

ChemicalStore.com

1059 Main Avenue, Clifton, NJ 07011

Tel: (973) 405-6248

CERTIFICATE OF ANALYSIS

PRODUCT	MICROCRYSTALLINE CELLULOSE 102 NF
LOT No.	L8C721 (210325-C)
MFG DATE:	MARCH 03, 2021
LAST TEST DATE:	MARCH 02, 2026
RETEST DATE:	MARCH 02, 2028
COUNTRY OF ORIGIN	INDIA

White or almost white, free-flowing powder consisting of non-fibrous particles, insoluble in water, dilute acid and most organic solvents. Practically insoluble/very slightly soluble in dilute NaOH solution (1 in 20)

<u>TEST ITEMS</u>	<u>SPECIFICATIONS</u>	<u>RESULTS</u>
Identification A	Infrared Absorption	Complies
Identification B (Zinc Chloride)	Should produce a violet-blue color	Positive
Identification C (Degree of Polymerization)	NMT 350	228.9
pH	5.0 – 7.5	6.68
Conductivity	NMT 75 $\mu\text{S}\cdot\text{cm}^{-1}$	50 $\mu\text{S}\cdot\text{cm}^{-1}$
Water Soluble Substances	NMT 0.25%	0.15%
Ether Soluble Substances	NMT 0.05%	0.02%
Loss on Drying	NMT 7.0%	4.0%
Heavy Metals	NMT 10 ppm	Complies
Residue on Ignition	NMT 0.1%	0.05%
Bulk Density	0.30 – 0.36 g/mL	0.33 g/mL
Sieve Analysis (% Retention)		
60 Mesh	$\leq 8.0\%$	0%
200 Mesh	$\geq 45.0\%$	69.0%
Particle Size Distribution		
D ₁₀	20 – 50 μm	37.1 μm
D ₅₀	90 – 150 μm	117.2 μm
D ₉₀	190 – 300 μm	212.4 μm
Total Plate Count*	NMT 1,000 cfu/g	80 cfu/g
Yeast & Mold*	NMT 100 cfu/g	10 cfu/g
Escherichia coli*	Absent	Absent
Staphylococcus aureus*	Absent	Absent
Salmonella species*	Absent	Absent
Pseudomonas aeruginosa*	Absent	Absent

*Results reported are expected results based on regular testing.

The raw materials, manufacturing process, and product do not contain any of the solvents listed in Organic Volatile Impurities (USP<467>). This batch complies with the requirements of USP.

Test results are extracted from the original Manufacturer's/Supplier's Certificate of Analysis.

Mohammad Hamzeh, QC