



Macadamia Marketing International

The standard in quality & reliability

IML PREMIUM MACADAMIA KERNEL SPECIFICATION

This Specification supersedes all previous specifications.

All reasonable endeavors have been used to ensure that the information in this Specification is accurate. The information in this Specification should not be construed as recommending the fitness of the Product for any particular purpose or application. The Purchaser needs to satisfy itself whether the Product is suitable for any particular purpose or application. The Product is an agricultural product, as such it is subject to seasonal variability. We cannot guarantee that zero foreign matter will be present.

Description: This is an all natural product, and may therefore be subject to seasonal colour and flavour variation.

Origin: Australia.

PRODUCT	INGREDIENT	LABELLING
Raw / Pasteurised Macadamia	Macadamia Kernel	Raw Premium
Roasted Macadamia	Macadamia Kernel	Dry Roast / DR Premium
Roasted and Salted Macadamia	Macadamia Kernel, Salt	Dry Roast Salt / DRS Premium

MANDATORY ADVISORY OR WARNING STATEMENTS AND DECLARATION

ALLERGENS:

FOOD ALLERGEN	PRESENT IN RAW MATERIAL	PRESENT ON SAME PROCESSING LINE
Cereals containing gluten and their products, namely, wheat, rye, barley, oats, spelt, and their hybridized strains.	q	q
Crustacea and crustacean products	q	q
Egg and egg products	q	q
Fish and fish products (including mollusc and oil)	q	q
Milk and milk products	q	q
Tree nuts and tree nut products	ü	ü
Sesame seed and sesame seed products	q	q
Peanuts and peanut products (including peanut oil)	q	q
Soybean and soybean products (including soybean oils)	q	q
Sulphites	q	q

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SENSITIVITIES:

FOOD SENSITIVITIES	PRESENT IN RAW MATERIAL	PRESENT ON SAME PROCESSING LINE
Non applicable	q	q

DIETARY CLAIMS:

Suitable for vegetarians ü	Suitable for Lacto-Ovo Vegetarians ü
Suitable for lacto Vegetarians ü	Suitable for Vegans ü
Suitable for Coeliacs ü	
Regulatory Compliance	
This Product shall comply with the provisions specified in the current edition of "The Food Standards Code Australia and New Zealand" (FSANZ), as amended and all other relevant Australian legislations. Refer to web site below to ensure compliance www.foodstandards.gov.au	
Contaminants and Residues	
This Product shall comply with provision specified in Australia Standard 1.4.1 and 1.4.2 of the Food Standards Code Australia and New Zealand for Contaminants and Natural Toxicants and Maximum Residue Limits in Food.	

Key Performance Criteria

Those parameters highlighted with a (+) denote that the results may be included on the Certificate of Analysis.

PHYSICAL PARAMETERS:

- FLAVOUR:** Typical of raw/roasted macadamias, free from off or objectionable flavours.
- APPEARANCE** Free flowing whole/half kernels, pieces/chips, meal
- COLOUR :** Raw / Pasteurised – White to Cream
Roasted and/or Salted – Cream to Light Brown
- TEXTURE:** Typical of Macadamias, firm and crunchy



SIEVE ANALYSIS AND WHOLE & HALF KERNEL PERCENTAGES:

Style	Screen Size		Whole Kernels (by weight)	Half Kernels (by weight)
	Passed Through	Retained On		
STYLE 0		20mm (round hole)	98% min	
STYLE 1	20mm (round hole)	17mm (round hole)	95% min	
STYLE 1S	17mm (round hole)	14mm (round hole) *	90% min	
STYLE 2	20mm (round hole)	14mm (round hole)	50% min	
STYLE 3		14mm (round hole)	15% min	
STYLE 4L		14mm (round hole)	15% max	
STYLE 4L (14-16mm)	16mm (round hole)	14mm (round hole)	15% max	
STYLE 4	14mm (round hole)	12mm (round hole)		80% min
STYLE 5	12mm (round hole)	8mm (round hole)		
STYLE 5 NATURAL CHIP	6mm (slot mesh)	8mm (square mesh)		
STYLE 6 NATURAL CHIP	8mm (square mesh)	6mm (square mesh)		
STYLE 7 NATURAL CHIP	6mm (square mesh)	3mm (round mesh)		
STYLE 5 DICED	12mm (round mesh)	8mm (square mesh)		
STYLE 6 DICED	8mm (square mesh)	6mm (square mesh)		
STYLE 7 DICED	6mm (square mesh)	5mm (round mesh)		
STYLE 8 DICED	5mm (round mesh)	3mm (round mesh)		
STYLE MEAL DICED	3mm (round mesh)			
STYLE 8/MEAL DICED	6mm (square screen)	5mm round screen (5% max) 3mm round screen (20% max) Pan (remainder)		

* or equivalent triangular 17mm screen.

NOTE: Sizing refers to production screen sizes. Due to the nature of this process there may be a percentage of kernel that is over or undersize.



