

# Beta-Carotene 20% 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

10308821

## 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) and sodium ascorbate (E 301) as antioxidants and tricalcium phosphate (E 341) as an anti-caking agent.

## Solubility

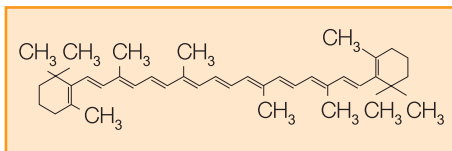
Dispersible in warm water (35-40°C), in which it forms a stable orange dispersion.

## Specification

Assay:	min. 20%
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  $\mu\text{m}$  (20 mesh USP)  
min. 95% smaller than 425  $\mu\text{m}$  (40 mesh USP)  
max. 15% smaller than 150  $\mu\text{m}$  (100 mesh USP)  
max. 12% smaller than 125  $\mu\text{m}$  (120 mesh USP)

## Bulk density

Approx. 0.6 g/ml

## Stabilization/Stability

The product is stabilized with tocopherol (E 306) and sodium ascorbate (E 301). The stability of Beta-Carotene 20% 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), it is stable for at least 36 months.

## Standard packaging

5 and 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 closed 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. Unlike vitamin A, no Upper Safe Level for use of beta-carotene as provitamin A has been established to date.

Beta-Carotene 20% DC is used both as a provitamin A and as an active ingredient alone. Due to its excellent flow properties, it is particularly suitable for use in multivitamin/mineral tablets and beta-carotene tablets as well as hard gelatin capsules.

### Food products:

Due to its composition, Beta-Carotene 20% DC is especially suitable for use in food supplement preparations such as plain, effervescent and sugar-coated tablets.

## Note

Beta-Carotene 20% 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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