

NAPAPTHMA TPITON

ΤΗΣ ΕΠΙΣΗΜΟΥ ΕΦΗΜΕΡΙΔΟΣ ΤΗΣ ΔΗΜΟΚΡΑΤΙΑΣ ὑπ' ᾿Αρ. 1761 τῆς 13ης ΜΑΡΤΙΟΥ 1982 ΔΙΟΙΚΗΤΙΚΑΊ ΠΡΑΞΕΙΣ

MEPOΣ I

Κανονιστικαί Διοικητικαί Πράξεις

'Αριθμὸς 80

Οἱ περὶ Κυπριακῶν Προτύπων καὶ Ελέγχου Ποιότητος (Καθωρισμένα Πρότυπα — Ογδόη Σειρὰ) Κανονισμοὶ τοῦ 1982, κατατεθέντες εἰς τὴν Βουλὴν τῶν ἀντιπροσώπων καὶ ἐγκριθέντες ὑπ αὐτῆς, δημοσιεύονται εἰς τὴν ἐπίσημον ἐφημερίδα τῆς Κυπριακῆς Δημοκρατίας δυνάμει τοῦ ἐδαφίου (5) τοῦ ἄρθρου 23 τοῦ περὶ Κυπριακῶν Προτύπων καὶ Ελέγχου Ποιότητος Νόμου τοῦ 1975 (ἀρ. 68 τοῦ 1975).

OI ΠΕΡΙ ΚΥΠΡΙΑΚΩΝ ΠΡΟΤΥΠΩΝ ΚΑΙ ΕΛΕΓΧΟΥ ΠΟΙΟΤΗΤΟΣ ΝΟΜΟΙ ΤΟΥ 1975 ΚΑΙ 1977 (68 ΤΟΥ 1975 ΚΑΙ 6 ΤΟΥ 1977)

Κανονισμοί δυνάμει του άρθρου 9

- 'Ο Ύπουργὸς Ἐμπορίου καὶ Βιομηχανίας, ἐναοκῶν τὰς ὑπὸ τοῦ ἄρθρου 9 τῶν περὶ Κυπριακῶν Προτύπων καὶ Ἐλέγχου Ποιότητος Νόμων τοῦ 1975 καὶ 1977 χορηγουμένας αὐτῷ ἐξουσίας ἐκδίδει τοὺς ἀκολούθους Κανονισμούς:
- 1. Οἱ παρόντες Κανονισμοὶ θὰ ἀναφέρωνται ὡς οἱ περὶ Κυπριακῶν Προτύπων καὶ Ἐλέγχου Ποιότητος (Καθωρισμένα Πρότυπα Ὀγθόη Σειρά) Κανονισμοὶ τοῦ 1982.
- 2. Διὰ λόγους δημοσίου συμφέροντος τὰ κάτωθι Κυπριακά Πρότυπα καθορίζονται ὡς Πρότυπα τὰ ὁποῖα θὰ ἐφαρμόζωνται ἄνευ ἐξαιρέσεως καθ' ἄπασαν τὴν Δημοκρατίαν καὶ οὐδεὶς θὰ δύναται, ἐκτὸς ἐὰν τὸ ἐμπόρευμα ἢ τὸ ὑλικὸν συμμορφοῦται πρὸς τοὺς ὅρους τῶν Προπύπων, νὰ κατασκευάζη, πωλῆ ἢ ἄλλως πως ἐμπορεύηται ἐμπόρευμα ἢ ὑλικὸν καλυπτόμενον ὑπὸ τῶν κατωθι καθωρισμένων Κυπριακῶν Προτύπων:
 - CYS 79:1630 Προδιαγραφή διὰ Ἐδώδιμον Φυστικέλαιον. Specification for Edible Arachis Oil.
 - CYS 80:1980 Πρεδιαγραφή διά Ἐδώδιμον ᾿Αραβοσιτέλαιον. Specification for Edible Maize Oil.
 - CYS 81:1990 Προδιαγραφή διὰ Ἐδώδιμον Συναπέλαιον. Specification for Edible Mustard Seed Oil

- CYS 83:1980 Προδιαγραφή διὰ Ἐδώδιμον Ραπέλαιον. Specification for Rapeseed Oil.
- CYS 84:1980 Προδιαγραφή διὰ Ἐδώδιμον Σογιέλαιον. Specification for Edible Soya Bean Oil.
- CYS 85:1980 Προδιαγραφή διὰ "Εδώδιμον 'Ηλιοτροπέλαιον. Specification for Edible Sunflower Seed Oil.
- CYS 86:1980 Προδιαγραφή διὰ Ἐδώδιμον Βαμβακέλαιον. Specification for Edible Cotton Seed Oil.
- CYS 87:1980 Προδιαγραφή διὰ Ἐδώδιμον Καρδαμέλαιον. Specification for Edible Safflower Seed Oil.
- CYS 88: 1980 Πιροδιαγγραφή διὰ Ἑδώδυμον Σισαμέλαιον. Specification for Edible Sesame Seed Oil.
- CYS 90:1980 Προδιαγραφή διὰ Ἐδώδυμα "Ελαια καὶ Λίπη. Specification for Edible Fats and Oils.
- 3.0 Ἡ παράγραφος 5 τῶν ἀνωτέρω Προτύπων ἡ ὁποία ἀφορᾶ τὴν ποσότητα πωλήσεως δὲν ἰσχύει. "Ολα τὰ ἐδώδιμα ἔλαια τὰ ὁποῖα ἀναφέρονται ἀνωτέρω θὰ διατίθενται πρὸς πώλησιν μόνον εἰς ἐσφραγισιμένα δοχεῖα ὑπὸ τοῦ κατασκευαστοῦ τῶν 1, 2, 3, 4, 5, 16 καὶ 20 λίτρων.
- 3.1 Συσκευασία εἰς δοχεῖα χωρητικότητος μεγαλυτέρας τῶν 20 λίτρων θὰ ἐπιτρέπεται νοουμένου ὅτι ὑπάρχει εἰδικὴ συμφωνία μεταξὺ προμηθευτοῦ καὶ ἰάγοραστοῦ.
- 3.2 Δοχεία 16 λίτρων, 20 λίτρων καὶ μεγαλυτέρας χωρητικότηπος θὰ δύνανται νὰ ἐπαναχρησιμοποιοῦνται κατόπιν συνεννοήσεως ἐμφιαλωτοῦ καὶ προμηθευτοῦ ἐφ' ὅσον ὁ ἐμφιαλωτὴς διαθέπει τὰς ἀπαραιτήτους ἐγκαταστάσεις πλυσίματος καὶ καθαρισμοῦ ἐγκεκριμένας ὑπὸ τοῦ Ἐπιστημονικοῦ Συμβουλίου Τροφίμων.

'Επίσημος 'Εφημερίς, Παράρτημα Τρίτον: 20.5.1977.

- 3.3 Τὰ ὅρια ἀνοχῆς πρέπει νὰ εἶναι ἐκεῖνα ποὺ καθορίζονται εἰς τοὺς περὶ Μέτρων καὶ Σταθμῶν (ιΣυσκευασμένα ἸΑγαθὰ) Κανονισμοὺς τοῦ 1977.
 - 7. Οἱ παρόντες Κανονισμοὶ τίθενται ἐν ἰσχύι ὡς ἀκολούθως:
 - (1) Διὰ τοὺς καταιοκευαστὰς καὶ εἰσαγωγεῖς τὴν 1ην Ἰουνίου, 1982.
 - (2) Διὰ τοὺς πωλητάς, μεταπωλητάς καὶ καταστηματάρχας τὴν 31ην Δεκεμβρίου, 1982.

CYPRUS STANDARD SPECIFICATION FOR EDIBLE ARACHIS OIL

1 SCOPE

This Cyprus standard applies to edible arachis oil.

2 DESCRIPTION

<u>Arachis Oil</u> (synomyms: <u>Peanut Oil</u>; <u>Groundnut Oil</u>) is derived from groundnuts (the seeds of Arachis hypogala L).

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Arachis oil shall have the following identity characteristics.

3.1.1 Relative Density (20°C/Water at 20°C)	0.914 - 0.917
3.1.2 Refractive Index (n_D ^{40°} C)	1.460 - 1.465
3.1.3 Saponification Value (mg KCH/g oil)	187 - 196
3.1.4 Iodine Value (Wijs)	80 - 106
3.1.5 Unsaponifiable Matter	not more than
	10 g/kg
3.1.6 Arachidic and Higher Fatty Acids Content	not less than
	48 g/kg

- 3.2 Arachis oil shall have the following quality characteristics.
- 3.2.1 The colour shall be characteristic of the designated product.
- 3.2.2 Odour and taste. The odour and taste shall be characteristic of the designated product and free from foreign and rancid odour and taste.
- 3.2.3 Acid value.
- 3.2.3.1 The acid value for virgin oil shall not be more than 4 mg KOH/g oil.
- 3.2.3.2 The acid value for non-virgin oil shall not be more than 0.6 mg KOH/q oil.
- 3.2.4 The peroxide value shall not be more than 10 milliequivalents of peroxide oxygen/kg oil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.

4.1 Colours

The following colours (table 1) are permitted for the purpose of restoring natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

TABLE 1: Coldurs

Colour	Maximum level of use
4.1.1 Beta-carotene 4.1.2 Annatto (+)	Not limited not limited
4.1.3 Curcumin (+)	not limited
4.1.4 Canthaxanthine	not limited
4.1.5 Beta-apo-8'-carotenal	not limited
4.1.6 Mathyl and ethyl esters of	not limited
heta-apo-8'-carotenoic acid	not limited

4.2 Antioxidants

Only the following antioxidants (table 2) may be used at the specified levels.

TABLE 2: Antioxidants

Antioxidant Synergist	Maximum level of use
4.2.1 Propyl, octyl, and dodecyl gallates	190 mg/kg individually or in combi- combination
4.2.2 Butylated hydroxytol u ene (BHT). Butylated hydro- xyanisole (BHA)	200 mg/kg individually or in combination
4.2.3 Any combination of gallates with BHA or BHT, or both	200 mg/kg, but gallates not to exceed 100 mg/kg
4.2.4 Natural and synthetic toco- pherols	Not l i mited
4.2.5 Ascorbyl palmitate	200 mg/kg individually
4.2.6 Ascerbyl stearate	or in combination
4.2.7 Dilauryl thiodiproprionate	200 mg/kg
4.2.8 Tertiary butyl hydroqui-	200 mg/kg singly or in combina-
none (TBHQ)	tion with BHA, BHT or gallates,
	(gallates not exceeding 100 mg/kg

⁺ Temporarily endorsed

4.3 Antioxidant Synergists

Only the following antioxidant synercists (table 3) may be used at the specified levels.

TABLE 3: Antioxidant Synergists

Maximum level of use
Not limited
100 mg/kg
individually or
in combination

4.4 Antifoaming Agents

The only permitted anti-foaming agent that may be used is dimethyl polysiloxane (dimethyl silicon) either singly or in combination with silicone dioxide⁺ at a maximum concentration of 10 mg/kg.

4.5 Crystallization Inhibitor

The only permitted crystallization inhibitor that may be used is oxystearin at a maximum level of use of 1250 mg/kg.

4.6 Metal Contaminants

Metal contaminants shall not exceed the following maximum levels as indicated in table 4.

TABLE 4: Metal Contaminants

Contaminants	Maximum level	
4.6.1 Matter volatile at 105°C	D.2% m/m	
4.6.2 Insoluble impurities	0.05% m/m	· · ·
4.6.3 Soap content	0.005% m/m	
4.6.4 Iron (Fe) (Virgin oil)	5 mg/kg	1
(Non-virgin oil)	1.5 mg/kg	
4.6.5 Copper (Cu) (Virgin oil)	0.4 mg/kg	
(Non-virgin oil)	0.1 mg/kg	
4.6.6 Lead (Pb)	0.1 mg/kg	.]
4.6.7 Arsenic (As)	0.1 mg/kg	

⁺ Temporarily endorsed

4.7 Hygiene

- 4.7.1 The products covered by the provisions of this standard shall be prepared in accordance with the Code of Practice-General Principles of Food Hygiene CYS 30:1978. Also the premises shall be registered by the Scientific Food Council of the Ministry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.7.2 To the extent possible in good manufacturing practice—the products shall be free from any foreign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amount which may be toxic.
- 4.7.3 Edible oils and fats shall be packed and or stored in food grade non-toxic containers.

5 WEIGHTS

5.1 All edible vegetable oils shall be offered, at the retail level, packed only in one, two, four, five and sixteen liter containers.

Tolerance limits shall be those described by the Weights and Measures Law.

6 LABELLING

In addition to Sections 1, 2, 4, and 6 of the General Standard for the Labelling of Prepackaged Foods (CYS 33:1978) the following specific provisions apply:

- 6.1 The Name of the Food
- 6.1.1 All products designated as arachis oil, peanut oil or groundnut cil must conform to this standard.
- 6.2 Where arachis oil has been subject to any process of esterification or to processing which alters its fatty acid composition or its consistency the name arachis oil or any synonym shall not be used unless qualified to indicate the nature of the process.
- 6.3 List of Ingredients
- 6.3.1 A complete list of ingredients shall be declared on the label in descending order of propertion.

6.3.2 A specific name shall be used for ingredients in the list of ingredients except that class titles may be used in accordance with the provisions of the General Standard for the Labelling of Prepackaged Foods. (CYS 33:1978)

6.4 Net Contents

The net contents shall be declared by volume in the metric system, or in any other system or systems in addition to the metric system in the case of exports.

6.5 Name and Address

The name and address of the manufacturer or packer shall be provided, except for export purposes the name of the exporter $c_{\mathbf{r}}$ other distributor may be provided instead.

6.6 Country of Origin

- 6.6.1 The country of origin of the product shall be declared.
- 6.6.2 When the product undergoes processing in a second country, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

6.7 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling of Prepackaged Foods''.

6.8 Coded Marking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

7.1 Either of the following sampling methods may be used at the discrection of the sampling authority or as agreed between the manufacturer and purchaser.

Method 1: According to the provisions of the Food and Drugs Law.

Method 2: According to CYS 89:1979, Sampling Fats and Fatty Oils.

7.2 Methods of Analysis

7.2.1 Determination of relative density. Determination of the relative density of the oil shall be in accordance with part 1, CYS 78:1979, Methods of Analysis for Edible Fars and Oils.

