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(Acts whose publication is obligatory)

COMMISSION REGULATION (EC) No 656/95

of 28 March 1995

amending Regulation (EEC) No 2568/91 on the characteristics of olive oil and olive-residue oil and on the relevant methods of analysis and Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation No 136/66/EEC of 22 September 1966 on the establishment of a common organization of the market in oils and fats [1], as last amended by Regulation (EC) No 3179/93 [2], and in particular Article 35a thereof,

Having regard to Council Regulation (EEC) No 2658/87 of 23 July 1987 on the tariff and statistical nomenclature and on the Common Customs Tariff [3], as last amended by Commission Regulation (EC) No 3330/94 [4], and in particular Article 9 thereof,

Whereas Commission Regulation (EEC) No 2568/91 [5], as last amended by Regulation (EC) No 2632/94 [6], defines the characteristics of olive oil and olive-residue oil and the relevant methods of analysis; whereas Regulation (EEC) No 2568/91 also amends Additional Notes 2, 3 and 4 to Chapter 15 of the combined nomenclature contained in Annex I to Regulation (EEC) No 2658/87;

Whereas, because of developments in research, the characteristics of olive oil as defined in Regulation (EEC) No 2568/91 should be amended so as better to ensure the purity of the products marketed and the relevant method of analysis should be defined;

Whereas experience indicates that certain adjustments to the method of determining trilinolein content are necessary; whereas, in addition, in order to continue the process of harmonization with the international standards laid down by the International Olive Oil Council, certain limits concerning the characteristics of olive oil and olive-residue oil should be adjusted;

Whereas the changes to the characteristics of olive oil referred to above require the amendment of Additional Notes 2, 3 and 4 to Chapter 15 of the combined nomenclature;

Whereas, to allow a period of adjustment to the new standards and the introduction of the means needed to apply them and to avoid disturbance to trade, the entry into force of this Regulation should be deferred for approximately two months and provision should be made for oil packaged prior to its entry into force to be disposed of during a limited period;

Whereas, therefore, Regulations (EEC) No 2658/87 and (EEC) No 2568/91, Annex XIV to which amended the said Additional Notes, should be amended;

Whereas the measures provided for in this Regulation are in accordance with the opinion of the Management Committee for Oils and Fats,

HAS ADOPTED THIS REGULATION:

Article 1

Regulation (EEC) No 2568/91 is amended as follows:

1. in Article 2, the following indent is added:

   '— for the determination of stigmastadienes, the method set out in Annex XVII.';

2. the Annexes are amended in accordance with Annex I hereto.

(1) OJ No 172, 30. 9. 1966, p. 3025/66.
(2) OJ No L 285, 20. 11. 1993, p. 9.
(3) OJ No L 256, 7. 9. 1987, p. 1.
(4) OJ No L 350, 31. 12. 1994, p. 51.
(5) OJ No L 248, 5. 9. 1991, p. 1.
(6) OJ No L 280, 29. 10. 1994, p. 43.

Article 2

Additional Notes 2, 3 and 4 to Chapter 15 of the combined nomenclature contained in Annex I to Regulation (EEC) No 2658/87 are replaced by the text set out in Annex II hereto.

Article 3

This Regulation shall enter into force on the 60th day following its publication in the *Official Journal of the European Communities.*

It shall not apply to olive oil and olive-residue oil packaged prior to the date of its entry into force and marketed up to the end of the 10th month following the said entry into force.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 28 March 1995.

For the Commission

Franz FISCHLER

Member of the Commission

ANNEX I

1. In the the summary of the Annexes to Regulation (EEC) No 2568/91, the following title is added:

'Annex XVII: Determination of stigmastadienes in vegetable oils ..... 84'.

