

Certificate of Analysis

(Representative Sample Certificate)

Product Name: Vitamin C L-Ascorbyl Palmitate
INCI Name: L-Ascorbyl Palmitate
CAS Number: 137-66-6
Lot Number: Not available (data may vary slightly with different lots or batches)
Expiration Date: 36 months from production date

Analytical Tests	Specifications/Limits	Results
Appearance	Powder	Powder
Color	Almost white, yellowish white, clear	Almost white
Clarity of a solution 10pc in methanol Ph.Eur.	Clear	Clear
Color of a solution 10pc in methanol Ph.Eur.	Not more than BY4	Not more than BY4
Specific rotation (589nm, 20oC, dried) Ph.Eur.	21.0 - 24.0 degree	23.0
Melting range USP	107 - 117 C	113.9
Identity Ph.Eur.	Corresponds	Corresponds
Loss on drying Ph.Eur.	Max. 1.00 %	0.00
Sulphated ash Ph.Eur.	Max. 0.10 %	0.00
Heavy metals Ph.Eur.	<= 10 ppm	<= 10 ppm
Lead AAS	<= 2 ppm	<= 2 ppm
Copper AAS	<= 25 ppm	<= 25 ppm
Zinc AAS	<= 25 ppm	<= 25 ppm
Arsenic AAS	<= 3 ppm	<= 3 ppm
Mercury AAS	<= 1 ppm	<= 1 ppm
Organic volatile impurities	Corresponds USP	Corresponds USP
Assay (dried) Ph.Eur.	98.0 - 100.5 %	99.5

Residual solvents: Acetone: <=500ppm, Petroleum Ether: <=290ppm, Mesityl Oxide: <=50ppm.

The lot was analyzed and released by the authorized Quality Control Department of the supplier and was found to meet the specifications as given above. The product meets all requirements of the following valid compendia when tested accordingly: USP, FCC, Ph.Eur

The above data were obtained using the test indicated and is subject to the deviation inherent in the test method. Results may vary under other test methods or conditions.

This report is not to be signed.

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.