Name | CLEAR LIQUID HAND SOAP
No. | 389
Description | This liquid hand soap provides good cleansing and foaming.
Formulation | INGREDIENTS:  

=== Phase 1 ===
Deionized Water q.s. to 100.0
BIO-TERGE® AS-40 (or BIO-TERGE® AS-40 HP) 15.4
STEOL® CS-460 9.0
AMPHOSOL® CA 4.0
NINOL® 40-CO 1.0

=== Phase 2 ===
Citric Acid q.s.
Fragrance, Dye, & Preservative q.s.
Sodium Chloride q.s.

Total 100.0

Procedure
1. Add the components in Phase 1 to Deionized Water and blend until clear.
2. Adjust pH to 5.5-6.5 with Citric Acid.
3. Add Fragrance, Dye, and Preservative, if desired.
4. Adjust to desired viscosity with Sodium Chloride.
*Note: When formulating with BIO-TERGE® AS-40 HP, a greater amount of Citric Acid may be needed to adjust the pH within the recommended range as noted, than when formulating with BIO-TERGE® AS-40.

Physical Properties
| Appearance, as is | Light yellow liquid |
| pH, as is         | 5.5-6.5             |
| Viscosity, cps    |                     |
| 0.0% Sodium Chloride | 25              |
| 0.5% Sodium Chloride | 25              |
| 1.0% Sodium Chloride | 50              |
| 3.0% Sodium Chloride | 800             |

Storage/ Stability
| 3 months at 25°C | Stable |
| 1 month at 42°C | Stable |
| 1 month at 50°C | Stable |
| Freeze/thaw, 1 cycle | Pass |

Instructions for Use
Apply to wet hands, lather, and rinse.

External Comment
Marketing Notes: AMPHOSOL® HCA-HP may be a potential substitute for AMPHOSOL® CA. It should be noted that stability testing using this 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.

Registered | BIO-TERGE®
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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