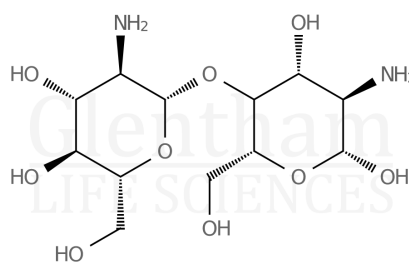


Certificate of Analysis

Product Name	Chitosan oligosaccharide, fungal origin
Glenthams Code	GU3511
CAS Number	148411-57-8
MDL Number	MFCD00161512
Batch Number	716EHS
Molecular Weight	≤ 3,000 (avg.)
Molecular Formula	---
Storage Temp.	+20°C



Property	Specification	Batch 716EHS
Physical Description	Off-white to light-yellow or tan powder	Tan powder
Solubility (5% in water)	Clear to slightly turbid, pale yellow to yellow-brown solution	Slightly turbid, yellow-brown solution
Degree of Deacetylation	≥ 90.0%	98.1%
Average Molecular Weight	≤ 3000	≤ 1000
pH (1% in water)	5.0 - 7.0	5.6
Ash	≤ 1.0%	0.6%
Water	≤ 10.0%	7.8%
Arsenic (As)	≤ 2.0ppm	Conforms
Lead (Pb)	≤ 1.0ppm	Conforms
Mercury (Hg)	≤ 0.5ppm	Conforms
Cadmium (Cd)	≤ 1.0ppm	≤ 0.5ppm
Heavy Metals	≤ 10ppm	Conforms
Particle Size	100% to pass 100 mesh	Conforms
Origin	Mushroom	Conforms

Specification Version	v1.2
Manufacture Date	2023-03-02
Re-Test Date	2030-06-29

Glenthams Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glenthams.com or contact us using the details above for the current version of this document.

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