Glypure™

Cosmetic-Grade Glycolic Acid

Formulation—Men's Care Roll On Razor Bump Treatment



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

 Exfoliates the skin to reveal trapped facial hair that can cause razor bumps

| Phase | Trade Name | Wt% | INCI Name | Supplier |
|--------|--|---------------|--|------------------------------------|
| A1 | Purified Water USP | 30.00 | Purified Water USP | |
| A2 | Ucare® Polymer JR-30M | 0.40 | Polyquaternium-10 | Dow |
| A3 | Edeta® BD | 0.05 | Disodium EDTA | BASF |
| A4 | SD Alcohol 40-B | 25.00 | SD Alcohol 40-B | _ |
| A5 | Resorcinol, USP | 5.00 | Resorcinol, USP | Spectrum |
| A6 | Bromelain, 1200 GDU | 2.00 | Bromelain | Spec-Chem Industry Inc. |
| A7 | Zemea® Propanediol | 3.00 | Propanediol | DuPont Tate & Lyle Bio Products |
| A8 | Biowax® Liquid 754 | 1.00 | PEG-8 Dimethicone | Biosil Technologies |
| A9 | Tween® 20 | 0.25 | Polysorbate 20 | Croda |
| B1 | Purified Water USP | 15.00 | Purified Water USP | |
| B2 | Glypure™ | 8.00 | Glycolic Acid (70%) ¹ | Chemours |
| В3 | Ammonia Solution Strong NF | 2.90 | Ammonium Hydroxide 28% ² —to pH 4.1–4.3 ³ | - |
| C1 | Elestab® FL-15 | 2.50 | Butylene Glycol (and) Glycerin (and) Chlorphenesin (and) Methylparaben | Lab. Serobiologiques/ BASF |
| C2 | As Desired | 0.00 | Dye and Botanical Additives ^{4, 5} | As Desired |
| Adjust | $\label{thm:continuous} \textit{Adjust final pH to 4.1-4.3 with Citric Acid Monohydrate, USP or Sodium Citrate Dihydrate, USP, as necessary.}$ | | | |
| qs | Purified Water USP | qs to 100% | Purified Water USP | |

Notes:



 $^{^1}$ Glypure $^{\text{TM}}$ (99%) may be substituted for Glypure $^{\text{TM}}$ (70%). Compensate for active Glycolic Acid content and purified water percentage accordingly.

²May use other suitable alkalis, e.g., Potassium Hydroxide, Ammonium Hydroxide, or Sodium Hydroxide.

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

⁴Compensate the purified water percentage accordingly to 100% batch weight.

⁵It is recommended not to use a fragrance for this type of product.

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. In the main vessel, add A1 at 25-30 °C (77-86 °F) and begin mixing.
- 2. Slowly sprinkle in A2 until uniformly dispersed and then begin heating to 35-45 °C (95-113 °F) until A2 hydrates and solution becomes water clear.
- 3. Cool to <33 °C (91°F) and add, in order, A3–A9, allowing each ingredient to solubilize after each addition. Continue cooling.
- 4. In a separate vessel, add ingredients B1-B3. Be sure to adjust pH to the indicated range before addition to phase A.
- 5. Add C1 and C2 individually and mix until uniform.
- 6. Adjust pH, if necessary, to 4.1–4.3, using Citric Acid or Sodium Citrate.
- 7. Adjust purified water content appropriately.

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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