1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{14}\text{H}_{11}\text{N.HCl} \)
Batch Molecular Weight: 229.71
Physical Appearance: White solid
Solubility: water to 5 mM with gentle warming
ethanol to 100 mM
DMSO to 100 mM
Storage: Desiccate at +4°C

2. ANALYTICAL DATA

TLC: \( R_f = 0.4 \) (Ether:Hexane [1:2])
Melting Point: Between 149 - 151°C
HPLC: Shows 99.9% purity
\( ^1\text{H NMR}: \) Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>73.2</td>
<td>73.14</td>
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<tr>
<td>Hydrogen</td>
<td>5.27</td>
<td>5.28</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>6.1</td>
<td>6.02</td>
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</tbody>
</table>
Product Name: MPEP hydrochloride

CAS Number: 219911-35-0
IUPAC Name: 2-Methyl-6-(phenylethynyl)pyridine hydrochloride

Description:
Potent and highly selective non-competitive antagonist at the mGlu5 receptor subtype (IC50 = 36 nM) and a positive allosteric modulator at mGlu4 receptors. Centrally active following systemic administration in vivo. Reverses mechanical hyperalgesia in the inflamed rat hind paw. Also available as part of the Group I mGlu Receptor Tocriset™.

Physical and Chemical Properties:
Batch Molecular Formula: C14H12N.HCl
Batch Molecular Weight: 229.71
Physical Appearance: White solid
Minimum Purity: >99%

Storage: Desiccate at +4°C

Solubility & Usage Info:
- Water to 5 mM with gentle warming
- Ethanol to 100 mM
- DMSO to 100 mM

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).
Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
- SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
- SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References: