

SPECIFICATION

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|------------------------------|--|--|
| Product name | Vitamin B12 (Cyanocobalamin) | |
| Product code | SPQB01 | |
| Production site | Heilongjiang NHU Biotechnology | |
| Description | | |
| Ingredients | Co α -[α -(5,6-Dimethylbenzimidazolyl)], Co β -cyanocobalamide | |
| Synonym | Cyanocobalamin, Vitamin B 12 | |
| Formula | C ₆₃ H ₈₈ CoN ₁₄ O ₁₄ P | |
| 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 \pm 1 nm, 361 \pm 1 nm and 550 \pm 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 | | |
| Arsenic (As) | \leq 1,0 mg/kg | |
| Lead (Pb) | \leq 0,5 mg/kg | |
| Mercury (Hg) | \leq 0,1 mg/kg | |
| Cadmium (Cd) | \leq 0,5 mg/kg | |
| Microbiological specs | | |
| Total plate count | \leq 1000 CFU/g | |
| Mould and Yeast | \leq 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 applications

Storage Store in tight, light-resistant containers at ambient conditions.

Transport See latest safety data sheet.

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

NHU Life Science GmbH