# Glypure™

## Cosmetic-Grade Glycolic Acid

## Formulation—Hair Care Conditioner

**Glypure™ penetrates the hair shaft, softening hair and providing superior lubrication.**

- Makes hair significantly less prone to breakage
- Promotes manageability of hair
- Softens hair
- Provides moisturizing effect
- Reduces flaking and drying of the scalp
- Moisturizes the scalp

| Phase | Trade Name | Wt% | INCI Name | Supplier |
|---|---|---|---|---|
| **A1** | Purified Water | 70.00 | Purified Water USP | |
| **A2** | Lexamine® 22 | 0.50 | Stearamidoethyl Diethylamine | Inolex |
| **A3** | Ammonyx® SDBC | 4.00 | Stearamidopropylalkonium Chloride | Stepan |
| **A4** | Ammonyx® 4 | 2.50 | Stearalkonium Chloride | Stepan |
| **A5** | Polawax™ NF | 1.25 | Emulsifying Wax NF | Croda |
| **A6** | Brij™ C2 | 0.75 | Ceteth-2 | Croda |
| **A7** | Procol CS-5 | 0.75 | Ceteareth-5 | Protameen |
| **A8** | Brij™ CS20 | 0.25 | Ceteareth-20 | Croda |
| **A9** | Edeta® BD | 0.05 | Disodium EDTA | BASF |
| **B1** | Purified Water | 10.00 | Purified Water | |
| **B2** | **Glypure™** | **1.00** | **Glycolic Acid (70%)[1]** | **Chemours** |
| **B3** | Triethanolamine 99% | 1.50 | Triethanolamine 99% NF[2,3] to pH 3.5-4.0[3] | Dow, Vantage Specialty Ingredients |
| **C1** | As Desired | 0.00 | Fragrance | As Desired |
| **C2** | As Desired | 0.00 | Dye | As Desired |
| **C3** | As Desired | 0.00 | Vitamins | As Desired |
| **C4** | Spectragard™ | 1.00 | Caprylyl Glycol (and) Hexylene Glycol (and) Methylisothiazolinone (and) Water | Inolex |
| **D1** | Triethanolamine 99% | pH 4.0-4.2 | Triethanolamine 99% NF[2,3] | |
| **D2** | **Glypure™** | **pH 4.0-4.2** | **Glycolic Acid (70%)[1]** | **Chemours** |
| **qs** | Purified Water | qs to 100% | Purified Water | |

## Notes:

[1]Glypure™ (99%) may be substituted for Glypure™ (70%). Compensate for active Glycolic Acid content and Purified Water percentage accordingly.

[2]May 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.

Note: Stability profiles of the finished product should be determined.

Chemours™

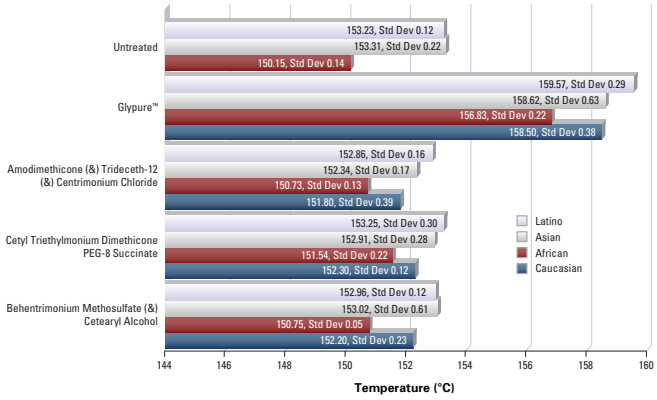
## Manufacturing Procedure

1. In the main vessel, add A1, and begin heating to 80-85 °C (176-185 °F).
2. With continued mixing, add ingredients A2–A9 individually. Mix until all solids are melted and a uniform emulsion is formed. Homogenize if necessary.
3. In a separate vessel with mixing, add ingredients B1–B3 to partially pre-neutralize the glycolic acid. Add to the main vessel. Mix until uniform. Continue cooling.
4. At <40 °C (104 °F), add C1–C4.
5. Adjust pH to 4.0–4.2 as indicated and remaining water percentage accordingly.

Glypure™ has proven benefits in hair, skin, and nail care formulations. To learn more about the benefits of Glypure™, visit www.glypure.com.

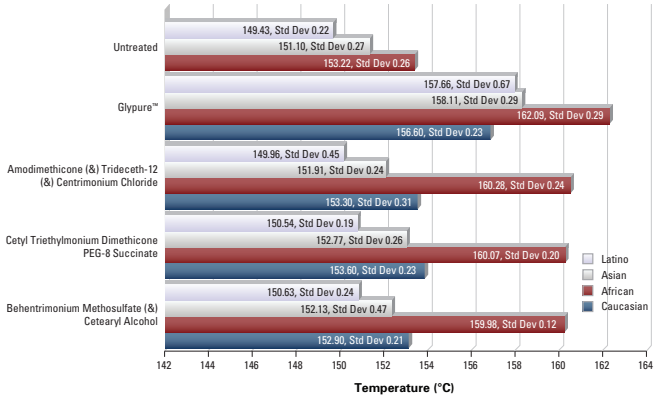
### DSC - Healthy Hair

Glycolic Acid Penetrates the Hair Shaft and Interacts with Keratin to Increase the Denaturation Temperature




### DSC - Chemically Damaged Hair

Glycolic Acid Penetrates the Hair Shaft and Interacts with Keratin to Increase the Denaturation Temperature




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



Replaces: K-26057
C-10834 (4/16)