1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** \( \text{C}_{15}\text{H}_{16}\text{ClN}_{3}\text{O}_{3} \)
- **Batch Molecular Weight:** 321.76
- **Physical Appearance:** Red solid
- **Solubility:** DMSO to 50 mM, ethanol to 50 mM
- **Storage:** Store at +4°C

2. ANALYTICAL DATA

- **TLC:** 
  \( R_f = 0.5 \) (Dichloromethane:Methanol [9:2])
- **HPLC:** Shows 99.9% purity
- **\(^1\text{H NMR:}\)** Consistent with structure
- **Mass Spectrum:** Consistent with structure
- **Microanalysis:**
  - Theoretical: 55.99, 5.01, 13.05
  - Found: 55.94, 5.09, 12.92
**Product Name:** NSC 663284  
**Catalog No.:** 1867  
**Batch No.:** 1

**CAS Number:** 383907-43-5  
**IUPAC Name:** 6-Chloro-7-[(2-(4-morpholinyl)ethyl)amino]-5,8-quinolinedione

**Description:**
Potent, selective inhibitor of Cdc25 dual specificity phosphatases (K<sub>i</sub> values are 29, 95 and 89 nM for human Cdc25A, Cdc25B<sub>2</sub> and Cdc25C respectively); > 20- and > 450-fold selective over VHR and PTP1B phosphatases respectively. Arrests cells at both G<sub>1</sub> and G<sub>2</sub>/M phase and blocks cdk2 and cdk1 activation. Blocks proliferation of a range of human tumor cell lines (IC<sub>50</sub> = 0.2 - 35 μM).

**Physical and Chemical Properties:**
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- **Batch Molecular Weight:** 321.76
- **Physical Appearance:** Red solid
- **Minimum Purity:** >99%

**Storage:** Store at +4°C

**Solubility & Usage Info:**
- DMSO to 50 mM
- Ethanol to 50 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:**