

TEST REPORT No. 2314074

Monopoli, 22/06/2023

Sample reception 12/06/2023

Analysis starting date 12/06/2023

CUSTOMER

ALONSO OLIVE OIL
Tucapel 296, 2 piso
Ñuñoa, Santiago

Description declared:

Delivered by: DHL AWB: 1182302052

Sample description: Aceite de Oliva Extra Virgen - ALONSO - Monovarietal KORONEIKI - Cosecha 2023.

Seal: Hermetically sealed original dark glass bottle

Sampling procedure: By the Customer

Quantity of sample: 2 x 250 ml

Return of sample: No

TEST NAME	RESULT	U	U.M.	LOD	LOQ	R %	METHOD	LIMIT VALUE	LEGE ND	FINISHING DATE OF ANALYSIS	SEAT
ORGANOLEPTIC CHARACTERISTICS											
APPEARANCE (*)	Limpid Yellow/Green Typical Typical Absent						220-CH-3			19/06/2023	A
COLOUR (*)							220-CH-3			19/06/2023	A
SMELL (*)							220-CH-3			19/06/2023	A
TASTE (*)							220-CH-3			19/06/2023	A
DEFECTS (*)							220-CH-3			19/06/2023	A
ORGANOLEPTIC EVALUATION											
Mediana del difetto/Fehlermedian/Defects median (*)	0						35885	0,0 ⁽¹⁾		19/06/2023	LE
CVr % (*)	0						35885	20 ⁽¹⁾		19/06/2023	LE
Mediana del fruttato/Fruchtigkeits-median/Fruity median (*)	3,4						35885	>0,0 ⁽¹⁾		19/06/2023	LE
Mediana dell'amaro/Bitter-median (*)	4,0						35885			19/06/2023	LE
Mediana del piccante/Scharf-median/Pungent median (*)	4,0						35885			19/06/2023	LE
FREE FATTY ACIDS	0,19	±0,02	% Oleic Acid				21-C	0,80 ⁽¹⁾	M21	13/06/2023	A
MOISTURE AND VOLATILE MATTER	0,08	±0,01	%				06B-C	0,2 ⁽¹⁾		15/06/2023	A
INSOLUBLE IMPURITIES	0,03	±0,01	% by weight				16B-C	0,10 ⁽¹⁾		15/06/2023	A
PEROXIDE VALUE	6,2	±0,3	meq O2/kg oil				02B2-C	20,0 ⁽¹⁾		13/06/2023	A
SPECTROPHOTOMETRIC INVESTIGATION IN THE ULTRAVIOLET											
K232	1,75	±0,02					10B-C	2,50 ⁽¹⁾		13/06/2023	A
K268	0,161	±0,002					10B-C	0,22 ⁽¹⁾		13/06/2023	A
Delta K	-0,007	±0,002					10B-C	0,01 ⁽¹⁾		13/06/2023	A
SPECTROPHOTOMETRIC INVESTIGATION IN THE ULTRAVIOLET											
K232	1,85	±0,02					10B-C	2,50 ⁽¹⁾		13/06/2023	A
K270	0,177	±0,002					10B-C	0,22 ⁽¹⁾		13/06/2023	A
Delta K	-0,007	±0,002					10B-C	0,01 ⁽¹⁾	11C	13/06/2023	A
ALKYL ESTERS (Fatty Acids Methyl and Ethyl Esters)											
Total methyl esters	1	±1	mg/kg				31B-C			15/06/2023	A
Total ethyl esters	ND		mg/kg				31B-C	35 ⁽¹⁾		15/06/2023	A
Total methyl and ethyl esters	1	±1	mg/kg				31B-C			15/06/2023	A