7.2.2 Determination of iron. Determination of the iron content shall be in accordance with part 6, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambrosic Oils Ltd

Central Cooperative Industries (Cyprus) Ltd

Cyprus Consumers Protection Association

Cyprus Olive Products Marketing Board

Co-operative Supply Union Ltd

Food Importers & Traders Association

Galanos Bros Ltd

Galatariotis Bros Ltd

Government Laboratory

Ministry of Agriculture and Natural Resources

Ministry of Commerce and Industry

Ministry of Health

Pancyprian Association of Chemists

Cyprus Organization for Standards and Control of Quality

Note 1. For the purpose of this standard and until the methods for the determination of acid value, percxide value, matter volatile at 105° C, insoluble impurities, copper, lead, arsenic, refractive index, saponification value, indine value, unsaponifiable matter, Halphen test and soap content are finalised, reference shall be made to the following methods of analysis.

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.1.2 <u>Acid Value</u>).

Results are expressed as the number of mg KOH required to neutralize 1 g oil.

Peroxide Value (I)p

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.D.13 Peroxide Value).

Results are expressed as milliequivalents active oxygen/kg oil'

Matter Volatile at 105°C

Determination of the matter volatile at 105°C shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.C.1.1 Moisture and Volatile Matter).

Results are expressed as % m/m.

Insoluble Impurities

Determination of the insoluble impurities shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.C.2 <u>Impurities</u>).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the AOAC (1965) method (Official Methods of Analysis of the AOAC, <u>International Union</u> of Pure and Applied Chemists, Carbamate Method, 24.023 - 24.028).

Results are expressed as mg copper/kg.

Lead (+)

Determination of lead shall be in accordance with the AOAC (1965) method, after complete digestion, by the colorimetric <u>dithizone</u> determination procedure (Official Methods of Analysis of the AOAC, 1965, 24.053 (and 24.008, 24.009, 24.043 j, 24.046, 24.047 and 24.048).

Results are expressed as mg lead/kg.

Arsenic

Determinat: arsenic shall be in accordance with the colorimetric silver <u>diethyldithiocarbamate method</u> of the AOAC (Official Methods of Analysis of the AOAC, 1935, 24.011 - 24.014, <u>24.016</u> - 24.017, 24.006 - 24.008).

Results are expressed as mg arsenic/kg.

+Atomic absorption Spectrophotometric methods may also be used, giving the same or better degree of accuracy.

Refractive Index

Dotermination of the refrective index shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Bils, Fats and Scaps, 5th Edition, 1966.II.B.2, Refractive Index).

Results are given as the refractive index relative to the sodium D-line at 40°C (n_D40°C).

Saponification Value

Determination of the saponification value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Spaps, 5th Edition, 1966, II.P.2 Saponification Value (I_s).

Results are expressed as the number of mg KOH/g eil.

Icdine Value (I,)

Determination of iodine value shall be in accordance with IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fets and Soeps, 5th Edition, 1966 II.D.7.2 and II.D.7.3, the Wijs Method).

Unsaponifiable Matter

Determination of the unsepenifiable mafter shall be in accordance with IUPAC (1964) diethyl other method (IUPAC Standard Methods for the Analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.D.5.1 and II.D.5.3).

Results are expressed as a unsaponifiable matter/kg oil.

Arachidic and Higher Fatty Acids Content

According to the Modified Remard Test, Official Methods of Analysis of the ADAC (1965), 26.077.

Results are expressed as g arachidic acid/kg oil, or According to the FAO/WHO Codex Alimentarius Method (FAO/WHO Methods of Analysis for Edible Fats and Oils, CAC/RM 1101969, Arachis Oil Test (Evers).

Note 2: Analytical procedures to confirm any of the provisions in this standard shall be those published and or recommended by CYS.

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CYPRUS STANDARD SPECIFICATION FOR EDIBLE MAIZE OIL

1 SCOPE

This Cyprus standard applies to edible maize oil.

2 DESCRIPTION

Maize oil (synonym: Corn 0il) is derived from maize germ (the embryos of zea mays L).

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Maize oil shall have the following identity characteristics.

3.1.1 Relative Density (20°C/Water at 20°C)	0.91	7 ~	0.925
3.1.2 Refractive Index $(n_{-D}^{4G}^{0}C)$	1.46	5 -	1.468
3.1.3 Saponification Value (mg KOH/g oil)	187	-	495
3.1.4 Iodine Value (Wijs)	103	-	128
3.1.5 Unsaponifiable Matter	not r 28 g/		than

- 3.2 Maize oil shall have the following quality characteristics.
- 3.2.1 The colour shall be characteristic of the designated product.
- **3.2.2** Odour and taste. The odour and taste shall be characteristic of the designated product and free from foreign and rancid odour and taste.
- 3.2.3 Acid value.
- 3.2.3.1 The acid value for virgin oil shall not be more than 4~mg KOH/g oil.
- 3.2.3.2 The acid value for non-virgin oil shall not be more than 0.6 mg KOH/g oil.
- 3.2.4 The peroxide value shall not be more than 10 milliequivalents of peroxide oxygen/kg oil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.

4.1 Colours

The following colours (table 1) are permitted for the purpose of restoring

natural colour iost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

TABLE 1: Colours

Colcur	Maximum level of use
4.1.1 Beta-carotene 4.1.2 Annatto (+)	Not limited Not limited
4.1.3 Curcumin (+)	Not limited
4.1.4 Canthaxanthine 4.1.5 Beta-apo-8'-carotenal	Not limited Not limited
4.1.6 Hethyl and othyl esters of	Not limited
beta-ape-8'-carotensic acid	

4.2 Antioxidants

Only the following antiexidants (table 2) seem be used at the specified levels.

TABLE 2: Antioxidants

Antioxidant Synergist	Maximum level of use
4.2.1 Propyl, ectyl, and dodecyl gallates	100 mg/kg individually or in combination.
4.2.2 Butylated hydroxytoluenc (BHT) Butylated hydroxyanisole (BHA)	200 mm/kg individually or in combination
4.2.3 Any combination of gallates with BHA or DHT, or both	200 mg/kg, but gallates not to become 100 mg/kg
4.2.4 Matural and synthetic tocopherols	Mot limited
4.2.5 Asæorbyl palmitato	200 mg/kg individually
4.2.6 As∞rbyl stearate	or in combination
4.2.7 Dilauryl chiodiproprionate 4.2.8 Tertiary butye hydroquinane 4⊞HQ)	200 mg/kg 200 mg/kg bingly or incombination with SHA BHT or gallates (gal lutes not excheding 188 mg/kg)

^{*}Temporarily endorsed

4.3 Antioxidant Synergists

Only the following antixidant synergists (table 3) may be used at the specified levels.

TABLE 3: Antioxident Synergists

Antioxidant Synergist	Maximum level of use
4.3.1 Citric acid and its sodium salt	Not limited
4.3.2 Isopropyl citrate mixture 4.3.3 Phosphoric acid (+)	100 mg/kg individually or
4.3.4 Monoglycerate citrate	in combination

4.4 Antifoaming Agents

The only permitted anti-foaming agent that may be used is dimethyl polysiloxane (dimethyl silicon) either singly or in combination with silicone dioxide[†] at a maximum concentration of 10 mg/kg.

4.5 Crystallization Inhibitor

The only permitted crystallization inhibitor that may be used is oxystearin at a maximum level of use of 1250 mg/kg.

4.6 Metal Contaminants

Metal contaminants shall not exceed the following maximum levels as indicated in table 4.

TABLE 4: Motal Contaminants

Contaminants	Maximum level
4.6.1 Matter volatile at 195 ⁰ C	0.2% ส/ต
4.6.2 Insoluble impurities	0.95% m/m
4.6.3 Soap content	0.005% m/m
4.6.4 Iron (Fe) (Virgin oil) (Non-virgin oil)	5 mg/kg 1.5 mg/kg
4.6.5 Copper (Cu) (Virgin cil) Non-virgin cil)	0.4 mg/kg 0.1 mg/kg
4.6.6 Lead (Pb)	0.1 mg/kg
4.6.7 Arsenic (As)	0.1 mg/kg

⁺ Temporarily endorsed

4.7 Hygrehe

- 4.7.1 The products covered by the provisions of this standard shall be prepared in accordance with the Code of Practice-General Principles of Food Hygiene CYS 39:1970. Also the premises shall be registered by the Scientific Food Council of the Ministry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.7.2 To the extent possible in good manufacturing practice the products shall be free from any foreign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amounts which may be texic.
- 4.7.3 Edible oils and fats shall be packed and or stored in food grade non-toxic containers.

5 WEIGHTS

5.1 All edible vegetable oils shall be offered, at the retail level, packed only in one, two, four, five and sixteen liter containers.

Tolrance limits shall be those described by the Meights and Measures Law.

6 LABELLING

In addition to Sections 1, 2, 4 and 3 of the General Standard for the Labelling of Prepackaged Foods (CYS 33:1978) the following specific provisions apply:

- 6.1 The Name of the Food
- 6.1.1 All products designated as maize oil or corn oil must conform to this standaro.
- 6.2 Where maize oil has been subject to says process of esterification or to processing which alters its fatty acid composition or its consistency the name maize oil or any synonym shall not be used unless qualified to indicate the nature of the process.
- 6.2 List of Ingredients
- **6.2.1** A complete list of ingredients shall be declared on the label in descending order of proportion.

6.2.2 A specific name shall be used for ingredients in the list of ingredients except that class titles may be used in accordance with the provisions of the General Standard for the Labelling of Prepackaged Foods. (CYS 33:1978).

6.3 Met Contents

The net contents shall be declared by volume in the metric system, or in any other system or systems in addition to the metric system in the case of exports.

5.4 Name and Address

The name and address of the manufacturer or packer shall be provided, except for export purposes the name of the exporter of other distributor may be provided instead.

- 6.5 Country of Origin
- 6.5.1 The country of origin of the product shall be declared.
- 6.5.2 When the product undergoes processing in a second country, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

6.6 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling of Prepackaged Foods''.

6.7 Coded Harking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

7.1 Either of the following sampling methods may be used at the discretion of the sampling authority or as agreed between the manufacturer and purchaser.

Method 1: According to the provisions of the Food and Drugs Law. Method 2: According to CYS 89:1979, Sampling Fats and Fatty Oils.

7.2 Methods of Analysis

7.2.1 Determination of relative density. Determination of the relative

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density of the oil shall be in accordance with part 1, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.

7.2.2 Determination of iron, Determination of the iron content shall be in accordance with part 6, CYS 78:1979; Dethods of Analysis for Edible Fats and Oils.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambrosia Oils Ltd
Central Cooperation Industries (Cyprus) Ltd
Cyprus Consumers Protection Association
Cyprus Olive Products Marketing Board
Co-operative Supply Union Ltd
Food Importers & Traders Association
Galanos Bros Ltd
Galatariotis Bros Ltd
Government Laboratory
Ministry of Agriculture and Natural Resources
Ministry of Commerce and Industry
Ministry of Health
Pancyprian Association of Chemists
Cyprus Organization for Standards and Control of Quality

Note 1. For the purpose of this standard and until the methods for the determination of acid value, peroxide value, matter volatile at 105°C, insoluble impurities, copper, lead, arsenic, refractive index, saponification value, iodine value, unsaponifiable matter, Halphen test and soap content are finalised, reference shall be made to the following methods of analysis.

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.1.2. Acid Value).

Results are expressed as the number of mg KOH $\,$ required to neutralize 1 g oil.

Peroxide Value (I)p

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.3.13 <u>Peroxide Value</u>).

Results are expressed as milliequivalents active oxygen/kg oil.

Matter Volatile at 105°C

Determination of the matter volatile at 105°C shall be in accordance with the IUPAC (1964) method (IUFAC Stendard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.1.1 <u>Hoisture and</u> Volatile Matter).

desults are expressed as % m/m.

Insoluble Impurities

Determination of the insoluble impurities shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.2 <u>Impurities</u>).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the AOAC (1965) method (Official Nethods of Analysis of the AOAC, <u>International Union of Pure and Applied Chemistry Carbsmate Nethod</u>, 24.023 - 24.028).

Results are expressed as mg copper/kg.

Lead (+)

Determination of elead shall be in accordance with the AOAC (1965).

method, after complete digestion, by the colorimetric dithizone

determination procedure (Official Nethods of Analysis of the AOAC,

1965, 24.053 (and 24.008, 24.009, 24.043 j, 24.046, 24.047 and 24.048).

Results are expressed as mg lead/kg.

<u>Arsenic</u>

Determination of arsenic shall be in accordance with the colorimetric silver <u>diethyldithiocarbamate method</u> of the AOAC (Official Hethods of Analysis of the AOAC, 1965, 24.011 - 24.014, <u>24.016</u> - 24.017, 24.006 - 24.008).

Results are expressed as mg arsenic/kg.

 Atomic Absorption Spectrophotometric methods may also be used, giving the same or better degree of accurrcy

Refractive Index

Determination of the refractive index shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966.II.B.2, Refractive Index).

Results are given as the refractive index relative to the sodium D-line at $40^{9}\mathrm{C}$ (n_0 $40^{9}\mathrm{C}$).

Saponification Value

Determination of the saponification value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.2 Saponification Value($I_{\rm g}$).

Results are expressed as the number of mg KOH/g oil.

Iodine Value (I_I)

Determination of iodine value shall be in accordance with IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966 II.D.7.2 and II.D.7.3, the Wijs Method).

Unsaponifiable Hatter

Determination of the unsaponifiable matter shall be in accordance with IUPAC (1964) dicthyl ether method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.5.1 and II.D.5.3).

Results are expressed as quasaponifiable matter/kg oil.

Halphen Test

The Halphen test shall be in accordance with AOCS method (Official and Tentative Methods of the American Oil Chemists' Society, AOCS Official Method Cb1-25).

Result is expressed as positive or negative.

CYS 81:1980

CYPRUS STANDARD SPECIFICATION FOR EDIBLE MUSTARDSEED DIL

1 SCOPE

This Cyprus standard applies to edible mustardseed oil.

2 DESCRIPTION

Mustardseed oil is derived from the seeds of the white mustard (Sinapis alba L., synonym: Brassica hirts Moench) the brown mustard (Brassica juncea L., Chern and Coss) and of the black mustard (Brassica nigra L., koch).

