

WATER SOLUBLE CHITOSAN

MS-070313-01

QUALITY SPECIFICATION

Product	Soluble Chitosan Powder Type-15000	
Manufacturer	MSC CO.,LTD. (KOREA)	
Importer	MARINE SCIENCE CO.,LTD.	
Summary	<p>The white and yellowish water soluble chitosan powder that a excellent-quality, odorless and tasteless. Water soluble chitosan is manufactured from the shell of Korean red crab by enzymatic hydrolyzing process. The original purification and molecular control system give shape for average molecular weight $15,000 \pm 500$ of completely cold water soluble chitosan.</p>	
Composition		
Expiration Date	unopened	24 months from date of manufacture (Storage seal and dry at refrigerator)
	opened	60 days (Storage seal and dry at refrigerator)
Package	Outer	Carton box
	Inner	Low-density Polyethylene bag for food (20kg×1box)
Labeling for usage of food		
Information of Material		
GMO material	GMO material and its processed products are not used.	
Allergen material	Crab	
Bovine original	The material origin livestock meats including brain, eye, spinal cord, and bowel are not used.	
Agricultural chemical residual	Material used agricultural chemicals are not used.	
Disapproved Ingredient	Ingredients disapproved in Japan are not used.	
Product standard		
Standard items	Specification	Analysis method
Appearance	White and Yellowish fine powder	
Total chitosan content	Not less than 89.1%	As glucosamin
Average molecular weight	$15,000 \pm 500$	
Loss on dry	Not more than 3.0%	
pH	4.0~7.0	1.0% sol 20°C pH meter
Total plate count	Not more than 300cfu/g	
Coliform	Negative	
E.coli	Negative	
Yeast & Mold	Negative	
Deacetylation rate	Not less than 75.0%	
Viscosity	Not less than 19 mPa·s	1.0% sol 20°C
Solubility	Complete cold water soluble	
Dimer ~ octamer content	Not less than 0.1%	
Monomer content	Not detected	
Total acid content	15.9~19.0%	
Ash	Not more than 0.5%	
Arsenic as AS ₂ O ₃	Not more than 2.0 μg/g	
Heavy metal as Pb	Not more than 20.0 μg/g	