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FATTY ACIDS METHYL ESTERS											
C12:0 - Lauric acid	ND		%				07B-C			14/06/2023	A
C14:0 - Myristic acid	0,01	±0,01	%				07B-C	0,03 ⁽¹⁾		14/06/2023	A
C16:0 - Palmitic acid	11,52	±0,64	%				07B-C	7,00;20,00 ⁽¹⁾		14/06/2023	A
C16:1 - Palmitoleic acid	0,60	±0,05	%				07B-C	0,30;3,50 ⁽¹⁾		14/06/2023	A
C17:0 - Heptadecanoic acid	0,04	±0,01	%				07B-C	0,40 ⁽¹⁾		14/06/2023	A
C17:1 - Heptadecenoic acid	0,06	±0,01	%				07B-C	0,60 ⁽¹⁾		14/06/2023	A
C18:0 - Stearic acid	3,00	±0,20	%				07B-C	0,50;5,00 ⁽¹⁾		14/06/2023	A
C18:1 - Oleic acid	76,36	±3,18	%				07B-C	55,00;85,00 ⁽¹⁾		14/06/2023	A
C18:2 - Linoleic acid	6,59	±0,40	%				07B-C	2,50;21,00 ⁽¹⁾		14/06/2023	A
C20:0 - Arachidic acid	0,50	±0,04	%				07B-C	0,60 ⁽¹⁾		14/06/2023	A
C18:3 - Linolenic acid	0,79	±0,07	%				07B-C	1,00 ⁽¹⁾		14/06/2023	A
C20:1 - Eicosenoic acid	0,30	±0,03	%				07B-C	0,50 ⁽¹⁾		14/06/2023	A
C22:0 - Behenic acid	0,17	±0,02	%				07B-C	0,20 ⁽¹⁾		14/06/2023	A
C22:1 - Erucic acid	ND		%				07B-C			14/06/2023	A
C24:0 - Lignoceric acid	0,06	±0,01	%				07B-C	0,20 ⁽¹⁾		14/06/2023	A
TRANS FATTY ACIDS CONTENT											
C18:1 - (Elaidinic)	0,02	±0,01	%				07B-C	0,05 ⁽¹⁾		14/06/2023	A
C18:2 + C18:3	0,02	±0,01	%				07B-C	0,05 ⁽¹⁾		14/06/2023	A
TRIGLYCERIDES WITH ECN42, in %											
L.L.L.	0,16		%				09B-C			14/06/2023	A
O.L.Ln	0,20		%				09B-C			14/06/2023	A
P.L.Ln	0,04		%				09B-C			14/06/2023	A
Sum ECN-42 HPLC	0,40		%				09B-C			14/06/2023	A
Theoretical ECN-42	0,35		%				09B-C			14/06/2023	A
Difference between actual and theoretical content of triacylglycerols with ECN42	0,05		%				09B-C	0,20 ⁽¹⁾		14/06/2023	A
2-GLYCERYL MONOPALMITATE	0,5	±0,1	%				08B-C		2P	16/06/2023	A
STEROLS AND TRITERPENE ALCOHOLS											
Cholesterol	0,1	±0,1	%		0,1		05B-C	0,5 ⁽¹⁾		13/06/2023	A
Brassicasterol	ND		%		0,1		05B-C	0,1 ⁽¹⁾		13/06/2023	A
24-Methylenecholesterol	0,2	±0,1	%		0,1		05B-C			13/06/2023	A
Campesterol	5,1	±0,1	%		0,1		05B-C	4,0 ⁽¹⁾	FL	13/06/2023	A
Campestanol	0,1	±0,1	%		0,1		05B-C			13/06/2023	A

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Stigmasterol	0,6	±0,1	%		0,1		05B-C			13/06/2023	A
Delta-7-Campesterol	ND		%		0,1		05B-C			13/06/2023	A
Delta-5,23-Stigmastadienol	ND		%		0,1		05B-C			13/06/2023	A
Clerosterol	1,1	±0,1	%		0,1		05B-C			13/06/2023	A
Betasitosterol	83,4	±1,0	%		0,1		05B-C			13/06/2023	A
Sitostanol	1,0	±0,1	%		0,1		05B-C			13/06/2023	A
Delta-5-Avenasterol	7,0	±0,1	%		0,1		05B-C			13/06/2023	A
Delta-5,24-Stigmastadienol	0,6	±0,1	%		0,1		05B-C			13/06/2023	A
Delta-7-Stigmastenol	0,3	±0,1	%		0,1		05B-C	0,5 ⁽¹⁾		13/06/2023	A
Delta-7-Avenasterol	0,4	±0,2	%		0,1		05B-C			13/06/2023	A
TOTAL BETASITOSTEROL	93,2	±0,3	%		0,1		05B-C	≥93,0 ⁽¹⁾		13/06/2023	A
TOTAL STEROLS CONTENT	1104	±64	mg/kg		5		05B-C	≥1000 ⁽¹⁾		13/06/2023	A
ERYTHRODIOL AND UVAOL	4,1	±0,6	%				05B-C	4,5 ⁽¹⁾		13/06/2023	A
WAXES (C42+C44+C46)	31,1	±1,1	mg/kg		5		03B-C	150 ⁽¹⁾		15/06/2023	A
STIGMASTADIENES	< 0,01		mg/kg		0,01		14B-C	0,05 ⁽¹⁾		15/06/2023	A
BIOPHENOLS											
Total Polyphenols (as tyrosol)	606		mg/kg		30		26B-C			16/06/2023	A
Hydroxy-tyrosol (3,4 DHPEA) (*)	19		mg/kg		3		26B-C			16/06/2023	A
Tyrosol (p, HPEA) (*)	6		mg/kg		3		26B-C			16/06/2023	A
Dialdehydic form of decarboxymethyl oleuropein aglycon (3,4 DHPEH-EDA) (*)	121		mg/kg		3		26B-C			16/06/2023	A
Dialdehydic form of decarboxymethyl ligstroside aglycon (p, HPEA-EDA) (*)	55		mg/kg		3		26B-C			16/06/2023	A
Lignans (*)	49		mg/kg		3		26B-C			16/06/2023	A
Oleuropein aglycon (3,4 DHPEA-EA) (*)	169		mg/kg		3		26B-C			16/06/2023	A
Ligstroside aglycon (p, HPEA-EA) (*)	44		mg/kg		3		26B-C			16/06/2023	A
SAPONIFICATION VALUE (*)	192,4		mg di KOH/g				13263-CH-9			15/06/2023	A
REFRACTIVE INDEX nD 25°C	1,4670	±0,0008					13262-CH-9			15/06/2023	A
ARSENIC	ND		mg/kg		0,01		MI_L13			15/06/2023	B
IRON	ND		mg/kg		0,1		28-C	3,0 ⁽¹⁾		15/06/2023	B
LEAD	ND		mg/kg		0,01		27-C			15/06/2023	B
COPPER	ND		mg/kg		0,02		28-C	0,1 ⁽¹⁾		15/06/2023	B

