

## SPECIFICATION

### Vitamin C 99 % 100 mesh (Ascorbic acid E300)

#### Production unit

Heilongjiang NHU Biotechnology

#### Description

Ingredients Ascorbic acid  
Synonym Vitamin C; L-Ascorbic acid, 3-Oxo-L-gulofuranolactone  
Formula  $C_6H_8O_6$   
Molecular weight 176.13  
Product code SPVC06  
CAS No 50-81-7

#### Properties

Shelf life 36 months  
Aspect White or almost white crystals or crystalline powder  
Assay (GC) 99,0 – 100,5 %  
Melting point 190 – 192 °C  
Loss on drying ≤ 0,4 %  
Colour of solution ≤ BY<sub>7</sub>  
Clarity of solution clear  
Optical rotation +20,5 - +21,5 °  
pH (5 % water solution) 2,1 – 2,6  
pH (2 % water solution) 2,4 – 2,8  
Sulphated ash ≤ 0,1 %

#### Particle size distribution

not less than 95 % through 100 mesh

#### Identification

##### EP

First identification: B, C  
Second identification: A, C, D  
A: Ultraviolet and visible absorption spectrophotometry  
B: Infrared absorption spectrophotometry  
C: pH meets the requirements  
D: A grey precipitate is formed

##### USP

A: Infrared absorption  
B: 20 mg/ml reduces alk. cupric tartrate test solution

|                     |             |
|---------------------|-------------|
| <b>Heavy metals</b> | ≤ 10 mg/kg  |
| Iron                | ≤ 2,0 mg/kg |
| Copper              | ≤ 3,0 mg/kg |
| Arsenic (As)        | ≤ 1,0 mg/kg |
| Lead (Pb)           | ≤ 0,5 mg/kg |
| Mercury (Hg)        | ≤ 0,1 mg/kg |
| Cadmium (Cd)        | ≤ 0,5 mg/kg |

#### Impurities

|                                   |             |
|-----------------------------------|-------------|
| Impurity E (Oxalic acid)          | ≤ 0,2 %     |
| Impurity C, D                     | ≤ 0,15 %    |
| Unspecified impurities (each)     | ≤ 0,1 %     |
| Sum of impurities other than C, D | ≤ 0,2 %     |
| Residual solvents (as Methanol)   | ≤ 200 mg/kg |

#### Microbiological specs

|                       |                  |
|-----------------------|------------------|
| Total plate count     | ≤ 1000 CFU/g     |
| Mould and Yeast       | ≤ 100 CFU/g      |
| E. coli               | negative in 10 g |
| Salmonella            | negative in 25 g |
| Staphylococcus aureus | negative in 25 g |

#### Handling

Usage for cosmetic and food industry

Storage in unopened tight, light-resistant containers

Product complies to EP/USP/FCC11.

## NHU EUROPE GmbH

*Vitamin C 99 % 100 mesh/SPVC02/üa u fgg:060423/av*

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