Plastomoll® DNA-I

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

Plasticizer for PVC products with good low-temperature properties.

**Chemical Nature**
Diisononyl adipate

**BASF Registered Name**
Plastomoll® DNA-I

**CAS No.**
33703-08-1

**Molecular Weight**
398

**Formula**
C_{24}H_{46}O_4

**Molecular Structure**

![Molecular Structure](image)

where R = C_{9}H_{19}

**Product Specifications**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity @ 25°/25 °C</td>
<td>0.917 - 0.923</td>
<td>ASTM D-4052</td>
</tr>
<tr>
<td>Ester content, % by weight (minimum)</td>
<td>99.6</td>
<td>ASTM D-3465</td>
</tr>
<tr>
<td>Acid Number, mg KOH/g (maximum)</td>
<td>0.1</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>
</tr>
</thead>
<tbody>
<tr>
<td>Density @ 25 °C, g/cm³</td>
<td>0.92</td>
</tr>
<tr>
<td>Vapor Pressure @ 20 °C, mbar</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Pour point, °C</td>
<td>68</td>
</tr>
<tr>
<td>Solubility @ 25 °C in water, mg/L</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td></td>
</tr>
<tr>
<td>@ 0 °C, cP</td>
<td>36</td>
</tr>
<tr>
<td>@ 20 °C, cP</td>
<td>20</td>
</tr>
<tr>
<td>@ 40 °C, cP</td>
<td>8</td>
</tr>
<tr>
<td>Flash point (COC), °C</td>
<td>215</td>
</tr>
<tr>
<td>Odor</td>
<td>mild characteristic</td>
</tr>
</tbody>
</table>
Description

Plastomoll® DNA-I is a highly efficient plasticizer which imparts excellent low temperature flexibility and resistance to impact to the base resin. For these reasons it finds wide use in polymeric systems based on vinyl, nitrocellulose and rubber. Vinyl plasticized with Plastomoll® DNA-I has far less volatility than with DOA. It is soluble in the usual organic solvents and is miscible and compatible with all the monomeric plasticizers commonly used in vinyl.

Plastomoll® DNA-I is inhibited with 0.1% of 1,1,3-Tris(2-methyl-4-hydroxy-5-tert-butylyphenyl)butane.

Applications

Plastomoll® DNA-I can be used in application requiring an excellent cold flexibility and low volatility.

Safety

Plastomoll® DNA-I does not require special handling. Handle in accordance with goodindustrialhygieneandssafety practices. Avoid eye contactby 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

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

Packaging

Plastomoll® DNA-I is available in bulk, tank trucks or rail cars.
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Note

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