FOREIGN MATERIALS:

FOREIGN MATTER	LEVEL	MAXIMUM
CRITICAL – Classified as Metal, Glass, Wood, Hard Plastic, Other Nuts, Live Infestation, Rodent Droppings	Absent	
MAJOR – Classified as Pliable Plastic, Fibres, String	Absent	
MINOR – Classified as Stalks, Stems, Dead Infestation, Extraneous Vegetable Matter	Target Nil	1pc/100kg maximum
Loose Shells	Target Nil	1pc/100kg maximum

CHEMICAL:

PARAMETER	LIMITS	TEST METHODS
Moisture	1.5% ($\pm 0.3\%$)	Halogen Lamp Balance
Acid Value	<1mg KOH/g OIL (as oleic)	AOCS Cd. 3a-63
Peroxide Value	<4 meq/kg OIL	Cold Press, AOCS Cd 8b-90
Aflatoxin (B1, B2, G1, G2)	As per country requirements	LCMS

MICROBIOLOGY:

PARAMETER	LIMITS			TEST METHODS
	RAW	PASTEURISED	ROASTED	
Standard Plate count	<30,000 cfu/g	<10,000 cfu/g	<3,000 cfu/g	AOAC 990.12
Mould & Yeast count	<20,000 cfu/g	<500 cfu/g	<1,000 cfu/g	A.S. 5013.29 – 2009
Total Coliforms	<350/g	<100/g	<25/g	A.S. 5013.3 – 2009
E. Coli	ND / 1g	ND / 1g	ND / 1g	A.S. 5013.15 – 2006
Salmonella	ND / 250g	ND / 250g	ND / 250g	A.S. 5013.10 – 2009
Coagulase positive staphylococci	<100/g	<100/g	<100/g	AS 5013.12.1 – 2004
Listeria monocytogenes	ND / 25g	ND / 25g	ND / 25g	AFNOR NF (Bio-12/33-05/12)

ND = Not Detected



NUTRITION:

RAW / PASTEURISED MACADAMIA	Average Quantity per Serving (30g)	Average Quantity per 100g
Energy	920kJ	3068kJ
Fats (total)	22.8g	76.2g
§ Monounsaturated	18.4g	61.4g
§ Saturated	3.1g	10.3g
§ Polyunsaturated	0.3g	0.9g
Trans fatty acid	0.0mg	0.0mg
Protein	2.3g	7.6g
Carbohydrates	1.4g	4.5g
Sugars	1.4g	4.5g
§ Added Sugars	0.0g	0.0g
Calcium	14.4mg	48.0mg
Iron	0.54mg	1.8mg
Sodium	0.9mg	3.0mg
Cholesterol	0.0mg	0.0mg
Vitamin D	0.0mg	0.0mg
Potassium	99.0mg	330.0mg

DRY ROASTED MACADAMIA	Average Quantity per Serving (30g)	Average Quantity per 100g
Energy	920kJ	3068kJ
Fats (total)	22.8g	76.2g
§ Monounsaturated	18.4g	61.4g
§ Saturated	3.1g	10.3g
§ Polyunsaturated	0.3g	0.9g
Trans fatty acid	0.0mg	0.0mg
Protein	2.3g	7.6g
Carbohydrates	1.4g	4.5g
Sugars	1.4g	4.5g
§ Added Sugars	0.0g	0.0g
Calcium	14.4mg	48.0mg
Iron	0.54mg	1.8mg
Sodium	0.9mg	3.0mg
Cholesterol	0.0mg	0.0mg
Vitamin D	0.0mg	0.0mg
Potassium	99.0mg	330.0mg

ROASTED & SALTED MACADAMIA	Average Quantity per Serving (30g)	Average Quantity per 100g
Energy	920kJ	3068kJ
Fats (total)	22.8g	76.2g
§ Monounsaturated	18.4g	61.4g
§ Saturated	3.1g	10.3g
§ Polyunsaturated	0.3g	0.9g
Trans fatty acid	0.0g	0.0g
Protein	2.3g	7.6g
Carbohydrates	1.4g	4.5g
Sugars	1.4g	4.5g
§ Added Sugars	0.0mg	0.0mg
Calcium	14.4mg	48.0mg
Iron	0.54mg	1.8mg
Sodium	116.1mg	387.0mg
Cholesterol	0.0mg	0.0mg
Vitamin D	0.0mg	0.0mg
Potassium	98.0mg	326.0mg

Source: FSANZ NUTTAB Data base

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ADDITIONAL INFORMATION:

PACKAGING: The Product is normally packed into nitrogen flushed vacuum sealed foil bags in fibreboard cartons.
Net carton weights are normally – Style 4 and larger – 11.34kg cartons
– Style 5 and smaller – 10kg cartons.

STORAGE: The Product should be stored in original packaging in a clean (10-15°C), dry area (50-60% RH), free from toxic chemicals, odours, insect and rodent infestation. Shelf life (recommended best before) for raw macadamias is 24 months from date of manufacture/packing if packaged and stored as per above. Shelf life (recommended best before) for roasted and or salted macadamias is 18 months from the date of manufacture/packing if packaged and stored as per above.

DEFINITIONS:

- § **Commercial Kernel** is defined as a kernel exhibiting minor defects/disorders but fit for human consumption.
- § **Half Kernel** means approximately half of a whole kernel as it normally separates.
- § **Infestation:** those which are typical of the Product.
- § **Loose shell** means any loose shell, which will not pass through a 3mm square opening.
- § **Pasteurised:** refers to kernel processed through a Napasol pasteurisation system which has been demonstrated to provide a >5 log reduction of Salmonella on macadamia kernel.
- § **Premium Kernel** is defined as fully matured kernel free from significant defects/disorders in its current form.
- § **Reject Kernel** is defined as kernel with major defects/disorders suitable only for oil or non-food use.
- § **Whole Kernel** is kernel which is not split or separated into halves, with not more than ¼ of the kernel missing, given that the kernel contour is not materially affected by the missing portion.

