# Formulation

**NATURALLY-DERIVED, EO-FREE, MILD BABY WASH**

**No.**: 1164

**Description**: This high-foaming baby wash incorporates naturally-derived ingredients that do not contain EO (Ethylene Oxide). This formulation can be used as a shampoo or as a body wash.

**Formulation**

**INGREDIENTS**:  

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>% by Weight</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALPHA-STEP® PC-48</td>
<td>13.20</td>
<td>Surfactant</td>
</tr>
<tr>
<td>LATHANOL® LAL POWDER</td>
<td>10.00</td>
<td>Surfactant</td>
</tr>
<tr>
<td>AMPHOSOL® HCG</td>
<td>6.53</td>
<td>Secondary Surfactant</td>
</tr>
<tr>
<td>STEPAN-MILD® GCC</td>
<td>0.70</td>
<td>Foam Booster, Thickener</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>q.s.</td>
<td>Viscosity Builder</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>q.s.</td>
<td>pH Modifier</td>
</tr>
<tr>
<td>Deionized Water</td>
<td>q.s.to 100.0</td>
<td>Carrier</td>
</tr>
<tr>
<td>Fragrance, Dye and Preservative</td>
<td>q.s.</td>
<td>Additive</td>
</tr>
</tbody>
</table>

**Total**: 100.00

**Procedure**:  
1. Charge Deionized Water in a suitable vessel equipped with heating and agitation capabilities.  
3. Cool down to 40°C–45°C (104°F–113°F). Then add AMPHOSOL® HCG while continuing agitation.  
4. Add STEPAN-MILD® GCC. Mix well.  
5. Cool batch to 25°C. Adjust pH with Citric Acid.  
6. Add Fragrance, Dye, and Preservative with mixing.  
7. Adjust viscosity with Sodium Chloride, if necessary.

**Physical Properties**  

- **Appearance at 25°C**: Clear liquid  
- **pH, as is**: 4.8–5.0  
- **pH, after adjustment**: 5.5–5.8  
- **Viscosity at 25°C, cps**: 4,500–4,800  

**Storage/ Stability**  

- 4 weeks at 25°C: Stable  
- 4 weeks at 4°C: Stable  
- 4 weeks at 50°C: Stable  
- Freeze/Thaw 3 cycles: Pass

**Instructions for Use**:  
Apply the product on wet hair or body. Lather, then rinse thoroughly.

This is a high-foaming baby wash with good hair detangling properties and a light skin-conditioning effect.

**External Comment**:  
Marketing Notes: BCI = 85; Total Biorenewable Carbon Index (BCI) was calculated only for the Stepan surfactants used in this formulation. LATHANOL® LAL Flake can be used as a replacement for LATHANOL® LAL Powder. For further information on Stepan’s BCI, visit
For further information on ECOCERT, visit www.ecocert.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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