**Formulation**

Name: TOUCHLESS CARWASH  
No.: 913  
Description: This touchless carwash is completely frictionless. This cleaning method relies on proper detergent application and high pressure for removal of soil from the vehicle's surface.

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>% by Weight</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deionized Water</td>
<td>q.s. to 100</td>
<td>Diluent</td>
</tr>
<tr>
<td>MAKON® 10</td>
<td>20.0</td>
<td>Emulsifier</td>
</tr>
<tr>
<td>Sodium Metasilicate Pentahydrate</td>
<td>3.0</td>
<td>Builder</td>
</tr>
<tr>
<td>STEPOSOL® DG</td>
<td>17.0</td>
<td>Primary Surfactant</td>
</tr>
<tr>
<td>Fragrance</td>
<td>q.s.</td>
<td>Additive</td>
</tr>
<tr>
<td>Dye</td>
<td>q.s.</td>
<td>Additive</td>
</tr>
<tr>
<td>Preservative</td>
<td>q.s.</td>
<td>Additive</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Procedure**
1. Blend Water and STEPOSOL® DG with mixing.  
2. Add Sodium Metasilicate Pentahydrate and mix until dissolved.  
3. Add MAKON® 10 and mix until clear.  
4. Add Fragrance, Dye, and Preservative and mix until clear.

**Physical Properties**
- **Appearance at 25°C**: Clear liquid  
- **pH, as is**: 12.0–13.0  
- **Viscosity at 25°C, cps**: 100–200  
- **Density, lbs/gal**: 8.71  
- **Solids, %**: 34.0–37.0  
- **Flash Point (PMCC), °F**: 201  
- **VOC (calculated) at 1:100 dilution level, %**: <0.1

**Storage/ Stability**
- 1 Month at 25°C: Stable  
- 1 Month at 50°C: Stable  
- 1 Month at 4°C: Stable  
- Freeze/Thaw, 10 Cycles: Pass

**Instructions for Use**
Use this formulation with water in an automatic touchless car wash system. The formulation can be diluted to 1:100.

**External Comment**
Marketing Notes: When used at Stepan's recommended dilution level of 1:100, 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).

**Registered Trademarks of Stepan Company**
- MAKON®  
- STEPOSOL®

For applications or product handling assistance, call our Technical Service Department at 1-800-745-7837 (U.S.) or
For Additional Assistance

011-334-76-505-100 (Europe).
For ordering assistance, call our Account Service Department at 1-800-457-7673.

Nothing contained herein grants or extends a license, express or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the works of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be liable (regardless of fault) to the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of such information.

Stepan Company
Northfield, Illinois 60093
Telephone (847) 446-7500

Revision Date: 11/29/2006   Publication Date: © 2013, Stepan Company. All rights reserved.