Vitamin B12 Crystalline

Description
Vitamin B12 Crystalline is a red to purplish-red, crystalline powder. It is highly hygroscopic and practically odourless, and begins to darken at about 200 °C without melting. It is produced by fermentation using a genetically modified micro-organism (GMM) under containment.

Product identification
Product code: 04 2915 5
Chemical name: 5,6-dimethylbenzimidazolcyanocobalamide
Synonyms: cyanocobalamin; cobalamin; vitamin B₁₂
CAS No.: 68-19-9
EINECS No.: 200-680-0
Empirical formula: C₆₃H₸₈CoN₁₄O₁₄P
Molecular mass: 1355.42 g/mol

Specifications
Appearance: Red to purplish-red powder
Identity: Corresponds
Loss on drying: Max. 3.0%
Pseudo cyanocobalamin: Passes test (USP)
Absorbance ratio:
A₃₆₁/A₂₇₈ nm 1.70-1.90
A₃₆₁/A₅₅₀ nm 3.15-3.40
Assay: 96.0-100.5% (on dry material)
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Related substances: max. 3.0%
Residual Solvents:
Acetone max. 5000 ppm

Solubility
Vitamin B12 Crystalline is sparingly soluble in water, slightly soluble in alcohol, and insoluble in acetone, chloroform and ether.

Stability and storage
Vitamin B12 Crystalline is relatively stable to air and heat if protected from humidity, but is sensitive to light. The product may be stored for 60 months from the date of manufacture in the unopened original container and at a temperature below 25 °C. The ‘best use before’ date is printed on the label. Aqueous solutions are sensitive to alkalis, strong acids and light.

Uses
For dietary nutritional supplements and for solid and liquid pharmaceutical preparations.
This product is not intended for use in the manufacture of sterile drug products. The purchaser assumes all responsibility for additional processing, testing, labelling and registration required for such use.

Compendial compliance
Vitamin B12 Crystalline meets all requirements of the USP, FCC, JP and Ph. Eur. when tested according to these compendia.

Safety
This product is safe for the intended use. Avoid ingestion, inhalation of dust or direct contact by applying suitable protective measures and personal hygiene.
For full safety information and necessary precautions, please refer to the respective DSM Material Safety Data Sheet.
Legal notice

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