

ALADDIN SCIENTIFIC CORPORATION  
 14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-12-19 17:40:23  
 Date of Next Testing: 2027-12-19 17:40:23  
 Product Name: **Microcrystalline Cellulose**  
 CAS Number: 9004-34-6  
 Specifications & Purity: ChP, JP, Ph.Eur., E 460(i), FCC, NF  
 Lot #: L2419033  
 SKU #: **M489093**  
 Version: **1**  
 Analysis #: **277713**  
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
(As)Arsenic	0-0.0002 (%)	0.00 %
Chloride(Cl)	0-0.03 (%)	0.02000 %
Conductivity	0-75 (µS/cm)	23.00000 µS/cm
Ether-soluble substances	0-0.05 (%)	0.03000 %
Heavy metals	0-10 (ppm)	5.30 ppm
Loss on drying	0-1.5 (%)	0.50 %
pH	5-7	5.90
Sulphated ash/residue on ignition	0-0.05 (%)	0.03000 %
Water soluble matter	0-2 (%)	0.20000 %
bulk density	0.30-0.36 (g/ml)	0.34 g/ml
Degree of Polymerization	0-350	301.00
Particle size(retained on air jet sieve)>250um(60mesh)	0-8 (%)	0.90000 %
Particle size(retained on air jet sieve)>75µm(200mesh)	≥45 (%)	61.00000 %
Particle size(retained on air jet sieve)>32µm(450mesh)	≥70 (%)	83.00000 %
Identification(1) (Violet-blue color)	Pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility,Dissolves completely	Pass	Pass
Starch(Negative)	Pass	Pass
Total aerobic microbial count(TAMC) (10 <sup>2</sup> cfu/g)	Passes	passes
Total molds and yeasts count(TYMC)(20cfu/g)	Passes	passes
Escherichia coli (Absent in 1 g)	Pass	Pass
Pseudomonas aeruginosa (absent in 1 g)	passes test	Passes test
Salmonella spec.(Absent in 10g)	Passes	passes
Staphylococcus aureus (absent in 1 g)	passes test	Passes test

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**Parameter**

Particle size (Laser diffraction)(d10:20-50 $\mu$ m d50:90-150 $\mu$ m d90:190-300 $\mu$ m)

TUP(Technically unavoidable particles( $\leq 9/600$ cm<sup>2</sup>))

**Limit Values**

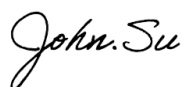
Pass

Pass

**Result**

Pass

Pass

A handwritten signature in black ink that reads "John Su".

John Su  
QA & QC Manager