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_{15}H_{22}O_5</td>
</tr>
<tr>
<td>Batch Molecular Weight</td>
<td>282.33</td>
</tr>
<tr>
<td>Physical Appearance</td>
<td>White solid</td>
</tr>
<tr>
<td>Solubility</td>
<td>DMSO to 100 mM, ethanol to 75 mM</td>
</tr>
<tr>
<td>Storage</td>
<td>Store at +4°C</td>
</tr>
<tr>
<td>Batch Molecular Structure</td>
<td><img src="image" alt="Molecular Structure" /></td>
</tr>
</tbody>
</table>

2. ANALYTICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point</td>
<td>Between 150 - 152°C</td>
</tr>
<tr>
<td>HPLC</td>
<td>Shows &gt;99.9% purity</td>
</tr>
<tr>
<td>(^1)H NMR</td>
<td>Consistent with structure</td>
</tr>
<tr>
<td>Mass Spectrum</td>
<td>Consistent with structure</td>
</tr>
<tr>
<td>Optical Rotation</td>
<td>([\alpha]_D = +76) (Concentration = 0.5, Solvent = Methanol)</td>
</tr>
<tr>
<td>Microanalysis</td>
<td>Carbon Hydrogen Nitrogen</td>
</tr>
<tr>
<td></td>
<td>Theoretical 63.81 7.85</td>
</tr>
<tr>
<td></td>
<td>Found 63.89 8.01</td>
</tr>
</tbody>
</table>
Product Name: Artemisinin

CAS Number: 63968-64-9

IUPAC Name: (3R,5aS,6R,8aS,9R,12S,12aR)-Octahydro-3,6,9-trimethyl-3,12-epoxy-12H-pyrano[4,3-j]-1,2-benzodioxepin-10(3H)-one

Description:
Antimalarial agent; interacts with heme to produce carbon-centred free radicals, causes protein alkylation and damages parasite microorganelles and membranes. Also selectively inhibits the P-type ATPase (PfATP6) of Plasmodium falciparum ($K_\text{i} \sim 150 \text{ nM}$). Displays antiangiogenic effects in mouse embryonic stem cell-derived embryoid bodies.

Physical and Chemical Properties:
Batch Molecular Formula: $C_{18}H_{22}O_5$
Batch Molecular Weight: 282.33
Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:

![Molecular Structure](image)

Storage: Store at +4°C

Solubility & Usage Info:
DMSO to 100 mM ethanol to 75 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: