Starting Formulation

SF 2000
Two-Package Low Bake Clear Coating
EPON™ Resin 1007F / Beckamine 21-511

Features
• Good initial color and color retention.
• Low temperature cure cycle: 20 minutes at 165 °F. This allows application to certain heat-sensitive substrates.

Formula
Material | Supplier | Pounds | Gallons
--- | --- | --- | ---
Part A | EPON Resin 1007-JX-55 | Hexion | 360.0 | 40.91
| Ethyl 3-ethoxy propionate | Eastman Chemical Products, Inc. | 98.6 | 12.60
| CYCLO SOL™ 53 | Shell Chemical Co. | 100.2 | 13.93
| Beckamine 21-511 | Reichhold Chemicals, Inc. | 220.0 | 25.76
| **Total Part A** | | 778.8 | 93.20

Part B
| Para-toluene sulfonic acid | King Industries | 5.0 | 0.50
| n-Butyl alcohol | | 22.2 | 3.30
| Xylene | | 21.5 | 3.00
| **Total Part B** | | 48.7 | 6.80

**Total Part A & B** | | 827.5 | 100.00

Mixing Instructions

<table>
<thead>
<tr>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>778.8</td>
</tr>
<tr>
<td>Part B</td>
<td>48.7</td>
</tr>
<tr>
<td>Part A + B</td>
<td>827.5</td>
</tr>
</tbody>
</table>

Resin Composition

<table>
<thead>
<tr>
<th>% solids</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>60.0</td>
</tr>
<tr>
<td>Part B</td>
<td>40.0</td>
</tr>
<tr>
<td>Part A + B</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Prepare the base component by charging the EPON Resin solution, the Beckamine resin solution and the solvents to a suitable container and mix under constant agitation. Prepare the catalyst component solution separately by adding the para-toluene sulfonic acid to the n-butyl alcohol/xylene solvent combination. The two components are packaged separately until ready to use.

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When ready to apply, this catalyst component solution is then mixed into the base component immediately before application. The mixture will have a useful pot life or working life of about two weeks.

Application

For spray application, reduce the formulation to 20 seconds in a No. 4 Ford Cup with ethyl 3-ethoxy propionate/CYCLO SOL 53, 1/1 by weight.

This coating system should be baked for 20 minutes at 165 °F to achieve proper cure.

Typical Formulation

Typical Formulation Table 1 / Formulation Properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonvolatile content by weight</td>
<td>%</td>
<td>40.5</td>
</tr>
<tr>
<td>Weight per gallon</td>
<td>lb/gal</td>
<td>8.3</td>
</tr>
<tr>
<td>Catalyst concentration by weight on solids</td>
<td>%</td>
<td>1.5</td>
</tr>
<tr>
<td>Volatile Organic Compound (VOC)</td>
<td>lb/gal</td>
<td>4.9</td>
</tr>
<tr>
<td>g/L</td>
<td></td>
<td>591</td>
</tr>
</tbody>
</table>

Storage:

Recommendations regarding storage conditions can be obtained by visiting our web site at www.hexion.com

General Information

These are starting formulations and are not proven in the user’s particular application but are simply meant to demonstrate the efficacy of the products and to assist in the development of the user’s own formulation. It is the user’s responsibility to fully-test and qualify the formulation, along with the ingredients, methods, applications or equipment identified herein (“Information”), by the user’s knowledgeable formulator or scientist, and to determine the appropriate use conditions and legal restrictions, prior to use of any Information.

Safety, Storage & Handling

Please refer to the MSDS for the most current Safety and Handling information.

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them. Questions and requests for information on Hexion Inc. (“Hexion”) products should be directed to your Hexion sales representative, or the nearest Hexion sales office. Information and MSDSs on non-Hexion products should be obtained from the respective manufacturer.

Contact Information

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For literature and technical assistance, visit our website at www.hexion.com