Product Name: Tacrine hydrochloride  
Catalog No.: 0965  
Batch No.: 5  
CAS Number: 1684-40-8  
EC Number: 216-867-5  
IUPAC Name: 1,2,3,4-Tetrahydro-5-aminoacridine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( C_{13}H_{14}N_2 \cdot HCl \cdot 2H_2O \)
Batch Molecular Weight: 270.76
Physical Appearance: Off White solid
Solubility: water to 100 mM  
DMSO to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:

![Molecular Structure](image)

2. ANALYTICAL DATA

HPLC: Shows 100% purity
\(^1\)H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
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<tbody>
<tr>
<td>Carbon</td>
<td>57.67</td>
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<tr>
<td>Hydrogen</td>
<td>7.07</td>
<td>6.91</td>
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<tr>
<td>Nitrogen</td>
<td>10.35</td>
<td>10.28</td>
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</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Product Information

Product Name: Tacrine hydrochloride
CAS Number: 1684-40-8
IUPAC Name: 1,2,3,4-Tetrahydro-5-aminoacridine hydrochloride

Description:
Potent cholinesterase inhibitor, a cognition enhancer in vivo.

Physical and Chemical Properties:
- Batch Molecular Formula: C₁₃H₁₄N₂.HCl.2H₂O
- Batch Molecular Weight: 270.76
- Physical Appearance: Off White solid
- Minimum Purity: >99%

Storage: Desiccate at +4°C

Solubility & Usage Info:
- water 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:
- Merck Index 12 9199.