1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( C_{19}H_{16}ClNO_4\cdot\frac{1}{4}H_2O \)

Batch Molecular Weight: 362.29

Physical Appearance: White solid

Solubility: ethanol to 50 mM with gentle warming
DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:

![Batch Molecular Structure]

2. ANALYTICAL DATA

TLC: \( R_f = 0.76 \) (Dichloromethane:Methanol [8:2])

Melting Point: Between 166 - 170°C

HPLC: Shows 99.5% purity

\(^1\)H NMR: 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>63.78</td>
<td>4.51</td>
<td>3.91</td>
</tr>
<tr>
<td>Found</td>
<td>63.75</td>
<td>4.5</td>
<td>3.87</td>
</tr>
</tbody>
</table>
Product Name: Indomethacin

CAS Number: 53-86-1
IUPAC Name: 1-(4-Chlorobenzoyl)-5-methoxy-2-methyl-1H-indole

Description:
Cyclooxygenase (COX) inhibitor; displays selectivity for COX-1 (IC₅₀ values are 230 and 630 nM for human COX-1 and COX-2 respectively). Widely used anti-inflammatory agent.

Physical and Chemical Properties:
Batch Molecular Formula: C₂₀H₁₈ClNO₄·½H₂O
Batch Molecular Weight: 362.29
Physical Appearance: White solid
Minimum Purity: >99%

Storage: Store at RT
CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:
ethanol to 50 mM with gentle warming
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: