VEGETABLE OILS GRADING AND MARKING RULES

1. **Short title and application:-** 1) These Rules may be called the Vegetable Oils Grading and Marking Rules, 1955.

2) They shall apply to Vegetable Oils produced in India.

2. Definitions- In these rules unless the context otherwise requires,-

1) ñAgricultural Marketing Adviserò means the Agricultural Marketing Adviser to the Government of India ;

2) ñAuthorised packer ñ means a person or a body of persons, who has been granted a certificate of authorisation to grade and mark commodity in accordance with the grade standards and procedure prescribed under these rules.

3) ñCertificate of authorisationò means a certificate issued under the General Grading and Marking Rules, 1988,

4) ñScheduleò means schedules appended to these rules.

3. Grade designations:- The grade designation to indicate the quality of Vegetable Oils shall be as set out in column 1 of Schedule I to XVI

4. Definition of quality:- The quality indicated by the grade designations shall be as set out against such designations in Schedule I to XVI

5. Grade designation marks :- The grade designation marks shall consist of;

(i) A label specifying name of the commodity, grade designation and bearing a design consisting of an outline map of India with the word ñAGMARKò and the figure of rising sun with the words ñProduce of Indiaò and¦ÉÉ®úiÉÒªÉ =i{ÉÉnùù resembling the one as set out in Schedule XVII-A ; or

(ii) Agmark replica consisting of design incorporating the number of certificate of authorisation, the word ñAGMARKò, the name of the commodity, the grade designation resembling the one as set out in Schedule XVII-B;

Provided that the use of Agmark replica in lieu of Agmark labels shall be allowed to such authorised packers who have been granted permission, by the Agricultural Marketing Adviser or an officer authorised by him in this behalf and subject to conditions as specified from time to time Å

6. Packing provisions;- 1) Vegetable Oils shall be packed either in new, sound, clean and rust free tins or in clean bottles., mild steel drums, railway tank wagons or in approved clean and new thermo plastic containers/ flexible packs like pouches, cans, bottle jars etc.

2) The plastic containers shall be manufactured out of food grade plastic materials permitted under Prevention of Food Adulteration rules , 1955.

3) The Vegetable Oils shall be packed in the standard size namely, 100gms., 200gms., 5OOgms, 1Kg, 5Kgs and thereafter in multiples of 5 Kgs net weight. The edible vegetable oils may also be packed in corresponding volumetric packings expressed in milli-liters or liters along with their weights in gms/kgs as the case may be.

4) The containers of oils shall be free from any contaminants and shall not be composed of whether wholly or in part, any poisonous or deleterious substance which renders the contents injurious to health.

5) The container of oils shall be free from insect infestation, fungus contamination or any obnoxious and undesirable smell.

6) The packing shall be done in the manner prescribed for different types of packing,

7. **Marking provisions-** 1) The grade designation mark shall be securely affixed to each container in a manner approved by the Agricultural Marketing Adviser. In addition to the grade designation mark, the following particulars shall also be clearly and indelibly marked on each container:-

(a) Name of packer.

(b) Place of packing (business address)

(c) Tank filling No.

(d) Date of packing in plain letters.*

(e) Net weight /volume (wherever applicable)

Note* : the date of packing shall be the date of completion of analysis of the sample.

2) An authorised packer may after obtaining the prior approval of the Agricultural Marketing Adviser or an officer authorised in this behalf, mark his private trade mark on a container in a prescribed manner;

Provided that private trade mark does not represent quality or grade of the Vegetable Oil different from that indicated by the grade designation mark affixed on the container in accordance with these rules.

8. **Special conditions of certificate of authorisation:-** In addition to the conditions specified in sub-rule (8) of rule 3 of the General Grading & Marking Rules, 1988, the conditions set out in Schedule III shall be the conditions of every Certificate of Authorisation issued for the purpose of these rules.

9. **Repeal and Savings :-** The Edible Oils Grading and Marking Rules, 1939 and the Castor Oil Grading and Marking Rules, 1949, are hereby rescinded without affecting the previous operation of the said rules or anything duly done or suffered thereunder.

Note :- Each label shall have printed thereon a serial number along with a letter or letters denoting the series e.g. A. 004378.

