

Certificate of Analysis

(Representative Sample Certificate)

Product Name: Vitamin B3 (Niacinamide) PC
INCI Name: Niacinamide
CAS Number: 98-92-0
Lot Number: Not available (data may vary slightly with different lots or batches)
Expiration Date: 36 months from production date

Property	Specification	Analysis
Appearance (Visual)	Crystalline powder	Crystalline powder
Color (Visual)	White	White
Assay (HPLC)	99.0 - 101.0% w/w	99.5% w/w
Related Substances - 3-Cyanodiridine (HPLC)	0.10% w/w MAX	0.00% w/w
Related Substances - Any Unknown Impurity (HPLC)	0.10% w/w MAX	0.04% w/w
Related Substances - Total of Impurities (HPLC)	0.2% w/w MAX	0.1% w/w
Nicotinic Acid (HPLC)	100 ppm MAX	77 ppm
pH of Solution (Ph.Eur. of Nicotinamide)	6.0 - 7.5	7.2
Clarity of Solution (Ph.Eur. of Nicotinamide)	3.00 NTU MAX	0.28 NTU
Color Values (CIELAB) L* (Color Instrument Measurement)	90.0 - 101.0	98.2
Color Values (CIELAB) a* (Color Instrument Measurement)	-10.0 to 10.0	0.0
Color Values (CIELAB) b* (Color Instrument Measurement)	-10.0 to 10.0	0.4
Color of Solution (calc./BY) (Ph.Eur. of Nicotinamide)	7 MIN	7

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.

Melting Range Start Point (Ph.Eur. of Nicotinamide)	128 - 131 °C	129 °C
Melting Range End Point (Ph.Eur. of Nicotinamide)	128 - 131 °C	130 °C
Particle Size Fraction - 50 µm minimum (Sieve analysis)	90% w/w MIN	100% w/w
Particle Size Fraction - 250 µm minimum (Sieve analysis)	8% w/w MAX	<1% w/w
Sulphated Ash (Ph.Eur. of Nicotinamide)	0.10% w/w MAX	0.03% w/w
Heavy Metals (USP (method II) of Niacinamide)	10 ppm MAX	<10 ppm
Chloride (Limit Test JP)	70 mg/kg MAX	<70 mg/kg
Sulfate (Limit Test JP)	190 mg/kg MAX	<190 mg/kg
Readily Carbonizable Substances (USP of Niacinamide)	Passes test	Pass
Identification - UV (UV, USP of Niacinamide)	0.63 - 0.67	Pass
Identification - IR (IR, EP/USP of Niacinamide)	Passes test	Pass
Loss on Drying (Ph.Eur. of Nicotinamide)	0.5% w/w MAX	0.0% w/w
Lead* (USP <730>)	1 ppm MAX	Pass
Total Aerobic Microbial Count* (Ph.Eur. 2.6.12)	100 CFU/g MAX	Pass
Total Combined Yeast & Mold* (Ph.Eur. 2.6.12)	100 CFU/g MAX	Pass
E. coli* (Ph.Eur. 2.6.13)	Negative in 1g	Pass
Staphylococcus aureus* (Ph.Eur. 2.6.13)	Negative in 1g	Pass
Pseudomonas aeruginosa* (Ph.Eur. 2.6.13)	Negative in 1g	Pass
Candida albicans* (Ph.Eur. 2.6.13)	Negative in 1g	Pass

“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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