2. Annex I is replaced by the following tables and text:

'ANNEX I

CHARACTERISTICS OF OLIVE OIL

Type	Acidity % meq	Peroxide value meq O_2/kg	Halogenated solvents mg/kg (1)	Waxes mg/kg	Saturated fatty acids in position 2 triglyceride %	Stigma stadienes (2) mg/kg	Erytrodiol + uvaol %	Trilinolein %	Cholesterol %	Brassicasterol %	Campesterol %	Stigmasterol %	Betasitosterol (3) %	Delta-7-Stigmastenol %	Total sterols mg/kg
1. Extra virgin olive oil	M 1,0	M 20	M 0,20	M 250	M 1,3	M 0,15	M 4,5	M 0,5	M 0,5	M 0,1	M 4,0	< Camp.	m 93,0	M 0,5	m 1000
2. Virgin olive oil	M 2,0	M 20	M 0,20	M 250	M 1,3	M 0,15	M 4,5	M 0,5	M 0,5	M 0,1	M 4,0	< Camp.	m 93,0	M 0,5	m 1000
3. Ordinary olive oil	M 3,3	M 20	M 0,20	M 250	M 1,3	M 0,15	M 4,5	M 0,5	M 0,5	M 0,1	M 4,0	< Camp.	m 93,0	M 0,5	m 1000
4. Virgin lampante olive oil	m 3,3	m 20	m 0,20	M 350	M 1,3	M 0,50	M 4,5	M 0,5	M 0,5	M 0,1	M 4,0	—	m 93,0	M 0,5	m 1000
5. Refined olive oil	M 0,5	M 5	M 0,20	M 350	M 1,5		M 4,5	M 0,5	M 0,5	M 0,1	M 4,0	< Camp.	m 93,0	M 0,5	m 1000
6. Olive oil	M 1,5	M 15	M 0,20	M 350	M 1,5		M 4,5	M 0,5	M 0,5	M 0,1	M 4,0	< Camp.	m 93,0	M 0,5	m 1000
7. Crude olive-residue oil	m 2,0	—	—	—	M 1,8		m 12	M 0,7	M 0,5	M 0,1	M 4,0	—	m 93,0	M 0,5	m 2500
8. Refined olive-residue oil	M 0,5	M 5	M 0,20	—	M 2,0		m 12	M 0,6	M 0,5	M 0,1	M 4,0	< Camp.	m 93,0	M 0,5	m 1800
9. Olive residue oil	M 1,5	M 15	M 0,20	> 350	M 2,0		> 4,5	M 0,6	M 0,5	M 0,1	M 4,0	< Camp.	m 93,0	M 0,5	m 1600

M = maximum, m = minimum.

(1) Overall upper limit for compounds detected by electron capture detector. For components detected individually the upper limit is 0,10 mg/kg.

(2) Sum of isomers that could be (or not) separated by capillary colum.

(3) Delta-5-23-stigmastadienol + clerosterol + sitosterol + sitostanol + delta-5-avenasterol + delta-5-24 stigmastadienol.

Note:

An oil is to be rejected if any one of the characteristics lies outside the limit laid down.

Type	Acidic composition						Sum (of the) transoleic isomers	Sum (of the) trans-olinoleic and trans-linolenic isomers %	K_{232}	K_{270}	K_{270} with aluminium oxide	Delta-K	Panel test
	Myristic %	Linolenic %	Arachic %	Eicosenoic %	Behenic %	Lignoceric %							
1. Extra virgin olive oil	M 0,05	M 0,9	M 0,6	M 0,4	M 0,2	M 0,2	M 0,05	M 0,05	M 2,50	M 0,20	M 0,10	M 0,01	m 6,5
2. Virgin olive oil	M 0,05	M 0,9	M 0,6	M 0,4	M 0,2	M 0,2	M 0,05	M 0,05	M 2,60	M 0,25	M 0,10	M 0,01	m 5,5
3. Ordinary olive oil	M 0,05	M 0,9	M 0,6	M 0,4	M 0,2	M 0,2	M 0,05	M 0,05	M 2,60	M 0,25	M 0,10	M 0,01	m 3,5
4. Virgin lampante olive oil	M 0,05	M 0,9	M 0,6	M 0,4	M 0,2	M 0,2	M 0,10	M 0,10	M 3,70	M 0,25	M 0,11	—	< 3,5
5. Refined olive oil	M 0,05	M 0,9	M 0,6	M 0,4	M 0,2	M 0,2	M 0,20	M 0,30	M 3,40	M 1,20	—	M 0,16	—
6. Olive oil	M 0,05	M 0,9	M 0,6	M 0,4	M 0,2	M 0,2	M 0,20	M 0,30	M 3,30	M 1,00	—	M 0,13	—
7. Crude olive-residue oil	M 0,05	M 0,9	M 0,6	M 0,4	M 0,3	M 0,2	M 0,20	M 0,10	—	—	—	—	—
8. Refined olive-residue oil	M 0,05	M 0,9	M 0,6	M 0,4	M 0,3	M 0,2	M 0,42	M 0,35	M 5,50	M 2,50	—	M 0,25	—
9. Olive-residue oil	M 0,05	M 0,9	M 0,6	M 0,4	M 0,3	M 0,2	M 0,20	M 0,35	M 5,30	M 2,00	—	M 0,20	—

M = maximum, m = minimum.

Note:

An oil is to be rejected if any one of the characteristics lies outside the limit laid down.

For the purpose of establishing purity, where K_{270} exceeds the limit for the category concerned, it shall be determined again after passage over alumina.'

3. Note 5 to Annex VIII is replaced by the following:

'Note 5:

In order to permit clear separation of the trilinolein peak from adjacent peaks or from any interfering substances, lampante virgin oil and crude olive-residue oil should be purified beforehand in accordance with the following method:

Absorb 200 µl of undiluted oil in a silica column for liquid-solid extraction (type SEP PAC silica cartridge-waters part. No 51900).

Elute the triglycerides with 20 ml anhydrous hexane for HPLC for not more than 20 seconds.

Dry the eluted product in a nitrogen flow and dissolve in isopropanol or actone (5 ml). Inject 10 to 20 µl into HPLC. The fatty acid composition of the oil must be checked to ensure that is the same before and after purification, within the accuracy range of the analysis method adopted.';

4. The following Annex XVII is added:

'ANNEX XVII:

METHOD FOR THE DETERMINATION OF STIGMASTADIENES IN VEGETABLE OILS

1. PURPOSE

Determination of stigmastadienes in vegetable oils containing low concentrations of these hydrocarbons, particularly in virgin olive oil and crude olive-residue oil.

2. SCOPE

The standard may be applied to all vegetable oils although measurements are reliable only where the content of these hydrocarbons lies between 0,01 and 4,0 mg/kg. The method is particularly suited to detecting the presence of refined vegetable oils (olive, olive residue, sunflower , palm, etc.) in virgin olive oil since refined oils contained stigmastadienes and virgin oils do not.

3. PRINCIPLE

Isolation of unsaponifiable matter. Separation of steroidal hydrocarbon fraction by column chromatography on silica gel and analysis by capillary gas chromatography.

4. APPARATUS

4.1. 250 ml flasks suitable for use with a reflux condenser.

4.2. Separating funnels of 500 ml capacity.

4.3. 100 ml round-bottom flasks.

4.4. Rotary evaporator.

4.5. Glass chromatography column (1,5 to 2,0 cm internal diameter by 50 cm length) with Teflon tap and a plug of glass wool fibre or sintered glass disc at the bottom. To prepare silica gel column, pour hexane into the chromatography column to a depth of approximately 5 cm and then fill with a slurry of silica gel in hexane (15 g in 40 ml) with the help of hexane portions. Allow to settle and finish settling by applying slight vibration. Add anhydrous sodium sulphate to a height of approximately 0,5 cm, finally elute the excess hexane.

4.6. Gas chromatograph with flame ionization detector, split or cold on-column injector and oven programmable to within ± 1 °C.

4.7. Fused silica capillary column for gas chromatography (0,25 or 0,32 mm internal diameter by 25 m length) coated with 5 %-phenylmethylsilicone phase, 0,25 mm film thickness.

Note 1:

Other columns of similar or lower polarity can be used.

4.8. Integrator-recorder with possibility of valley-valley integration mode.

4.9. 5 to 10 ml microsyringe for gas chromatography with cemented needle.

4.10. Electrical heating mantle or hot place.

5. REAGENTS

All reagents should be of analytical grade unless otherwise specified. The water used should be distilled water, or water of at least equivalent purity.

5.1. Hexane or mixture of alkanes of bp interval 65 to 70 °C, distilled with rectifying column.

Note 2:

The solvent must be distilled to remove impurities.

5.2. 96 v/v ethanol.

5.3. Anhydrous sodium sulphate.

5.4. Alcoholic potassium hydroxide solution at 10 %. Add 10 ml of water to 50 g potassium hydroxide, stir, and then dissolve the mixture in ethanol to 500 ml.

Note 3:

Alcoholic potash turns brown on standing. It should be prepared freshly each day and kept in well stoppered dark glass bottles.

5.5. Silica gel 60 for column chromatography, 70 to 230 mesh, (Merck, reference 7734 or similar).

Note 4:

Usually, silica gel can be used directly from the container without any treatment. However, some batches of silica gel may show low activity resulting in bad chromatographic separations. Under this circumstance, the silica gel should be treated in the following way: Activate the silica gel by heating for a minimum of four hours at 550 °C. After heating, place the silica gel in a desiccator while the gel is cooling and then transfer the silica gel to a stoppered flask. Add 2 % of water and shake until no lumps can be seen and the powder flows freely.

If batches of silica gel result in chromatograms with interfering peaks, the silica gel should be treated as above. An alternative could be the use of extra pure silica gel 60 (Merck, reference 7754).

5.6. Stock solution (200 ppm) of cholesta-3,5-diene (Sigma, 99 % purity) in hexane (10 mg in 50 ml).

5.7. Standard solution of cholesta-3,5-diene hexane at concentration of 20 ppm, obtained by dilution of above solution.

Note 5:

The solutions 5.6 and 5.7 are stable for a period of at least four months if kept at less than 4 °C.

