

## SPECIFICATION

**Product name** Vitamin C 99 % (Ascorbic acid E300)  
**Product code** SPVC05  
**Production unit** Heilongjiang NHU Biotechnologies

### Description

**Ingredients** Ascorbic acid  
**Synonym** Vitamin C; L-Ascorbic acid, 3-Oxo-L-gulofuranolactone  
**Formula** C<sub>6</sub>H<sub>8</sub>O<sub>6</sub>  
**Molecular weight** 176.13  
**CAS No** 50-81-7

### Properties

**Shelf life** 48 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 %  
**pH (5 % water solution)** 2,1 – 2,6  
**pH (2 % water solution)** 2,4 – 2,8  
**Colour of solution** ≤ BY<sub>7</sub>  
**Clarity of solution** clear  
**Optical rotation** +20,5 - +21,5 °  
**Sulphated ash** ≤ 0,1 %

**Particle size** ≤ 20 % ≥ 40 mesh  
≥ 50 % between 40 to 80 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	≤ 5,0 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  
product can also be used as feed additive (3a300), dosage  
in feed: as per latest version of European feedstuff law

Storage in unopened tight, light-resistant containers

Product complies to EP/USP/FCC.

## NHU EUROPE GmbH