**CONSUMER CAR WASH CONCENTRATE WITH COCAMIDE DEA ALTERNATIVE**

**No.**
1194

**Description**
This consumer-type formula is designed for easy dilution while generating a large amount of stable foam.

**Formulation**
**INGREDIENTS:**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Ingredient</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Deionized Water</td>
<td>Diluent</td>
</tr>
<tr>
<td>1</td>
<td>Sodium Hydroxide (50% Solution)</td>
<td>Neutralizer</td>
</tr>
<tr>
<td>1</td>
<td>BIO-SOFT® S-101</td>
<td>Primary Surfactant</td>
</tr>
<tr>
<td>2</td>
<td>AMMONYX® LMDO</td>
<td>Secondary Surfactant</td>
</tr>
<tr>
<td>2</td>
<td>Sodium Chloride</td>
<td>Diluent</td>
</tr>
<tr>
<td>2</td>
<td>Dye</td>
<td>Additive</td>
</tr>
<tr>
<td>2</td>
<td>Fragrance</td>
<td>Additive</td>
</tr>
<tr>
<td>2</td>
<td>Preservative</td>
<td>Additive</td>
</tr>
</tbody>
</table>

**Total**
100.00

**Procedure**
**Phase 1:**
1. Charge tank with water.
2. Add Sodium Hydroxide (50% Solution) and BIO-SOFT® S-101. Mix until neutralization is complete. Make certain the temperature of this Phase 1 does not exceed 50°C (122°F).

**Phase 2:**
1. Add ingredients to Phase 1 in order shown above. Mix until homogenous.

**Physical Properties**
- **Appearance at 25°C:** Clear liquid
- **Viscosity at 25°C, cps:** 255
- **pH, as is:** 9.56
- **Solids, %:** 11.60
- **VOC (calculated) 1:128 Dilution Level, %:** 0

**Storage/Stability**
- 4 weeks at 50°C: Stable
- 4 weeks at 25°C: Stable
- 4 weeks at 4°C: Stable
- Freeze/Thaw, 3 cycles: Stable

**Instructions for Use**
Dilute 1 ounce to 1 gallon of water (1:128). Mix and apply to the car using a sponge. Rinse and then dry the car surface.

Foaming performance is unsurpassed to commercially available products in Shake Foam Tests.

**Marketing Notes:** When used at Stepan's recommended dilution level of 1:128, this formulation is VOC-compliant with U.S. Federal and California Air Resource Board (CARB) Consumer Products regulation for non-aerosol, motor vehicle wash (0.2% VOC limit as of December 31, 2012). BCI = 41. Total BCI (Biorenewable Carbon Index) was calculated only for the Stepan surfactants used in this formulation. BIO-SOFT® S-101 and AMMONYX® LMDO are both approved ingredients on www.cleangredients.org. For further information, visit our website or www.cleangredients.org. Label and/or trademark usage of the final product is the sole responsibility of the finished product manufacturer. This product does not contain Nonylphenol Ethoxylates (NPEs). AMMONYX® LMDO is an alternative surfactant to Cocamide DEA.

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- AMMONYX®

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