TOP

SCHEDULE-I

(See Rules 3 and 4)

Agmark grade designation and definition of quality for Mustard Oil

Definition of Quality

Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1/4" cell expressed as Y + 5R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine Value (wij's method)
1	2	3	4	5	6	7
Refined	0.10	15	0.907 to 0.910	1.4646 to 1.4662	169 to 177	98 to 110
Grade-I	0.25	50	0.907 to 0.910	1.4646 to 1.4662	169 to 177	98 to 110
Grade-II	0.25	50	0.907 to 0.910	1.4646 to 1.4662	169 to 177	98 to 110

Unsaponifiable matter percent by weight (not more than)	Percentage of natural essential oil content (as Allyliso-thiocyanate)	Acid value (not more than)	Bellier's turbidity temperature by Ever's acetic acid method (not more than)°C	Test for the presence of Argemone oil (by Circular paper/ Thin Layer Chromatographic method)	Test for the presence of Hydrocyanic Acid	Polybromide Test
8	9	10	11	12	13	14
1.2	-----	1.5	23.0 to 27.5	Neg.	Neg.	Neg.

1.2	0.25 to 0.60	1.5	23.0 to 27.5	Neg.	Neg.	Neg.
1.2	0.10 to 0.60	4.0	23.0 to 27.5	Neg.	Neg.	Neg.

DESCRIPTION
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Refined : Mustard oil shall be obtained by a process of expression of clean and sound mustard seeds of Brassica campestris Linn, (yellow and brown sarson) or Brassica juncea Linn, (Lahi, rai or laha) or Brassica napus (rape or toria), or admixture of these seeds, or by a process of solvent extraction** of good quality of mustard oil cake or sound mustard seeds.

The oil shall be refined by neutralisation with alkali and/or physical refining/or by miscella refining using permitted food grade solvents followed by bleaching with adsorbent earth and/or activated carbon and deodorisation with steam. No other chemical agent shall be used.

Grad-I : Mustard oil shall be obtained by a process of expression of clean and sound mustard seeds of Brassica campestris linn (yellow and brown sarson) or Brassica Juncea Linn., (Lahi, rai or laha) or Brassica napus (rape or toria) or admixture of these.

Grade-II : Mustard oil shall be obtained by a process of expression of clean and sound mustard seeds of Brassica campestris Linn., (yellow and brown sarson) or Brassica Juncea Linn, (Laha, rai or laha) or Brassica napus (rape or toria) or admixture of these.

oil

GENERAL REQUIREMENTS
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The oil shall have characteristic and acceptable taste and flavour The oil shall be clear and free from turbidity when a filtered sample of oil is kept for 24 hours at 30°C. The oil shall be free from rancidity, adulterants, sediments or suspended matter or mineral oils, or any foreign matter or oils. It shall also be free from separated water, added colouring or flavouring matter, obnoxious odour. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.

The oil shall have characteristic and acceptable taste and Flavour. The oil shall be free from rancidity, adulterants, sediments or suspended matter, or mineral oils, or any foreign matter or oils. It shall also be free from separated water, added colouring or flavouring matter and obnoxious odour. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules 1955.

The oil shall have characteristics and acceptable taste and flavour. The oil shall be free from rancidity, adulterants, sediments or suspended matter, or mineral oils, or any foreign matter or oils. It shall also be free from separated water, added colouring or flavouring matter and obnoxious odour. The oil may contain permitted anti-oxidants not exceeding in concen-

tration as specified under Prevention of Food Adulteration Rules,1955.

* In the absence of Lovibond Tinto-meter the colour shall be matched against standard colour comparaters.

** In case of solvent extracted oil, the flash-point by Pensky-Martens (closed cup) method shall not be less than 250^0C and the containess shall be marked "Solvent Extracted".