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Mustardseed oil shall have the following identity	characteristics.
3.1.1 Relative Density (20°C/Water at 20°C)	0.910 - 0.921
3.1.2 Refractive Index (n_D40°C)	1.461 - 1.469
3.1.3 Saponification Value (mg KGM/g cil)	170 - 184
3.1.4 Iodine Value (Wijs)	92 - 125
3.1.5 Unsaponifiable Matter	not more than
	15 g/kg
3.1.6 Allyl Isothiocyanate content	not more than
	4 g/kg

- 3.2 Mustardseed oil shall have the following quality characteristics.
- 3.2.1 The colour shall be characteristic of the designated product.
- 3.2.2 Odour and taste. The odour and taste shall be characteristic of the designated product and free from foreign and rancid odour and taste.
- 3.2.3 Acid value.
- 3.2.3.1 The acid value for virgin oil shall not be more than 4 mg KOH/g oil.
- **3.2.3.2** The acid value for non-virgin oil shall not be more than 0.6~mg KOH/g oil.
- 3.2.4 The peroxide value shall not be more than 10 milliequivalents of peroxide oxygen/kg oil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.
4.1 Colours

The following colours (table 1) are permitted for the purpose of restoring natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater transcruel value:

TABLE 1: Colours

Colour	Maximum level of use
4.1.1 Beta-carotene	Not limited
4.1.2 Annatto (+)	Not limited
4.1.3 Curcumin (+)	Not limited
4.1.4 Canthaxanthine	Not limited
4.1.5 Beta-apo-8'-carotenal	Not limited
4.1.6 Methyl and ethyl esters of	Not limited
beta-apo-8'-carotenoic acid	Not limited

4.2 Antioxidants

Only the following antioxidants (table 2) may be used at the specified levels.

TABLE 2: Antioxidents

,	Antioxidant Synargist	Maximum level of use
4.2.1	Propyl, octyl, and dodecyl gallates	100 mg/kg individually or in combination
4.2.2	Butylated hydroxytoluene (BHT). Butylated hydro- xyanisole (BHA)	200 mg/kg individually or in combination
4.2.3	Any combination of gallates with BHA or BHT, or both	200 mg/kg, but gallates not to exceed 100 mg/kg
4.2.4	Natural and synthetic toco- pherols	Not limited
4.2.5	Ascorbyl palmitate	200 mg/kg individually
4.2.6	Ascorbyl stearate	or in combination
	Dilauryl thiodiproprionate Tertiary butyl hydroquinone (TBHQ)	200 mg/kg 200 mg/kg singly or in combina- tion with BHA, BHT or gallates, (gallates not exceeding 100 mg/kg)

⁺ Temporarily endorsed

4.3 Antioxidant Synergists

Only the following antioxidant synergists (table \Im) may be used at the specified levels.

TABLE 3: Anrioxidant Synercists

Antioxidant Synergist	.Maximum level of use	
4.3.1 Citric acid and its sodium salt	Not limited	
4.3.2 Isopropyl citrate mixture	100 mg/kg	
4.3.3 Phosphoric acid (+)	_ndividually or	
4.3.4 Monoglycerate citrate	in combination	

4.4 Antifoaming Agents

The only permitted anti-foaming agent that may be used is dimethyl polysiloxane (dimethyl silicon) either singly or in combination with silicon dioxide ⁺ at a maximum concentration of 10 mg/kg.

4.5 Crystallization Inhibitor

The only permitted crystallization inhibitor that may be used is oxystearin at a maximum level of use of 1250 mg/kg.

4.6 Metal Contaminants

Metal contaminants shall not exceed the following maximum levels as indicated in table 4.

TABLE 4: Metal Contaminants

Contaminants	Maximum.level	
4.6.1 Matter volatile at 105°C	0.2% m/m	
4.6.2 Insoluble impurities	0.05% m/m	
4.6.3 Snap content	0.005% m/m	
4.6.4 Iron (Fe) (Virgin oil)	5 mg/kg	
(Non-virgin oil)	1.5 mg/kg	
4.6.5 Copper (Cu) (Virgin oil)	0.4 mg/kg	
(Non-virgin oil)	0.1 mg/kg	
4.6.6 Lead (Pb)	G.1 mg/kg	
4.6.7 Arsenic (As)	0.1 mg/ kg	

4.7 Hygiene

- 4.7.1 The products covered by the povisions of this standard shall be prepared in accordance with the Code of Practice-Ceneral Principles of Food Hygiene CYS 30:1978. Also the premises shall be registered by the Scientific Food Council of the Ministry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.7.2 To the extent possible in good manufacturing practice the products shall be free from any foreign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amounts which may be toxic.
- 4.7.3 Edible oils and fars shall be packed and or stored in food grade non-toxic containers.

5 WEIGHTS

5.1 All edible vegetable oils shall be offered, at the retail level, packed only in one, two, four, five and sixteen liter containers. Tolerance limits shall be those described by the Weights and Measures Law.

6 LABELLING

In addition to Sections 1, 2, 4 and 6 of the General Standard for the Labelling of Prepackaged Foods (CYS 33:1978) the following specific provisions apply:

- 6.1 The Name of the Food
- 6.1.1 All products designated as mustardseed oil must conform to this standard.
- 6.2 Where mustardseed oil has been subject to any process of esterification or to processing which alters its fatty acid composition or its consistency the name mustardseed oil or any synonym shall not be used unless qualified to indicate the nature of the process.
- 6.2 List of Ingredients
- 6.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion.

6.2.2 A specific name shall be used for ingredients in the list of ingredients except that class titles may be used in accordance with the provisions of the General Standard for the Labelling of Prepackaged Foods. (CYS 33:1978)

6.3 Net Contents

The net contents shall be decalred by volume in the metric system, or in any other system or systems in addition to the metric system in the case of exports.

6.4 Name and Address

The name and address of the manufacturer or packer shall be provided, except for export purposes the name of the exporter or other distributor may be provided instead.

- 6.5 Country of Origin
- 6.5.1 The country of origin of the product shall be declared.
- 6.5.2 When the product undergoes processing in a second country, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

6.6 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling of Prepackaged Foods''.

6.7 Coded Marking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

- 7.1 Either of the following sampling methods may be used at the discretion of the sampling authority or as agreed between the manufacturer and purchaser.
- Method 1: According to the provisions of the Food and Drugs Law.

 Method 2: According to CYS 89:1979, Sampling Fats and Fatty Oils.

7.2 Methods of Analysis

7.2.1 Determintion of relative density. Determination of the relative

density of the cil shall be in accordance with part 1, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.

7.2.2 Determination of iron. Determination of the iron content shall be in accordance with part 6, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambrosia Oils Ltd
Central Cooperative Industries (Cyprus) Ltd
Cyprus Consumers Protection Association
Cyprus Olive Products Marketing Board
Co-operative Supply Union Ltd
Food Importers & Traders Association
Galanos Bros Ltd
Galatariotis Bros Ltd
Government Labora tory
Ministry of Agriculture and Natural Resources
Ministry of Commerce and Industry.
Ministry of Health
Pancyprian Association of Chemists
Cyprus Organization for Standards and Control of Quality

Note 1. For the purpose of this standard and until the methods for the determination of acid value, peroxide value, matter volatile at 105°C, insoluble impurities, copper, lead, arsenic, refractive index, saponification value, iodine value, unsaponifiable matter, Halphen test and soap content are finalised, reference shall be made to the following methods of analysis.

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.1.2 Acid Value).

Results are expressed as the number of mg KOH required to neutralize 1 g oil.

Peroxide Value (I)

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Dils, Fats and Soaps, 5th Edition, 1966, II.D.13 <u>Peroxide Value</u>).

Results are expressed as milliequivalents active oxygen/kg oil.

Matter Volatile at 105°C

Determination of the matter volatile at 105°C shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.1.1 Moisture and Volatile Matter).

Results are expressed as % m/m.

Insoluble Impurities

Catermination of the inscluble impurities shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.2 <u>Impurities</u>).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the AOAC (1965) method (Official Methods of Analysis of the AOAC, <u>International Union of Pure and Applied Chemists</u>, <u>Carbamate Method</u>, 24.023 - 24.028).

Results are expressed as mg copper/kg.

Lead(+)

Determination of elead shall be in accordance with the AOAC (1965)

method, after complete digestion, by the colorimetric <u>dithizone</u>

determination procedure (Official Merhods of Analysis of the AOAC,

1965, <u>24.053</u> (and 24.008, 24.009, 24.043 j, 24.046, 24.047 and 24.048).

Results are expressed as mg lead/kg.

Arsenic

Determination of arsenic shall be in accordance with the colorimetric silver <u>diethyldithiocarbamate method</u> of the AOAC (Official Methods of Analysis of the AOAC, 1965, 24.011 - 24.014, 24.016 - 24.017, 24.006 - 24.008).

Kesults are expressed as mg arsenic/kg.

+ Atomic absorption epectrophotometric methods may also be used, giving the same or better degree of accuracy

Refractive Index

Determination of the refractive index shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fets and Soaps, 5th Edition, 1966.II.B.2, Refractive Index).

Results are given as the refractive index relative to the sodium D-line at $40^{\circ}\mathrm{C}(\mathrm{n_{-0}}40^{\circ}\mathrm{C})$.

Saponification Value

Determination of the saponification value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.2 Saponification Value(I_s).

Results are expressed as the number of mg KOH/g oil.

lodine Value (I_I)

Determination of iodine value shall be in accordance with IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966 II.D.7.2 and II.D.7.3, the Wijs Method).

Unsaponifiable Matter

Determination of the unsaponifiable matter shall be in accordance with IUPAC (1964) diethyl ether method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.5.1 and II.D.5.3).

Results are expressed as g unsaponifiable matter/kg oil.

Allyl Isothiocyanate Content

Determination of the allyl isothiocyanate content shall be in accordance to the FAO/WHO Codex Alimentarius Method (FAO/WHO Methods of Analysis for Edible Fats and Cils, CAC/RM10-1969, determination of allyl isothiocyanate content).

Note 2: Analytical procedures to confirm any of the provisions in this standard shall be those published and or recommended by CYS.

CYS 83:1980

CYPRUS STANDARD SPECIFICATION FOR EDIBLE RAPESEED OIL

1 SCOPE

This Cyprus standard applies to edible rapeseed eil.

2 DESCRIPTION

Rapeseed Oil (synonyms: Turnip Rape Oil; Colza Oil; Ravison Oil;
Sarson Oil and Toria Oil) is derived from the seed of Brassica campestris L.,
Brassica napus L., Brassica tournefortii Gouan).

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Rapeserd oil shall have the following identity characteristes.

or hepotete our shall have the reliming lackery	Character 1151 Co.
3.1.1 Relative Density(20°C/∜ater at 20°C)	0.910 - 0.920
3.1.2 Refractive Index (n_D40°C)	1.465 - 1.469
3.1.3 Saponification Value (mg KOH/g cil)	168 – 181
3.1.4 Indine Value (Wijs)	94 - 120
3.1.5 Unsapenifiable Matter	net more than
	28 g/kg

5.1.6 Crismer Value

- ...
- 3.2 Rapeseed oil shall have the following quality characteristics.
- 3.2.1 The colour shall be characteristic of the designated product.
- 3.2.2 Occur and taste. The odour and taste shall be characteristic of the designated product and free from foreign and rancid odeur and taste.
- 3.2.3 Acid value.
- 3.2.3.1 The acid value for virgin cil shall not be more than 4 mg KOH/g oil.
- 3.2.3.2 The acid value for non-virgin oil shall not be more than 0.6 mg KOH/g oil.
- 3.2.4 The peroxide value shall not be more than 10 milliequivalents of peroxide exygen/kg cil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.

4.1 Colours

The following colours (table 1) are permitted for the purpose of restoring

natural colour lest in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

TABLE 1: Colours

Colour	Maximum level of use
4.1.1 Beta-cerotens	Not limited
4.1.2 Annatto (+)	Not limited
4.2.3 Curcumin (+)	Not limited
4.1.4 Canthaxanthine	Not limited
4.1.5 Beta-apc-8'-caretenal	Not limited
4.1.6 Methyl and othyl esters of	Not limited
beta-apc-8'-carotencic ocid	

4.2 Antioxidants

Only the following antioxidants (table 2) may be used at the specific levels.

TABLE 2: Anticxidants

· ·	
Antioxidant	Maximum level of use
4.2.1 Propyl, octyl, and dodecyl	180 mg/kg individually or in
gallates	combination
4.2.2 Butylated hydroxytoluene	200 mg/kg individually or in
(BHT). Butylated hydro	combination
xyanisole (BHA)	
4.2.3 Any combination of gallates	200 mg/kg, but gallates not to
with BMA or BHT, or both	exceed 100 mg/kg
4.2.4 Natural and synthetic	
tocophercis	not limited
4.2.5 Ascorbyl palmitate	200 mg/kg individually
4.2.6 Ascorbyl steerate	or in combination
4.2.7 Dileuryl thiodipreprionate	200 mg/kg
4.2.8 Tertiary butyl hydrogui-	200 mg/kg singly or in combine-
nene (TRHQ)	tion with BHA, BHT or gallates,
	(gallates not exceeding 100 mg/kg

⁺ Temporarily endorsed

4.3 Antioxidant Synergists

Only the following antioxidant synergists (table 3) may be used at the specified levels.

TABLE 3: Antioxidant Synergists

Antioxidant Synergist	Maximum level of use
4.3.1 Citric acid and its sodium salt	Not limited
4.3.2 Isopropyl citrate mixture	100 mg/kg
4.3.3 Phosphoric acid (+)	individually or
.4.3.4 Monoglycerate citrate	in combination

4.4 Antifoaming Agents

The only permitted anti-foeming agent that may be used is dimethyl polysiloxane (dimethyl silicon) either singly or in combination with silicone dioxide⁺ at a maximum concentration of 10 mg/kg.

4.5 Crystallization Inhibitor

The only permitted crystallization inhibitor that may be used is exysteerin at a maximum level of use of 1250 mg/kg.

4.6 Metal Contaminants

Metal contaminants shall not exceed the following maximum levels as indicated in table 4.

TABLE 4: Metal Contaminants

Conteminants	Maximum level
4.6.1 Matter volatile at 105°C	0.2% m/m
4.6.2 Insoluble impurities	0.05% m/m
4.6.3 Soap content	0.005% m/m
4.6.4 Iron (Fo) (Virgin cil)	5 mg/kg
(Non-virgin cil)	1.5 mg/kg
4.6.5 Copper (Cu) (Virgin oil)	0.4 mg/kg
(Non-virgin cil)	0.1 mg/kg
4.6.6 Lead (Pb)	0.1 mg/kg .
4.6.7 Arsenic (As)	0.1 mg/kg

^{*} Temporarily endorsed

4.7 Hygiene

- 4.7.1 The products covered by the provisions of this standard shall be prepared in accordance with the Code of Practice-General Principles of Food Hygiene CYS 30:1278. Also the premises shall be registered by the Scientific Food Council of the Ministry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.7.2 To the extent possible in good manufacturing practice the products shall be free from any foreign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amounts which may be toxic.
- 4.7.3 Edible oils and fats shall be packed and or stored in food grade non-toxic containers.

