1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \(C_{15}H_{21}N_3O_2\cdot\frac{1}{2}H_2SO_4\cdot\frac{1}{2}H_2O\)

Batch Molecular Weight: 351.41

Physical Appearance: White solid

Solubility: Water to 100 mM

Storage: Desiccate at RT

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>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>51.27</td>
<td>7.17</td>
<td>11.96</td>
</tr>
<tr>
<td>Found</td>
<td>51.31</td>
<td>7.04</td>
<td>12.24</td>
</tr>
</tbody>
</table>
**Product Name:** Physostigmine hemisulfate  
**Catalog No.:** 0622  
**Batch No.:** 10  
**EC Number:** 200-585-4

### Description:
Cholinesterase inhibitor.

### Physical and Chemical Properties:
- **Batch Molecular Formula:** C_{15}H_{23}N_{3}O_{2} \cdot \frac{1}{2}H_{2}SO_{4} \cdot \frac{1}{2}H_{2}O
- **Batch Molecular Weight:** 351.41
- **Physical Appearance:** White solid
- **Minimum Purity:** >98%

### Storage:
Desiccate at RT

### Solubility & Usage Info:
- Water 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 7540.