NATURALLY-DERIVED, SULFATE-FREE CONDITIONING SHAMPOO

No. 1094

Description: This shampoo is formulated with naturally-derived surfactants and provides good foam and conditioning properties. It is gentle on colored and treated hair.

Formulation:

INGREDIENTS: % by Weight Functionality

- Deionized Water q.s. to 100.00 Carrier
- Glycerin (Uniqema) 0.50 Humectant
- STEPAN-MILD® PCL 38.00 Primary Surfactant
- AMPHOSOL® HCG (or AMPHOSOL® HCG-HP) 10.00 Secondary Surfactant
- STEPAN-MILD® GCC 0.30 Conditioning Agent
- HALLSTAR® EGDS (Hallstar) 0.50 Pearlescent Agent
- DL-Panthenol (Roche) Panthenol 0.20 Additive
- Citric Acid, 50% solution q.s. pH Adjuster
- Sodium Hydroxide, 50% solution q.s. pH Adjuster
- Sodium Chloride q.s. Viscosity Adjuster
- Preservative, Dye and Fragrance q.s. Additives

Total 100.00

Procedure:

1. In a suitable vessel equipped with heating and agitation capabilities, charge Deionized Water.
2. Start heating water to 60ºC–65ºC (140ºF-149ºF).
3. Add Glycerin, STEPAN-MILD® PCL, AMPHOSOL® HCG (or AMPHOSOL® HCG-HP), STEPAN-MILD® GCC, and HALLSTAR® EGDS using moderate agitation. Continue heating to 60ºC–65ºC (140ºF-149ºF). Mix for at least 30 minutes until everything is completely dissolved.
5. At 40ºC (104ºF), add DL-Panthenol with continued mixing.
6. Continue cooling the batch to 25ºC (77ºF).
7. Adjust pH with Citric Acid, 50% solution or Sodium Hydroxide, 50% solution, if necessary. Adjust viscosity with Sodium Chloride, if necessary.
8. Add Preservative, Dye and Fragrance as desired.

(Note: When formulating with AMPHOSOL® HCG-HP, a greater amount of Citric Acid (50% solution) may be needed to adjust the pH within the recommended range as noted, than when formulating with AMPHOSOL® HCG.)

Physical Properties:

Appearance, as is Pearlescent viscous liquid
pH, as is 5.5–6.5
Viscosity at 25ºC (LVT #3 at 12 rpm), cps 3,500–6,000

Storage/Stability:

- 4 weeks at 5ºC Stable
- 4 weeks at 25ºC Stable
- 4 weeks at 45ºC Stable
- Freeze/Thaw 3 cycles Pass

Instructions for Use:

Massage into wet hair. Lather, then rinse thoroughly. Repeat if desired. Use daily.

This shampoo is gentle enough for permed or colored hair.
Marketing Notes: Naturally-derived is defined as surfactants sourced from plant, animal or marine feedstocks. Sulfate-Free means containing no alcohol sulfate or alcohol ether sulfate as per the INCI nomenclature. BCI = 85. Total Biorenewable Carbon Index (BCI) was calculated only for the Stepan surfactants used in this formulation. For further information on Stepan's BCI, visit www.stepan.com.

STEPAN-MILD®
AMPHOSOL®

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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