**Name**

CLEAR GEL SHAMPOO

**No.**

728

**Description**

A mild gel shampoo with good tactile properties

**Formulation**

**INGREDIENTS:**

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Deionized Water</th>
<th>q.s. to 100.0</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>STEOL® CS-330 (or STEOL® CS-330 HP)</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>LATHANOL® LAL Powder</td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td>AMPHOSOL® CA</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase 2</th>
<th>NINOL® CMP</th>
<th>1.5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hydrolyzed Collagen</td>
<td>1.0</td>
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<table>
<thead>
<tr>
<th>Phase 3</th>
<th>Sodium Chloride</th>
<th>q.s.</th>
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<tr>
<td></td>
<td>Citric Acid</td>
<td>q.s.</td>
</tr>
<tr>
<td></td>
<td>Fragrance, Dye, &amp; Preservative</td>
<td>q.s.</td>
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</tbody>
</table>

**Total**

<table>
<thead>
<tr>
<th></th>
<th>100.0</th>
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</thead>
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**Procedure**

1. In a suitable kettle (with mixing, heating, and cooling), add the first four ingredients (Phase 1) and mix well.
2. Heat kettle to 70°C with mixing until solution is clear.
3. Add Phase 2 and continue to mix until solution is clear at 70°C.
4. Cool to room temperature.
5. Adjust pH to 6.0–6.5 with Citric Acid.
6. Add Fragrance, Dye, and Preservative.
7. Add Sodium Chloride to adjust viscosity.

*Note: When formulating with STEOL® CS-330 HP, a greater amount of Citric Acid may be needed to adjust the pH within the recommended range as noted, than when formulating with STEOL® CS-330.

**Physical Properties**

- Appearance at 25°C: Clear, water-white liquid
- pH, as is at 25°C: 6.0–6.5
- Viscosity, as is (spindle #4 at 12 rpm), cps: 2,650
- Color, Gardner: <1
- Storage/Stability:
  - 6 weeks at 25°C: Stable
  - 6 weeks at 42°C: Stable
  - 6 weeks at 50°C: Stable
  - Freeze/Thaw (3 cycles): Pass

**External Comment**

Marketing Notes: AMPHOSOL® HCA-HP may be potential substitute for AMPHOSOL® CA. It should be noted that stability testing using AMPHOSOL® HCA-HP has not been completed on this formulation, and in addition to the pH adjustment taking a greater amount of Citric Acid, the substitution may also yield slightly different physical properties.
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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