

# Glypure™

## Cosmetic-Grade Glycolic Acid

### Formulation—Nail Conditioning Solution

	INCI Name	Trade Name	Supplier	wt%
Phase A	Purified Water	Purified Water		60.00
	Polyquaternium-10	Ucare Polymer JR-30M	Dow	0.75
	SD Alcohol 40-B (190 Proof)	SD Alcohol 40-B (190 Proof)		10.00
	Vitamin E Acetate USP	Vitamin E Acetate USP	BASF	0.10
	PEG-7 Glyceryl Cocoate	Cetiol HE	BASF	0.50
Phase B	Purified Water	Purified Water		10.00
	Glycolic Acid (70%) <sup>1</sup>	Glypure™ (70%)	Chemours	5.00
	Triethanolamine <sup>2,3</sup>	Trolamine 99%	Dow, Ineos	1.00
Phase C	Fragrance	As Desired	As Desired	0.00
	Dye	As Desired	As Desired	0.00
	Botanical Extracts	As Desired	As Desired	0.00
Phase D	Butylene Glycol (and) Glycerin (and) Chlorphenesin (and) Methylparaben	Elestab FL-15	Lab.Serobiologiques/ BASF	2.00
Phase E	Triethanolamine <sup>2</sup>	Trolamine 99%	Dow, Ineos	pH 3.6-4.0
	Glycolic Acid (70%) <sup>1</sup>	Glypure™ (70%)	Chemours	pH 3.6-4.0
	Purified Water	Purified Water		qs to 100%

#### 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> At this step, adjust neutralizing agent percentage to not exceed pH 3.6.

#### Manufacturing Procedure

- 1) To the main vessel, add the Purified Water. Begin mixing and slowly sprinkle in the Polyquaternium-10. Continue mixing and raise temperature to 45-50 °C (113-122 °F). Mix until polymer is completely hydrated and mixture becomes a clear solution. Cool to 25-30 °C (77-86 °F).
- 2) Premix A3 and A4 until completely soluble and clear. With continued mixing, add A3 and A4 to the main vessel. Mix until clear.
- 3) In a separate vessel with mixing, add ingredients B1-B3 to partially pre-neutralize the Glypure™. Add to the main vessel.
- 4) To the main vessel, add ingredients C1-C3 individually as desired.
- 5) When completely clear, add D1; mix to clarity.
- 6) Adjust pH to 3.6-4.0 with desired neutralizing agent (E1 or E2), and adjust remaining water percentage accordingly.
- 7) It is best practice to check the stability profile of the finished product to verify a proper blending.

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

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