

## SPECIFICATION

**Product name** Beta carotene 10 % SD CWS/S Food grade  
**Product code** SP06-07  
**Production unit** Xinchang NHU Vitamins

### Description

**Ingredients** Beta carotene (E160a(i)), modified starch, Ascorbic acid, sunflower seed oil and DL-alpha-Tocopherol (E307) as antioxidant, silicium dioxide (E551) as anti-caking agent

**Synonym**  $\beta$ ,  $\beta$ -Carotene  
**Formula**  $C_{40}H_{56}$   
**Molecular weight** 536,90 g/mol  
**CAS No** 7235-40-7

### Properties

**Shelf life** 30 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

**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  
Product can also be used as feed additive (3a160(a)).

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, USP, EP9.6, FCC9 and JECFA.

## NHU EUROPE GmbH