DI OCTYL SEBACATE (DOS)
Primary plasticizer for PVC and PVC copolymers

Chemical Nature
- Sebacic acid ester of C₈ alcohol

Chemical Name: Di (2-Ethylhexyl) Sebacate
Trade Name: DOS, DEHS
Molecular Formula: C₆₈H₁₉₀O₄
Molecular Weight: 426
Molecular Structure:

CH₂
O
CH₂-CH₃

CH₂
CH₂ - CH₂ -C-O-CH₂-CH₂-CH₂-CH₂-CH₂-CH₃

CH₂
CH₂ - CH₂ -C-O-CH₂-CH₂-CH₂-CH₂-CH₂-CH₃

CH₃
O
CH₂-CH₃

CAS Number: 122-62-3, 131170-17-7, 28986-40-5
UN. NO: 204-558-8
EINECS NO: 

Specification

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Unit</th>
<th>Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>HU</td>
<td>ASTM-D-1045-2008</td>
<td>40 max.</td>
</tr>
<tr>
<td>Volatile Loss (130°C/3Hrs)</td>
<td>Wt.%</td>
<td>KLJ-TM-P-11-92</td>
<td>0.20 max.</td>
</tr>
<tr>
<td>Ester Value</td>
<td>mg KOH/g</td>
<td>ASTM-D-1045-2008</td>
<td>260-266</td>
</tr>
<tr>
<td>Acidity</td>
<td>Wt.%</td>
<td>ASTM-D-1045-2008</td>
<td>0.02 max.</td>
</tr>
<tr>
<td>Moisture</td>
<td>Wt.%</td>
<td>ASTM-E-203-2008</td>
<td>0.10 max.</td>
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<tr>
<td>Specific Gravity (27°C)</td>
<td></td>
<td>ASTM-D-1045-2008</td>
<td>No Change</td>
</tr>
<tr>
<td>Ester content</td>
<td>Wt.%</td>
<td>ASTM-D-1045-2008</td>
<td>99.50 min.</td>
</tr>
<tr>
<td>Heat Stability (180°C/2Hrs)</td>
<td>HU</td>
<td>ISI-9591-2013</td>
<td>No Change</td>
</tr>
<tr>
<td>Acidity after heat treatment</td>
<td>Wt.%</td>
<td>ISI-9591-2013</td>
<td>0.03</td>
</tr>
<tr>
<td>Plasticizing Esters by GC</td>
<td>Area %</td>
<td>KLJ-TM-P-13-97</td>
<td>99.00 min.</td>
</tr>
</tbody>
</table>

Typical Properties

- Boiling Point @ 7 mbar: 248°C
- Viscosity at 20°C: 58-64 cp
- Flash Point: 215°C
- Refractive Index (27°C): 1.442-1.4452

Contact: plasticizer@kljindia.com
www.kljindia.com
Properties

DOS is almost colourless and oily liquid, free of foreign materials.

Application

Dioctyl Sebacate is a plasticizer for PVC, and its copolymers, nitrocelluloses, styrene resins and synthetic rubbers where low temperature performance is required. The end applications include anti-frosting cable and PVC linoleum.

Plasticizing Efficiency

1.09

Packing & Storage

DOS is packed in 200/225 kg iron drum / HDPE drum, 20 - 22 MT in Flexi tank / ISO tank / road tanker. It is stored in tightly closed container, in a cool, dry & ventilated area.

Shelf Life

Original characteristics remain intact for 24 months, if kept in recommended storage.

Safety

The MSDS can be provided on request.

Disclaimer

The data contained in this publication are based on our current knowledge and experience. During processing, there are so many factors which may affect the application part of DOS, so these data neither imply any guarantee of certain properties, nor the suitability of the product for the specific purpose. Any data given in this publication may change without prior information and do not constitute the agreed quality of our product.