CSS-1h Product Data Sheet

Description and Physical Properties
CSS-1h is a cationic emulsion primarily used as a tack coat. The Emulsion can be used as a tack coat (either as is or diluted 50% with water) or fog seal (diluted 50% with water) and applied with a distributor.

Physical Properties
- Boiling Point — Approximately 100°C (212°F)
- Percent Volatiles — None
- Appearance — Brown Liquid
- Flammability — Non-flammable (liquid)
- Weight Per Gallon — 8.4 lbs
- Solubility in Water — Dispersable
- Odor — Mild Petroleum Odor

Specifications for CSS-1h
The specification conforms to AASHTO M208, ASTM D2397, the Virginia Department of Transportation, North Carolina DOT, South Carolina DOT, Tennessee DOT, West Virginia DOT and Maryland State Highway Administration.

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Procedure (AASHTO)</th>
<th>Specification (AASHTO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, Saybolt-Furol, 25°C (77°F), sec</td>
<td>T59, T72</td>
<td>20</td>
</tr>
<tr>
<td>Sieve Test, %</td>
<td>T59</td>
<td>—</td>
</tr>
<tr>
<td>Particle Charge</td>
<td>T59</td>
<td>Positive</td>
</tr>
<tr>
<td>Distillation Test</td>
<td>T59</td>
<td>57</td>
</tr>
<tr>
<td>Oil Distillate, % by volume</td>
<td></td>
<td>—</td>
</tr>
<tr>
<td>Tests on Residue from Distillation</td>
<td>T49, T59</td>
<td>40</td>
</tr>
<tr>
<td>Penetration, 25°C (77°F), 100 g, 5 sec</td>
<td>T51, T49</td>
<td>40</td>
</tr>
<tr>
<td>Ductility, 25°C (77°F), 5 cm/min, cm</td>
<td>T49, T59</td>
<td>40</td>
</tr>
</tbody>
</table>

Handling
Protect the emulsion from freezing.
Avoid overheating the emulsion.
Avoid excessive pumping with high shear pumps, especially if the emulsion is cool.

Storage and Application

<table>
<thead>
<tr>
<th>Grade</th>
<th>Recommended Maximum Storage Temperature, °F</th>
<th>Application Temperatures (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recommended Range</td>
<td>Maximum Allowable</td>
</tr>
<tr>
<td>CSS-1h</td>
<td>140</td>
<td>50-130</td>
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</table>

Transport

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>Proper Shipping Name</th>
<th>Class</th>
<th>PG</th>
<th>Label</th>
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</thead>
<tbody>
<tr>
<td>USDOT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>