

SPECIFICATION

Product name	Calcium ascorbate
Product code	SPCG01
Production unit	Heilongjiang NHU Biotechnology
Description	
Ingredients	Calcium ascorbate dihydrate (E302)
Synonym	Calcium diascorbate, Calcium di[R]-2-[(S)-1,2-dihydroxyethyl]-4-hydroxy-5-oxo-2H-furan-3-olate] dihydrate
Formula	$C_{12}H_{14}CaO_{12} \cdot 2 H_2O$
Molecular weight	426,34 g/mol
CAS No.	5743-28-2
Properties	
Shelf life	24 months in unopened original container
Aspect	White or slightly yellowish, crystalline powder
Assay ($C_{12}H_{14}CaO_{12}$) (EP)	99 – 100,5 %
Assay (USP) Titration	98 – 101 %
Solubility	freely soluble in water, practically insoluble in ethanol
Clarity of solution	clear
Colour of solution	< Y ₆
Specific Optical rotation	+ 95° and + 97° (5 % w/v aqueous solution)
Loss on drying (EP/USP)	≤ 0,1 %
Residue on ignition	30 – 33 %
pH value	6,8 to 7,4 (10 % aqueous solution)
Fluoride	≤ 10 mg/kg
Identification	
EP	A: Specific optical rotation B: Infrared absorption spectrophotometry E: Substance gives reaction of calcium
USP	A: Solution meets requirements B: 100 mg/ml solution decolorizes a 100 mg/ml solution of dichlorophenol–indophenol C: Infrared absorption spectrophotometry

**Related substances**

Impurities C, D	≤ 0,15 %
Unspecified impurities (each)	≤ 0,1 %
Sum of impurities other than C and D	≤ 0,2 %

Heavy metals

Copper (Cu)	≤ 5 mg/kg
Iron (Fe)	≤ 2 mg/kg
Arsenic (As)	≤ 1 mg/kg
Lead (Pb)	≤ 0,5 mg/kg
Mercury (Hg)	≤ 0,1 mg/kg
Cadmium (Cd)	≤ 0,5 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
Staph. aureus	negative in 25 g

Residual solvents	≤ 200 mg/kg (Methanol)
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Handling

Usage For food and cosmetic applications

Storage Should be stored in tight, light resistant original containers.

Transport Please see our latest MSDS

The product complies with EU 231/2012 of 9th March of 2012, EP, BP, USP and FCC.

NHU Life Science GmbH