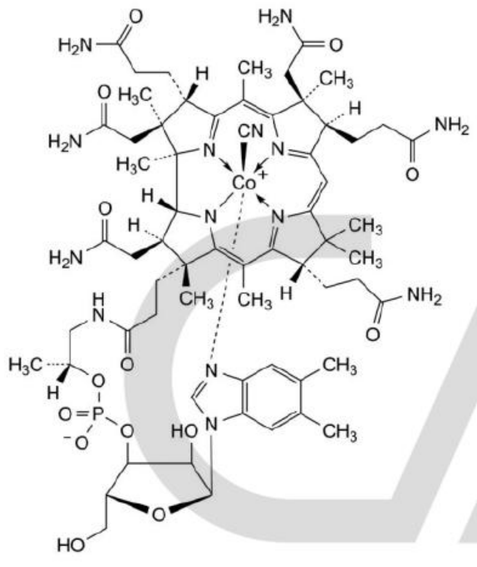
Certificate of Analysis

Reference Material & Standard

Product Name:	Cyanocobalamin EP Impurity E (8-epi-cyanocobalamin)	**Catalogue Number:**	C4X-18747
Synonyms:	N/A	**Lot Number:**	1026-RH-0076
CAS Number:	41325-63-7	**Expiry Date:**	Oct 15, 2028
Molecular Formula:	$C_{63}H_{88}CoN_{14}O_{14}P$	**Storage:**	-20°C±5°C Protected from light and Sealed
Molecular Weight:	1355.37	**Shipping Condition:**	Shipping with Ice Packs

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Red Solid
Identification	HRMS&CNMR&HNMR	Confirmed
Purity	HPLC	99.69%
Loss on Drying	TGA	2.016%
Assay	Mass Balance	97.7%

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Comment:

The calculation of the mass balance method follows the formula (calculated on the non-dried basis):
*Assay (%) = (100%-Loss on Drying) * Purity HPLC (%) /100%*
Loss on Drying is considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by: Date: Nov 12, 2026

Reviewed by: Date: Nov 12, 2026

Approved by General Manager: Date: Nov 12, 2026

CATO Research Chemicals Inc.