

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-12-21 11:23:53

Date of Next Testing: 2027-12-21 11:23:53

Product Name: **Microcrystalline Cellulose**

CAS Number: 9004-34-6

Specifications & Purity: ChP, JP, Ph.Eur., E 460(i), FCC, NF

Lot #: L2418867

SKU #: **M489093**

Version: **1**

Analysis #: **447030**

Storage Temperature: Room temperature

Parameter	Limit Values	Result
Degree of Polymerization	0-350	110.10000
Arsenic(As)	0-0.0002 (%)	0.00000 %
Chloride (Cl-)	0-0.03 (%)	0.01500 %
Conductivity	0-50 (μS/cm)	23.00000 μS/cm
Ether-soluble substances	0-0.05 (%)	0.01430 %
Heavy metals	0-10 (ppm)	5.30000 ppm
Loss on drying	0-7 (%)	3.00000 %
Sulphated ash/residue on ignition	0-0.05 (%)	0.02100 %
Water-soluble substances	0-0.2 (%)	0.16000 %
bulk density	0.26-0.31 (g/ml)	0.31000 g/ml
Particle size(retained on air jet sieve)>250μm(60 mesh)	0-1 (%)	0.42100 %
Particle size(retained on air jet sieve)>75μm(200mesh)	≤30 (%)	26.00000 %
Particle size(retained on air jet sieve)>32μm(450mesh)	≥50 (%)	59.00000 %
pH	5.0-7.0	6.30000
Identification(1) (Violet-blue color)	Pass	Pass
Infrared spectrum	Conforms to	Conforms to
	Structure	Structure
Solubility,Dissolves completely	Pass	Pass
Starch(Negative)	Pass	Pass
Total aerobic microbial count(TAMC) (10 ² cfu/g)	Passes	passes
Total molds and yeasts count(TYMC)(20cfu/g)	Passes	passes
Escherichia coli (absent in 1 g)	passes test	Passes test
Pseudomonas aeruginosa (absent in 1 g)	passes test	Passes test
Salmonella spec.(Absent in 10g)	Passes	passes

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Parameter

Particle size (Laser diffraction)(d10:15-30µm d50:45-80µm d90:100-180µm)

TUP(Technically unavoidable particles($\leq 9/600\text{cm}^2$))

Degree of brightness

Powder flow-angle of repose (Passable or better)

Staphylococcus aureus (absent in 1 g)

Limit Values

Passes

Pass

Conforms

Passes

passes test

Result

passes

Pass

Conforms

passes

Passes test

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

John Su
QA & QC Manager