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STATEMENT OF CONFORMITY:

The Campesterol value resulted higher than the threshold limit value demanded for EXTRA VIRGIN OLIVE OIL by International Olive Oil Council Trade Standard COI/T.15/NC No 3/Rev. 19, November 2022

References for limits⁽¹⁾ COI/T.15/NC No 3/Rev. 19 November 2022

Analysis performed at:

A: Via Vecchia Ospedale, 11 - 70043 Monopoli BA)

LE: Test carried out at another testing laboratory

B: Via San Donato, 25 - 70043 Monopoli BA)

*: TEST NOT ACCREDITED BY ACCREDIA

Legend

ND: It indicates that the analyte results as "Not Detected" through the analysis performed with the specified method or "<LOD" where it is indicated

M21 = The cold solvent method using indicator has been applied for the free acidity determination except for the hard fats for which the hot ethanol method using indicator method has been used.

11C = In accordance with the official method, result should be considered as absolute value.

2P = Content of 2-glycerol monopalmitate:

if C:16:0 <= 14,0%; 2P <= 0,9%

if C:16:0 > 14,0%, 2P <= 1,0%

FL = Outlier

U: Extended uncertainty, expressed in the same units of measurement as the result, calculated by using a coverage factor K = 2 (unless otherwise specified) for assuring a confidence level close to 95%; otherwise, for microbiological tests and for airborne asbestos fibers tests, a confidence interval at the 95% probability level. For microbiological tests, a result derived from a count on the sample, on the initial suspension or on the first dilution between 4 and 9 (included) is considered "estimated". Food: for quantitative microbiological tests, the expanded measurement uncertainty is reported, estimated according to ISO 19036 as standard uncertainty multiplied by a coverage factor k = 2 and an approximate level of confidence of 95%. The combined standard uncertainty is assumed to be equal to the intra-laboratory reproducibility standard deviation. Water: for quantitative microbiological tests, the confidence interval of the result calculated as indicated in the ISO 8199 standard is reported. LOD: Limit of Detection, defined as the lowest concentration of the analyte in a sample that can be detected, but not quantified, under the specified conditions; expressed in the test report as "ND". LOQ: Limit of Quantitation, the lowest concentration of the analyte in a sample that can be determined, with acceptable precision and accuracy. R%: Average percentage recovery (it is not used to correct the analytical data on pesticides, metals and mycotoxins). En: Revision "n" of the Test Report which identifies the Amendment. The amendment replaces and cancels all previous versions of the Test Report.

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Methods:

02B2-C = ISO 3960:2017
03B-C = AOCS Ch 8-02:2017
05B-C = COI/ T.20/ Doc. No 30/Rev. 2 2017
06B-C = ISO 662:2016
07B-C = AOCS Ce 2-66 2017 + AOCS Ce 1a-13 2017
08B-C = COI/T.20/Doc. n. 23/Rev.1 2017
09B-C = COI/T.20 Doc. n. 20/Rev.4 2017
10B-C = AOCS Ch 5-91:2017
13262-CH-9 = ISO 6320:2017
13263-CH-9 = ISO 3657:2002
14B-C = ISO 15788-1:1999
16B-C = ISO 663:2017
21-C = ISO 660:2020
220-CH-3 = Visivo, Olfattivo, Tattile - Visual, Olfactory, Tactile
26B-C = COI/T.20/Doc. n. 29/Rev.2 2022
27-C = UNI EN ISO 12193:2004
28-C = UNI EN ISO 8294:1999
31B-C = COI/T.20/Doc. n. 28/Rev.2 2017
35885 = COI/T.20/Doc. n. 15/Rev. 10 2018
MI_C13 = MI/C13 r01 2021

Chemist

dr. Arianna Luisi



"Chemiservice" General Manager

dr. Valentina Cardone



The description of the sample and/or any other references to the same are provided by the client. Analytical results shown in this test report refer uniquely to the sample tested. Where the sample has been provided by the customer, the results is referred to the sample as received. A partial reproduction of this document should be authorized by written approval from our Laboratory. If a statement of conformity with a specification or standard is reported, unless the decision norm is already contained in this specification or standard, or except for specific requests of the Customer, the Laboratory adopts as decision rule the direct comparison with the limit without considering measurement uncertainty. All the documents useful for the traceability of analytical results is kept for four years in our archive.

Test report digitally signed and valid to all intents and purposes of law within the meaning of applicable legislation.

END OF TEST REPORT