TOP

SCHEDULE-II

(See Rules 3 and 4)

Agmark grade designation and definition of quality of Groundnut oil

Definition of Quality

Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1 inch (2.54 cms) cell expressed as Y + 5R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine Value (wij's method)
1	2	3	4	5	6	7
Refined	0.10	3(10)**	0.909 to 0.913	1.4620 to 1.4640	188 to 195	87 to 98
Grade-I	0.25	15	0.909 to 0.913	1.4620 to 1.4640	188 to 195	87 to 98
Grade-II	0.25	20	0.909 to 0.913	1.4620 to 1.4640	188 to 195	87 to 98

Unsaponifiable matter percent	Acid value (not more than)	Bellier's Turbidity	Description	General requirements

by weight (not more than)		Temperature (acetic acid method) in °C		
8	9	10	11	12
0.8	0.5	39 to 41	Groundnut oil shall be obtained either by process of expressing clean groundnut kernals (Arachis hypogaea) or by a process of solvent extraction** of good quality groundnut cake or sound groundnut kernals (Arachis hypogaea) using permitted food grade solvents. The oil shall be refined by neutralisation with alkali and/ or physical refining and/or miscella refining followed by bleaching with adsorbent earth or activated carbon and deodorised with steam. No other chemical agent shall be used.	The oil shall be clear and free from from turbidity when a filtered sample is kept for 24 hrs. at 30°C The oil shall be free from rancidity, admixture of any other oil or substances, sediments, suspended matter or separated water. The oil shall have natural characteristic and acceptable taste, flavour and free from any obnoxious odour and shall be free from added colouring or flavouring agents. It shall also be free from mineral oil. The oil shall be free from Aflatoxin. The oil may contain permitted anti-oxidants not exceeding in concentration as specified, under Prevention of Food Adulteration Rules, 1955.
1.0	2.0	39 to 41	Groundnut oil shall be obtained by a process of expressing clean, and sound groundnut kernals (Arachis hypogaea) only	The oil shall be clear and free from rancidity, admixture of any other oil or substance, sediments, suspended matter or separated water. The oil shall have natural characteristic and acceptable taste, flavour and free from any obnoxious odour and shall be free from any added colouring or flavouring agents. It shall also be free from

				mineral oil. The oil shall be free from Aflatoxin. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955
1.0	4.0	39 to 41	Groundnut oil shall be obtained by a process of expressing clean and sound groundnut Kernals, (Arachis hypogaea) ony.	The oil shall be clear and free from rancidity, admixture of any other oil or substance, sediments, suspended matter or separated water. The oil shall have natural characteristic and acceptable taste, flavour and free from any obnoxious odour and shall be free from any added colouring or flavouring agents. It shall also be free from mineral oil. The oil shall be free from Aflatoxin. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules 1955.

* In the absence of Lovi-bond Tintometer, the colour shall be matched against standard colour comparator.
** Applicable to Solvent Extracted oil only. In case of solvent extrated oil, the flash point by Pensky Martens (closed cup) method shall not be less than 250°C and the containers shall be marked "Solvent Extracted".

TOP

SCHEDULE - III (A)

(See Rules 3 and 4)

Agmark grade designations and definition of quality for Sesame (Til or Gingelly Oil)

Definition of Quality

Grade designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on lovibond scale* in 1/4 inch cell expressed as Y ± 5 R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponitication value	Iodine value (Wij's method	Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)	Bellier's Turbidity Temperature by Ever's acetic acid method (not more than °C)
1	2	3	4	5	6	7	8	9	10
Refined	0.10	2	0.915 to 0.919	1.4646 to 1.4665	188 to 193	105 to 115	1.5	0.5	22
Grade-I	0.25	10	0.915 to 0.919	1.4646 to 1.4665	188 to 193	105 to 115	1.5	4.0	22
Grade-II	0.25	20	0.915 to 0.919	1.4646 to 1.4665	188 to 193	105 to 115	1.5	6.0	22

DESCRIPTION

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Sesame oil shall be obtained by a process of expression of clean and sound Sesame (Til or gingelly) seeds (Sesamum orientale) belonging to black, brown or white varieties or mixture thereof or by a process of solvent extraction** of good quality of sesame oil cake or sound seeds. The oil shall be refined by neutralisation with alkali and/or-physical refining or by miscella refining using permitted food grade solvents followed by bleaching with adsorbant earth and/or activated carbon and deodourisation with steam. No other chemical agent shall be used.

Sesame oil shall be obtained by a process of expressing clean

GENERAL REQUIREMENTS

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The oil shall have natural characterisitc sweet smell and acceptable taste. It shall be clear and free from rancidity, obnoxious odour, added colouring matter and flavouring agents. The oil shall also be free from admixture of any other oil, substances, adulterants, mineral oil, sediments and suspended matter. The oil may contain permitted antioxidant not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.

