



CERTIFICATE OF ANALYSIS

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1. Identification

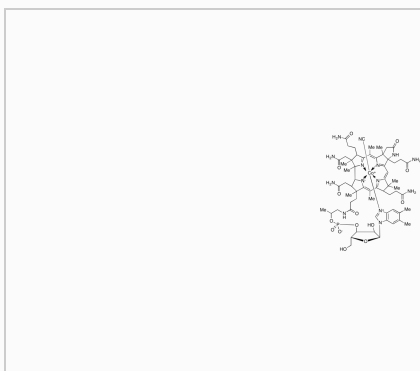
Catalogue Number: V675645

CAS Number: 23388-02-5

Product: Vitamin B-12 C-Lactam (Technical Grade)

Synonym: Dehydrovitamin B12; Lactam-cobalamin; 8-Hydroxycobinamide Cyanide Hydroxide Dihydrogen Phosphate (Ester) Inner Salt Nc,8-lactam 3'-Ester with 5,6-dimethyl-1- α -D-ribofuranosylbenzimidazole;

Structure:



Molecular Formula:

$C_{63}H_{86}CoN_{14}O_{14}P$

Molecular weight:

1353.35

Source of Product:

Synthetic

Solubility:

DMSO (Slightly), Methanol (Slightly)

Lot Number: 10-MSI-93-1

Purity: Technical Grade

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: -20°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	Red to Very Dark Red Solid	Red to Dark Red Solid
NMR	Conforms to Structure	Conforms
MS	Conforms to Structure	Conforms
P NMR	Conforms to Structure	Conforms

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of $\pm 2\%$. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Meenakshi Sharma	Toni Rantanen	Chanell Chu	8/25/2023	8/23/2027