5 WEIGHTS

5.1 All edible vegetable oils shall be effered, at the retail level, packed only in one, two, four, five and sixteen liter centainers. Telerance limits shall be those described by the Weights and Measures Law.

6 LABELLING

In addition to Sections 1, 2, 4 and 6 of the General Standard for the Labelling of Prepackaged Foods (CYS 03:1978) the following specific provisions apply:

- 6.1 The Name of the Food
- 6.1.1 All products designated as repessed oil, turnip rape oil, colza oil, ravison oil, sarson oil or teria cil must conform to this standard.
- 6.2 Where rapesed oil has been subject to any process of esterification or to processing which alters its fatty acid composition or its consistency the name rapesed oil or any synonym shall not be used unless qualified to indicate the nature of the process.

6.2 List of Ingredients

6.2.1 A complete list of ingredients shall be declared on the label in descending order of propertion.

6.2.2 A specific name shall be used for ingredients in the list of ingredients except that class tirles may be used in accordance with the provisions of the General Standard for the Labelling of Prepackaged Foods. (CYS 33:1978)

6.3 Net Contents

The net conferts shall be declared by volume in the metric system, or in any other system or systems in addition to the metric system in the case of exports.

6.4 Name and Address

The name and address of the manufacturer or packer shall be provided, except for export purposes the name of the exporter or other distributor may be provided instead.

- 6.5 Country of Origin
- 6.5.1 The country of origin of the product shall be declared.
- 6.5.2 When the product undergoes processing in a second country, the country in which the processing is performed shall be considered to be the country of origin for the purcesses of labelling.

6.6 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling of Prepackaged Foods''.

6.7 Coded Marking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

- 7.1 Either of the following sampling methods may be used at the discrection of the sampling authority or as agreed between the manufacturer and purchaser.
- Method 1: According to the provisions of the Food and Drugs Law.

 Method 2: According to CYS 89:1979, Sampling Fats and Fatty Oils.
- 7.2 Methods of Analysis
- 7.2.1 Determination of relative density. Determination of the relative

density of the oil shall be in accordance with part 1, CYS 78:1979, Methods of Analysis for Edible Fafs and Oils.

7.2.2 Determination of iron. Determination of the iron content shall be in accordance with part 6, CYS 78:1979, Nethods of Analysis for Edible Fats and Oils.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambrosia Oils Ltd
Central Cooperative Industries (Cyprus) Ltd
Cyprus Consumers Protection Association
Cyprus Olive Products Marketing Ecord
Co-operative Supply Union Ltd
Food Importers & Traders Association
Galanos Bres Ltd
Galatariotis Bros Ltd
Government Laboratory
Ministry of Agriculture and Natural Resources
Ministry of Commerce and Industry
Ministry of Health
Pancyprian Association of Chemists
Cyprus Organization for Standards and Centrol of Quality

Note 1. For the purpose of this standard and until the method for the determination of acid value, peroxide value, matter valatile at $105^{\circ}\mathrm{C}$, insoluble impurities, copper, lead, arsenic, refractive index, saponification value, iodine value, unsaponifiable matter,

and soap content are finalised, reference shall be made to the following methods of analysis.

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Gils, Fats and Soaps, 5th Edition, 1966, II.D.1.2 Acid Value).

Results are expressed as the number of mg KOH required to neutralize 1 g ail.

Peroxide Value (I)p

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soeps, 5th Edition, 1966, II.D.13 Peroxide Value).

Results are expressed as milliequivalents active oxygen/kg oil.

Matter Volatile at 105°C

Determination of the matter velotile at 105°C shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.C.1.1 Moisture and Volatile Matter).

Results are expressed as % m/m.

Insoluble Impurities

Determination of the inscluble impurities shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.2 Impurities).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the AOAC (1965) method (Official Methods of Analysis of the AGAC, <u>International Union of Pure and Applied Chemists</u>, <u>Carbamate Method</u>, 24.023 - 24.028).

Results are expressed as mg copper/kg.

Lead (+)

Determination of lead shall be in accordance with the AOAC (1965) method, after complete digestion, by the colorimetric <u>dithizone determination procedure</u> (Official Methods of Analysis of the AOAC, 1965, 24.053 (and 24.008, 24.009, 24.043 j, 24.046, 24.047 and 24.048).

Results are expressed as mg lead/kg.

Arsenic

Determination of arsenic shall be in accordance with the colorimetric silver <u>diethyldithiocarbamate method</u> of the AOAC (Official Methods of Analysis of the AOAC, 1965, 24.011 - 24.014, <u>24.016</u> - 24.017, 24.006 - 24.008).

Results are expressed as mg arsenic/kg.

+ Atomic absorption spectrophorometric methods may also be used, giving the same or better degree of accuracy

Hefractive Index

Determination of the refractive index shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Bils, Fors and Scaps, 5th Edition, 1966.II.B.2, Refractive Index).

Results are given as the refractive index relative to the sodium D-line at $40^{\circ} C$ (n_040°C).

Spponification Value

Determination of the separation value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Gils, Fats and Spaps, 5th Edition, 1966, II.D.2 Saponification Value(I_c).

Results are expressed as the number of mg KOH/g oil.

Indine Value (I,)

Determination of iodine value shall be in accordance with IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966 II.D.7.2 and II.D.7.3 the Wijs Method).

Unsaponifiable Matter

Determination of the unsapenifiable matter shall be in accordance with IUPAC (1964) diethyl other method (IUPAC Standard Methods for the Analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.D.5.1 and II.D.5.3).

Results are expressed as a unseponifiable matter/kg oil.

Determination of Crismer Value (I_C)

According to the AOCS method (Official and Tentative Methods of the American Chemists Society: AOCS Official Method Cb 4-35, Crismer Test, Fryo. and Westen Medification, and Ca 5a - 40, Free Fatty acids, calculating the acidity as eleic acid).

Results are expressed by a conventional value ($I_{\underline{c}}$) as described in the method.

NOTE 2:

Analytical procedures to confirm any of the provisions in this standard shall be those published and or recommended by CYS.

CYS 84: 1980

CYPRUS STANDARD SPECIFICATION FOR EDIBLE SOYA BEAN OIL

1 SCOPE

This Cyprus standard applies to edible soya bean oil.

2 DESCRIPTION

Soya bean oil (synonym: Soyabean oil) is derived from soya beans (the seeds of Glycine max L. merr).

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Soyabean oil shall have the following identity characteristics.

3.1.1 Relative Density (20°C/Water at 20°C)	0.9	19 - 0.925
3.1.2 Refractive Index (n_D40°C)	1.4	66 - 1.470
3.1.3 Saponification Value (mg KOH/g oil)	189	-19 5
3.1.4 Iodine Value (Wijs)	120	-143
3.1.5 Unsaponifiable Matter	not m	ore than
•		15 g/kg

- 3.2 Soya bean oil shall have the following quality characteristics.
- 3.2.1 The colour shall be characteristic of the designated product.
- 3.2.2 Odour and taste. The odour and taste shall be characteristic of the designated product and free from foreign and rancid odour and taste.
- 3.2.3 Acid value.
- 3.2.3.1 The acid value for soya bean oil shall not be more than 0.6 mg KOH/q oil.
- 3.2.4 The peroxide value shall not be more than 10 milliequivalents of peroxide oxygen/kg oil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.

4.1 Colours

The following colours (table 1) are permitted for the purpose of restoring

natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

TABLE 1: Colours

Colour	Maximum level of use
4.1.1 Beta-carotene	Not limited
4.1.2 Annatto (+)	Not limited
4.1.3 Curcumin (+)	Not limited
4.1.4 Canthaxanthine	Not limited
4.1.5 Beta-apo-8'-carotenal	Not limited
4.1.6 Methyl and ethyl esters of	·
Beta-apo-8'-carotenoic acid	Not limited

4.2 Antioxidants

Only the following antioxidants (table 2) may be used at the specified levels.

Table 2: Antioxidants

Antioxidant Synergist	Maximum level of use
4.2.1 Propyl, octyl, and dodecyl gallates	100 mg/kg individually or in combination
4.2.2 Butylated hydroxytoluene (BHT) Butylated hydroxyanisole (BHT)	200 mg/kg individually or in combination
4.2.3 Any combination of gallates with BHA or BHT, or both	200 mg/kg, but gallates not to exceed 100 mg/kg
4.2.4 Natural and synthetic tocopherols	Not limited
4.2.5 Ascorbyl palmitate	200 mg/kg individually
4.2.6 Ascorbyl stearate	or in combination
4.2.7 Dilauryl thiodiprop ≱onat e	200 mg/kg .
4.2.8 Tertiary butyl hydroquin o ne	200 mg/kg singly or
(твно)	in combination with BHA,
	BHT or gallates (gallates
•	not exceeding 100 mg/kg)

Temporarily endorsed

4.3 Antioxidant Synergists

Only the following antixidant synergists (table 3) may be used at the specified levels.

TABLE 3: Antioxidant Synergists

Antioxidant Synergist	Maximum level of use		
4.3.1 Citric acid and its sodium salt	Not limited		
4.3.2 Isopropyl citrate mixture	100 mg/kg		
4.3.3 Phosphoric acid (+) 4.3.4 Monoglycerate citrate	individually or in combination		

4.4 Antiforming Agents

The only permitted anti-foaming agent that may be used is dimethyl polysiloxane (dimethyl silicon) either singly or in combination with silicone dioxide at a maximum concentration of 10 mg/kg.

4.5 Crystallization Inhibitor

The only permitted crystallization inhibitor that may be used is oxystearing at a maximum level of use of 1250 mg/kg.

4.6 Metal Contaminants

Metal contaminants shall not exceed the following maximum levels as indicated in table 4.

TABLE 4: Metal Contaminants

Contaminants	Maximum level
4.6.1 Matter volatile at 105 ⁰ C	0.2% m/m
4.6.2 Insoluble impurities	0.05% m/m
4.6.3 Soap content	0.005% m/m
4.6.4 Iren (Fe)	1.5 mg/kg
4.6.5 Copper (Cu)	0.1 mg/kg
4.6.6 Lead (Pb)	0.1 mg/kg
4.6.7 Arsenic (As)	0.1 mg/kg

Temporarily endorsed

4.7 Hygiene

- 4.7.1 The products covered by the provisions of this standard shall be prepared in accordance with the Code of Practice-General Principles of Food Hygiene CYS 30:1978. Also the premises shall be registered by the Scientific Food Council of the Ministry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.7.2 To the extent possible in good manufacturing practice the products shall be free from any foreign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amount which may be toxic.

 4.7.3 Edible oils and fats shall be packed and or stored in food grade

5 WEIGHTS

non-toxic containers.

5.1 All edible vegetable oils shall be offered, at the retail level, packed only in one, two, four five and sixteen liter containers.

Tolerance limits shall be those described by the Weights and Measures Law.

6 LABELLING

In addition to Sections 1, 2, 4 and 6 of the General Standard for the Labelling of Prepackaged Foods (CYS 33:1978) the following specific provisions apply:

- 6.1 The Name of the Food
- 6.1.1 All products designated as soya bean oil or soybean oil must conform to this standard.
- 6.2 Where soya bean oil has been subject to any process of esterification or to processing which alters its fatty acid composition or its consistency the name soya bean oil or any synonym shall not be used unless qualified to indicate the nature of the process.
- 6.2 List of Ingredients
- 6.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion.

6.2.2 A specific name shall to used for ingredients in the list of ingredients except that class titles may be used in accordance with the provisions of the General Standard for the Labelling of Prepackaged Foods. (CYS 33:1978)

6.3 Net Contents

The net contents shall be declared by volume in the metric system, or in any other system in addition to the metric system in the case of exports.

6.4 Name and Address

The Name and address of the manufacturer or packer shall be provided, except for export purposes the name of the exporter or other distributor may be provided instead.

- 6.5 Country of Origin
- 6.5.1 The country of origin of the product shall be declared.
- 6.5.2 When the product undergoes processing in a second country, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

6.6 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling of Prepackaged Foods''.

6.7 Coded Marking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

- 7.1 Either of the following sampling methods may be used at the discretion of the sampling authority or as agreed between the manufacturer and purchaser.
- Method 1: According to the provisions of the Food and Drugs Law Method 2: According to CYS 89:1979, Sampling Fats and Fatty Oils
- 7.2 Methods of Analysis
- 7.2.1 Determination of relative density. Determination of the relative

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density of the oil shall be in accordance with part 1, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.

7.2.2 Determination of iron, Determination of the iron content shall be in accordance with part 6, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambresia Oils Ltd

Central Cooperative Industries (Cyprus) Ltd

Cyprus Consumers Protection Association

Cyprus Olive Products Marketing Board

Co-operative Supply Union Ltd

Food Importers & Traders Association

Galanos Bros Ltd

Galatariotis Bros Ltd

Government Laboratory

Ministry of Agriculture and Natural Resources

Ministry of Commerce and Industry

Ministry of Health

Pancyprian Association of Chemists

Cyprus Organization for Standards and Control of Quality

Note 1. For the purpose of this standard and until the methods for the determination of acid value, peroxide value, matter volatile at 105°C, insoluble impurities, copper, lead, arsenic, refractive index, saponification value, iodine value, unsaponifiable matter, and soap content are finalised, reference shall be made to the following methods of analysis.

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.1.2 <u>Acid Value</u>).

Results are expressed as the number of mg KOH required to neutralize ${\tt 1}$ g oil.

Peroxide Value (I)p

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.13 Peroxide Value).

Results are expressed as milliequivalents active oxygen/kg oil.

Matter Volatile at 1050

Determination of the matter volatile at 185°C shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Gils, Fats and Soaps, 5th Edition, 1966, II.C.1.1 Moisture and Volatile Matter).

Results are expressed as % m/m.

Insoluble Impurities

Determination of the insoluble impurities shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.2 <u>Impurities</u>).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the AOAC (1965) method (Official Methods of Analysis of the AOAC, <u>International Union</u> of Pure and Applied Chemists, Carbomare Method, 24.023 ~ 24.028).

Results are expressed as mg copper/kg.

Lead (+)

Determination of elead shall be in accordance with the ADAC (1965) method, after complete digestion, by the colorisatric dithizone determination procedure (Official Methods of Analysis of the ADAC, 1965, 24.053 (and 24.008, 24.009, 24.043 j. 24.046, 26.047 and 24.048).

