## Analytical Data Sheet

**Lot number**

1000024406

not for drug use

<table>
<thead>
<tr>
<th>Tests</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>beige powder</td>
</tr>
<tr>
<td><strong>Appearance of solution</strong></td>
<td>clear, colorless solution (50 mg/mL in 80% acetic acid)</td>
</tr>
<tr>
<td><strong>Identification (¹H-NMR)</strong></td>
<td>corresponds to the reference</td>
</tr>
<tr>
<td><strong>Identification (¹³C-NMR)</strong></td>
<td>corresponds to the reference</td>
</tr>
<tr>
<td><strong>Identification (IR)</strong></td>
<td>corresponds to the reference</td>
</tr>
<tr>
<td><strong>Identification (elemental analysis)</strong></td>
<td>Theory         Found</td>
</tr>
<tr>
<td></td>
<td>C = 47.5%        C = 47.5%</td>
</tr>
<tr>
<td></td>
<td>H = 7.0%        H = 6.8%</td>
</tr>
<tr>
<td></td>
<td>N = 13.9%        N = 13.8%</td>
</tr>
<tr>
<td><strong>Identification (TLC)</strong></td>
<td>complies with authentic material</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>214°C</td>
</tr>
<tr>
<td><strong>Specific optical rotation</strong></td>
<td>$[\alpha]_D^{24} = -124.9^\circ$ (1 % in water)</td>
</tr>
<tr>
<td><strong>Purity (TLC)</strong></td>
<td>&gt; 99%</td>
</tr>
<tr>
<td><strong>TLC conditions</strong></td>
<td>n-butanol/acetic acid/H$_2$O 4/2/2</td>
</tr>
<tr>
<td></td>
<td>isopropanol/ammonia conc. 1/1</td>
</tr>
<tr>
<td></td>
<td>methanol/chloroform/ammonia 17% 2/2/1</td>
</tr>
<tr>
<td></td>
<td>plate: silicagel 60 F$_{254}$</td>
</tr>
<tr>
<td></td>
<td>detected by: UV, ninhydrin, TMB</td>
</tr>
<tr>
<td><strong>Enantiomer content (GC)</strong></td>
<td>0.1% D-enantiomer</td>
</tr>
<tr>
<td><strong>Assay (elemental analysis)</strong></td>
<td>99.9% (Nth 13.85%, Nfd 13.83%)</td>
</tr>
<tr>
<td><strong>Water content (KF volumetric)</strong></td>
<td>0.9%</td>
</tr>
</tbody>
</table>

Latest update: November 18, 2019

This Analytical Data Sheet is automatically generated based on reviewed analytical data and is therefore unsigned.