

# Formulation

|                      |  |   |
|----------------------|--|---|
| Name                 | <b>SILKY SHINE SHAMPOO</b>   |   |
| No.                  | 1193   |   |
| Description          | This shampoo is formulated to provide the softness and shine commonly associated with youthful, undamaged hair.  |   |
| Formulation          | <p><b>INGREDIENTS:</b></p> <p>Deionized Water<br/>                 STEPANOL® WA-EXTRA PCK<br/>                 STEOL® CS-230<br/>                 AMPHOSOL® HCG<br/>                 NINOL® COMF-N<br/>                 HALLSTAR EGMS (Hallstar) Ethylene Glycol Monostearate<br/>                 Vitamin E (DSM)<br/>                 Vitamin A (DSM)<br/>                 DL-Panthenol (DSM)<br/>                 Preservative, Fragrance, and Dye<br/>                 Sodium Hydroxide, 50% solution<br/>                 Citric Acid, 50% solution<br/>                 Sodium Chloride</p> <p><b>Total</b></p>  | <p><u>% by Weight</u>    <u>Functionality</u></p> <p>q.s. to 100.0 Solvent<br/>                 20.4 Primary Surfactant<br/>                 23.5 Secondary Surfactant<br/>                 10.0 Secondary Surfactant<br/>                 2.0 Foam and Viscosity Stabilizer<br/>                 1.0 Pearlescent Agent<br/>                 q.s. Additive<br/>                 q.s. Additive<br/>                 q.s. Additive<br/>                 q.s. Additive<br/>                 q.s. pH Adjuster<br/>                 q.s. pH Adjuster<br/>                 q.s. Viscosity Builder</p> <hr/> <p><b>100.0</b></p> |
| Procedure            | <ol style="list-style-type: none"> <li>1. In a suitable vessel equipped with heating and agitation capabilities, charge Deionized Water.</li> <li>2. Start mixing STEPANOL® WA-EXTRA PCK, STEOL® CS-230 and AMPHOSOL® HCG, with heating to 55°C–60°C.</li> <li>3. Add NINOL® COMF-N and HALLSTAR EGMS. Mix for 25–30 minutes while maintaining temperature at 55°C–60°C.</li> <li>4. Start cooling.</li> <li>5. At 35°C–40°C add Vitamin E, Vitamin A, and DL-Panthenol. Mix until homogenous.</li> <li>6. Add Preservative, Fragrance, and Dye. Mix well.</li> <li>7. Adjust pH with Sodium Hydroxide or Citric Acid.</li> <li>8. Adjust/build viscosity with Sodium Chloride, if necessary. Stop cooling at 25°C.</li> </ol> |   |
| Physical Properties  | <p>Appearance at 25°C<br/>                 pH, as is<br/>                 Viscosity at 25°C, cps</p>   | <p>Pearlescent liquid<br/>                 5.5–6.0<br/>                 4,000–5,000</p>   |
| Storage/Stability    | <p>3 month at 25°C<br/>                 1 month at 42°C<br/>                 1 week at 50°C<br/>                 1 month at 5°C<br/>                 3 Freeze-thaw cycles</p>  | <p>Stable<br/>                 Stable<br/>                 Stable<br/>                 Stable<br/>                 Passed</p>   |
| Instructions for Use | Apply to wet hair. Lather, and then rinse.   |   |
| External Comment     | Marketing Notes: BCI = 82. Total Biorenewable Carbon Index (BCI) was calculated only for the   |   |

For  
Additional  
Assistance

Stepan surfactants used in this formulation. For further information on Stepan's BCI, visit [www.stepan.com](http://www.stepan.com).

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).

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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