Results are expressed as mo lead/ko.

Arsenic

Determination of arsenic shall be in accordance with the colorimetric silver <u>diethyldithiocarbamate method</u> of the AOAC (Official Methods of Analysis of the AOAC, 1965, 24.011 - 24.014, <u>24.016</u> - 24.017, 24.006 - 24.008).

Results are expressed as mg arsenic/kg

+ Atomic Absorption Spectrophotometric methods may also be used, giving the same or better degree of accuracy.

Refractive Index

Determination of the refractive index shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Gils, Fats and Soaps, 5th Edition, 1966.II.8.2, Refractive Index).

Results are given as the refractive index relative to the sodium D-line at $40^{\circ}\mathrm{C}$ (n_0 $40^{\circ}\mathrm{C}$).

Saponification Value

Determination of the seponification value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.D.2 Seponification Value(I_c).

Results are expressed as the number of mg KOH/g oil.

Iodine Value (I,)

Determination of iodine value shall be in accordance with IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966 II.D.7.2 and II.D.7.3, the Wijs Method).

Unsaponifiable Matter

Determination of the unsaponifiable matter shall be in accordance with IUPAC (1964) diethyl ether method (IUPAC Standard Methods for the Analysis of Dils, Fæts and Spaps, 5th Edition, 1966, II.D.5.1 and II.D.5.3).

Results are expressed as g uneaponifiable matter/kg oil.

Halphen Test

The Halphen test shall be in accordance with AOCS method (Official and Tentative Methods of the American Oil Chemists' Society, AOCS Official Method Cb1-25.

Result is expressed as positive or negative.

Soap content

Determination of the soap content shall be in accordance with the FAO/WHO Codex Alimentarius Period (FAO/WHO Lethods of Analysis for Edible Fats and Oils, CAC/HM 13 - 1969, Determination of Soap Contant).

Results are expressed as % m/m sodium oleate.

Note 2: Analytical procedures to confirm any of the provision in this standard shall be those published and or recommended by CYS.

CYS 85:1980

CYPRUS STANDARD SPECIFIECTION FOR EDIBLE SUNFLOWER SEED OIL

1 SCOPE

This Cyprus standard applies to edible sunflower seed oil.

2 DESCRIPTION

Sunflower seed oil (synonym: sunflower oil) is derived from sunflower seeds (the seeds of Helianthus annuus L).

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

- 3.1 Sunflower seed oil shell have the following identity characteristics.
- 3.1.1 Relative Density (20°C/Water at 20°C)

3.1.3 Saponification Value (mg KOH/g cil)

0.918 - 0.923 1.467 - 1.469

3.1.2 Refractive Index (n_040°t)

188 - 194

3.1.4 **Led**ine Value (Wijs)

110 - 143

3.1.5 Unsaponifiable Matter

110 - 142

not more than
15 o/ka

- 3.2 Sunflower seed cil shall have the following quality characteristics.
- 3.2.1 The colour shall be characteristic of the designated product.
- 3.2.2 Odour and tasta. The odour and fasta shall be characteristic of the designated product and free from foreign and renoid odour and tasta.
- 3.2.3 Acid value.
- 3.2.3.1 The acid value for virgin oil shall not be more than 4 mg KOH/q oil.
- 3.2.3.2 The acid value for non-virgin oil shall not be more than 0.6 mg KOH/q oil.
- 3.2.4 The perexide value shall not be more than 10 milliequivalents of peroxide exygen/kg oil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.

4.1 Colours

The following colours (table 1) are permitted for the purpose of restoring

natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

TABLE 1: Colours

Colour	Maximum lovel of use
4.1.1 Beta-carctene	not limited
4.1.2 Annatto (+)	not limited
4.1.3 Curcumin (+)	not limited
4.1.4 Canthaxanthine	. not limited
4.1.5 Beta-apc-8'-carctenal	not limited
4.1.6 Methyl and ethyl esters of beta-spo-8'-carotenoic acid	

4.2 Antioxidents

Only the following antiexidents (table 2) may be used at the specified levels.

TABLE 2: Antiexidants

,	Anti⊝xidant	Maximum level of use
4.2.1	Propyl, cetyl, and @cdweyl	160 mg/kg individually or in combination
4.2.2	Butylated hydroxytoluene (BHT) Butylated hydroxysnisole (BH A)	2 00 mg/kg individually or in combination
4.2.3	Any combination of galletes with BHA or BHT, or both	200 mg/kg, but gallates not to exceed 100 mg/kg
4.2.4	Natural and synthetic foce-	Mc: limited
i	Ascerbyl palmitate Ascerbyl stearate	200 mg/kg individually or in combination
4.2.7	Dilauryl thiodipropionate	200 mg/kg
4.2.8	Tertiary butyl hydroquinone . (TBHO)	200 mg/kg singly or in combination with BHA, BHT or qualities (gallates not exceeding 100 mg/kg)

⁺ Temporarily endorsed

4.3 Antioxidant Synergists

Only the following anticxidant synergists (table/3) may be used at the specified levels.

TABLE 3: Antioxidant Synergists

AntioXident, Synergist	Moximum level of use
4.3.1 Citric acid and its sodium sol	Not limited
4.3.2 Isopropyl citrate mixture	100 mg/kg
4.3.3 Phosperic acid (+)	individually or
4.3.4 Monnglycerate citrate	in combination

4.4 Antifoaming Agents

The only permitted anti-feaming agent that may be used is dimethyl polysiloxane (dimethyl silicone) either singly or in combination with silicone diexide at a maximum concentration of 10 mg/kg.

4.5 Crystallization Inhibitor

The paily permitted crystallization inhibitor that may be used is exysterin at a maximum level of use of 1250 mg/kg.

4.6 Metal Contaminants.

Motal contaminants shall not exceed the following maximum levels as indicated in table 4.

TABLE 4: Moral Contaminants

Conteminants	Maximum level
4.6.1 Matter vel at ile at 105 [°] C 4.6.2 Insoluble impurities	0.2% m/m 0.05% m/m
6.4.3 Scap content	0.005% m/m
4.6.4 Iron (Fe) (Virgin bil)	5 mg/kg
(Non-virgin cil)	1.5 mg/kg
4.6.5 Copper (Cu) (Virgin Gil)	0.4 mg/kg
(Non-Virgin cil)	0.1 ng/ka
4.6.6 Lend (Pb)	0.1 mg/kg
4.6.7 Arsenic (As)	0.1 mg/kg

^{*} Temperarily endersed

4.7 Hygiene

- 4.7.1 The products covered by the provisions of this standard shell be prepared in accordance with the Code of Practice-General Principles of Food Hygiene CYS 30:1978. Also the premises shall be pregistered by the Scientific Food Council of the Ministry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.7.2 To the extent possible in good menufacturing practice the products shall be free from any forcign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amount which may be toxic.
- 4.7.3 Edible oils and fats shall be packed and or stored in food grade /non-texic containers.

5 WEIGHTS

5.1 All edible vegetable cils shall be effered, at the retail level, packed only in one, two, four, five and sixteen liter containers. Tolerance limits shall be those described by the Weights and Measures Law.

6 LABELLING

In addition to Sections 1, 2 4 and 6 of the General Standard for the Labelling of Prepackaged Foods (CYS 33:1978) the following specific previsions apply:

- 6.1 The Name of the Food
- 6.1.1 All products designated as sunflowerseed all or sunflower ail to this standard.
- 6.2 Where sunflower seed oil has been subject to any process of esterification or to processing which alters its fatty acid composition or its
 consistency the name sunflowerseed oil or any synonym shall not be used
 unless qualified to indicate the nature of the process.
- 6.2 List of Ingredients
- 6.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion.

6.2.2 A specific name shall be used for ingredients in the list of ingredients except that class titles may be used in accordance with the previsions of the General Standard for the Labelling of Prepackaged Foods. (CYS 33:1978)

6.3 Net Contents

The net contents shall be declared by values in the metric system, or in any other system or systems in addition to the metric system in the case of exports.

6.4 Name and Address

The name and address of the manufacturer or packer shall be provided except for expert purposes the name of the experter or other distributor may be provided instead.

6.5 Country of Origin

- 6.5.1 The country of origin of the product shall be declared.
- 6.5.2 When the product undergoes processing in a second country, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

6.6 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling of Prepackaged Foods''.

6.7 Coded Marking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

7.1 Either of the following sampling methods may be used at the discretion of the sampling authority or as agreed between the manufacturer and purchaser.

Method 1: According to the previsions of the Food and Drugs Law.

Method 2: According to CYS 89:1979, Sampling Fats and Fatty Oils.

7.2 Methods of Analysis

7.2.1 Determination of relative density. Determination of the relative

density of the oil shall be in accordance with part 1, CYS 78:1979, Methods of Analysis for Edible Fats and Gils.

7.2.2 Determination of iron. Determination of the iron content shall be in accordance with part 6, CYS 78:1979, Methods of Analysis for Edible Fats and Olls.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambrosia Oils Ltd

Central Cooperative Industries (Cyprus) Ltd

Cyprus Consumers Profection Association

Cyprus Olive Products Marketing Soard

Co-operative Supply Union Ltd

Food Importers & Traders Association

Galancs Bros Ltd

Galatarictis Bros Ltd

Government Laboratory

Ministry of Agriculture and Natural Resources

Ministry of Commerce and Industry

Ministry of Health

Pancyprian Association of Chemists

Cyprus Organization for Standards and Control of Quality

Note 1. For the purpose of this standard and until the methods for the determination of acid value, peroxide value, matter volatile at 105°C, insoluble impurities, copper, lead, arsenic, refractive index, saponification value, iodine value, unsaponifiable matter, Halphen test and scap content are finalised, reference shall be made to the following methods of analysis.

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.D.1.2. Acid Value).

Results are expressed as the number of mg KOH required to neutralize 1 g oil.

Peroxide Value (I)p

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.13 <u>Peroxide Value</u>).

Results are expressed as milliequivalents active exygen/kg oil.

Matter Volatile at 10500

Determination of the matter valatile at 105°C shall be in accordance with the IUPAC (1964) method (IUPAC Stendard Methods for the analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.C.1.1 Maisture and Volatile Matter).

Results are expressed as % m/m.

Insoluble Impurities

Determination of the insoluble impurities shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.2 <u>Impurities</u>).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the AOAC (1965) method (Official Methods of Analysis of the AOAC, <u>International Union of Pure and Applied Chemists</u>, <u>Carbonate Method</u>, 24.023 - 24.028).

Results are expressed as mg copper/kg.

Lead (+)

Determination of elead shall be in accordance with the AOAC (1965) method, after complete digestion, by the colorimetric <u>dithizane</u> <u>determination procedure</u> (Official Methods of Analysis for the AOAC, 1965, <u>24.053</u> (and 24.008, 24.009, 24.043 j, 24.046, 24.047 and 24.048).

Results are expressed as mg lead/kg.

Arsenic

Determination of arsenic shall be in accordance with the colorimetric silver <u>diethyldithiccarbdmate method</u> of the ADAC (Official Methods of Analysis of the ADAC, 1965, 24.011 - 24.014, <u>24.016</u> - 24.017, 24.006 - 24.008).

Results are expressed as mg arsenic/kg.

+ Atomic absorption spectrophotometric methods may also be used, giving the same or better degree of accuracy.

Refractive Index

Determination of the refractive index shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966.II.S.2, Refractive Index).

Results are given as the refractive index relative to the sedium D-line at $40^{\circ}C$ (n_n40°C).

Saponification Value

Determination of the saponification value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Spaps, 5th Edition, 1966, II.D.2 Saponification Value($I_{\rm e}$).

Results are expressed as the number of mg KOH/g cil.

Indine Volue (I,)

Determination of iodine value shall be in accordance with IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966 II.D.7.2 and II.D.7.3, the Wijs Method).

Unsaponifiable Matter

Determination of the unsaponifiable matter shall be in accordance with ILPAC (1964) diethyl other method (IMPAC Standard Methods for the Analysis of Oils, Fats and Scape, 5th Edition, 1966, II.D.5.1 and II.D.5.3).

Results are expressed as g unseponifiable matter/kg oil.

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Note 2: Analytical procedures to confirm any of the provisions in this standard shall be those published and or recommended by CYS.

CYS 86: 1980

CYPRUS STANDARD SPECIFICATION FOR EDIBLE COTTONSEED OIL

1 SCOPE

This Cyprus standard applies to edible cottonseed oil.

- 2 <u>Cottonseed Oil</u> is derived from the seeds of various cultivated species of Gossypium.
- 3 ESSENTIAL COMPOSITION AND QUALITY FACTORS
- 3.1 Cottonseed Oil shall have the following identity characteristics.

3.1.1 Relative density (20°C/Water at 20°C)		0.918 - 0.926
3.1.2 Refractive index (n_D40°C)		1.458 - 1.466
3.1.3 Saponification value (mg KOH/g oil)	;:	189 – 198
3.1.4 Iodine value (Wijs)		99 - 119
3.1.5 Unsaponifiable matter		not more than
		15 g/kg
3.1.6 Halphen Test+		positive

7.1.6 nathien lest

- •
- 3.2 Cottonseed oil shall have the following quality characteristics.
- 3.2.1 The colour shall be characteristic of the designated product.
- 3.2.2 Odour and taste. The odour and taste shall be characteristic of the designated product and free from foreign and rancid odour and taste.
- 3.2.3 Acid value.
- 3.2.3.1 The acid value for virgin oil shall not be more than 0.6 mg KOH/g oil.
- 3.2.4 The peroxide value shall not be more than 10 milliequivalents of peroxide oxygen/kg oil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.

Kapok oil and some other oils give a positive test and fats from animals fed on cottonseed meal may also give a positive test. Different lists of cottonseed oil may react with different intensities. Hydrogenation and heating of cottonseed oil reduce the intensity of the reaction and may destroy it entirely.

4.1 Colours

The following colours (table 1) are permitted for the purpose of restoring natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

TABLE 1: Colours

Colour	Maximum Level of Use
4.1.1 Beta-carctene	not limited
4.1.2 Annatto (+)	not limit ed
4.1.3 Curcumin (+)	not limited
4.1.4 Canthaxanthine	not limited
4.1.5 Beta-apo-8'-carotenal	not limited
4.1.6 Methyl and ethyl esters of	
beta-apo-8'-carotenoic acid	not limited

4.2 Antioxidants

Only the following antioxidants (table 2) may be used at the specified levels.