The oil shall have natural charactertisic sweet smell and

and sound Sesame (Til or Gingelly) seeds (Sesamum orientale) belonging to black, brown or white varieties or mixtures thereof	acceptable taste. It shall be clear and free from rancidity, obnoxious odour, added colouring matter and flavouring agents. The oil shall also be free from admixture of any other oil, substances, adulterants, mineral oil, sediments and suspended matter. The oil may contain permitted anti-oxidants not exceeding in concentration as specified uncer Prevention of Food Adulteration Rules 1955.
Sesame oil shall be obtained by a process of expressing clean and sound Sesame (Til or Gingelly) seeds (Seasmum orientale) belonging to black, brown or white varieties or mixtures thereof.	The oil shall have natrual characteristic sweet smell and acceptable taste. It shall be clear and free from rancidity, obnoxious odour, added colouring matter and flavouring agents. The oil shall also be free from admixture of any other oil, subsances, adulterants, mineral oil, sediments and suspended matter. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulterations Rules 1955.

* In the absence of Lovi-bond Tintometer, the colour shall be matched against standard colour comparators.
** In case of solvent extracted oil, the flash point by Pensky-Martens (closed cup) method shall not be less than 250°C and the container shall be marked "Solvent Extracted"

SCHEDULE - III (B)

(See Rules 3 and 4)

Agmark grade designations and definition of quality for Sesame (Til or Gingelly) Oil from white seeds grown in eastern parts of the country.

Definition of Quality

Grade designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on lovibond scale* in 1/4 inch cell expressed as Y ± 5 R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine value (Wij's method	Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)	Bellier's Turbidity Temperature by Ever's acetic acid method (not more than °C)
1	2	3	4	5	6	7	8	9	10
Refined	0.10	2	0.916	1.4662	185	115	2.5	0.5	22

(E.R.)			to	to	to	to			
			0.923	1.4694	190	120			
Grade-I	0.25	10	0.916	1.4662	185	115	2.5	4.0	22
(E.R.)			to	to	to	to			
			0.923	1.4694	190	120			
Grade-II	0.25	20	0.916	1.4662	185	115	1.5	6.0	22
(E.R.)			to	to	to	to			
			0.923	1.4694	190	120			

DESCRIPTION	GENERAL REQUIREMENTS
11	12
Sesame oil shall be obtained by a process of expression clean and sound Sesame (Til or gingelly) seeds (Sesamum indicum linn) belonging to the white varieties grown in Tripura, Assam and West-Bengal or by a process of solvent extraction** of good quality of sesame oil cake of the same variety or sound seeds. The oil shall be refined by neutralisation with alkali and/or physical refining/or by miscella refining using permitted food grade solvents followed by bleaching with adsorbent earth or activated carbon and deodourisation with steam. No other chemical agent shall be used.	The oil shall have natural characterisitc sweet smell and acceptable taste. It shall be clear and free from rancidity, obnoxious odour, added colouring matter and flavouring agents. The oil shall also be free from admixture of any other oil, substances, adulterants, mineral oil, sediments and suspended matter. The oil may contain permitted antioxidant not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
Sesame oil shall be obtained by a process of expressing clean and sound Sesame (Til or Gingelly) seeds (Sesamum indicum linn) belonging to white varieties grown in Tripura, Assam and West Bengal.	The oil shall have natural charactertisic sweet smell and acceptable taste. It shall be clear and free from rancidity, obnoxious odour, added colouring matter and flavouring agents. The oil shall also be free from admixture of any other oil, substances, adulterants, mineral oil, sediments and suspended matter. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules 1955.
Sesame oil shall be obtained by a process of expressing clean and sound Sesame (Til or Gingelly) seeds (Sesamum indicum Linn.) belonging to white variety grown	The oil shall have natural characteristic sweet smell and acceptable taste. It shall be clear and free from rancidity, obnoxious odour, added colouring matter and flavouring

in Tripura, Assam and West Bengal.

agents. The oil shall also be free from admixture of any other oil, subsances, adulterants, mineral oil, sediments and suspended matter. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulterations Rules 1955.

* In the absence of Lovi-bond Tintometer, the colour shall be matched against standard colour comparators.

