



NHU EUROPE GmbH, Daimlerstrasse 14-16, D-21357 Bardowick

TO WHOM IT MAY CONCERN

NHU EUROPE GmbH
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SPECIFICATION

Beta carotene E160a(i) Food Grade (USP40/EP9)

Ingredients

Synonym	β , β -Carotene
Formula	$C_{40}H_{56}$
Product code	SPHS03
CAS No	7235-40-7

Properties

Shelf life	12 months after production date, in unopened original packaging
Aspect	a brown-red or brownish-red, crystalline powder, practically insoluble in water, slightly soluble in cyclohexane and ether, practically insoluble in ethanol
Assay	98,0 – 101 %
Melting range	176 – 182 °C
Loss on drying	Max 0,2 %
Subsidiary colouring matters	Carotenoids other than beta-carotene not more than 3,0 % of total colouring matters
Absorbance ratio 455 nm/ 483 nm	1,14 – 1,18
455 nm/340 nm	$\geq 1,5$
OVI	meets USP requirements
Sulphated ash	Max. 0,1 %
Heavy metals	Max. 5 mg/Kg
Arsenic (As)	Max. 1 mg/Kg
Lead (Pb)	Max. 1 mg/Kg
Mercury (Hg)	Max. 0,1 mg/Kg
Cadmium (Cd)	Max. 1 mg/Kg



Microbiological specs

Total plate count	≤ 1000 CFU/g
Mould and Yeast	≤ 100 CFU/g
E. coli	≤ 0,3 MPN/g
Salmonella	negative in 25 g

Residual solvents

Ethanol	Max. 5000 mg/Kg
Acetone	Max. 5000 mg/Kg
Methylene chloride	Max. 600 mg/Kg

Handling

Stability	Preserve in airtight, light-resistant container. Product is sensitive to air, heat and light, especially in solution
Storage	Recommended storage temperature is 25 °C
Transport instructions	See our latest safety data sheet
MSDS	Yes
classified as hazardous as per EU regulation	No

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