TABLE 3: Antiexidants

Antioxidant	Maximum Level of Use
4.2.1 Propyl, octyl, and dodecyl gallates	100 mg/kg.individually or in combination
4.2.2 Butylated hydroxytolwene (BHT) Butylated hydroxya~ nisole (BHT)	200 mg/kg individually or in combinativ
4.2.3 Any combination of gallates with BHA or BHT, or both 4.2.4 Natural and synthetic foco-	200 mg/kg, but galletes not to exceed 100 mg/kg
pherols 4.2.5 Ascorbyl palmitate 4.2.6 Ascorbyl stearate	Not limited 200 mg/kg individually or in combination
4.2.7 Dilauryl thiodipropionate 4.2.8 Tertiary butyl hydroquinone (TBHO)	200 mg/kg 200 mg/kg singly or in com- bination with BHA, BMT or
	gallates (gallates not exceeding 100 mg/kg)

⁺Temporarily endorsed

4.3 Antioxidant Synergists

Only the following antioxidant synergists (table 3) may be used at the specified levels.

TABLE 3: Antioxidant Synergists

Antioxidant Synergist	Maximum Level of Use
4.3.1 Citric acid and its sodium self	Not <u>limited</u>
4.3.2 Isopropyl citrate mixture	100 mg/kg
4.3.3 Phosphoric acid (+)	individually or
4.3.4 Monoglyceride citrate	in combination

4.4 Antifoaming Agents

The only permitted anti-foaming agent that may be used is dimethyl polysiloxane (dimethyl silicone) either singly or in combination with silicone dioxide⁺ at a maximum concentration of 10 mg/kg.

4.5 Crystallization Inhibitor

The only permitted crystallization inhibitor that may be used is oxystearin at a maximum level of use of 1250 mg/kg.

4.6 Metal Contaminants

Metal contaminants shall not exceed the following maximum levels as indicated in table 4.

. TAPLE 4: Metal Contaminants

Contaminants	Maximum Level
4.6.1 Matter volatile at 105°C	0.2% m/m
4.6.2 Insoluble impurities	0.05% m/m
4.6.3 Soap content	0.005% m/m
4.6.4 Iron (Fe)	1.5 mg/kg
4.6.5 Copper (Cu)	0.1 mg/lg
4.6.6 Lead (Pb)	C.1 mg/kg
.4.6.7 Arsenic (As)	0.1 mg/kg

⁺ Temporarily endorsed

4 .7 Hygiene

- 4.7.1 The products covered by the provisions of this standard shall be prepared in accordance with the Code of Fractice General Principles of Food Hygiene CYS 30:1978. Also the premises shall be registered by the Scientific Food Council of the Ministry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.7.2 To the extent possible in good manufacturing practice the products shall be free from any foreign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amounts which may be toxic.
- 4.7.3 Edible oils and fats shall be packed and or stored in food quade non-toxic containers.

5 WEIGHTS

5.1 All edible vegetable oils shall be offered, at the retail level, packed only in one, two, four, five and sixteen liter containers.

Tolerance limits shall be those described by the Weights and Measures Law.

6 LABELLING

In addition to Sections 1, 2, 4 and 6 of the General Standard for the Labelling of Prepackaged Foods (CYS 33:1978) the following specific provisions apply:

- 6.1 The Name of the Food
- 6.1.1 All products designated as cottonseed oil, must conform to this standard.
- 6.1.2 Where cottonseed oil has been subject to any process of esterification or to processing which alters its fatty acid composition or its consistency the name cottonseed oil or any synonym shall not be used unless qualified to indicate the nature of the process.
- 6.2 List of Ingredients
- 6.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion.

6.2.2 A specific name shall be used for ingredients in the list of ingredients except that class titles may be used in accordance with the provisions of the General Standard for the Labelling of Prepackaged Foods (CYS 33:1978)

5.3 Net Contents

The net contents shall be declared by volume in the metric system, or in any other system or systems in addition to the metric system in the case of exports.

6.4 Name and Address

The name and address of the manufacturer or packer shall be provided, except for export purposes the name of the exporter or other distributor may be provided instead.

- 6.5 Country of Origin
- 6.5.1 The country of origin of the product shall be declared.
- 6.5.2 When the product undergoes processing in a second country, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

6.6 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling or Prepackaged Foods''.

6.7 Coded Marking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

7.1 Either of the following sampling methods may be used at the discretion of the sampling authority or as agreed between the manufacturer and purchaser.

Mothod 1: According to the provisions of the Food and Drugs Law.
Mothod 2: According to CYS 89:1979, Sampling Fars and Fatty Oils.

- 7.2 Methods of Analysis
- 7.2.1 Determination of relative density. Determination of the relative density of the oil shall be in accordance with part 1, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.
- 7.2.2 Determination of iron. Determination of the iron content shall be in accordance with part 6, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambrosia Oils Ltd
Central Cooperative Industries (Cyprus) Ltd
Cyprus Consumers Protection Association
Cyprus Olive Products Marketing Board
Co-operative Supply Union Ltd
Food Importers & Traders Association
Galatariotis Bros Ltd
Government Laboratory
Ministry of Agriculture and Natural Mesources
Ministry of Commerce and Industry
Ministry of Health
Pancyprian Association of Chemists
Cyprus Organization for Standards and Central of Quality

Note 1. For the purpose of this standard and until the methods for the determination of acid value, peroxide value, metter volatile at 105°C, insoluble impurities, copper, lead, arsenic, refractive index, saponification value, iodine value, unsaponifiable matter, Halphen test and soap content, are finalised, reference shall be made to the following methods of analysis:

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Mothods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.1.2 Acid Value).

Results are expressed as the number of mg KOH required to neutralize 1 g oil.

Peroxide Value (Ip)

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.13 <u>Peroxide Value</u>).

Results are expressed as milliquivalents active oxygen/kg oil.

Matter Volatile at 105°C

Determination of the matter volatile at 105°C shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Gils, Fats and Soaps, 5th Edition, 1966, II.C.1.1 Moisture and Volatile Matter).

Results are expressed as % m/m.

Insoluble Impurities

Determination of the insoluble impurifies shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.2 <u>Impurities</u>).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the AOAC (1965) method (Official Methods of Analysis of the ACAC, <u>International</u>
Union of Pure and <u>Applied Chemists</u>, <u>Carbandeta Method</u>, 24.023 - 24.028).

Results are expressed as mg copper/kg.

Lead (+)

Determination of lead shall be in accordance with the ADAC (1965)
Method, after complete digestion, by the colorimetric dithizone
determination procedure (Official Methods of Analysis of the ADAC,
1965, 24.053 (and 24.008, 24.009, 24.043 j, 24.046, 24.047 and 24.048).

Results are expressed as mg lead/ke.

Arsenic

Determination of arsenic shall be in accordance with the colorimetric silver <u>diethyldithiocarbamate method</u> of the AOAC (Official Methods of Analysis of the AOAC, 1965, 24.011 - 24.014, <u>24.016</u> - 24.017, 24.006 - 24.008).

Results are expressed as ma arsenic/kg.

(+) Atomic absorption spectrophotometric methods may also be used, giving the same or better degree of accuracy.

adtive Index

rmination of the refractive index shall be in accordance with the C (1964) method (IUPAC Standard Methods for the Analysis of Oils, and Soaps, 5th Edition, 1966.II.S.2, Hefractive Index).

its are given as the refractive index relative to the sodium as at 40°C (in_040°C).

ification Value

mination of the saponification value shall be in accordance with UPAC (1964) method (IUPAC Standard Methods for the Analysis of Fets and Soaps, 5th Edition, 1966, II.D.2 Saponification (I_g) .

.ts are expressed as the number of my KOH/g oil.

e Value (I,)

mination of iodine value shall be in accordance with IUPAC (1964) and (IUPAC Standard Methods for the Analysis of Oils, Fats and 3, 5th Edition, 1966, II.D.7.2 and II.D.7.3, the Wijs Method).

onifiable Mafter

minetion of the unsaponifiable matter shall be in accordance with (1964) dicthyl ether method (IUPAC Standard Methods for the vsis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.5.1 and 5.3).

its are expressed as a unsaponifiable matter/kg oil.

nen Test

'alphen test shall be in accordance with AOCS method (Official and itive Methods of the American Oil Chemists' Society, AOCS Official of Cb1-25).

it is expressed as positive or inegative.

ification of Sesameseed Oil

ding to the AOCS Method (Official and Tentative Methods of the can Oil Chemists Society; AOCS Official Method Cb 2-40, <u>Modified</u> vecchia Test (AOAC).

The results is expressed as positive or negative.

Note: This procedure is not suitable as an identity test for refined sesameseed oils. Furthermore, sesameseed oil might get oxidized after long storage and this test is likely to be disturbed.

Cr

According to part 4, CYS 78:1979 Methods of Analysis for Edible Fats and Oils, <u>Sesameseed Oil Test</u> (Baudowin).

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Note 2: Analytical procedures to confirm any of the provisions in this standard shall be those published and or recommended by CYS.

CYPRUS STANDARD SPECIFICATION FOR EDIBLE SAFFLOWERSEED OIL

1 SCOPE

This Cyprus standard applies to edible safflowerseed oil.

2 DESCRIPTION

<u>Safflower Goll</u> (Synonyms: <u>Safflower Gil</u>; <u>Carthamus Gil</u> and <u>Kurdee Gil</u>) is derived from safflower seeds (the seeds of carthamus tinctorius L).

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1	Safflowerseed	oil	shall	have	the	following	identity	characteristics.
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3.1.1 Relative Density (20°C/Water at 20°C)	0.922 - 0.927
3.1.2 Refractive Index $(n_0^40^{\circ}C)$	1.467 - 1.470
3.1.3 Saponification Value (mg KOH/g oil)	186 - 198
3.1.4 Iodine Value (Wijs)	135 - 150
3.1.5 Unsaponifiable Matter	not more than
	15 g/kg

- 3.2 Safflowerseed oil shall have the following quality characteristics.
- 3.2.1 The colour shall be characteristic of the designated product.
- 3.2.2 Odour and taste. The odour and taste shall be characteristic of the designated product and free from foreign and rancid odour and taste.
- 3.2.3 Acid value.
- 3.2.3.1 The acid value for safflawerseed cil shall not be more than 0.6 mg KCH/g cil.
- 3.2.4 The peroxide value shall not be more than 10 milliequivalents of peroxide oxygen/kg oil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.

4.1 Colours

The following clolours (table 1) are permitted for the purpose of restoring

natural colour lost in processing or for the purpose of standardizing colour, as long as the added ©clour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

TABLE 1: Colours

Colour	Maximum level of use
4.1.1 Beta-caratene	not limited
4.1.2 Annatto (+)	not limited
4.1.3 Curcumin (+)	not limited
4.1.4 Canthaxanthine	not limitéd
4.1.5 Beta-apr-8'-carotenal	not limited
4.1.6 Methyl and ethyl esters of	Note limited
heta-apo-8'-carotenoic,acid	

4.2 Antioxidants

Only the following anticxidents (table 2) may be used at the specified levels

TABLE 2: Antiexidents

Antioxidant	Maximum level of use
4.2.1 Propyl, octyl, and dodecyl gallates	100 mg/kg individually or in combination
4.2.2 Butylated hydroxytoluone (BHT). Butylated hydro- xyanisole (BHA)	200 mg/kg individually or in combination
4.2.3 Any combination of gallates with BHA or BHT, or both	200 mg/kg, but gallates not to exceed 100 mg/kg
4.2.4 Natural and synthetic toco-	Not limited
4.2.5 scorbyl palmitate	200 mg/kg individually
4.2.6 Ascorbyl stearcte	pr in combination
4.2.7 Dilauryl thiodipropionate	200 mg/kg
4.2.8 Tertiary butyl hydroquinone (TBHQ)	200 mg/kg singly or in combina- tion with BHA, BHT or gallates, (gallates not exceeding 100 mg/kg)

Temporarily endorsed

4.3 Antioxidant Synergists

Only the following anticxidant synergists (table 3) may be used at the specified levels.

TABLE 3: Anticxident Synergists

Antinxidant, Synergist	Maximum level of use
4.3.1 Citric acid and its sedium salt	Not limited
4.3.2 Isopropyl citrate mixture	100 mg/kg
4.3.3 Phosperic acid (+)	individually or
4.3.4 Monoglycerate citrate	in combination

4.4 Antifoaming Agents

The only permitted anti-foaming agent that may be used is dimethyl polysilexane (dimethyl silicons either singly or in combination with silicone diexide⁺ at a maximum concentration of 10 mg/kg.

4.5 Crystallization Inhibitor

The only permitted crystallization inhibitor that may be used is exysteerin at a maximum level of use of 1250 mg/kg.

4.6 Metal Contaminants

Metal contaminants shall not exceed the following maximum levels as indicated in table 4.

TABLE 4: Metal Contaminants

Contaminants	Maximum level
4.6.1 Matter volatile at 105°C	0.2% m/m
4.6.2 Insoluble impurities	0.05%mm/m
4.6.3 Snap content	0.005% m/m
4.6.4 Iron (Fe)	1.5 mg/kg
4.6.5 Copper (Cu)	0.1 mg/kg
4.6.6 Lend (Pb)	0.1 mg/kg
4.6.7 Arsenic (As)	0.1 mg/kg

+ Temporarily endorsed

4.7 Hygiene

- 4.7.1 The products covered by the provisions of this standard shall be prepared in accordance with the Code of Practice-General Principles of Food Hygiene CYS 30:1976. Also the premises shall be registered by the Scientific Food Council of the Ministry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.7.2 To the extent possible in good manufacturing practice the products shall be free from any foreign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amounts which may be toxic.
- 4.7.3 Edible cils and fats shall be packed and or stored in food grade non-toxic containers.

5 WEIGHTS

5.1 All edible vegetable cils shall be offered, at the retail level, packed only in one, two, four, five and sixteen liter containers.

Tolerance limits shall be those described by the Weights and Measures Law.

6 LABELLING

In addition to Sections 1, 2, 4 and 6 of the General Standard for the Labelling of Prepackaged Foods (CYS 33:1978) the following specific provisions apply:

- 6.1 The Name of the Food
- 6.1.1 All products designated as safflower seed oil, safflower oil, carthamus oil, or kurdee oil must conform to this standard.
- 6.2 Where safflowerseed oil has been subject to any process of esterification or to processing which alters its fatty acid composition or its consistency the name safflwoerseed oil or any synonym shall not be used unless qualified to indicate the nature of the process.
- 6.3 List of Ingredients
- 6.3.1 A complete list of ingredients shall be declared on the label in descending order of proportion.

