

Certificate of Analysis

(Representative Sample Certificate)

Product Name: Vitamin C (L-ascorbic acid), USP
INCI Name: L-ascorbic acid
CAS Number: 50-81-7
Lot Number: Not available (data may vary slightly with different lots or batches)
Expiration Date: 24 months from production date

Test Items	Specifications	Test Results
Appearance	White or almost white crystalline powder	Conforms
Assay	99.00-100.50%	99.80%
Particle size	≥80% through 325 mesh	94.79%
Melting Point	~190°C	190.6°C
Specific Rotation	+20.50° ~+21.50°	+21.05°
pH (2% water solution)	2.4-2.8	2.4
pH (5% water solution)	2.1-2.6	2.3
Clarity of Solution	Clear	Conforms
Color of Solution	≤BY7	<BY7
Copper	≤5ppm	<5ppm
Iron	≤2ppm	<2ppm
Zinc	≤25ppm	<25ppm
Heavy Metals	≤10ppm	<10ppm
Arsenic	≤3ppm	<1ppm
Cadmium	≤1ppm	<1ppm
Lead	≤2ppm	<2ppm
Mercury	≤0.1ppm	0.1ppm
Oxalic Acid	≤0.20%	<0.20%

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.

Residual Solvents Ethanol	≤3000ppm	<3000ppm
Residual Solvents Methanol	≤3000ppm	<3000ppm
Related Substances Impurity C	≤0.15%	<0.10%
Related Substances Impurity D	≤0.15%	<0.10%
Related Substances Unspecified impurity	≤0.10%	<0.10%
Related Substances Total impurity	≤0.20%	<0.20%
Related Substances Disregard limit	≤0.05%	<0.05%
Related Substances Impurity E	≤0.20%	<0.20%
Loss on Drying	≤0.40%	0.04%
Residue on Ignition	≤0.10%	0.10%
Total Plate Count	≤1000 cfu/g	<1000 cfu/g
Yeast and Mold	≤100 cfu/g	<100 cfu/g
Coliforms	Negative	Negative
Salmonella	Negative	Negative
Staph. Aureus	Negative	Negative
Salmonella	Negative	Negative

The above data was 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.

All data are as per our supplier.

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