** In case of solvent extracted oil, the flash point by Pensky-Martens (closed cup) method shall not be less than 250°C and the container shall be marked "Solvent Extracted"

TOP

SCHEDULE-IV

(See Rules 3 and 4)

Agmark grade designation and definition of quality of Coconut oil

Definition of Quality

Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1 inch cell expressed as Y + 5R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value (not less than)
1	2	3	4	5	6
Refined	0.10	2	0.915 to 0.920	1.4481 to 1.4491	250
Grade-I	0.25	4	0.915 to 0.920	1.4481 to 1.4491	250
Grade-II	0.25	11	0.915to 0.920	1.4481 to 1.4491	250

Iodine value (Wij's method)	Unsaponifible matter percent by weight (not more than)	Acid value (not more than)	Polenske value (not less than)	Description	General requirements
7	8	9	10	11	12
7.5 to 10.0	0.5	0.5	13.0	Coconut oil shall be obtained either by a process of expression of good quality copra (Cocos nucifera), or by a process of solvent extraction** of good quality coconut cake or good quality copra (Cocos nucifera) using approved food grade solvents. The refining of the oil shall be done by neutralisation with alkali and/or physical refining and/or by miscella refining followed by bleaching with adsorbent earth And/or activated carbon and deodorisation with Steam. No chemical agent shall be used.	The oil shall have natural sweet taste. it shall be clear and free from turbidity when a filtered sample is kept for 24 hrs. at 30°C. The oil shall be free from rancidity, admixture or other oils or substances or adulterants. The oil shall be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring agents. The oil may contain permitted antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.

* In the absence of Lovi-bond Tintometer, the colour shall be matched against standard colour comparator.
** In case of solvent extracted oil, the flash point by Pensky-Mattens (closed cup) method shall not be less than 225°C and the container shall be marked "Solvent Extracted".

7	8	9	10	11	12
7.5 to 10.0	0.8	3.0	13.0	The oil shall be the product obtained by expression of good quality copra (Cocos nucifera only).	The oil shall have natural sweet taste and characteristic odour. It shall be clear and free from rancidity, admixture of any other oil, substances or adulterants. It shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring agents. The oil may contain permitted antioxidants not exceeding in concentra-tions as specified under Preven-tion of Food Adulteration Rules, 1955.
7.5 to 10.0	0.8	6.0	13.0	The oil shall be the product obtained by expression of good quality copra (Cocos nucifera) only.	The oil shall have natural sweet taste and characteristic odour. It shall be clear and free from rancidity, admixture of any other oil, substances or adulterants. It shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring agents. The oil may contain permitted antioxidants

not exceeding in concentra-tions as specified under Preven-tion of Food Adulteration Rules, 1955.

TOP

SCHEDULE - V

(See Rules 3 and 4)

Agmark grade designations and definition of quality for Linseed Oil

Definition of Quality

Grade designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on lovibond scale* in 1/4 inch cell expressed as Y + 10 R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine value (Wij's method (not less than)	Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)
1	2	3	4	5	6	7	8	9
Refined	0.10	10	0.923 to 0.926	1.4720 to 1.4750	188 to 195	170	1.5	0.5
Semi-Refined	0.10	10	0.923 to 0.928	1.4720 to 1.4750	188 to 195	170	1.5	0.5
Raw	0.25	35	0.923 to 0.928	1.4720 to 1.4750	188 to 195	170	1.5	4.0

Foots percent by volume	Test for the presence of	Test of lead	Flash point by Pensky	Description	General Requirements

(not more than)	break		Martens (closed cup) method in °C min.		
10	11	12	13	14	15
nil	to pass the test	to pass the test	---	Linseed oil shall be obtained by a process of expressing clean and sound (Linum usitatissimum) only. The refining of oil shall be done by neutralisation with alkali and/or physical refining and/or activated carbon. The oil may be treated with mineral acid before alkali refining. No other chemical agent shall be used.	The oil shall be clear and free from turbidity when filtered sample is kept at 30°C for 24 hrs. It shall be free from rancidity, adulterants, sedime-nts, suspended and other foreign matter or oils. It shall also be free from separated water and added colouring or flavouring substances. The oil may contain permitted antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
nil	Neg.	---	125	Linseed oil shall be obtained either by a process of expressing clean and sound linseed (Linum-usitatissimum) or by a process of solvent extration of sound linseed cake or linseed using permitted food grade solvents. The oil shall be neutralised with alkali and/or physical refining and/or by miscella-refining bleached with	The oil shall be clear and free from rancidity, adulter-ants, sediments, suspended and other foreign matter or oil. It shall also be free from separated water and added colouring or flavouring substances.

