1. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch Molecular Formula:</td>
<td>( C_{18}H_{26}ClN_3 \cdot 2H_3PO_4 \cdot \frac{1}{4}H_2O )</td>
</tr>
<tr>
<td>Batch Molecular Weight:</td>
<td>520.36 g/mol</td>
</tr>
<tr>
<td>Physical Appearance:</td>
<td>White solid</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Water to 100 mM</td>
</tr>
<tr>
<td>Storage:</td>
<td>Desiccate at RT</td>
</tr>
</tbody>
</table>

2. ANALYTICAL DATA

- **HPLC**: Shows 99.6% purity
- **\(^1H\) NMR**: Consistent with structure
- **Mass Spectrum**: Consistent with structure
- **Microanalysis**:
  - Theoretical: C 41.55, H 6.29, N 8.08
  - Found: C 41.3, H 6.27, N 7.87
**Product Information**

**Product Name:** Chloroquine diphosphate  
**Catalog No.:** 4109  
**Batch No.:** 1  
**EC Number:** 200-055-2

**CAS Number:** 50-63-5  
**IUPAC Name:** \(N^4-(7\text{-Chloro-4-quinolinyl})-N^1,N^1\text{-dimethyl-1,4-pentanediamine diphosphate salt}\)

**Description:**  
Antimalarial drug. Inhibits cell growth and induces cell death in numerous cancer cell lines; inhibits cell proliferation and viability and induces apoptosis in 4T1 mouse breast cancer cells in vitro. Exhibits antimetastatic activity. Also inhibits autophagy via a mechanism distinct from that of 3-methyladenine (Cat. No. 3977).

**Physical and Chemical Properties:**  
**Batch Molecular Formula:** \(C_{18}H_{26}ClN_3\cdot2H_3PO_4\cdot\frac{1}{4}H_2O\)  
**Batch Molecular Weight:** 520.36  
**Physical Appearance:** White solid  
**Minimum Purity:** >99%

**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:**  