

SPECIFICATION

Product name	Vitamin B12 (Methylcobalamin)
Product code	SPJB01
Production unit	Heilongjiang NHU Biotechnology
Description	
Ingredients	Methylcobalamin
Synonym	Mecobalamin, Vitamin B 12, Carbanide;cobalt(3+);[(2R,3S,4R,5S)-5-(5,6-dimethyl- benzimidazol-1-yl)-4-hydroxy-2-(hydroxymethyl)oxolan- 3-yl] [(2R)-1-[3-[(2R,3R,4Z,7S,9Z,12S,13S,14Z,17S, 18S,19R)-2,13,18-tris(2-amino-2-oxoethyl)-7,12,17- tris(3-amino-3-oxopropyl)-3,5,8,8,13,15,18,19- octamethyl-2,7,12,17-tetrahydro-1H-corrin-21-id-3- yl]propanoylamino] propan-2-yl] phosphate
Formula	C ₆₃ H ₉₁ CoN ₁₃ O ₁₄ P
Molecular weight	1344,38 g/mol
CAS-No.	13422-55-4
Properties	
Shelf life	36 months in unopened original packaging
Aspect	Dark red, crystalline powder or dark red crystals
Assay (on dried basis)	98 – 102 %
Loss on drying	≤ 12 %
Solubility	sparingly soluble in water, slightly soluble in ethanol (99,5 %), practically insoluble in acetone, acetonitrile and ether
Clarity of solution	Clear and red colour in water
Identification	
Co	positive reaction
UV	Have maximum absorption at 267 ± 2 nm, 342 ± 2 nm and 522 ± 2 nm
IR	The infrared light absorption map is consistent with the control map
HPLC	The retention time of the major peak of the sample solution corresponds to that of the standard solution, as obtained in the assay
Residual solvent (Acetone)	≤ 5000 mg/kg

**Heavy metals**

Copper (Cu)	≤ 2,0 mg/kg
Arsenic (As)	≤ 0,5 mg/kg
Lead (Pb)	≤ 0,2 mg/kg
Mercury (Hg)	≤ 0,1 mg/kg
Cadmium (Cd)	≤ 0,3 mg/kg
Iron (Fe)	≤ 2,0 mg/kg

Microbiological specs

Total plate count	≤ 1000 CFU/g
Mould and Yeast	≤ 100 CFU/g
E. coli	negative in 10 g
Salmonella	negative in 25 g
Staph. aureus	negative in 25 g

Related substances

Each area of the peaks other than mecobalamin is not more than 0,5 % of the peak area of mecobalamin.
The total area of the peaks other than mecobalamin is not more than 2,0 % of the peak area of mecobalamin.

Handling

Usage	for food industry
Storage	product is hygroscopic, see light easy to decompose store in tight, light-resistant containers, room temperature
Transport instructions	please see our latest safety data sheet

NHU Life Science GmbH