5.8. Solution of n-nonacosane in hexane at concentration of approximately 100 ppm.

5.9. Carrier gas for chromatography: helium or hydrogen of 99,9990 % purity.

5.10. Auxiliary gases for flame ionization detector: hydrogen of 99,9990 % purity and purified air.

6. PROCEDURE

6.1. **Preparation of unsaponifiable matter**

6.1.1. Weigh 20 ± 0,1 g of oil into a 250-ml flask (4.1), add 1 ml of the standard solution of cholesta-3,5-diene (20μg) and 75 ml of alcoholic potash at 10 %, fit reflux condenser, and heat to slight boiling for 30 minutes, Remove the flask containing the sample from the heat and allow the solution to cool slightly (do not allow to cool completely as the sample will set). Add 100 ml of water and transfer the solution to a separating funnel (4.2) with the aid of 100 ml of hexane. Shake the mixture vigorously for 30 seconds and allow the separate.

Note 6:

If an emulsion is produced which does not rapidly disappear, add small quantities of ethanol.

6.1.2. Transfer the aqueous phase beneath to a second separating funnel and extract again with 100 ml of hexane. Once more run off the lower phase and wash the hexane extracts (combined in another separating funnel) three times with 100 ml each time of a mixture of ethanol-water (1 : 1) until neutral pH is reached.

6.1.3. Pass the hexane solution through anhydrous sodium sulphate (50 g), wash with 20 ml hexane and evaporate in a rotary evaporator at 30 °C under reduced pressure until dryness.

6.2. **Separation of steroidal hydrocarbon fraction**

6.2.1. Take the residue to the fractioning column with the aid of two 1-ml portions of hexane, run the sample onto the column by allowing the solution level to drop to the top of the sodium sulphate and start the chromatographic elution with hexane at a flow rate of 1 ml/min approximately. Discard the first 25 to 30 ml of eluate and then collect the following 40 ml fraction. After collection, transfer this fraction to a 100-ml round bottomed flask (4.3).

Note 7:

The first fraction contains saturated hydrocarbons (Figure 1 a) and the second fraction the steroidal ones. Further elution provides squalene and related compounds. To achieve a good separation between saturated and steroidal hydrocarbons, the optimization of fraction volumes is required. For this, the volume of the first fraction should be adjusted so that when the second fraction is analysed the peaks representing the saturated hydrocarbons are low (see Figure 1 c); if they do not appear but the intensity of the standard peak is low, the volume should be reduced. Anyway, a complete separation between the components of the first and second fractions is unnecessary; as there is no overlapping of peaks during GC analysis if GC conditions are ajusted as indicated in 6.3.1. The optimization of the volume of the second fraction if generally not needed as a good separation exists with the further components. Nevertheless, the presence of a large peak at approximately 1,5 minutes lower retention time than the standard is due to squalene, and it is indicative of a bad separation.

6.2.2. Evaporate the second fraction in a rotary evaporator at 30 °C under reduced pressure until dryness, and immediately dissolve the residue in 0,2 ml of hexane. Keep the solution in the refrigerator until analysis.

Note 8:

Residues 6.1.3 and 6.2.2 should not be kept dry and at room temperature. As soon as they are obtained, the solvent should be added and the solutions should be kept in the refrigerator.

6.3. **Gas chromatography**

6.3.1. Working conditions for split injection:

— injector temperature: 300 °C,

— detector temperature: 320 °C,

— integrator-recorder: the parameters for integration should be fixed so as to give a correct assessment of the areas. Valley-valley integration mode is recommended,

— sensitivity: about 16 times the minimum attenuation,

— amount of solution injected: 1 µl,

— oven programming temperatures: initial 235 °C for six minutes and then rising at 2 °C/minute up to 285 °C,

— injector with 1 : 15 flow divider,

— carrier: helium or hydrogen at about 120 kPa pressure.

These conditions may be adjusted in accordance with the characteristics of the chromatograph and the column to give chromatograms meeting the following requirements: internal standard peak within approximately five minutes of the time given in 6.3.2; the internal standard peak should be at least 80 % of the full scale.

The gas chromatographic system must be checked injecting a mixture of the stock solution of cholestadiene (5.6) and n-nonacosane solution (5.8). The cholesta-3,5-diene peak must appear before the n-nonacosane (Figure 1c); if it does not occur two actions can be undertaken: reduce the oven temperature and/or use a less polar column.

6.3.2. Peak identification

The internal standard peak appears at approximately 19 minutes and the 3,5-stigmastadiene at a relative retention time of approximately 1,29 (see Figure 1b). The 3,5-stigmastadiene occurs with small quantities of an isomer, and usually, both elute together as a single chromatographic peak. Nevertheless, if the column is too polar or shows a high resolving power, the isomer can appear as a small peak before and close to that of stigmasta-3,5-diene (Figure 2). In order to ensure that the stigmastadienes are eluted as one peak, it is advisable to replace the column by one which is either less polar or has a wider internal diameter.

Note 9:

Stigmastadienes for reference can be obtained from the analysis of a refined vegetable oil by using less amount of sample (1 to 2 g). Stigmastadienes originate a prominent and easily identifiable peak.