				bleaching earth and/or activated carbon. No other chemical shall be used.	
1.0	Neg.	--	--	Linseed oil shall be obtained by a process of expressing clean and sound linseed (Linum usitatissimum) only.	The oil shall be clear and free from rancidity, adulterants, sediments, suspended and other foreign matter or oils. It shall also be free from separated water and colouring or flavouring substances.

* In the absence of Lovibond Tintometer, the colour shall be matched against standard colour comparators.
** Containers of Linseed oil of Semi-refined shall be suitable marked 'For Non-edible uses only'.

TOP

SCHEDULE-VI

(See Rules 3 and 4)

Agmark grade designation and definition of quality of Castor Oil

Definition of Quality

Grade Designation	Moisture and impurities percent by weight (maximum)	Colour on Lovibond scale expressed as Y + 5R (maximum)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Clarity in height of column of oil in cms. through which Bourgoise print can be read in 100 ml. nessler tube
1	2	3	4	5	6
Medicinal	0.25	3.5 (in 1" cell)	0.954 to	1.4700 to	10.0

0.960 1.4740

Definition of quality

Optical rotation at 19.5° to 20.5° on 1. dm thickness (min.)	Critical solution temperature in alcohol (below)	Saponification Value	Iodine value (Wij's method)	Acid value (maximum)	Acetyle value (minimum)
7	8	9	10	11	12
+ 3.5°	0°C	176 to 187	82 to 90	2.0	143

Unsaponifiable matter percent by weight (max.)	Description	General Requirements
13	14	15
0.8	The oil shall be the refined fixed oil obtained by cold expression of Caster Seed (Ricinus communis)	The oil shall be clear and free from admixture with other oils or substances and also free from sediments, suspended matter, added colouring and flavouring substances. **Solubility** - The oil shall be soluble in 2.5 parts of ethyl alcohol (95% V/V). Further it shall be miscible with absolute ethyl alcohol with chloroform with solvent ether and with glacial acetic acid.

Identification :- The oil shall be miscible with half its volume of light petroleum (boiling range 40° to 60°C) and is only partially soluble in two volumes.

1	2	3	4	5	6	7	8	9	10	11	12
Firsts Special	0.25	3.7 (in 1" cell)	0.954 to 0.960	1.4700 to 1.4740	10.0	--	0°C	176 to 187	82 to 90	2.0	143
Commercial Grade-I	0.75	30.0 (in 1/4" cell)	0.954 to 0.960	1.4700 to 1.4740	5.0	--	--	176 to 187	82 to 90	4.0	143
Commercial Grade-II	1.00	40.0 (in 1/4" cell)	0.954 to 0.960	1.4700 to 1.4740	---	--	--	176 to 187	82 to 90	6.0	143

13	14	15
0.8	The oil shall be the refined fixed oil obtained from castor seed (Ricinus communis)	The oil shall be clear and free from admixture with other oils or substances and also free from sediments, suspended matter, added colouring and flavouring substances.
1.0	The oil shall be fixed oil obtained from castor seed (Ricinus communis)	The oil shall be free from admixture with other oils or substances and also free from sediments and suspended matter.
1.0	The oil shall be fixed oil obtained from castor seed	The oil shall be free from admixture with other oils or

(Ricinus communis)	substances and also free from sediments and suspended matter.

NOTE : * Permission for grading Medicinal grade castor oil shall be granted to only such packers who own an oil crushing and refining plant for extracting caster oil in cold and refining the same and satisfy the conditions prescribed under the instructions issued from time to time in this behalf.

