

## SPECIFICATION

### Beta carotene 10 % SD CWS/S Food grade

#### Production unit

Xinchang NHU Vitamins

#### Description

##### Ingredients

Beta carotene (E160a(i)), modified starch, sucrose, L-ascorbyl palmitate (E304 (i)) and DL-alpha-Tocopherol (E307) as antioxidant, silicium dioxide (E551) as anti-caking agent

##### Synonym

$\beta$ ,  $\beta$ -Carotene

##### Formula

$C_{40}H_{56}$

##### Product code

SP06-07

##### CAS No

7235-40-7

#### Properties

##### Shelf life

24 months after production date, in unopened original packaging

##### Aspect

free flowing red powder

##### Colour intensity

in aqueous solution A (1 %, 1 cm) > 100

##### Assay (GC)

$\geq 10$  %

##### Loss on drying

$\leq 5,0$  %

##### Solubility

Dispersible in cool water forming an emulsion

##### Sieve analysis

100 % through Sieve No. 20 (US)

$\geq 95$  % through Sieve No. 40 (US)

##### Identification

EP UV and visible absorption spectrophotometry

USP A: Absorbance ratio A455/A483 between 1.14 and 1.18

B: The retention time of the major peak of the sample solution corresponds to that of the standard solution, as obtained in the test for content of Beta carotene

##### Heavy metals

$\leq 5$  mg/kg

##### Arsenic (As)

$\leq 1$  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	≤ 1000 CFU/g
Mould and Yeast	≤ 100 CFU/g
Coliforms	< 0,3 MPN/g
E. coli	negative in 10 g
Salmonella	negative in 25 g
Staph. aureus	negative in 25 g

**Handling**

Usage for food and cosmetics applications

Stability Sensitive to moisture, oxygen, heat and light

Storage Should be stored in original unopened containers at a temperature below 25 °C. Once opened, use contents quickly. Store in a cool, dry place.

The product complies to the current USP version for Beta carotene preparations. The included active ingredient Beta-Carotene (E160a(i)) complies to EU 231/2012 of 9<sup>th</sup> of March 2012, USP42, EP9.6, FCC9 and JECFA.

**NHU EUROPE GmbH**