6.3.3. Quantitative analysis

The stigmastadienes content is determined according to the formula:

$$\text{mg/kg of stigmastadienes} = \frac{A_s \times M_c}{A_c \times M_o}$$

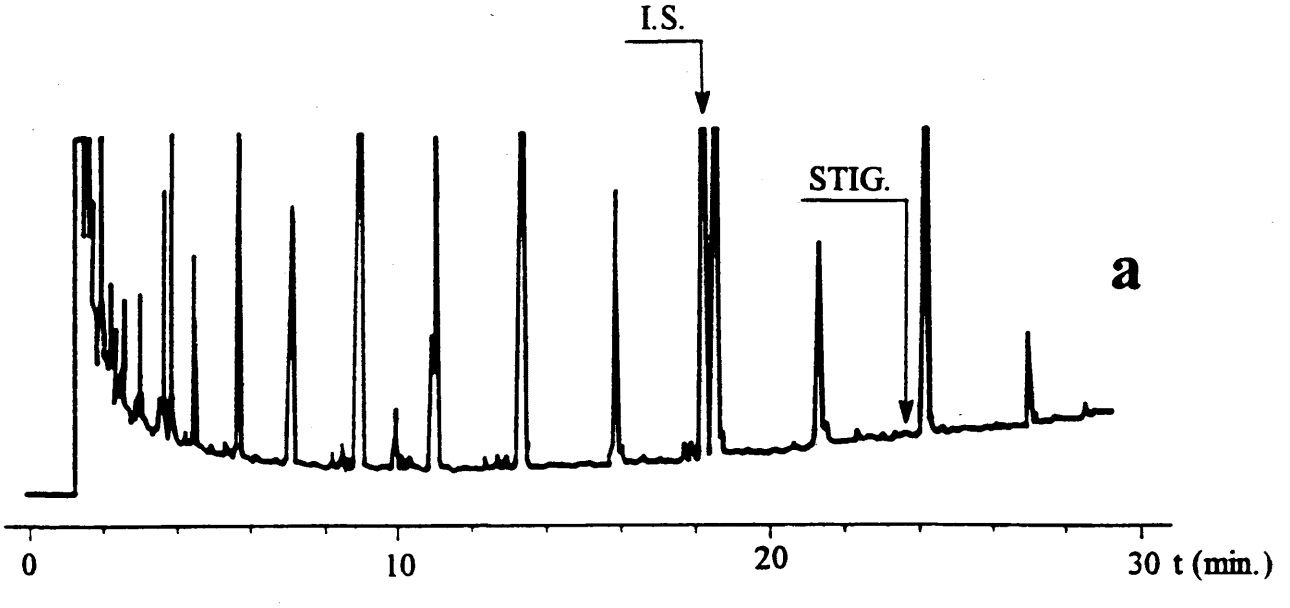
where: A_s = area of stigmastadienes peak (if the peak is resolved into two isomers, sum of areas of the two peaks),

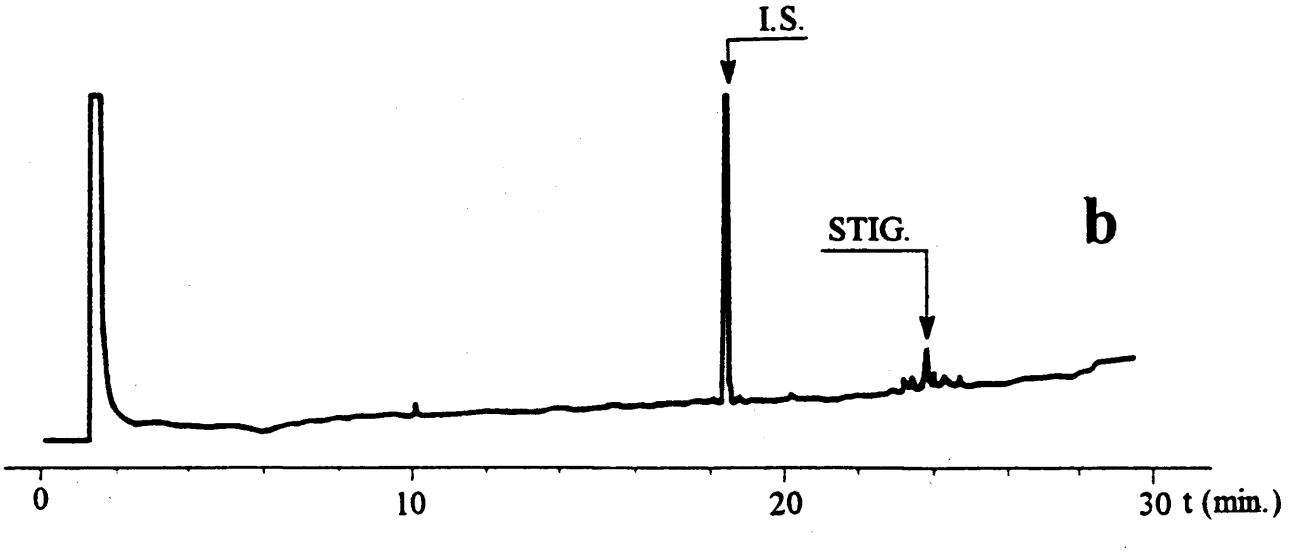
A_c = area of internal standard (cholestadiene),

M_c = mass of standard added, in micrograms,

M_o = mass of oil taken, in grams.

