

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: 23 months from production date

Property	Specification	Analysis
Appearance	White or almost white crystalline powder	Pass
Assay	99.00 ~ 100.50%	99.620%
Particle Size	≥80% thru 100 Mesh	94.20%
Melting Point	190° C-192° C	191.2° C
Specific Rotation	+20.50° ~ +21.50°	+20.95°
pH (2% Water Solution)	2.4 ~ 2.8	2.58
pH (5% Water Solution)	2.1 ~ 2.6	2.37
Clarity of Solution	Clear	Conforms
Color of Solution	≤BY7	<BY7
Copper	≤5 ppm	<5 ppm
Iron	≤2 ppm	<2 ppm
Zinc	≤25 ppm	<25 ppm
Heavy Metals	≤10 ppm	<10 ppm
Arsenic	≤3 ppm	<1 ppm
Cadmium	≤1 ppm	<1 ppm
Lead	<2 ppm	<2 ppm
Mercury	≤0.1 ppm	<0.1 ppm
Oxalic Acid	≤0.20%	<0.20%
Residual Solvents - Ethanol	≤3000 ppm	<3000 ppm

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 themselves as to the suitability & completeness of such information for their own particular use.

Residual Solvents - Methanol	≤3000 ppm	<3000 ppm
Related Substances - Impurity C	≤0.15%	<0.15%
Related Substances - Impurity D	≤0.15%	<0.15%
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%	0.40%
Residue on Ignition	≤0.10%	<0.10%
Total Plate Count	≤1000 CFU/g	<1000 CFU/g
Yeast & Mold	≤100 CFU/g	<100 CFU/g
Coliforms	Negative	Negative
Salmonella	Negative	Negative
Staph. Aureaus	Negative	Negative

“Certified in compliance with the terms of the US-Canada Organic Equivalency Arrangement. 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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