### ANNEX I

### 'B. Purity characteristics

	Fatty acid composition <sup>(1)</sup>							Total	Stigmasta	ΔECN42	2-glyceryl
	Myrist ic (%)	Linolenic (%)	Arachidic	Eicosenoic (%)	Behenic (%)	Lignoceric (%)	(%)	linoleic	- dienes (mg/kg) <sup>(3)</sup>		monopalmitate (%)
Extra virgin olive oil		≤ 1,00 <sup>(2)</sup>	≤ 0,60	≤ 0,50	≤ 0,20	≤ 0,20	≤ 0,05	≤ 0,05	≤ 0,05	≤  0,20	≤ 0,9 if total palmitic acid % ≤ 14,00 % ≤ 1,0 if total palmitic acid % > 14,00 %
2. Virgin olive oil	≤ 0,03	≤ 1,00 <sup>(2)</sup>	≤ 0,60	≤ 0,50	≤ 0,20	≤ 0,20	≤ 0,05	≤ 0,05	≤ 0,05	≤  0,20	≤ 0.9 if total palmitic acid % ≤ 14.00 % ≤ 1.0 if total palmitic acid % > 14.00 %
3.Lampante olive oil	≤ 0,03	≤ 1,00	≤ 0,60	≤ 0,50	≤ 0,20	≤ 0,20	≤ 0,10	≤ 0,10	≤ 0,50	≤  0,30	≤ 0,9 if total palmitic acid % ≤ 14,00 % ≤ 1,1 if total palmitic acid % > 14,00 %
4. Refined olive oil	≤ 0,03	≤ 1,00	≤ 0,60	≤ 0,50	≤ 0,20	≤ 0,20	≤ 0,20	≤ 0,30		≤ 0,30	≤ 0,9 if total palmitic acid % ≤ 14,00 % ≤ 1.1 if total palmitic acid% > 14.00%

5. Olive oil composed of refined olive oil and virgin olive oils		≤ 1,00	≤ 0,60	≤ 0,50	≤ 0,20	≤ 0,20	≤ 0,20	≤ 0,30		≤  0,30	≤ 0,9 if total palmitic acid% ≤ 14,00% ≤ 1,0 if total palmitic acid% > 14,00%
6. Crude olive- pomace oil	≤ 0,03	≤ 1,00	≤ 0,60	≤ 0,50	≤ 0,30	≤ 0,20	≤ 0,20	≤ 0,10	_	≤  0,60	≤ 1,4
7. Refined olive- pomace oil	≤ 0,03	≤ 1,00	≤ 0,60	≤ 0,50	≤ 0,30	≤ 0,20	≤ 0,40	≤ 0,35	_	≤  0,50	≤ 1,4
8. Olive- pomace oil	≤ 0,03	≤ 1,00	≤ 0,60	≤ 0,50	≤ 0,30	≤ 0,20	≤ 0,40	≤ 0,35	_	≤  0,50	≤ 1,2

<sup>(4)</sup> Other fatty acids content (%): palmitic: 7,00-20,00; palmitoleic: 0,30-3,50; heptadecanoic: ≤ 0,40; heptadecenoic ≤ 0,60; stearic: 0,50-5,00; oleic: 55,00-85,00; linoleic: 2,50-21,00.

<sup>(5)</sup> When the linolenic acid is more than 1,00 but less than or equal 1,40, the ratio apparent β-sitosterol/campesterol has to be greater than or equal to 24.

<sup>(6)</sup> Total isomers which could (or could not) be separated by capillary column.