Detection limit: about 0,01 mg/kg.'





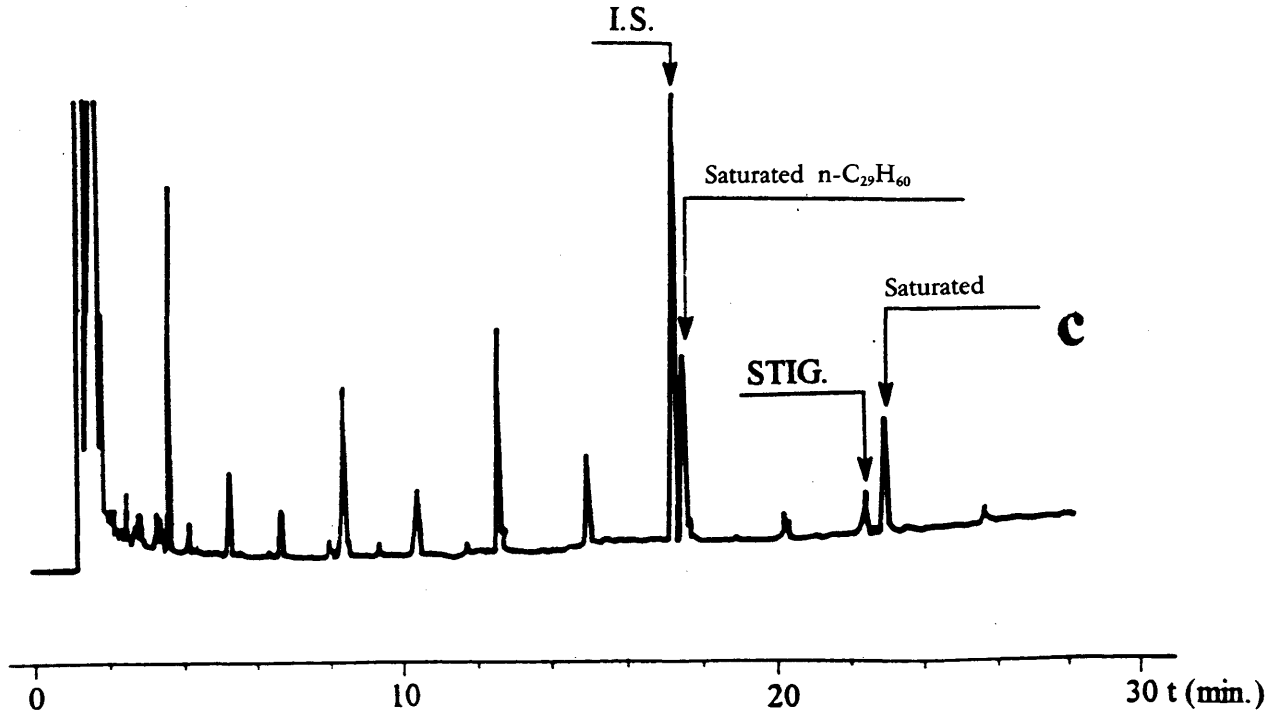


Figure 1

Gas chromatograms obtained from olive oil samples analysed on a fused silica capillary column (0,25 mm internal diameter by 25 m) coated with 5 %-phenylmethylsilicone, 0,25 µm film thickness.

(a) First fraction (30 ml) from a virgin oil, spiked with standard.

(b) Second fraction (40 ml) from an olive oil containing 0,10 mg/kg of stigmastadienes.

(c) Second fraction (40 ml) containing a small proportion of the first fraction.

