GREEN VALLEY LABORATORY

CERTIFICATE OF ANALYSIS

Product:	Niacinamide PC		
Lot #:	661	**Re-test:**	January 2029

Property	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)
Related Substances (HPLC): Any unspecified impurity	≤ 0.10 % (w/w)	<0.05 % (w/w)
Related Substances (HPLC): 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 (CIELAB) L* (Colorimetric)	90.0 - 101.0	99.9
Colour values (CIELAB) a* (Colorimetric)	-10.0 - 10.0	0.1
Colour values (CIELAB) b* (Colorimetric)	-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
Melting range: end point	128.0 - 131.0 °C	129.7 °C
Particle size fraction (Sieve analysis): min. 50μm	≥ 90 % (w/w)	100 % (w/w)
Particle size fraction (Sieve analysis): 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*
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**		

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

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