

Glypure™

Cosmetic-Grade Glycolic Acid

Formulation—Nail/Cuticle Care Cuticle Cream



Glypure™ penetrates the skin efficiently, readjusts water percentages in the epidermis, stimulates collagen synthesis, and promotes cell turnover. It is also an efficient pH adjuster.

- Promotes exfoliation of cuticles
- Improves the appearance of cuticles

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	Glycerin USP	3.00	Glycerin 99% USP	Vantage Specialty Ingredients, Spectrum
A4	Zemea™ Propanediol	1.50	Propanediol	DuPont Tate & Lyle Bio Products
A5	Keltrol® CG-T	0.30	Xanthan Gum NF	CP Kelco
A6	Edeta® BD	0.05	Disodium EDTA	BASF
B1	Purified Water	15.00	Purified Water	
B2	Glypure™	5.75	Glycolic Acid (70%) ¹	Chemours
B3	Triethanolamine 99%	0.90	Triethanolamine 99% NF ^{2,3} to pH 3.5–4.0 ³	Dow, Vantage Specialty Ingredients
C1	Arlacel™ 165V	3.50	Glyceryl Stearate/PEG-1 00 Stearate	Croda
C2	Cutina® GMS V	0.50	Glyceryl Stearate	BASF
C3	Emersol® 7036	2.00	Stearic Acid	Emery Oleochemicals
C4	Crodacol™ CS-50	2.50	Cetearyl Alcohol	Croda
C5	Ultima USP	4.00	White Petrolatum	Penreco
C6	Vitamin E Acetate	0.25	Tocopheryl Acetate	BASF
C7	ODM 100	2.50	Octyldodecyl Myristate	Barnet
C8	Elefac™ I-205	3.00	Octyldodecyl Neopentanoate	Akzo
C9	Xiameter® PMX-200 Silicone Fluid 100CS	1.00	Dimethicone	Dow Corning
C10	Wickenol® 171	3.00	Octyl Hydroxystearate	Akzo
D1	Dow Corning® ST-CYCLOMETHICONE 5- NF	1.50	Cyclomethicone	Dow Corning
D2	Permethyl® 99A	1.50	Isododecane	Presperse
D3	Permethyl® 101 A	1.50	Isohexadecane	Presperse
E1	Elestab® FL-15	2.50	Butylene Glycol (and) Glycerin (and) Chlorphenesin (and) Methylparaben	Lab. Serobiologiques/ BASF
F1	As Desired	6.00	Dye, Fragrance, and Additives ⁴	As Desired
qs	Purified Water	qs to 100%	Purified Water	

Notes:

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

²Do not exceed 2.5% of Triethanolamine to comply with EU regulations. If necessary, add another neutralizing agent.

³May use other suitable alkalis, e.g., Potassium Hydroxide, Ammonium Hydroxide, or Sodium Hydroxide.

⁴Compensate 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) Pre-wet A5 in A3 and A4, and mix until a uniform dispersion is obtained. Add to A1 and A2, and mix until uniform.
- 4) Add A6 and continue mixing while heating to 70–75 °C (158–167 °F).
- 5) In a separate vessel, mix B1 and B2, and adjust pH accordingly with B3.
- 6) In a separate vessel, add C1–C10, and heat to 70–75 °C (158–167 °F). Begin mixing slowly when solid ingredients begin to melt.
- 7) When phases A and C are at the proper temperature range, add phase C to phase A slowly. When complete, homogenize for 5 min.
- 8) Begin cooling. When phase AC is at 62–65 °C (158–167 °F), pre-blend D1–D3 and add to phase AC. Homogenize while cooling is continued.
- 9) When phase ACD is 45–50 °C (158–167 °F), add pH adjusted phase B. Continue homogenizing and cooling.
- 10) Continue cooling, and add E1 and F1 at 36–38 °C (158–167 °F) and any make-up water due to additive additions and water losses.
- 11) Adjust to pH 3.7–4.0, if necessary, with appropriate neutralizing agent.
- 12) Turn off homogenizer, and sweep mix to <30 °C (86 °F).

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

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