



# Formulation

|   |   |  |
|---|---|--|
| Name                                    | <b>TRANSPARENT GLYCERIN SOAP BAR WITH BIO-TERGE 804</b>   |  |
| No.                                     | 875   |  |
| Description                             | Transparent soap bar for hands, face or body which provides abundant lather, low irritation, excellent hardness, and transparency.  |  |
| Formulation                             | <b>INGREDIENTS:</b>   | <b><u>% by Weight</u> <u>Functionality</u></b> |
|   | === Phase 1 ===   |  |
|   | Propylene Glycol  | 18.75 Solvent                                  |
|   | Glycerin (Emery)  | 6.25 Solvent                                   |
|   | Sorbo 70% Sorbitol Solution (SPI Polyols) Sorbitol  | 20.00 Solvent                                  |
|   | BIO-TERGE® 804  | 30.00 Surfactant                               |
|   | === Phase 2 ===   |  |
|   | Stearic Acid (Uniqema)  | 13.00 Fatty Acid                               |
|   | Myristic Acid (Uniqema)   | 6.00 Fatty Acid                                |
|   | === Phase 3 ===   |  |
|   | Sodium Hydroxide, 50% solution  | 6.00 Neutralizer                               |
|   | <b>Total</b>  | <b>100.0</b>                                   |
| Procedure                               | Add Phase 1 ingredients to a mixing vessel. Begin heating and mixing at 300 rpm. At 140°F, add Phase 2 ingredients to the mixing vessel. Continue to heat and mix. At 165°F, add Phase 3 slowly to mixing vessel. Mix for about 20 minutes or until mixture is homogenous and transparent. Take a small sample and measure Free Fatty Acid content (unreacted, unneutralized free fatty acid level should be between 0.2 - 0.9% Stepan Method 050-O). Discontinue mixing and let batch stand 1 hour at 165°F. If air is incorporated in batch, let batch stand until air is released. Pour into soap molds once mix is free of air. |  |
| Physical Properties                     | Appearance at 25°C  | Transparent soap bar                           |
|   | pH, 10% aqueous   | 9-10   |
|   | Color   | Clear yellow                                   |
|   | Free Fatty Acid, %<br>(Stepan Method 050-O)   | 0.2 - 0.9                                      |
| Storage/Stability                       | Soap Bar - 3 months at 25°C   | Stable   |
| Instructions for Use                    | Place bar in hand. Rotate in water, lather and rinse.   |  |
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| For                                     | For applications or product handling assistance, call our Technical Service Department at 1-800-745-7837 (U.S.) or 011-334-76-505-100 (Europe).   |  |

Additional  
Assistance

For ordering assistance, call our Account Service Department at 1-800-457-7673.

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Stepan Company  
Northfield, Illinois 60093  
Telephone (847) 446-7500

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