



บริษัท ซิโนสยามไบโอเทค จำกัด

SINO SIAM BIOTECHNIQUE CO., LTD. / Manufacturer number : VCN.103

69/5 MOO 1 CHONGSARIKA SUB-DISTRICT, PATANIKOM DISTRICT, LOPBURI 15220 THAILAND

Technical Data Sheet

Commodity Name: Chondroitin Sulfate Sodium Marine

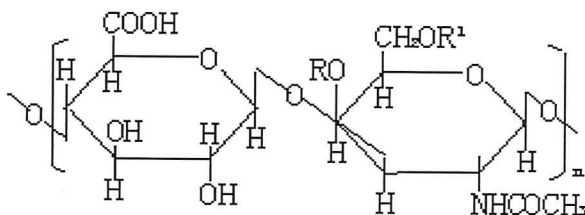
CAS#: 9082-07-9

Description: White or almost white, hygroscopic powder.

Molecular Formula: $(C_{14}H_{21}O_{14}NS)_n$

Molecular weight: 20,000~100,000Dalton

Structure:



A: R=SO₃H, R¹=H ; C: R=H, R¹=SO₃H

Solubility: Freely soluble in water, practically insoluble in acetone and in ethanol (96 per cent)

Specification:

TEST ITEMS	SPECIFICATIONS	METHODS
Appearance	White or slight yellow powder	USP39
Odor	Olfaction, Slightly characteristic	Odor
Particle Size	100% Through 80 mesh	USP39<786>
Clarity and color of solution	≤0.35 (Test solution: 2.5g/50mL@420nm)	USP39
Identification	A: Infrared absorption spectrum same as standard's B: A solution containing 0.5 g in 10 mL of water meets the requirements of the test for sodium.	USP39<197K> USP39<191>
Assay (Dry basis)	90.0%-105.0% (dried substance)	USP39 <CPC Titration>





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pH	5.5-7.5 (Test solution:1 in 100)	USP39<791>
Limit of protein	≤6.0% (UV method)	USP39
Specific rotation	-12.0° to -23.0°	USP39<781S>
Chloride	≤ 0.50%	USP39<221>
Sulfate	≤ 0.24%	USP39<221>
Loss on drying	≤ 10.0% (105°C for 4 hours)	USP39<731>
Residue on ignition	20.0%-30.0%	USP39<281>
Bulk Density	≥0.55 g/ml	USP39<616>
Heavy metals	≤ 10 ppm	USP39<231>
Lead (Pb)	≤ 3.0 ppm	ICP-MS
Cadmium (Cd)	≤ 1.0 ppm	ICP-MS
Mercury (Hg)	≤ 0.1 ppm	ICP-MS
Arsenic (As)	≤ 1.0 ppm	ICP-MS
Total bacterial count	≤ 1000cfu/g	USP39<2021>
Total combined molds and yeasts	≤ 100cfu/g	USP39<2021>
E. coli	Negative	USP39<2022>
Salmonella	Negative	USP39<2022>
Staphylococcus aureus	Negative	USP39<2022>
Enterobacteria and other gram negative bacteria	< 100 MPN/g	USP39<2022>
Packaging & Storage	Double-layer PE bag for inner packing and fiberboard drum for outer packing. Preserve in tight containers.	

DATE: AUG. 31, 2023

