel of skin
- Promotes exfoliation
- Improves skin texture
- Fights the signs of aging
- Reduces the appearance of fine lines and wrinkles
- Improves the appearance of sun-damaged skin
- Helps even out skin tone

Phase	Trade Name	Wt%	INCI Name	Supplier
A1	Purified Water USP	40.00	Purified Water USP	
A2	Magnabrite® S	0.60	Magnesium Aluminum Silicate	Amcol
A3	Edeta® BD	0.05	Disodium EDTA	BASF
A4	Biowax® Liquid 754	1.00	PEG-8 Dimethicone	Biosil Technologies
A5	Glycerin USP	2.00	Glycerin 99% USP	Spectrum Chemical
A6	Keltrol® CG-T	0.30	Xanthan Gum NF	CP Kelco
B1	Arlacel™ 165	3.00	Glyceryl Stearate/PEG-100 Stearate	Croda
B2	Alkest® SP 60 F	1.00	Sorbitan Stearate	Oxigeno
B3	Floraesters Jojoba Oil-Refined	5.00	Simmondsia Chinensis (Jojoba) Seed Oil	Floratch
B4	BHT	0.05	BHT (Butylated Hydroxytoluene)	Merisol Antioxidants, LLC
B5	Xiameter® PMX-200 Silicone Fluid 100CS	1.50	Dimethicone	Dow Corning
B6	α-Bisabolol	0.10	α-Bisabolol	BASF
B7	Univul MC 80	7.50	Ethylhexyl Methoxycinnamate	BASF
B8	Elefac™ I-205	2.00	Octyldodecyl Neopentanoate	Alzo
B9	Crodacol™ CS50	2.00	Cetearyl Alcohol	Croda
B10	Propylparaben	0.15	Propylparaben	Spectrum Chemical
B11	Vitamin E Acetate	0.25	Tocopheryl Acetate	BASF
B12	Tioveil™ 50 FCM	5.00	Titanium Dioxide (and) C12-15 Alkyl Benzoate (and) Polyhydroxystearic Acid (and) Alumina (and) Aluminum Stearate	Croda
C1	Purified Water USP	10.00	Purified Water USP	
C2	Glypure™	11.40	Glycolic Acid (70%) <sup>1</sup>	Chemours
C3	Ammonia Solution Strong NF	2.80	Ammonium Hydroxide 28% <sup>2</sup> –to pH 3.4–3.7 <sup>3</sup>	–
D1	Elestab® FL-15	2.50	Butylene Glycol (and) Glycerin (and) Chlorphenesin (and) Methylparaben	Lab. Serobiologiques/BASF
E1	As Desired	0.00	Dye, Fragrance, and Additives <sup>4</sup>	As Desired
qs	Purified Water USP	qs to 100%	Purified Water USP	

#### Notes:

<sup>1</sup>Glypure™ (99%) may be substituted for Glypure™ (70%). Compensate the purified water percentage accordingly.

<sup>2</sup>May use other suitable alkalis, e.g., Potassium Hydroxide, Triethanolamine, or Sodium Hydroxide.

<sup>3</sup>Do not exceed 2.5% of Triethanolamine to comply with EU regulations. If necessary, add another neutralizing agent.

<sup>4</sup>Compensate the purified water percentage accordingly for any additives.

<sup>5</sup>Viscosity may be increased by adding Sepigel 305.

In lieu of Glypure™, formulators and manufacturers must use Glypure™ L for products used or distributed in Canada or Australia and in Europe for nail care products.

## Manufacturing Procedure

1. Prepare phase A by adding A1 to the main vessel and begin mixing.
2. Slowly add A2 and mix for 15–30 min to hydrate.
3. Add A3 and mix until dissolved, followed by A4.
4. Pre-mix A5 and A6 until uniform and add to batch with continued mixing.
5. Heat to 70–75 °C (158–167 °F).
6. In a separate vessel, add B1–B11 and heat to 70–75 °C (158–167 °F). Begin mixing slowly when solid ingredients begin to melt.
7. At 70–75 °C (158–167 °F), add B12 and mix until uniform. Homogenize phase B, if necessary.
8. In a separate vessel, prepare phase C, adjusting pH as indicated.
9. When phases A and B are at the proper temperature range, add phase B to phase A slowly. When complete, homogenize for 5 min.
10. Begin cooling, and at 55–60 °C (131–140 °F), add phase C to phase AB. Continue mixing and homogenize moderately for uniformity.
11. When temperature is 40 °C (140 °F), turn off homogenizer; continue cooling and add phases D and E.
12. Adjust final product pH to 3.7–4.0.
13. Add purified water to compensate for water losses and pH adjustment.

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

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**For more information, visit [glycolicacid.chemours.com](http://glycolicacid.chemours.com) or call (800) 441-9593.**

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