1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** $C_4H_6N_4O\cdot 0.1H_2O$
- **Batch Molecular Weight:** 127.92
- **Physical Appearance:** White solid
- **Solubility:** Soluble in DMSO
- **Storage:** Desiccate at +4°C
- **Batch Molecular Structure:**

![Molecular Structure](image)

2. ANALYTICAL DATA

- **Melting Point:** Between 284 - 288°C (Dec)
- **HPLC:** Shows >99.9% purity
- **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>37.56</td>
<td>37.3</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>4.89</td>
<td>4.91</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>43.8</td>
<td>43.48</td>
</tr>
</tbody>
</table>
Product Name: 2,4-Diamino-6-hydroxypyrimidine
Catalog No.: 0476
Batch No.: 1
CAS Number: 56-06-4
EC Number: 200-254-4

Description:
GTP cyclohydrolase I (GCH1) inhibitor. Prevents the de novo synthesis of tetrahydrobiopterin (BH4) and thus suppresses the activity of NO synthase. Exhibits more potent inhibition of GCH1 in the presence of GFRP (GTP cyclohydrolase feedback-regulatory protein).

Physical and Chemical Properties:
Batch Molecular Formula: C_{12}H_{10}N_{4}O_{0.1}H_{2}O
Batch Molecular Weight: 127.92
Physical Appearance: White solid
Minimum Purity: >99%

Batch Molecular Structure:

\[
\begin{array}{c}
\text{HO} \\
\text{N} \\
\text{N} \\
\text{NH}_2 \\
\text{NH}_2
\end{array}
\]

Storage: Desiccate at +4°C
Solubility & Usage Info:
Soluble in DMSO

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:
Moore and Handy (1997) Selective inhibitors of neuronal nitric oxide synthase - is no NOS really good NOS for the nervous system? TiPs 18 204. PMID: 9226999.