1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** $C_{15}H_{13}NO_2S$
- **Batch Molecular Weight:** 271.33
- **Physical Appearance:** Brown solid
- **Solubility:**
  - Ethanol to 10 mM
  - DMSO to 100 mM
- **Storage:** Store at +4°C
- **Batch Molecular Structure:**

![Molecular Structure Image]

2. ANALYTICAL DATA

- **TLC:** $R_f = 0.8$ (Dichloromethane:Methanol [20:1])
- **Melting Point:** Between 208 - 209°C
- **HPLC:** Shows >98.2% 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>
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<tr>
<td>Hydrogen</td>
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<td>4.84</td>
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<tr>
<td>Nitrogen</td>
<td>5.16</td>
<td>5.23</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Product Name: NSC 625987  
CAS Number: 141992-47-4  
IUPAC Name: 1,4-Dimethoxy-9(10H)-acridinethione

Description:
Cyclin-dependent kinase (cdk) 4 inhibitor (IC₅₀ = 0.2 μM at cdk4/cyclin D1). Displays > 500-fold selectivity over cdk2 (IC₅₀ > 100 μM for cdc2/cyclin A, cdk2/cyclin A and cdk2/cyclin E).

Physical and Chemical Properties:
Batch Molecular Formula: C₁₉H₁₉NO₂S  
Batch Molecular Weight: 271.33  
Physical Appearance: Brown solid

Minimum Purity: >98%

Storage: Store at +4°C

Solubility & Usage Info:
ethanol to 10 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: