



XI'AN HARMONIOUS NATURAL BIOTECHNOLOGY CO.,LTD

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CERTIFICATE OF ANALYSIS

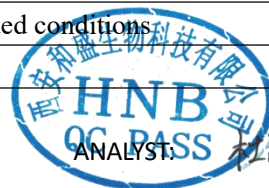
Product Name		Vitamin B ₁₂ (Cyanocobalamine)	Country of Origin	P. R. China
Batch No.		HNB211228	Manufacture Date	Dec. 28 th , 2021
Quantity:		50Kg	Analysis Date	Dec. 29 th , 2021
Analysis Items		Specification	Result	Test Method
Assay (dried basis)		96.0%-102.0%	98.4%	UV
Physical Control				
Identification	A	A361nm/A278nm:1.70-1.90	1.38	UV
		A361nm/A550nm:3.15-3.40	3.30	
	B	Positive	Complies	Colorimetry
	C	The retention time of major peak of the sample solution corresponds to that of the standard solution.	Complies	HPLC
Characteristics		Dark red crystal or crystalline Hygroscopic powder, with no smell and no taste.	Complies	Visual Method
Loss on Drying		≤12.0%	2.70%	USP(731)
Chemical Control				
Total impurities		≤3.0%	1.7%	HPLC
7 β 、 8 β -lactocyanocobalamin		≤1.0%	0.4%	HPLC
50-carboxycyanocobalamin		≤0.5%	0.1%	HPLC
34-methylcyanocobalamin		≤2.0%	Not detected	HPLC
32-carboxycyanocobalamin		≤1.0%	0.2%	HPLC
8-Epi-cyanocobalamin		≤1.0%	0.02%	HPLC
Any other unidentified impurity		≤0.5%	0.4%	HPLC
Residual solvents(Acetone)		≤0.5%	0.27%	In house
Microbiological Control				
Total Plate Count		1000cfu/g Max	Complies	USP(2021)
Yeast & Mold		100cfu/g Max	Complies	USP(2021)
E.Coli		Negative	Negative	USP(2022)
Packing and Storage				
Conclusion		This product complied with specification of USP35 and in house standard		
Packing		100g/alumilium tin.		
Storage		Store in a well-closed container away from moisture.		
Shelf Life		2 years if sealed and stored under the recommended conditions.		
Expiration Date		Dec.,27 th . 2023		

QC MANAGER:

王要月

INSPECTOR:

杨思远



ANALYST: 杜静