

FOOD ADDITIVE		2011/4/8
QUALITY SPECIFICATION		
Product	REFINED CARRAGEENAN SP-100	
Manufacturer	MSC CO.,LTD.(KOREA)	
Importer	MARINE SCIENCE CO.,LTD.	
Summary	SP-100 is Iota-type refined carrageenan which composition has tasteless and non smell natural polymeric hydrocolloid extracted from red algae ( <i>Eucheuma Denticulatum</i> )	
Characteristics	① SP-100 is available to use gelatin's application instead of geratin. ② SP-100 have reaction with cow's or Soya bean milk which makes soft pudding without any water syneresis. ③ SP-100 have synergistic effect with carob bean gum to make high viscosity and elastic gel. ④ SP-100 have faculty of restroration to its original state of low water syneresis gel from defrost frozen gel. ⑤ SP-100 is good for dessert pudding, processed meat and fish.	
Expiration Date	unopened	24 months from date of manufacture (Storage at dry and cool room)
	opened	30 days (Storage at dry and cool room)
Package	Outer	Carton box
	Inner	Low-density Polyethelene bag for food (20 kg × 1 bag )
Information of Material		
GMO material	No use the GMO materials and their processed.	
Allergen material	No use the materials of rice, crustacean and the product origin including the 25 items is assigned by Japan	
Bovine original	No use the materials origin livestock meets including brain, eye, spinal cord, and around bowel	
Agricultural chemical residual	Never used agrichemicals. or We would ensure standard value based of the Food hygiene law	
Product standard		
Standardize Items	Specifications	Analysis method
Type of Carrageenan	Iota type	Japanese standard of Food additive 'Refined carrageenan'
Appearance	White and grayish powder	Japanese standard of Food additive 'Refined carrageenan'
Particle size	Pass 80mesh more than 98%	JIS Standard riddle pass
Loss on dry	Less than 12%	Japanese standard of Food additive 'Refined carrageenan'
pH	8~10	1.5% 60°C pH meter
Viscosity	Not less than 15 mPa·s	1.5% sol. at 75°C
Water gel strength	Not more than 20 g/cm <sup>2</sup>	1.5% gel. at 20°C, Rheo meter
Salt gel strength	Not more than 50 g/cm <sup>2</sup>	1.5% + 0.2% KCL gel. at 20°C, Rheo meter
Plate coliform count	Less than 3000 cfu/g	Japanese standard of Food additive 'Refined carrageenan'
Coliform	Negative	Japanese standard of Food additive 'Refined carrageenan'
E.coli	Negative	Japanese standard of Food additive 'Refined carrageenan'
Yeast & Mold	Less than 100 cfu/g	Japanese standard of Food additive 'Refined carrageenan'
Sulfate(SO <sub>4</sub> )	15~40%	Japanese standard of Food additive 'Refined carrageenan'
Acid insoluble	Less than 2%	Japanese standard of Food additive 'Refined carrageenan'
Ash	15~40%	Japanese standard of Food additive 'Refined carrageenan'
Ash acid-insoluble	Less than 1%	Japanese standard of Food additive 'Refined carrageenan'
Lead( as AS <sub>2</sub> O <sub>3</sub> )	Less than 5μ g/g	Japanese standard of Food additive 'Refined carrageenan'
Arsenic( as Pb)	Less than 2μ g/g	Japanese standard of Food additive 'Refined carrageenan'
Heavy metal(as Pb)	Less than 20μ g/g	Japanese standard of Food additive 'Refined carrageenan'