

CERTIFICATE OF ANALYSIS

Product: Niacinamide PC
INCI: Niacinamide
Expiry Date: Nov 2028

Property / Test	Test Method	Specification	Analysis
Appearance	Visual	crystalline powder	crystalline powder
Colour	Visual	white	white
Assay	HPLC	99.0 - 101.0 % (w/w)	100.1 % (w/w)
Related Substances	HPLC		
3-Cyanopyridine		≤ 0.10 % (w/w)	<0.05 % (w/w)
Any unspecified impurity		≤ 0.10 % (w/w)	<0.05 % (w/w)
Total impurity		≤ 0.2 % (w/w)	<0.1 % (w/w)
Nicotinic acid	HPLC	≤ 100 ppm	58 ppm
pH of solution (5g in 100ml water)		6.0 - 7.5	6.6
Clarity of solution	Turbidimetry	≤ 3.00 NTU	0.12 NTU
Colour values (Colour Instrument Measurement)	Colorimetric		
Colour values (CIELAB) L*		90.0 - 101.0	99.9
Colour values (CIELAB) a*		-10.0 - 10.0	0.1
Colour values (CIELAB) b*		-10.0 - 10.0	-0.2
Color of solution (calc./BY)	Colorimetric	≤ BY 7	corresponds
Loss on drying	Gravimetric analysis	≤ 0.5 % (w/w)	0.0 % (w/w)
Melting range			
start point		128.0 - 131.0 °C	128.8 °C
end point		128.0 - 131.0 °C	129.7 °C
Particle size fraction	Sieve analysis		
min. 50µm		≥ 90 % (w/w)	100 % (w/w)
min. 250µm		≤ 8 % (w/w)	3 % (w/w)
Sulphated ash	Gravimetric analysis	≤ 0.10 % (w/w)	<0.05 % (w/w)
Heavy metals	ICP-MS	≤ 10 ppm	corresponds*

QUALITY @ 100%

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ANALYTICAL RESULTS - CONTINUED

Property / Test	Test Method	Specification	Analysis
Chloride	Wet chemistry	≤ 70 ppm	corresponds
Sulfate	Wet chemistry	≤ 190 ppm	corresponds
Readily carbonizable substances	Wet chemistry	matching fluid A	passes test
Identification UV (A245/A262 ratio)	UV/VIS spectroscopy	0.63 - 0.67	0.65
Identification (NaOH)	Wet chemistry	corresponds	corresponds
Identification IR	IR spectroscopy	corresponds	corresponds
Lead	ICP-MS	≤ 1 ppm	corresponds*
Residual Solvents: Toluene	Gas chromatography	corresponds	corresponds

* checked at regular intervals

DISCLAIMER

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