

# Glypure™

## Cosmetic-Grade Glycolic Acid

### Formulation—Skin Care Self-Tanner Remover



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.

- Promotes exfoliation
- Helps even out skin tone

Phase	Trade Name	Wt%	INCI Name	Supplier
A1	Purified Water USP	27.00	Purified Water USP	
A2	Magnabrite® S	0.40	Magnesium Aluminum Silicate	Amcol
A3	Edeta® BD	0.05	Disodium EDTA	BASF
A4	Zemea® Propanediol	3.00	Propanediol	DuPont Tate & Lyle Bio Products
A5	Keltrol® CG-T	0.20	Xanthan Gum NF	CP Kelco
A6	Biowax® Liquid 754	1.00	PEG-8 Dimethicone	Biosil
B1	Arlacel™ 165	3.00	Glyceryl Stearate/PEG-100 Stearate	Croda
B2	Arlasolve™ DMI	6.00	Dimethyl Isosorbide	Croda
B3	Crodacol™ CS50	2.50	Cetearyl Alcohol	Croda
B4	Dragosantol® 100	0.15	α-Bisabolol	Symrise
B5	Cropure™ EPO	1.00	Oenothera Biennis (Evening Primrose) Oil	Croda
B6	BHT	0.03	(BHT) Butylated Hydroxytoluene	Merisol Antioxidants, LLC
B7	Alkest® SP 60 F	2.00	Sorbitan Stearate	Oxitenol
B8	Vitamin E Acetate	0.25	Tocopheryl Acetate	BASF
C1	Purified Water USP	27.00	Purified Water USP	
C2	<b>Glypure™</b>	<b>17.5</b>	<b>Glycolic Acid (70%)<sup>1</sup></b>	<b>Chemours</b>
C3	Triethanolamine 99%	2.00	Triethanolamine 99% NF <sup>2</sup> to pH 3.4-3.8 <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, Ammonium Hydroxide, 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.

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 soluble.
4. Pre-wet A5 in A4 and mix until a uniform dispersion is obtained. Add to A1-A3, and mix until uniform.
5. Add A6 and continue mixing while heating to 70-75 °C (158-167 °F).
6. In a separate vessel, add B1–B8 and heat to 70-75 °C (158-167 °F). Begin mixing slowly when solid ingredients begin to melt.
7. In a separate vessel, mix C1 and C2, and adjust pH accordingly with C3.
8. When phases A and B are at the proper temperature range, add phase B to phase A slowly. When complete, homogenize for 5 min.
9. Begin cooling. When phase AB is at 62-65 °C (144-149 °F), add phase C slowly to phase AB. Homogenize while cooling is continued.
10. When phase ABC is 35-40 °C (95-104 °F), add phase D. Continue mixing and cooling.
11. Adjust to pH 3.5–3.8 if necessary with appropriate neutralizing agent or C3.
12. Continue cooling and add phase E and any make-up water due to additive additions and water losses.
13. Turn off homogenizer and sweep mix to <30 °C (86 °F).

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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