1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: \(C_{27}H_{44}O_3\)
   Batch Molecular Weight: 416.64
   Physical Appearance: White lyophilised solid
   Solubility: Soluble in DMSO, Soluble in ethanol
   Storage: Desiccate at -20°C

2. ANALYTICAL DATA

   HPLC: Shows 99.6% purity
   Mass Spectrum: Consistent with structure
Product Name: Calcitriol
Catalog No.: 2551
Batch No.: 2

CAS Number: 32222-06-3
EC Number: 250-963-8

IUPAC Name: \((1\alpha,3\beta,5\text{Z},7\text{E})-9,10\text{-Secocholesta-5,7,10(19)}\text{-triene-1,3,25-triol}\)

Description:
Active metabolite of vitamin D₃ that activates the vitamin D receptor (VDR). Displays calcemic actions; stimulates intestinal and renal Ca²⁺ absorption and regulates bone Ca²⁺ turnover. Exhibits antitumor activity; inhibits in vivo and in vitro cell proliferation in a wide range of cells including breast, prostate, colon, skin and brain carcinomas and myeloid leukemia cells.

Physical and Chemical Properties:
Batch Molecular Formula: \(C_{27}H_{44}O_3\)
Batch Molecular Weight: 416.64
Physical Appearance: White lyophilised solid

Minimum Purity: >99%

Storage: Desiccate at -20°C. This product is packaged under an inert atmosphere.
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:
Soluble in DMSO
Soluble in ethanol

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved. This product is air sensitive and was packaged under inert gas. We recommend that any stock solutions should be stored under inert atmosphere.

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: