

Certificate of Analysis

Promecens Quaternary Chitosan

Product Name: Quaternary Chitosan (N,N,N-Trimethylated Chitosan Derivative)

CAS No.: [51395-94-1]

Molecular Formula: (C₆H₁₁NO₄)_n (based on substitution)

Batch No.: QCh/01/2025

Date of Manufacture: June 2025

Expiry Date: May 2028

Manufacturer: Promecens Entosystems Private Limited

Analytical Test Results

Sr. No.	Test Parameter	Specification	Result
1	Appearance	White to pale yellow powder	Pale yellow
2	Odor	Odorless	Odorless
3	Solubility (in water)	Freely soluble	Passes
4	Degree of Quaternization	≥ 85%	87.2%
5	Purity (on dry basis)	≥ 95%	97.6%
6	Viscosity (1% solution, 25°C)	1 – 10 cP	1.8 cP
7	pH (1% aqueous solution)	4.5 – 7.0	5.2
8	Residue on Ignition	≤ 1.0%	0.42%
9	Heavy Metals (as Pb, ppm)	≤ 10 ppm	<5 ppm
10	Microbial Count (TVC, CFU/g)	≤ 1000	<100

Remarks

Product conforms to specification for pharmaceutical, agricultural, and cosmeceutical-grade quaternized chitosan.

Authorized Signatory:

Abhinav Chauhan
Quality Assurance
On behalf of Promecens Entosystems Pvt. Ltd.