

SPECIFICATION

Vitamin B12 (Cyanocobalamin)

Production unit

Heilongjiang NHU Biotechnology

Description

Ingredients

Coα-[α-(5,6-Dimethylbenzimidazolyl)], Coβ-cyanocobalamide

Synonym

Cyanocobalamin, Vitamin B 12

Formula

C₆₃H₈₈CoN₁₄O₁₄P

Product code

SPQB01

CAS-No.

68-19-9

Properties

Shelf life

60 months in unopened original packaging

Aspect

Dark red, crystalline powder or dark red crystals

Assay (GC)

96 – 100,5 % (FCC)

Loss on drying

< 12 %

Solubility

sparingly soluble in water, soluble in alcohol, insoluble in acetone, chloroform and ether (FCC)

Identification

UV

Have maximum absorption at 278 ± 1 nm, 361 ± 1 nm and 550 ± 1 nm

A 361 nm/A 278 nm: 1.70 to 1.90

A 361 nm/A 550 nm: 3.15 to 3.40

HPLC

The principal peak in the chromatogram obtained with the test solution is similar in retention time and size to the principal peak in the chromatogram obtained with reference solution.

Heavy metals (USP)

Arsenic (As)

≤ 10 mg/kg

Lead (Pb)

≤ 0,5 mg/kg

Mercury (Hg)

≤ 0,2 mg/kg

Cadmium (Cd)

≤ 0,1 mg/kg

≤ 0,2 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

Residual solvents (Acetone) ≤ 5000 mg/kg

Impurities (EP)

A: 7β,8β-Lactocyanocobalamin: ≤ 0.7%
B: 50-Carboxycyanocobalamin: ≤ 0.5%
C: 34-Methylcyanocobalamin: ≤ 1.5%
D: 32-Carboxycyanocobalamin: ≤ 0.5%
E: 8-epi-Cyanocobalamin: ≤ 0.5%
F: unknown structure
(Cyanocobalamin isomer) ≤ 0,5 %
Any other unidentified impurity ≤ 0,2 %
Total impurities ≤ 3 %

Handling

Usage for food industry

product can also be used as feed additive
dosage in feed: as per latest version of European
feedstuff law

Storage store in tight, light-resistant containers, room
temperature

Transport instructions please see our latest MSDS.

The product is compliant to EP, USP and FCC in the current version.

NHU EUROPE GmbH

Vitamin B 12 Cyanocobalamin/SPQB01/erstelltundfreigegeben: 201022/av

Bank account EUR
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