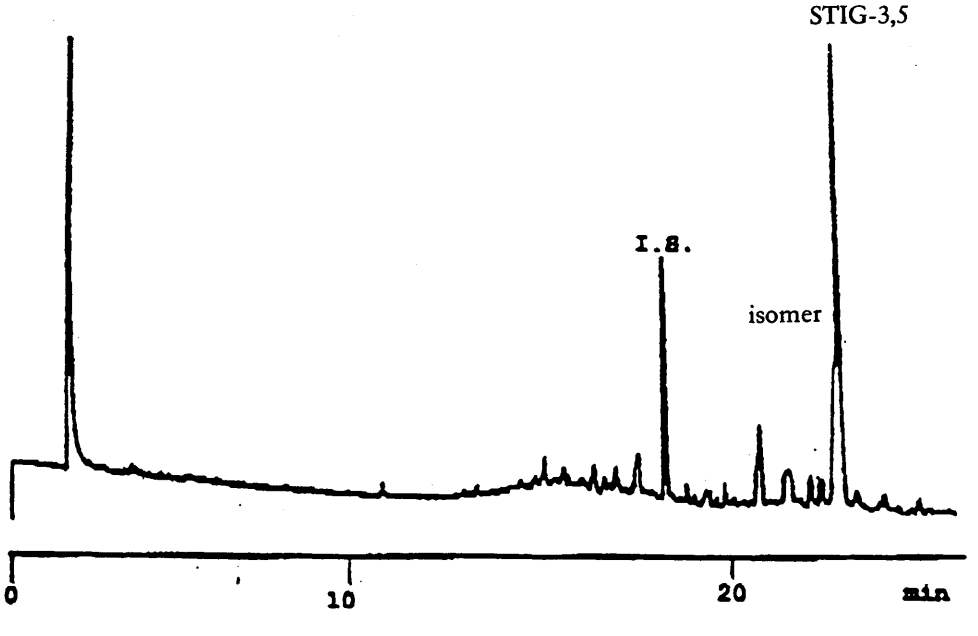


Figure 2

Gas chromatogram obtained from a refined olive oil sample analysed on DB-5 column showing the isomer of 3,5-stigmastadiene.

ANNEX II

'2. A. Heading Nos 1509 and 1510 cover only oils derived solely from the treatment of olives the analytical characteristics of the acidic and sterol composition of which are as follows :

Table I

Fatty acid composition as percentage of total fatty acids

Fatty acids	Percentages
Myristic acid	M 0,05
Linolenic acid	M 0,9
Arachidic acid	M 0,6
Eicosenoic acid	M 0,4
Behenic acid (1)	M 0,3
Lignoceric acid	M 0,2

M = maximum.

(1) M 0,2 for the oils of heading No 1509.

Table II

Sterol composition as percentage of total sterols

Sterols	Percentages
Cholesterol	M 0,5
Brassicasterol (1)	M 0,1
Campesterol	M 4,0
Stigmasterol (2)	< Campesterol
Betasitosterol (3)	m 93,0
Delta-7-stigmasterol	M 0,5

m = minimum.

M = maximum.

(1) M 0,2 until 31. 10. 1995.

(2) Condition not valid for virgin lampante oil (subheading 1509 10 10) and for olive-residue oil (subheading 1510 00 10).

(3) Delta-5,23-stigmastadienol + chlerosterol + betasitosterol + sitostanol + delta-5-avenasterol + delta-5,24-stigmostadienol.

Heading Nos 1509 and 1510 do not cover chemically altered olive oil (in particular re-esterified olive oil) and mixtures of olive oil with other oils. The presence of re-esterified olive oil or other oils is ascertained using the methods set out in Annexes V, VI, X A and X B to Regulation (EEC) No 2568/91.

B. Subheading 1509 10 covers only olive oils defined in Sections I and II obtained solely using mechanical or other physical means under conditions, and particularly thermal conditions, that do not lead to deterioration of the oil, and which have undergone no treatment other than washing, decantation, centrifugation or filtration. Oils derived from olives using solvents fall within heading No 1510.

I. For the purposes of subheading No 1509 10 10, 'virgin lampante olive oil' whatever its acidity, means olive oil with :

(a) a wax content not exceeding 350 mg/kg ;

(b) an erythrodiol and uvaol content not exceeding 4,5 % ;

(c) a content in saturated fatty acids at the 2-position in the triglycerides not exceeding 1,3 % ;

(d) the sum of transoleic isomers not exceeding 0,10 % and the sum of translinoleic + translinolenic isomers not exceeding 0,10 % ;

and

(e) one of the following characteristics :

1. a peroxide number not lower than 20 meq O_2/kg ;

2. a content in volatile halogenated solvents not lower than 0,20 mg/kg or not lower than 0,10 mg/kg for any one solvent ;

3. a K_{270} extinction coefficient not lower than 0,250 and, after treatment of the oil with activated alumina, not higher than 0,11. In point of fact some oils having a free fatty acid content, expressed as oleic acid, of more than 3,3 g per 100 g may, after passage through activated alumina, in accordance with the method set out in Annex IX to Regulation (EEC) No 2568/91, may have a K_{270} extinction coefficient higher than 0,10. If so, after neutralization and decolorization in the laboratory, in accordance with the method set out in Annex XIII to the aforementioned Regulation, they must have the following characteristics :