6.3.2 A specific name shall be used for ingredients in the list of ingredients except that class titles may be used in accordance with the provisions of the General Standard for the Labelling of Prepackaged Foods. (CYS 33:1978)

6.4 Net Contents

The net contents shall be declared by volume in the metric system, or in any other system or systems in addition to the metric system in the case of exports.

6.5 Name and Address

The name and address of the manufacturer or packer shall be provided, except for export purposes the name of the exporter of other distributor may be provided instead.

- 6.6 Country of Origin
- 6.6.1 The country of origin of the product shall be declared.
- 6.6.2 When the product undergoes processing in a second country, the country in which the processing is perfermed shall be considered to be the country of origin for the purpose of labelling.

6.7 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling of Prepackaged Foods.''

6.8 Coded Marking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

- 7.1 Either of the following sampling methods may be used at the discretion of the sampling authority or as agreed between the manufacturer and purchaser.
- Method 1: According to the provisions of the Food and Drugs Law.

 Method 2: According to CYS 89:1979, Sampling Fats and Fatty Oils.

7.2 Methods of Analysis

7.2.1 Determination of relative density. Determination of the relative

density of the oil shall be in accordance with part 1, CYS 78:1979 Methods of Analysis for Edible Fats and Oils.

7.2.2 Determination of iron. Determination of the iron content shall be in accordance with part 6, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambrosia Oils Ltd
Central Cooperat ~ Industries (Cyprus) Ltd
Cyprus Consumers Protection Association
Cyprus Olive Products Marketing Board
Co-operative Supply Union Ltd
Food Importers & Traders Association
Galanos Bros Ltd
Galatariotis Bros Ltd
Government Laboratory
Ministry of Agriculture and Natural Resources
Ministry of Commerce and Industry
Ministry of Health
Pancyprian Association of Chemists
Cyprus Organization for Standards and Control of Quality

Note 1. For the purpose of this stendard and until the methods for the determination of acid value, peroxido value, matter valatile at 105°C , insoluble impurities, copper, lead, arsenie, refractive index, saponification value, iodine value, unseponifiable matter,

and soap content are finalised, reference shall be made to the following methods of analysis.

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Mathods for the analysis of Dils, Fats and Soaps, 5th Edition, 1966, II.D.1.2 <u>Acid Value</u>).

Results are expressed as the number of mg KOH required to neutralize 1 g cil.

Perdxide Value (I)p

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Spaps, 5th Edition, 1966, II.D.13 <u>Peroxide Value</u>).

Results are expressed as milliequivalents active oxygen/kg oil.

Matter Volatile at 105°C

Determination of the matter volatile at 105°C shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.1.1 Maisture and Volatile Matter).

Results are expressed as % m/m.

Insoluble Impurities

Determination of the insoluble impurities shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fets and Scaps, 5th Edition, 1966, II.C.2 <u>Impurities</u>).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the AOAC (1965) method (Official Methods of Analysis of the AOAC, <u>International Union of Pure and Applied Chemists</u>, <u>Carbamate Method</u>, 24.023 - 24.028).

Results are expressed as mg copper/kg.

Lead (+)

Determination of lead shall be in accordance with the AOAC (1965) method, after complete digestion, by the colorimetric <u>dithizone determination</u> <u>procedure</u> (Official Methods of Analysis of the AOAC, 1965, <u>24.023</u> (and 24.008, 24.009, 24.043 j, 24.046, 24.047 and 24.048).

Results are expressed as mg lead/kg.

Arsenic

Determination of arsenic shall be in accordance with the colorimetric silver <u>diethyldithiocarbamate method</u> of the AOAC (Offical Methods of Analysis of the AOAC, 1965, 24.011 - 24.014, 24.016- 24.017, 24.006 - 24.008).

Results are expressed as mg arsonic/kg.

+ Atomic absorption spectrophotometric methods may also be used, giving the same or better degree of accuracy

Refractive Index

Determination of the refractive index shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966.II.B.2, Refractive index).

Results are given as the refractive index relative to the sodium D-line at $40^{\circ}\text{C}(n_{-1}40^{\circ}\text{C})$.

Saponification Value

Determination of the seponification value shell be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Scaps, 5th Edition, 1966, II.D.2 Seponification Value(I_s).

Results are expressed as the number of mg KOH/g cil.

IndineValue (I,)

Determination of iodine value shall be in accordance with IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966 II.D.7.2 and II.D.7.3, the Mijs Method).

Unsaponifiable Matter

Determination of the unsaponifiable matter shall be in accordance with IUPAC (1964) diethyl ether method (IUPAC Standard Methods for the Analysis of Cils, Fats and Scops, 5th Edition, 1966, II.D.5.1 and II.D.5.3).

Results are expressed as g unsaponifiable matter/kg oil.

<u>Note 2:</u> Analytical procedures to confirm any of the provisions in this standard shall be those published and or recommended by CYS.

CYS 88: 1980

CYPHUS STANDARD SPECIFICATION FOR EDIDLE SESAMESEED OIL

1 SCOPE

This Cyprus standard applies to edible sesameseed oil.

2 Sesameseed oil (synonyme: Sesame Oil; Gingelly Oil; Ben Oil; Till Oil; and Tillic Oil) is derived from sesame seeds (the seeds of sesamum indicum L).

3 ESSENTIAL COMPOSITION AND SUBLITY FACTORS

3.1 Sesameseed Oil shall have the following identity characteristics.

3.1.1 Relative density (20°C/Water at 20°C)	0.915 - 0.923
3.1.2 Refractive index $(n_D^{40}^{\circ}C)$	1.465 - 1.469
3.1.3 Saponification value (mg YOH/g oil)	187 - 195
3.1.4 Iodine value (Wijs)	104 - 120
3.1.5 Unsaponifiable matter	not more than
	20 g/kg

3.1.6 Modified villavecchis test or sesome oil
test (Baudouin) positive

- 3.2 Sesameseed oil shall have the following quality characteristics
- 3.2.1 The colour shell be characteristic of the designated product.
- 3.2.2 Odour and taste. The odour and taste shall be characteristic of the designated product and free from foreign and rancid adour and taste.
 3.2.3 Acid value.
- 3.2.3.1 The seid value for virgin oil shall not be more than 4 mg KOH/g $\,$
- 3.2.3.2 The ocid value for non-virgin oil shall not be more than $0.6~\mathrm{mg}$ KCH/g oil.
- 3.2.4 The peroxide value shall not be more than 10 milliequivalents of peroxide oxygen/kg oil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.

4.1 Colours

The following colours (table 1) are permitted for the purpose of restoring natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

TABLE 1: Colours

Colour	Maximum Lev el of Use
4.1.1 Beta-carotene	Not limited
4.1.2 Annatto (+)	Not limited
4.1.3 Curcumin (+)	Not limited
4.1.4 Canthaxanthine	Not limited
4.1.5 Beta-apo-8'-carotenal	Not limited
4.1.6 Methyl and ethyl esters of beta-apo-8'-carotenoic acid	Not limited

4.2 Antioxidants

Only the following antioxidants (table 2) may be used at the specified levels.

TABLE 3: Antioxidants

,		
	Antioxidant .	Maximum Level of Use
	Propyl, octyl, and dodecyl gallates	100 mg/kg individually or in combination
	Butylated hydroxytoluene (BHT) Butylated hydroxyanisole (BHT)	200 mg/kg individually or in combination
	Any combination of gallates with BHA or BHT, or both	200 mg/kg, but gallates not to exceed 100 mg/kg
	Watural and synthetic tocophe- rols	Not limited
4.2.5 A	Ascorbyl palmitate	200 mg/kg individually
4.2.7	As S orbyl stearate Dilauryl thiodipropicnete Tartiary butyl hydroduinane (T g H Q)	or in combination 200 mg/kg 200 mg/kg singly or in combi nati on with BH A , 8HT or gallates (gallates not exceeding 100 mg/kg)

⁺ Temporarily endorsed

4.3 Antioxidant Synergists

Only the following antwoxidant synergists (table 3) may be used at the specified levels.

TABLE 4: Antioxidant Synergists

Antioxidant Synergist	Maximum Level of Use
4.3.1 Citric acid and its sodium salt	Not limited
4.3.2 Isopropyl citrate mixture	100 mg/kg
4.3.3 Phosphorix acid (+)	individually or
4.3.4 Monoglyceride citrate	in combination

4.4 Antifoaming Agents

The only permitted anti-foaming agent that may be used is dimethyl polysiloxane (dimethyl silicone) either singly or in combination with silicone dioxide $^+$ at a maximum concentration of 10 mg/kg.

4.5 Crystallization Inhibitor

The only permitted crystallization inhibitor that may be used is oxystearin at a maximum level of use of 1250 mg/kg.

4.6 Metal Contaminants

Metal contaminants shall not exceed the following maximum levels as indicated in table 4.

TABLE 4: Metal Contaminants

Contaminants	Maximum Level
4.6.1 Matter volatile at 105 ⁰ C	0.2% m/m
4.6.2 Insoluble impurities	0.05% m/m
4.6.3 Soap content	0.005% m/m
4.6.4 Iron (Fe) (Virgin oil) (Non-virgin oil)	5 mg/kg 1.5 mg/kg
4.6.5 Copper (Cu) (Virgin oil) (Non-virgin oil)	0.4 mg/lg
4.6.6 Lead (Pb)	0 . 1 mg/kg
4.6.7 Arsenic (As)	0.1 mg/kg

^{*} Temporarily endorsed

4.7 Hygiene

- 4.7.1 The products covered by the provisions of this standard shall be prepared in accordance with the Code of Practice General Principles of Food Hygiene CYS 30:1978. Also the premises shall be registered by the Scientific Food Council of the Hinistry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.7.2 To the extent possible in good manufacturing practice the products shall be free from any foreign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amounts which may be toxic.
- 4.7.3 Edible oils and fats shall be packed and or stored in food grade non-toxic containers.

5 WEIGHTS

5.1 All edible vegetable oils shall be offered, at the retail level, packed only in one, two, four, five and sixteen liter containers.

Tolerance limits shall be those described by the Weights and Measures Law.

6 LABELLING

In addition to Sections 1, 2, 4 and 6 of the General Standard for the Labelling of Prepackaged Foods (CYS 33:1978) the following specific provisions apply:

- 6.1 The Name of the Food
- 6.1.1 All products designated as sesameseed oil, sesame oil, gingelly oil, benne oil, ben oil, till oil or tillie oil must conform to this standard.
- 6.1.2 Where sesameseed oil has been subject to any process of esterification or to processing which alters its fatty acid composition or its consistency the name sesameseed oil or any synonym shall not be used unless qualified to indicate the nature of the process.

6.2 List of Ingredients

6.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion.

6.2.2 A specific name shall be used for ingredients in the list of ingredients except that class titles may be used in accordance with the provisions of the General Standard for the Labelling of Prepackaged Foods. (CYS 33:1978).

6.3 Net Contents

The net contents shall be declared by volume in the metric system, or in any other system or systems in addition to the metric system in the case of exports.

6.4 Name and Address

The name and address of the manufacturer or packer shall be provided, except for export purposes the name of the exporter of other distributor may be provided instead.

6.5 Country of Origin

- 6.5.1 The country of origin of the product shall be declared.
- 6.5.2 When the product undergoes processing in a second country, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

6.6 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling of Prepackaged Foods''.

6.7 Coded Marking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

7.1 Either of the following sampling methods may be used at the discretion of the sampling authority or as agreed between the manufacturer and purchaser.

Method 1: According to the provisions of the Food and Drugs Law. Method 2: According to CYS 89:1979, Sampling Fats and Fatty Oils.

- 7.2 Methods of Analysis
- 7.2.1 Determination of relative density. Determination of the relative density of the oil shall be in accordance with part 1, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.
- 7.2.2 Determination of iron. Determination of the iron content shall be in accordance with part 6, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambrosia Oils Ltd
Central Cooperation Industries (Cyprus) Ltd
Cyprus Consumers Protection Association
Cyprus Olive Products Marketing Board
Co-operative Supply Union Ltd
Food Importers & Traders Association
Galatariotis Bros Ltd
Government Laboratory
Ministry of Agriculture and Natural Resources
Ministry of Commerce and Industry
Ministry of Health
Pancyprian Association of Chemists
Cyprus Organization for Standards and Control of Quality

Note 1. For the purpose of this standard and until the methods for the determination of acid value, peroxide value, matter volatile at 105° C, insoluble impurities, copper, lead, arsenic, refractive index, saponification value, iodine value, unsæponifiable matter, Halphen test and soap content, are finalised, reference shall be made to the following methods of analysis:

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.1.2. <u>Acid Value</u>).

Results are expressed as the number of mg KOH required to neutralize ${\bf 1}$ g oil.

Peroxide Value (Ip)

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.13 Peroxide Value).

Kesults are expressed as milliequivalents active ocygen/kg oil.

Matter Volatile at 105°C

Determination of the matter volatile at 105°C shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.1.1 Moisture and Volatile Matter).

Results are expressed as % m/m.

Insoluble Impurities

Determination of the insoluble impurities shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.2 Impurities).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the AOAC (1965) method (Official Methods of Analysis of the AOAC, <u>International</u> Union of Pure and Applied Chemistry Carbamate Method, 24.023 - 24.028).

Results are expressed as mg copper/kg.

Lead (+)

Determination of lead shall be in accordance with the AOAC (1965) method, after complete digestion, by the colorimetric <u>dithizone</u> <u>determination procedure</u> (Official Methods of Analysis of the AOAC, 1965, <u>24.053</u> (and 24.008, 24.009, 24.043 j, 24.046, 24.047 and 24.048).

Results are expressed as mg lead/kg.

Arsenic

Determination of arsenic shall be in accordance with the colorimetric silver dicthyldithiocarbamate method of the AOAC (Official Methods of Analysis of the AOAC, 1965, 24.011 - 24.014, $\underline{24.016}$ - 24.017, 24.006 - 24.008).

Results are expressed as mg arsenic/kg.

(+) Atomic Absorption Spectrophotometric methods may also be used, giving the same or better degree of accuracy.

Refractive Index

Determination of the refractive index shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966.II.B.2, Refractive Index).

Results are given as the refractive index relative to the sodium D-line at 40°C (in_040°C).

Saponification Value

Determination of the saponification value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.2 Saponification Value ($I_{\rm B}$).

Results are expressed as the number of my KOH/g oil.

Iodine Value (I,)

Determination of iodine value shall be in accordance with IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966 II.D.7.2 and II.D.7.3, the Wijs Method).

