Palatinol® DPHP-I

(Stabilized with 0.1 % 1,1,3-Tris(2-methyl-4-hydroxy-5-tert-butylphenyl)butane antioxidant)

Primary plasticizer for PVC and PVC copolymers

Chemical Name
Bis(2-propyloctyl) phthalate

Product Number
50003680

BASF Registered Name
Palatinol® DPHP-I

CAS No.
53306-54-0

Molecular Weight
447

Formula
C_{28}H_{46}O_4

Molecular Structure

\[ \text{ where } R = \text{C}_{10}H_{21} \]

Product Specifications

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity @ 25°C/25°C</td>
<td>0.957 - 0.965</td>
<td>ASTM D-4052</td>
</tr>
<tr>
<td>Ester content, % by weight (minimum)</td>
<td>99.5</td>
<td>ASTM D-3465</td>
</tr>
<tr>
<td>Acid Number, mg KOH/g (maximum)</td>
<td>0.07</td>
<td>ASTM D-1045</td>
</tr>
<tr>
<td>Water, % by weight (maximum)</td>
<td>0.1</td>
<td>ASTM E-203</td>
</tr>
<tr>
<td>Color, Pt-Co Units (APHA, maximum)</td>
<td>25</td>
<td>ASTM D-5386</td>
</tr>
<tr>
<td>Suspended Matter</td>
<td>COLSFFM*</td>
<td>visual</td>
</tr>
</tbody>
</table>

*Clear Oily Liquid Substantially Free of Foreign Material

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density @ 25 °C, g/cm³</td>
<td>0.958</td>
<td>-</td>
</tr>
<tr>
<td>Vapor Pressure @ 20 °C, mbar</td>
<td>&lt; 0.01</td>
<td>-</td>
</tr>
<tr>
<td>Pour point, °C</td>
<td>-48</td>
<td>-</td>
</tr>
<tr>
<td>Solubility @ 25 °C in water, mg/L</td>
<td>&lt; 0.01</td>
<td>-</td>
</tr>
<tr>
<td>Dynamic viscosity @ 0 °C, cP</td>
<td>590</td>
<td>-</td>
</tr>
<tr>
<td>@ 20 °C, cP</td>
<td>122</td>
<td>-</td>
</tr>
<tr>
<td>@ 40 °C, cP</td>
<td>37</td>
<td>-</td>
</tr>
<tr>
<td>Flash point (COC), °C</td>
<td>232</td>
<td>-</td>
</tr>
<tr>
<td>Odor</td>
<td>mild characteristic</td>
<td>-</td>
</tr>
</tbody>
</table>
Description

Palatinol® DPHP-I is a decyl phthalate produced from 2-propyl heptanol alcohol (2PH). When compared to plasticizers made from isodecanol alcohol, DPHP compares favorably in physical and performance characteristics.

Palatinol® DPHP-I is inhibited with 0.1 % 1,1,3-Tris(2-methyl-4–hydroxy–5–tert-butylyphenyl)butane.

Applications

Palatinol® DPHP-I produces low fog artificial leather, preferably used in automotive applications. In wire and cable applications, the C₁₀ phthalates are suitable for UL 80 rated wire.

Safety

Based on toxicity studies, Palatinol® DPHP-I has a low order of toxicity and does not require special handling. Handle in accordance with good industrial hygiene and safety practices. Avoid eye contact by wearing personal protective equipment. If eye contact occurs, wash with flowing water and contact physician.

Avoid repeated or prolonged skin contact. Avoid breathing vapors by providing adequate ventilation.

Always refer to the Safety Data Sheet (SDS) for detailed information on safety.

Storage and Handling

Palatinol® DPHP-I has an almost unlimited shelf life when properly stored in closed containers.

Packaging

Palatinol® DPHP-I is available in bulk, tank trucks or rail cars.
Contact Information

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