



**SUNRISE
COMMODITIES**
INCORPORATED

Macadamias Specifications

Country of Origin: All Origins

Description: In shell Macadamia Nuts and Macadamia Kernels.

Intended Use: Human Consumption

Physical Specification:

Color	Uniform Normal, natural cream color
Appearance	Free from surface oil
Flavor & Odor	No off flavors or odors
Kernel Dust	Max 0.2%
Foreign Material	None
Loose Shell	Max 1 piece larger than 2mm per 100kg for style 0-4 and max 2 pieces per 100kg of kernel for other styles
Impacted NIS	Max 1 piece larger than 2mm in 100kg of kernel
Reject Defects	Max 1%
Insect Infestation	None

Chemical Specification:

Moisture Content	Max 2%
Peroxide Value	3meg/kg
Free Fatty Acid	Max 0.5
Aflatoxin Total	Max 4ppb
Aflatoxin B1	Max 2ppb
Chemical Residue	As per importing countries food standards

Microbiological Specification:

Total Plate Count	Less than 30,000 cfu/g
Yeast & Mold	Less than 20,000 cfu/g, no visible mold
E. Coli	Less than 3 per gm (using MPN method) or not detected using triplicate tube method. Less than 3 cfu/g using ISO 16649-2



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Salmonella	Not detected in 250gm (Sampling: 250gm sample comprised of 10X25gm sub-samples per lot). (See sampling protocol below)
Coliforms	Less than 350 cfu/g
Entrobacteria	N/A in Macs

Sizing:

Style 0	Greater than 20mm with min 95% wholes
Style 1	16mm to 21mm with min 90% wholes
Style S1	13mm to 17mm 95% wholes
Style 2	Greater than 13mm with min 50% wholes and large pieces ranging in size from 13mm upwards
Style 3	Greater than 13mm with min 15% wholes
Style 4L	Greater than 13mm with 90% halves
Style 4	9-15mm with min 50% halves
Style 5	8-13mm large chips
Style 6	5-9mm chips and pieces
Style 7	3-6mm chips
Style 8 (Meal)	Less than 4mm

Shelf Life: 24 months

Storage: Store in a cool and dry place without sunlight

Packaging: Vacuum packed and nitrogen flushed so that residual oxygen is less than 2%