Unsaponifiable Matter

Determination of the unsaponifiable matter shall be in accordance with IUPAC (1964) diethyl ether method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.5.1 and II.D.5.3).

Results are expressed as 9 unsaponifiable matter/kg oil.

Halphen Test

The Halphen test shall be in accordance with AOCS method (Official and Tentative Methods of the American Oil Chemists' Society, AOCS Official Method Cb1-25).

Result is expressed as positive or negative.

Identification of Sesameseed Oil

According to the AOCS Method (Official and Tentative Methods of the American Oil Chemists Society; AOCS Official Method Cb 2-40, Modified Villavecchia Test (AOAC).

The result is expressed as positive or negative.

Note: This procedure is not suitable as an identity test for refined sesameseed oils. Furthermore, sesameseed oil might get oxidized after long storage and this test is likely to be disturbed. er

According to part 4, CYS 76:1979 Methods of Analysis for Edible Fats and Cils, Sesameseed Oil Test (Baudowin).

Note 2: Analytical procedures to confirm any of the provisions in this standard shall be those published and or recommended by CYS

CYPRUS STANDARD SPECIFICATION FOR EDIBLE FATS AND OILS NOT COVERED BY INDIVIDUAL CYS STANDARDS

1 SCOPE

This standard applies to edible oils, fats and mixtures thereof, including those that have been subjected to processes of modification, but not including oils and fats which must be subjected to such processes in order to render them suitable for human consumption.

This standard does not apply to any oil or fat which is the subject of a specific CYS commodity standard and is designated by a specific name laid down in such standards.

2 DEFINITIONS

- 2.1 Edible fats and cils means foodstuffs composed of glycerides of fatty acids of vegetable, animal or marine origin. Fats of animal origin must be produced from animals in good health at the time of slaughter and be fit for human consumption as determined by a competent authority recognized in national legislation. They may contain small amounts of other lipids such as phosphatides of unsaponifiable constituents and of free fatty acids naturally present in the fat or oil.
- 2.2 Virgin fats and oils means edible fats and oils obtained by mechanical procedures and the application of heat only. They may have been purified by washing, settling, filtering centrifuging or by any other commercially acceptable process.

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw Materials

Kaw materials shall be edible fats and/or oils or mixtures thereof.

3.3 Odour and Taste

The odour and taste shall be characteristic of the designated product and free from foreign and rancid odour and taste.

3.4 Acid Value

- 3.4.1 The acid value for virgin fats and oils shall not be more than 4 mg KOH/g fat or oil.
- 3.4.2 The acid value for non-virgin fats and oils shall not be more than $0.6\ \text{mg}\ \text{KOH/g}$ fat or oil.
- 3.5 The peroxide value shall not be more than 10 milliequivalents of peroxide oxygen/kg fat or oil.

4 SAFETY AND HEALTH REQUIREMENTS

Only the following food additives shall be used at the specified levels.

4.1 Colours

The following colours (table 1) are permitted for the purpose of restoring natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

TABLE 1: Colours

Colour	Maximum level of use
4.1.1 Beta-carotene	Not limited
4.1.2 Annatto (+)	Not limited
4.1.3 Curcumin (+)	Not limited
4.1.4 Canthaxanthine	Not limited
4.1.5 Beta-apo-8'-carotenal	Not limited
4.1.6 Methyl and ethyl esters of	
beta-apo-8'-carotenoic acid	Not limited

4.2 Emulsifiers

The following emulsifiers (table 2) are permitted but only in fats and oils not specifically designated with the name of the plant or animal from which they originate.

^{*} The temporarily endorsed

Table 2: Emulsifiers

4.2.1 Mono-and diglycerides of fatty acids 4.2.2 Mono-and diglycerides of fatty acids estrified with the following acids: acctic acetyltartaric citric lactic tartaric and their sodium and calcium salts 4.2.3 Lecithins and components of commercial lecithin 4.2.4 Polyglycerol esters of fatty acids 4.2.5 Esters of fatty acids with polyalcohols other than glycerol: Sorbitan monopalmitate Sorbitan tristearate 4.2.6 1,2 propylene glycol esters of fatty acids 4.2.7 Sucrose esters of fatty acids (including sucroglycerides) (+) 4.2.8 Stearoyl lactylic acid and its calcium salt (+) 4.2.9 Polyglycerol esters of interester-ified ricinoleic acid (+) 4.2.10 Polyoxyethylene (20) sorbitan monostearate 4.2.11 Polyoxyethylene (20) sorbitan monooleate			r
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4.2.10 Polyoxyethylene (20) sorbitan monostearate 4.2.11 Polyoxyethylene (20) sorbitan	4.2.9	Polyglycerol esters of interester-	
monostearate 4.2.11 Polyoxyethylene (2G) sorbitan		ified ricinoleic acid (+)	
4.2.11 Polyoxyethylene (2C) sorbitan	4.2.10	Polyoxyethylene (20) sorbitan	
1		monostearate	
monooleate	4.2.11	Polyoxyethylene (2G) sorbitan	
		monooleate	

⁺ The temporarily endorsed

4.3 Antioxidants

Only the following antioxidents (rable 3) may be used at the specified levels.

Table 3: Antioxidants

Antioxidant	Maximum level of use
4.3.1 Propyl, octyl, and dedecyl gallates	100 mg/kg individually or in combination
4.3.2 Butylated hydroxytoluene (BMT) Butylated hydroxyanisole (BMA)	200 mg/kg individually or in combination
4.3.3 Any combination of gallates with BHA or BHT, or both	200 mg/kg, but gallates not to exceed 100 mg/kg
4.3.4 Natural and synthetic tocopherols	Not limited
4.3.5 Ascrobyl polmitate 4.3.6 Ascorbyl stearate	200 mg/kg individually or in combination
4.3.7 Dilauryl thiodiprepionate	200 mg/kg
4.3.8 Tertiery butyl hydroquinen⊖ (TBHQ)	200 mg/kg singly or in combi ne - tion with BHA, B HT , or gelletes (gollates not exceeding 100 mg/kg)

^{4.4} Antioxident Synergists

- Only the following antixident synergists (table 4) may be used at the specified levels.

Table 4: Antioxidant Synergists

Antioxident Synorgist	Maximum level of use
4.4.1 Citric acid and its sodium salt	Not limited
4.4.2 Isopropyl citrate mixture 4.4.3 Phasphoric acid (+)	100 mg/kg Individually or in combination

femporarily endorsed

4.5 Antifoaming Agents

The only permitted anti-foaming agent that may be used is dimethyl polysiloxane (dimethyl silicone) either singly or in combination with silicone dioxide⁺ at maximum concentration of 10 mg/kg.

4.6 Crystallization Inhibitor

The only permitted crystallization inhibitor that may be used is oxystearin at a maximum level of use of 1250 mg/kg.

4.7 Metal Contaminants

Metal contaminants shall not exceed the following maximum levels as indicated in table 5.

Table 5: Metal Contaminants

Contaminants	Maximum level
4.7.1 Matter volatile at 105°C	0.2% m/m
4.7.2 Insoluble impurities	0.05% m/m
4.7.3 Soap content	0.005% m/m
4.7.4 Iron (Fe) (Virgin oil)	5 mg/kg
(Mon-virgin oil)	1.5 mg/kg
4.7.5 Copper (Cu) (Virgin oil) (Non-virgin oil)	0.4 mg/kg
4.7.6 Lead (Բb)	0.1 mg/kg
4.7.7 Arsenic (As)	0 . 1 mg/kg

4.8 Hygiene

- 4.8.1 The products covered by the provisions of this standard shall be prepared in accordance with the Code of Practice-General Principles of Food Hygiene CYS 30:1978. Also the premises shall be registered by the Scientific Food Council of the Ministry of Health as complying with the Food Hygiene Regulations of 1970.
- 4.8.2 To the extent possible in good manufacturing practice the products shall be free from any foreign and objectionable matter, microorganisms capable of development under normal conditions of storage and substances originating from microorganisms in amounts which may be toxic.
- 4.8.3 Edible oils and fats shall be packed and or stored in food grade non-toxic containers.

5 MEIGHTS

5.1 All edible vegetable oils shall be offered, at the retail level, packed only in containers as described in 4.3.3 and in specific CYS standards. Tolerance limits shall be those described by the Weights and Measures Law.

6 LABELLING

In addition to Sections 1, 2, 4 and 6 of the Seneral Standard for the Labelling of Prepackaged Foods (CYS 33:1978) the following specific provisions apply:

6.1 The Name of the Food

- 6.1.1 The name designated for the product conforming to the defintion at 2.1 of the standard shall be such as to give a true indication of the nature of the fat or oil, and not tommislead the consumer. Names such as edible oil and salad oil which do not indicate a plant or animal source may be used without further qualification.
- 6.1.2 Where an oil has been subject to any process of esterification or to processing which alters its fatty acid composition or its consistency the specific name of the oil shall not be used unless qualified to indicate the nature of the process.
- 6.1.3 The designation <u>virgin</u> fat or <u>virgin</u> oil may only be used for individual fats or oils conforming to the definition at 2.2 of this standard.

6.2 List of Ingredients

- 6.2.1 A complete list of ingredients shall be declared on the label in descending order of propertion.
- 6.2.2 A specific name shall be used for ingredients in the list of ingredients except that class titles may be used in accordance with the provisions of the General Standard for the Labelling or Prepackaged Foods. (CYS 33:1978).

6.3 Net Contents

The net contents shall be declared by volume in the metric system, or in any other system or systems in addition to the metric system in the case of exports

6.4 Name and Address

The name and address of the manufacturer or packer shall be provided, except for export purposes the name of the exporter or other distributor may be provided instead.

6.5 Country of Origin

- 6.5.1 The country of origin of the product shall be declared.
- 6.5.2 When the product undergoes processing in a second country, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

6.6 Size of Letters and Numbers

The size of letters and numbers shall be in accordance with section 4 of CYS 33:1978, ''Standard for the Labelling of Prepackaged Foods''.

6.7 Coded Marking

Coded marking is to appear on the label indicating the product and the date of production.

7 SAMPLING AND METHODS OF TEST

7.1 Either of the following sampling muthods may be used at the discretion of the sampling authority or as agreed between the manufacturer and purchaser.

Method 1: According to the provisions of the Food and Drugs Law.

Method 2: According to CYS 89:1978, Sampling Fore and Fatty Oils.

7.2 Methods of Analysis

- 7.2.1 Determination of relative density. Determination of the relative density of the oil shall be in accordance with part 1, CYS 78:1979, Methods of Analysis for Edible Fats and Oils.
- 7.2.2 Determination of iron Determination of the iron content shall be in accordance with part 6, CYS 78:1979 Methods of Analysis for Edible Fats and Oils.

In the preparation of this standard representatives of the following Organizations collaborated:

Ambrosia Dils Ltd
Central Cooperative Industries (Cyprus) Ltd
Cyprus Consumers Protection Association
Cyprus Olive Products Marketing Board
Co-operative Supply Union Ltd
Food Importers & Traders Association
Galanos Bros Ltd
Galatariotis Bros Ltd
Government Laboratory
Ministry of Agriculture and Natural Resources
Ministry of Commerce and Industry
Ministry of Health
Pancyprian Association of Chemists
Cyprus Organization for Standards and Control of Quality

Note 1. For the purpose of this standard and until the methods for the determination of acid value, peroxide value, matter volatile at 105°C, insoluble impurities, copper, lead, arsenic, refractive index, saponification value, iodine value, unsaponifiable matter, Halphen test and soap content, are finalised, reference shall be made to the following methods of analysis.

Acid Value (I)

Determination of the acid value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.1.2 Acid Value).

Results are expressed as the number of mg KOH required to neutralize 1 g oil or fat.

Peroxide Value (Ip)

Determination of the peroxide value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.13 <u>Peroxide Value</u>).

Results are expressed as millioquivalents active oxygen/kg fat or oil.

<u>Matter Volatile at 1050</u>

Determination of the matter volatile at 105°C shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.1.1 Moisture and Volatile Matter).

Results are expressed as % m/m.

Insoluble Impurities

Determination of the insoluble impurities shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.C.2 Impurities).

Results are expressed as % m/m.

Copper (+)

Determination of copper shall be in accordance with the ADAC (1965) method (Official Methods of Analysis of the ADAC, <u>International Union of Pure and Applied Chemistry Carbamata Method</u>, 24.023 - 24.028).

Results are expressed as mg copper/kg.

Lead (+)

Determination of lead shall be in accordance with the AOAC (1965) method, after complete digestion, by the colorimetric <u>dithizone</u> <u>determination procedure</u> (Official Methods of Analysis of the AOAC, 1965, 24.053 (and 24.008, 24.009, 24.043 j, 24.046, 24.047 and 24.048).

Results are expressed as mg lead/kg.

Arsenic

Determination of arsenic shall be in accordance with the colorimetric silver <u>diethyldithiocarbamate method</u> of the AOAC (Official Methods of Analysis of the AOAC, 1965, 24.011 ~ 24.014, <u>24.016</u> - 24.017, 24.006 - 24.008).

Results are expressed as mg arsenic/kg.

[†]Afomic Absorption Spectrophotometric methods may also be used giving the same or better degree of accuracy

Kefractive Index

Determination of the refractive index shall be in accordance with the IUPAC (1964) method (IUPAC Standard methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966.II.B.2, Refractive Index).

Results are given as the refractive index relative to the sodium D-line at $40^{9} C$ (n_040 $^{9} C).$

Saponification Value

Determination of the saponification value shall be in accordance with the IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1966, II.D.2 Saponification Value(I_s).

Results are expressed as the number of mg KOH/g oil.

Iodine Value (I,)

Determination of iodine value shall be in accordance with IUPAC (1964) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5th Edition, 1965 II.D.7.2 and II.D.7.3, the Wijs Method).

Unsaponifiable Matter

Determination of the Unsaponifiable matter shall be in accordance with IUPAC (1964) diethyl ether method (IUPAC Standard Methods for the Analysis of Oils, Fats and Soaps, 5tl Edition, 1966, II.D.5.1 and II.D.5.3).

Results are expressed as q unsaponifiable matter/kg oil.

Halphen Test

The Halphen test shall be in accordance with AOCS method (Official and Tentative Methods of the American Oil Chemists' Society, AOCS Official Method Cb1-25).

Result is expressed as positive or negative.

Note 2: Analytical procedures to confirm any of the provisions in this stendard shall be those published and or recommended by CYS.

Έτυπώθη ἐν τῷ Τυπογραφείφ τῆς Κυπριακῆς Δημοκρατίας, ἐν Λευκωσία.