



CERTIFICATE OF ANALYSIS

Olam International Ltd

GENERAL INFORMATION

Product	Pistachio Roasted Salted In Shell 21-27 US Extra No. 1		
Production date	Oct 3 th , 2024	Contract#	115005391I/2
Expiry date	Oct 3 th , 2025	PO#	
Quantity	900 cartons x 10kgs (or 900 cartons x 22.046lbs)	Lot#	
Manufacturing site	Olam Vietnam Company Limited.	CA#	TNP-0703-002
Issued date	Oct 7 th , 2024		

Parameters	Specs	UOM	Result	Test method
Flavor/ Odor	Characteristic of roasted pistachios, free from any objectionable odor and taint		Characteristic, free from any objectionable odor and taint	As per In-house SOP & USDA Grades
Appearance/ Color	White Naturally Opening In-shell		White Naturally Opening In-shell	
Salt Content (Input basis)	Max 1.2	%	1.2	
Salt Dust	Max 0.1	%	0.005	
Nut count per ounce	21-27	nut/oz	25	
Undersized (Smaller than size 21-27)	Max 5.0	%	1.83	
Open Clean	Min 77.0	%	91.38	
Light Stain	Max 12.0	%	5.50	
Non-Split	Max 2.0	%	0.72	
Adhering Hull Material	Max 1.0	%	0.33	
Loose Kernels	Max 5.0	%	0.88	
Damage by Other Means	Max 1.0	%	0.15	
Shell Pieces and Blanks	Max 2.0	%	1.04	
Particles and Dust	0.0	%	0.0	
Foreign Matter	0.0	%	0.0	
Internal Damage	Max 6.0	%	1.05	
Internal Serious Damage	Max 4.0	%	0.92	
Insect Damage included in Serious Damage	Max 2.0	%	0.00	
Moisture	Max 3.0	%	2.26	TPV-LAB-FTP-210 (Ref. AOAC 940.28, AOAC 996.06)
FFA Free fatty acid content as oleic acid ^(*)	Max 1.5	%	0.34	
Peroxide Value ^(*)	Max 5.0	meq/kg	1.78	TPV-LAB-FTP-209 (Ref. AOAC 965.33, AOAC 996.06)
Aflatoxin B1 ^(*)	Max 8.0	ppb	Not detected	TPV-LAB-FTP-248
Aflatoxin B1 + B2 + G1 + G2 ^(*)	Max 10.0	ppb	Not detected	
TPC ^(*)	Max 5.0 x 10 ⁴	cfu/g	3.0 x 10 ¹	ISO 4833-1:2013/ Amd 1:2022
Coliforms ^(*)	1.0 x 10 ¹	cfu/g	Not detected	ISO 4832:2006



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E. coli ^(*)	Absent	/g	Absent	ISO 7251:2005 Amd.1:2023
Yeast & Mold ^(*)	Max 1.0 x 10 ³	cfu/g	1.0 x 10 ¹	FDA BAM Online, April 2001, Chapter 18
Enterobacteriaceae ^(*)	Max 1.0 x 10 ²	cfu/g	Not detected	ISO 21528-2:2017
Staphylococcus aureus ^(*)	Max 1.0 x 10 ¹	cfu/g	Not detected	ISO 6888-1:2021 Amd.1:2023
Salmonella spp. ^(*)	Absent	/25g	Absent	ISO 6579-1:2017 Amd.1:2020
Listeria monocytogenes ^(*)	Absent	/25g	Absent	ISO 11290-1:2017
Arsenic ^(*)	Max 0.1	mg/kg	<0.03	AOAC 2015.01
Lead ^(*)	Max 0.25	mg/kg	Not detected	AOAC 2015.01
Mercury ^(*)	Max 0.03	mg/kg	Not detected	AOAC 2015.01
Cadmium ^(*)	Max 0.05	mg/kg	<0.03	AOAC 2015.01

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^(*) Parameters are tested at 3rd party lab and ISO 17025 accredited method

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