Table B continued

Category	Sterols com	position		Erythrodiol	Waxes (mg/kg)(**)				
	Chole- sterol (%)	Brassica -sterol (%)	Campe- sterol(%)	Stigmasterol (%)	- I - I		sterols (mg/kg)	and uvaol (%) <sup>(**)</sup>	
Extra virgin olive oil	≤ 0,5	≤ 0,1	≤ 4,0 <sup>(7)</sup>	< Camp.	≥ 93,0	≤ 0,5 <sup>(9)</sup>	≥ 1 000	≤ 4,5	C42 + C44 + C46 ≤ 150
2. Virgin olive oil	≤ 0,5	≤ 0,1	≤ 4,0 <sup>(7)</sup>	< Camp.	≥ 93,0	≤ 0,5 <sup>(9)</sup>	≥ 1 000	≤ 4,5	C42 + C44 + C46 ≤ 150
3. Lampante olive oil	≤ 0,5	≤ 0,1	≤ 4,0		≥ 93,0	≤ 0,5 <sup>(10)</sup>	≥ 1 000	≤ 4,5 <sup>(13)</sup>	C40 + C42 + C44 + C46 \le 300 <sup>(13)</sup>
4. Refined olive oil	≤ 0,5	≤ 0,1	≤ 4,0	< Camp.	≥ 93,0	≤ 0,5 <sup>(11)</sup>	≥ 1 000	≤ 4,5 <sup>(14)</sup>	C40 + C42 + C44 + C46 ≤ 350
5. Olive oil composed of refined olive oil and virgin olive oils		≤ 0,1	≤ 4,0	< Camp.	≥93,0	≤ 0,5 <sup>(11)</sup>	≥ 1 000	≤ 4,5	C40 + C42 + C44 + C46 \le 350
6. Crude olive-pomace oil	≤ 0,5	≤ 0,2	≤ 4,0		≥ 93,0	$\leq 0.5^{(12)}$	≥ 2 500	> 4,5 <sup>(15)</sup>	C40 + C42 + C44 + C46 > 350 <sup>(15)</sup>
7. Refined olive-pomace oil	≤ 0,5	≤ 0,2	≤ 4,0	< Camp.	≥ 93,0	≤ 0,5 <sup>(12)</sup>	≥ 1 800	> 4,5	C40 + C42 + C44 + C46 > 350
8. Olive- pomace oil	≤ 0,5	≤ 0,2	≤ 4,0	< Camp.	≥ 93,0	≤ 0,5 <sup>(12)</sup>	≥ 1 600	> 4,5	C40 + C42 + C44 + C46 > 350

<sup>[7]</sup> An extra virgin or virgin olive oil that exhibits  $4.0 \le$  campesterol  $\% \le 4.5$  is authentic provided that stigmasterol  $\le 1.4\%$ ,  $\triangle$ -7-stigmasterol

- $\leq$  0,3% and all other parameters lie within the limits fixed in this Regulation.
- (8) Apparent  $\beta$ -sitosterol:  $\Delta$ -5,23-stigmastadienol+clerosterol+  $\beta$ -sitosterol+sitostanol+  $\Delta$ -5-avenasterol+  $\Delta$ -5,24-stigmastadienol.
- (9) An extra virgin or virgin olive oil that exhibits 0,5 < Δ-7-stigmastenol % ≤ 0,8 is authentic provided that apparent β-sitosterol/campesterol ≥ 28, ΔECN42 ≤ | 0.10 | and all other parameters lie within the limits fixed in this Regulation.
- (10) A lampante olive oil that exhibits 0,5 < Δ-7-stigmastenol % ≤ 0,8 is authentic provided that apparent β-sitosterol/campesterol ≥ 28, ΔECN42 ≤ | 0,15 |, stigmastadiene ≤ 0,30 and all other parameters lie within the limits fixed in this Regulation.</p>
- (11) A refined olive oil or olive oil composed of refined olive oil and virgin olive oils that exhibits 0,5 < Δ-7-stigmastenol % ≤ 0,8 is authentic provided that apparent β-sitosterol/campesterol ≥ 28, ΔECN42≤ | 0,15 | and all other parameters lie within the limits fixed in this Regulation.</p>
- (12) A crude olive-pomace oil or refined olive-pomace oil or olive-pomace oil that exhibits 0,5 < Δ-7-stigmasterol % ≤ 0,8 is authentic provided that stigmasterol ≤1,4%, ΔECN42 ≤ | 0,40 | and all other parameters lie within the limits fixed in this Regulation.
- (13) Oils with a wax content of between 300 mg/kg and 350 mg/kg are considered to be lampante olive oil if the total aliphatic alcohol content is less than or equal to 350 mg/kg or if the erythrodiol and uvaol content is less than or equal to 3,5 %.
- (14) Oils with an erythrodiol + uvaol content of between 4,5 and 6 % must have an erythrodiol content of less than or equal to 75 mg/kg.
- (15) Oils with a wax content of between 300 mg/kg and 350 mg/kg are considered to be crude olive-pomace oil if the total aliphatic alcohol content is above 350 mg/kg and if the erythrodiol and uvaol content is greater than 3,5 %.

#### Notes:

- (a) The results of the analyses must be expressed to the same number of decimal places as used for each characteristic. The last digit must be increased by one unit if the following digit is greater than 4.
- (b) If just a single characteristic does not match the values stated, the category of an oil shall be changed or the oil shall be declared non-compliant for the purposes of this Regulation.

- (c) For lampante olive oil, both quality characteristics marked with an asterisk (\*) may differ simultaneously from the limits established for that category.
- (d) If a characteristic is marked with two asterisks (\*\*), this means that for crude olive-pomace oil, it is possible for both the relevant limits to be different from the stated values at the same time. For olive-pomace oil and refined olive-pomace oil, one of the relevant limits may be different from the stated values.'