— a K_{270} extinction coefficient not higher than 1,20,

— an extinction coefficient variation (delta K) in the 270 nm region, higher than 0,01 but not higher than 0,16, i.e. :

$\Delta K = K_m - 0{,}5\ (K_{m-4} + K_{m+4})$

K_m = the extinction coefficient at the wavelength of the maximum of the absorption curve in the 270 nm region, and

K_{m-4} and K_{m+4} = the extinction coefficients at wavelengths 4 nm lower and higher than the K_m wavelength ;

4. organoleptic characteristics which include detectable defects exceeding the limits of acceptability and a panel test score lower than 3,5 in accordance with Annex XII to Regulation (EEC) No 2568/91 ;

5. a content in stigmastadienes not exceeding 0,50 mg/kg.

II. For the purposes of subheading 1509 10 90, 'virgin oil' means olive oil having the following characteristics :

(a) an acid content, expressed as oleic acid, not exceeding 3,3 g per 100 g ;

(b) a peroxide number not exceeding 20 meq O_2/kg ;

(c) a wax content not exceeding 250 mg/kg ;

(d) a content in volatile halogenated solvents not exceeding 0,20 mg/kg overall and not exceeding 0,10 mg/kg for each solvent ;

(e) a K_{270} extinction coefficient not higher than 0,250 and, after treatment of the oil with activated alumina, not higher than 0,10 ;

(f) an extinction coefficient variation (delta K), in the 270 nm region, not higher than 0,01 ;

(g) organoleptic characteristics which may include detectable defects within the limits of acceptability and a panel test score not lower than 3,5 in accordance with Annex XII to Regulation (EEC) No 2568/91 ;

(h) an erythradiol and uvaol content not exceeding 4,5 % ;

(ij) a content in saturated fatty acids at the 2-position in the triglycerides not exceeding 1,3 % ;

(k) the sum of transoleic isomers not exceeding 0,05 % and the sum of translinolenic + translinoleic isomers not exceeding 0,05 % ;

(l) a content in stigmastadienes not exceeding 0,15 mg/kg.

C. Subheading 1509 90 covers olive oil obtained by the treatment of olive oils falling within subheading 1509 10 10 or 1509 10 90, whether or not blended with virgin olive oil, having the following characteristics :

(a) an acid content, expressed as oleic acid, not exceeding 1,5 g per 100 g ;

(b) a wax content not exceeding 350 mg/kg ;

(c) a K_{270} extinction coefficient (100) not higher than 1,0 ;

(d) an extinction coefficient variation (ΔK), in the 270 nm region, not higher than 0,13 ;

(e) an erythrodiol and uvaol content not exceeding 4,5 % ;

(f) a content in saturated fatty acids at the 2-position in the triglycerides not exceeding 1,5 % ;

(g) the sum of transoleic isomers not exceeding 0,20 % and the sum of translinoleic + translinolenic isomers not exceeding 0,30 %.

D. For the purposes of subheading 1510 00 10, "crude oils" means oils, particularly olive residue oils, with the following characteristics;

(a) an acid content, expressed as oleic acid, not lower than 2 g per 100 g;

(b) an erythrodiol and uvaol content not lower than 12 %;

(c) a content in saturated fatty acids at the 2-position in the triglycerides not exceeding 1,8 %;

(d) the sum of transoleic isomers not exceeding 0,20 % and the sum of translinoleic + translinolenic isomers not exceeding 0,10 %.

E. Subheading 1510 00 90 covers oils obtained by the treatment of oils falling within subheading 1510 00 10, whether or not blended with virgin olive oil, and oils not having the characteristics of the oils referred to in additional notes 2 B, 2 C and 2 D. The oils falling within the subheading must have a content in saturated fatty acids at the 2-position in the triglycerides not exceeding 2,0 %, the sum of transoleic isomers lower than 0,4 % and the sum of translinoleic + translinolenic isomers lower than 0,35 %.

3. Subheadings 1522 00 31 and 1522 00 39 do not cover:

(a) residues resulting from the treatment of fatty substances containing oil having an iodine index, determined in accordance with the method laid down in Annex XVI to Regulation (EEC) No 2568/91, lower than 70 or higher than 100;

(b) residues resulting from the treatment of fatty substances containing oil having an iodine index higher than 70 or lower than 100, of which the peak area representing the retention volume of betasitosterol (1), determined in accordance with Annex V to Regulation (EEC) No 2568/91, is less than 93,0 % of the total sterol peak areas.

4. The analytical methods for the determination of the characteristics of the products referred to above are those laid down in the Annexes to Regulation (EEC) No 2568/91.

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(1) Delta-5,23-stigmastadienol + chlerosterol + betasitosterol + sitostanol + delta-5-avenasterol + delta-5,24-stigmastadienol.'