



CERTIFICATE OF ANALYSIS

Product Name: Vitamin B12(Cyanocobalamin)
Batch Number: 20240112 Batch Quantity: 10.0KG
Manufacture Date: 2024-01-12 Expiry Date: 2027-01-11

ITEMS	SPECIFICATION	RESULTS
Appearance	Dark red crystals or amorphous or crystalline red powder	Conforms
Assay (Dry basis)	96.0% ~ 102.0%	99.5%
Identification A	UV: The absorption spectrum exhibits maxima at 278+/-1nm, 361+/-1nm, and 550+/-2nm	Conforms
	A _{361nm} /A _{278nm} : 1.70 ~ 1.90	1.87
	A _{361nm} /A _{550nm} : 3.15 ~ 3.40	3.26
Identification B	Cobalt: Meet the USP requirements	Conforms
Identification C	HPLC: The retention time of the major peak of the sample solution corresponds to that of the standard solution.	Conforms
Identification D	IR: The infrared spectrum of the sample should be consistent with the reference map.	Conforms
Particle Size	90% Pass 80 mesh	Conforms
Loss on drying	12% Max	2.0%
Heavy metals (Pb)	10ppm Max	Conforms
As	2ppm Max	Conforms
Residual solvent	Acetone: 5000ppm Max	Conforms
Impurity	7β、8β-lactocyanocobalamin: 1% Max	0.04%
	50-carboxyeyanocobalamin: 0.5% Max	0.02%
	34-methylcyanocobalamin: 2.0% Max	0.02%
	32-carboxyeyanocobalamin: 1.0% Max	0.13%
	8-Epi-cyanocobalamin: 1.0% Max	0.08%
	Single impurity: 0.5% Max	Conforms
Total impurities: 3.0% Max	0.8%	
Total plate count	1000cfu/g Max	Conforms
Molds and Yeast	100cfu/g Max	Conforms
E.coli	Negative	Negative
Salmonella	Negative	Negative
Conclusion	This product inspection accords with USP43 standard.	
Storage	Store in cool & dry place, keep away from strong light and heat.	

Shawn Rick Whip
Analyst Approved Header of QC