



MARINE SCIENCE CO., LTD.

Daiichi Sakamoto Building 7F, 2-1-11, Higashi-Kanda, Chiyoda-Ku, Tokyo 101-0031 Japan Tel :81-3-3865-348 Fax:81-3-3865-345

URL <http://www.marine-science.co.jp>

FOOD ADDITIVE		2009/11/11
QUALITY SPECIFICATION		
Product	REFINED CASSIA GUM + CARRAGEENAN CC-50	
Manufacturer	MSC CO.,LTD.(KOREA)	
Importer	MARINE SCIENCE CO.,LTD.	
Summary	<p>Cassia gum is structure element by a unit of Galactose with 5 units Mannose which is more Mannose than four units of LBG. CC-50 is simultaneously extracted to such Cassia gum with Kappa-type carrageenan and, realized easy soluble elastic gelling agent.</p> <p>Instead of LBG, CC-50 is quite elastic gelling agent for dessert jelly or processed foods.</p>	
Characteristics	<p>① CC-50 is base of gelling agent for water dessert jelly.</p> <p>② CC-50 have high viscosity and elastic gel.</p> <p>③ CC-50 is economically cheaper than refined LBG-Carrageenan.</p> <p>④ CC-50 have lower temperature solubility.</p>	
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	Woven cloth laminated paper bag
	Inner	Low-density Polyethelene bag for food (20kg × 1bag)
Ingredients labeling	Cassiagum, Carrageenan	
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	
Unapproved Ingredient	No use the unapproved Ingredient in Japan.	
Product specifications		
Standardize Items	Specifications	Analysis method
Type of Carrageenan	Kappa & Cassia	
Appearance	White or Light gray powder	Japanese standard of Food additive 'Refined carrageenan'
Particle size	Pass 80 mesh more than 95 %	Passed JIS Standard sieve
Loss on dry	Less than 12.0 %	Japanese standard of Food additive 'Refined carrageenan'
pH	7.0 ~ 9.0	1.0% sol. at 60°C, pH meter
Viscosity	100 ~ 200 mPa·s	1.0% sol. at 75°C
Water gel strength	600 ~ 800 g/cm ²	1.0% sol. at 20°C, Rheo meter
Salt gel strength	1,600 ~ 1,800 g/cm ²	1.0% + 0.2% KCL sol. at 20°C, Rheo meter
Plate coliform count	Less than 3,000 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'
Acid insoluble	Less than 2.0 %	Japanese standard of Food additive 'Refined carrageenan'
Ash acid-insoluble	Less than 1.0 %	Japanese standard of Food additive 'Refined carrageenan'
Lead(as AS ₂ O ₃)	Less than 5.0 μ g/g	Japanese standard of Food additive 'Refined carrageenan'
Arsenic(as AS ₂ O ₃)	Less than 4.0 μ g/g	Japanese standard of Food additive 'Refined carrageenan'
Heavy metal(as Pb)	Less than 40.0 μ g/g	Japanese standard of Food additive 'Refined carrageenan'