Technical Data Sheet

TBPI-40-AL

tert.Butylperpivalate
CAS#927-07-1
Molar mass: 174.2 g/mol
40%, solution in aliphatics

Structural Formula

\[
\begin{align*}
\text{CH}_3 & \quad \text{C-O} \quad \text{O} \quad \text{C-CH}_3 \\
\text{CH}_3 & \quad \text{CH}_3 \quad \text{O} \quad \text{C-C} \\
\text{CH}_3 & \quad \text{CH}_3
\end{align*}
\]

Description

Colourless, mobile liquid, consisting of 40% tert.Butylperpivalate, de-sensitized with high-boiling aliphatic hydrocarbons. This branched, aliphatic perester is used as an initiator (radical source) in the polymerisation of monomers, particularly ethylene.
The product is offered in intermediate bulk container (IBC).

Technical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>colourless liquid</td>
</tr>
<tr>
<td>Peroxide content</td>
<td>ca. 40 % w/w</td>
</tr>
<tr>
<td>Active oxygen</td>
<td>ca. 3.67 % w/w</td>
</tr>
<tr>
<td>De-sensitising agent</td>
<td>aliphatic</td>
</tr>
<tr>
<td>Density at 20°C</td>
<td>ca. 0.80 g/cm³</td>
</tr>
<tr>
<td>Viscosity at 20°C</td>
<td>ca. 1 mPa·s</td>
</tr>
<tr>
<td>Refractive index at 20°C</td>
<td>ca. 1.416</td>
</tr>
<tr>
<td>Critical temperature (SADT)</td>
<td>ca. 20 °C</td>
</tr>
<tr>
<td>Cold storage stability</td>
<td>liquid to below -20 °C</td>
</tr>
<tr>
<td>Recommended storage temperature</td>
<td>below -5 °C</td>
</tr>
<tr>
<td>Maximum transport temperature</td>
<td>max. 10 °C</td>
</tr>
<tr>
<td>Storage stability (activity) as</td>
<td>3 months</td>
</tr>
<tr>
<td>date of delivery</td>
<td></td>
</tr>
</tbody>
</table>

This product is in compliance with the Elektro G

Half-life Data

10 h/1 h/1 min (0.1 m/benzene): 56 / 74 / 110 °C
Application

ETHYLENE:
Initiator for the high pressure polymerisation of ethylene in combination with other peroxides of varying degrees of activity.
Temperature range: 130-190 °C.
Particular advantages: highly efficient; liquid, readily miscible with high-boiling aliphatics.

Standard Packaging

730kg plastics IBC
910kg stainless steel IBC

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