Name | ECONOMY LIQUID DISH DETERGENT WITH LAS/SLES-3/LAURYL/MYRISTYL AMIDOPROPYL AMINE OXIDE  
No. | 1187  
Description | This economy liquid dish detergent (LDL) contains no Cocamide DEA surfactants. It is composed of two primary surfactants, BIO-SOFT® S-101 (Linear Alkyl Benzene Sulfonic Acid or LAS) and STEOL® CS-460 (Sodium Laureth Sulfate with 3 moles Ethylene Oxide or SLES-3), and one secondary surfactant, AMMONYX® LMDO (Lauryl/Myristyl Amidopropyl Amine Oxide).  
Formulation | INGREDIENTS: | % by Weight | Functionality  
Deionized Water | 80.38% | Diluent  
Sodium Hydroxide | 1.95% | pH Adjuster  
BIO-SOFT® S-101 | 7.29% | Primary Surfactant  
STEOL® CS-460 | 5.00% | Primary Surfactant  
STEPANATE® SXS | 0.75% | Hydrotrope  
AMMONYX® LMDO | 3.33% | Secondary Surfactant  
Sodium Chloride | 1.30% | Viscosity Builder  
Preservative | q.s. | Preservative  
Total | 100.00%  
2. Add Sodium Hydroxide and mix.  
3. Slowly add BIO-SOFT® S-101 and mix until homogenous. The solution will give off heat during the neutralization.  
4. Add STEOL® CS-460 and STEPANATE® SXS and mix.  
5. Add AMMONYX® LMDO, mixing until homogenous.  
6. Slowly add Sodium Chloride to thicken. The amount of Sodium Chloride will vary depending upon the target viscosity. Mix until clear.  
7. Adjust pH as necessary with Sodium Hydroxide or BIO-SOFT® S-101.  
8. Add Preservative and mix until homogenous.  
Physical Properties | Appearance at 25°C | Clear liquid  
Viscosity at 25°C, cps | 300–400  
Actives, % | 11.1  
Solids, % | 13.2  
pH, as is | 6.5–7.5  
Density at 25°C, lbs/gal | 8.5  
Flash Point, °F (PMCC) | >200  
Storage/ Stability | Freeze/Thaw (3 cycles) | Pass  
4 weeks at 4 °C | Stable  
4 weeks at 25 °C | Stable  
4 weeks at 50 °C | Stable  
Instructions for Use | Squirt a small amount of detergent into sink. Fill sink with warm/hot water.
Marketing Notes: AMMONYX® LMDO, BIO-SOFT® S-101, and STEPANATE® SXS are approved ingredients on www.cleangredients.org. This formulation does not contain Nonylphenol Ethoxylates (NPEs) or Cocamide DEA. Note: The amount of Sodium Hydroxide will vary depending on % anionic actives and % sulfuric acid of BIO-SOFT® S-101. Alternatively, Ethanol can be used as the hydrotrope to replace STEPANATE® SXS. Use 0.75% 200-proof Ethanol and 1.45% Sodium Chloride for equivalent viscosity.

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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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