



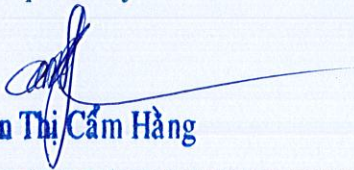
CHỨNG THƯ CHẤT LƯỢNG CERTIFICATE OF ANALYSIS

Olam International Ltd
7 Straits View, Marina One East
Tower #20-01, Singapore

Product	US Pistachio Kernels Raw US Extra No.1 Wholes	Contract no.	
Production date	Dec 2020	Lot no.	6600056333.1
Expiry date	Dec 2021	Quantity	1,234 cartons x 13.6kgs (or 30lbs)
CA no.	TNP-2012-024	Issued date	Dec 7 th , 2020
Origin	USA		

Parameters	Unit	Specs	Result	Test method
Flavor/ Odor		Characteristic of raw pistachios, free from any objectionable odor and taint	Characteristic, free from any objectionable odor and taint	As per In-house SOP
Appearance/ Color		Wholes kernels, yellow and green, some husk pieces	Wholes kernels, yellow and green, some husk pieces	
Kernel Damage	%Max	2.5	2.12	As per current APG
Serious Damage	%Max	2.0	1.93	
Insect Damage	%Max	0.4	0.24	
Foreign Matter	%Max	1 part per 150lbs	Not detected	
Halves	%Max	20.0	16.70	
Wholes	%Min	80.0	83.30	
Moisture	%Max	5.0	2.91	TPV-LAB-FTP-241
FFA <i>Free fatty acid content as oleic acid</i>	%Max	1.5	1.45	TPV-LAB-FTP-210 (Ref. AOAC 940.28)
Peroxide Value	meq/kgMax	5.0	0.86	TPV-LAB-FTP-209 (Ref. AOAC 965.33)
Aflatoxin B1	ppbMax	8.0	Not detected	TPV-LAB-FTP-248
Aflatoxin B1 + B2 + G1 + G2	ppbMax	10.0	Not detected	
TPC	cfu/gMax	5.0×10^4	1.1×10^2	ISO 4833-1:2013
Coliforms	cfu/gMax	1.0×10^1	Not detected	ISO 4832:2006
E. coli	cfu/gMax	1.0×10^1	Not detected	ISO 16649-2:2001
Yeast & Mold	cfu/gMax	1.0×10^3	2.0×10^2	FDA BAM Online, April 2001, Chapter 18
Enterobacteriaceae	cfu/gMax	1.0×10^2	Not detected	ISO 21528-2:2017
Staphylococcus aureus	cfu/gMax	1.0×10^1	Not detected	ISO 6888-1:1999 (Amendment 1:2003)
Salmonella spp.	cfu/25gMax	Absent	Not detected	ISO 6579-1:2017
Listeria monocytogenes	cfu/gMax	1.0×10^2	Not detected	ISO 11290-2:2017

Prepared By


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Approved By


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Page

1/1