

## SPECIFICATION

## Vitamin C (Ascorbic acid E300)

### Production unit

Heilongjiang NHU Biotechnologies

### 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	SPVC05
CAS No	50-81-7

### Properties

Shelf life	36 months
Aspect	White or almost white crystals 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 °
Density (20 °C)	1,65 g/cm <sup>3</sup>
pH (5 % water solution)	2,1 – 2,6
pH (2 % water solution)	2,4 – 2,8
Sulphated ash	≤ 0,1 %

### Identification

#### EP

1. B: IR meets requirements  
C: pH meets requirement  
A: UV meets requirement
2. C: pH meets requirement  
D: a grey precipitate is formed

#### USP

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

### Heavy metals

Iron	≤ 10 mg/kg
Copper	≤ 2,0 mg/kg
Arsenic (As)	≤ 5,0 mg/kg
Lead (Pb)	≤ 1,0 mg/kg
Mercury (Hg)	≤ 0,5 mg/kg
Cadmium (Cd)	≤ 0,1 mg/kg
	≤ 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 EP9.8/USP42/FCC11.

## NHU EUROPE GmbH