

TRANSLATION OF CHEMICAL ANALYSIS PERFORMED AT ISTITUTO DI ISTRUZIONE SUPERIORE "TULLIANO", Chemical Section "Nicola Parravano" IN ARPINO

CERTIFICATE N. 011117 issued: November 22, 2017

Sample: olive oil year 2017*

Category declared by the producer: extra virgin*

Sample code: -*

Cultivar: moraiolo, itrana, frantoio *

Producer: Azienda Agricola "Colle Fraioli", via Borgo Murata, 230, Arce (FR)*

Customer: Azienda Agricola "Colle Fraioli", via Borgo Murata, 230, Arce (FR)*

Sampled on: November 14, 2017 by: producer

Delivered to our lab: November 14, 2017

Date of analysis: November 14 – 22, 2017

Carried out by: classes V A and V E

Type of analysis: nutrition label of extra virgin olive oil EU regulation n. 1169/2011

Chemical analysis methods: Mahler bomb calorimeter, unsaponifiable fraction, Lugol's and Fehling's solutions, oil reg. CEE 2568_1991 rev of 2008, Kjeldahl Nitrogen.

Parameters	unit of measure	Analytical result per 100 g product	Analytical Result per serving (15 ml or 13.7 g)
Calories	kJ	3641	499
Calories	kcal Food calories	886	121
Fats	g	98.4	13.5
Carbohydrates	g	0.0	0.0
Sugar	g	0.0	0.0
Protein	g	0.0	0.0
Fatty acid composition			
Saturated Fat	g/100 g	16.75	-
C16:0 palmitic acid	g/100 g	14.08	-
C18:0 stearic acid	g/100 g	2.42	-
C20:0 arachidic acid	g/100 g	0.25	-

Monounsaturated Fat	g/100 g	75.35	-
C16:1 palmitoleic acid	g/100 g	1.19	-
C18:1 oleic acid omega-9	g/100 g	74.16	-
Polyunsaturated Fat	g/100 g	7.89	-
C18:2 linoleic acid Omega-6	g/100 g	7.25	-
C18:3 linolenic acid Omega-3	g/100 g	0.64	-

Type of analysis: verifying whether olive oil samples are consistent with the category declared according to CEE regulation 2568_1991 rev. 2013

Determination of polyphenols – UV/VIS molecular spectrophotometry, Folin-Ciocalteu method

Parameters	Unit of measure	Analytical result	Extra virgin olive oil characteristics	Virgin olive oil characteristics
Acidity	% oleic acid	0.1	≤0.8	≤2.0
Peroxide value	meq O ₂ /kg	4	≤20	≤20
K ₂₃₂	E1%1cm	1.68	≤2.50	≤2.60
K ₂₆₄	E1%1cm	0.091	-	-
K ₂₆₈	E1%1cm	0.080	≤0.22	≤0.25
K ₂₇₂	E1%1cm	0.078	-	-
Delta K	-	0.00	≤0.01	≤0.01
Polyphenols	mg/kg of tyrosol	481	-	-

The analysis results refer to the sample analyzed.

*data declared by the producer

Note: The olive oil sample analyzed complies with the declared extra virgin category as regards the chemical parameters required and analyzed.