

Beta-Carotene 10% DC

Human Nutrition

 **BASF**
The Chemical Company

Chemical names

Beta-carotene, provitamin A

CAS No. 7235-40-7

EINECS No. 230-636-6

Product number

10308412

Description

Free-flowing, dark red powder with a mild characteristic odor, consisting of spherical particles, with a uniform particle size. Some white starch particles may be visible.

Composition

The powder particles consist of beta-carotene embedded in a matrix of gelatin and sucrose, coated with food starch. They contain tocopherol (E 306), sodium ascorbate (E 301) and ascorbyl palmitate (E 304) as antioxidants and tricalcium phosphate (E 341) as an anti-caking agent.

Solubility

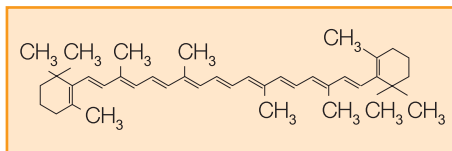
Dispersible in warm water (35-40°C), in which it forms a stable orange dispersion.

Specification

Assay:	min. 10%
Loss on drying:	max. 5% (4 hours at 105°C)

Monographs

The included active ingredient complies with the current "Betacarotene" Ph.Eur. monograph.



$C_{40}H_{56}$

Molar mass 536.9 g/mol

Particle-size distribution

100% smaller than 850 μm (20 mesh USP)
min. 95% smaller than 425 μm (40 mesh USP)
max. 15% smaller than 150 μm (100 mesh USP)
max. 12% smaller than 125 μm (120 mesh USP)

Bulk density

Approx. 0.6 g/ml

Stabilization/Stability

The product is stabilized with tocopherol (E 306), sodium ascorbate (E 301) and ascorbyl palmitate (E 304).

The stability of Beta-Carotene 10% DC is excellent even in the presence of minerals. The product has a high mechanical integrity and little or none of the beta-carotene is expressed during tableting, resulting in good stability of the tablets. Stored in the original packaging at room temperature (max. 25°C), the product is stable for at least 36 months.

Standard packaging

25 kg.

Please see appendix I for further information.

Storage

The product is sensitive to oxygen, light, heat and moisture and should therefore be stored in the tightly sealed original packaging at room temperature (max. 25°C), in a dry and dark place.

Applications

Dietary supplements:

Beta-carotene dry powders are used as provitamin A in solid multivitamin preparations, because no Upper Safe Level for the use of beta-carotene as provitamin A has been established unlike for vitamin A.

Beta-Carotene 10% DC is used both as provitamin A and as an active ingredient. It is particularly suitable for use in multivitamin/mineral tablets and beta-carotene tablets as well as hard gelatin capsules due to its excellent flow properties.

Food products:

Due to its composition, Beta-Carotene 10% DC is especially suitable for use in food supplement preparations such as plain tablets, effervescent tablets and sugar-coated tablets.

Note

Beta-Carotene 10% DC must be handled in accordance with the Safety Data Sheet.

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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