TOP

SCHEDULE-VII

(See Rules 3 and 4)

Agmark grade designation and definition of quality of Niger Seed Oil

Definition of Quality

Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1/4" cell, expressed as Y + 5R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine value (Wij's method)	Unsaponifi-able matter percent by weight (not more than)
1	2	3	4	5	6	7	8
Refined	0.10	8	0.917 to 0.920	1.4665 to 1.4691	189 to 193	110 to 135	0.8
Grade-I	0.25	15	0.917 to 0.920	1.4665 to 1.4691	189 to 193	110 to 135	1.0

* In the absence of Lovibond Tintometer, the colour shall be matched against standard colour comparator.

** In the case of solvent-extracted oil, the flash point by Pensky-Martens (closed-cup) method, shall not be less than 250 °C and the container shall be marked "Solvent Fxtracted"

Definition of Quality			
Acid value (not more than)	Bellier's Turbidity temp. (by Everôs acetic acid method) in °C	Description	General Requirements
9	10	11	12
0.5	25 to 29	Niger seed oil shall be obtained either by process of expression of clean and sound seeds of niger plant (Guizotia abyssinica) or by a process of solvent extraction of good quality nigerseed oil cake or clean and sound seeds of Guizotia abyssinica. The oil shall be deacidified either with alkali and /or by physical refining and/or by miscella refining using permitted food grade solvents followed by bleaching earth and/or carbon and deodorised with steam. No other chemical agent shall be used.	The oil shall be clear and free from turbidity when a filtered sample is kept for 24 hrs. at 30°C. The oil shall be free from rancidity, admixture of other oils or substances. The oil shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring substances. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under pre-vention of Food Adulteration Rules, 1955.
5.0	25 to 29	Niger seed oil shall be obtained by a process of expressing clean and sound seeds of Niger plants (Guizotia abyssinica) only.	The oil shall be clear and free from rancidity, admixture of other oils or sub stances. The oil shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring substances. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955

TOP

SCHEDULE-VIII

(See Rules 3 and 4)

Agmark grade designation and definition of quality for Safflower seed oil

Definition of Quality

Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1/4" cell expressed as Y + 5R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value
1	2	3	4	5	6
Refined	0.10	2.5	0.915 to 0.920	1.4674 to 1.4689	189 to 195
Grade-I	0.25	15	0.915 to 0.920	1.4674 to 1.4689	189 to 195
Grade-II	0.25	15	0.915 to 0.920	1.4674 to 1.4689	189 to 195

Definition of quality

Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)	Belliers turbidity temp. (by Ever's Acetic acid method) in °C (not more than)	Description	General requirements
7	8	9	10	11	12
138 to 148	1.0	0.5	16	Safflower seed oil shall be obtained either by a process of expression of clear and sound seeds of safflower (Carthamus tinc-	The oil shall be clean and free from turbidity when a filtered sample is kept for 24 hrs. at 30^0C. The oil shall be free from rancidity,

				torious) or by a process of solvent extraction** of good quality of safflower seed oil cake or clean and sound seeds of safflower seed (Carthamus tinctorius). The oil shall be deacidified with alkali and/or physical refining and/or miscella refining using permitted food grade solvents followed by bleaching with bleaching earth and/or activated carbon and deodorised with steam. No other chemical agent shall be used.	admixture of other oils or substances. The oil shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring substances. The oil may contain permitted anti-oxidant not exceeding in concentration as specified under prevention of Food Adulteration Rules, 1955.
138 to 148	1.0	2.0	16	Safflower seed oil shall be obtained by a process of expressing clean and sound seed of Safflower (Carthamus tinctorius) only.	The oil shall have characteristic odour and taste. The oil shall be clear and free from rancidity, admixture of other oils or substances, The oil shall also be free from mineral oil, sediments suspended matter, separated water, obnoxious odour added colouring and flavouring substances. The oil may contain permited antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
138 to 148	1.0	6.0	16	Safflower seed oil shall be obtained by a process of expressing clean and sound seeds of Safflower (Carthamus tinctorius) only	The oil shall have characteristics odour and taste. The oil shall be clear and free from rancidity, admixture of other oils or substances. The oil shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added

flavouring			colouring substances. The oil may contain permitted antioxidants not exceeding in concentration as specified Prevention of Food Adultration Rules, 1955		and

* In the absence of Lovibond Tintometer, the colour shall be matched against standard colour comparator.
** In case of solvent extracted oil, the flash-point by Pensky-Martenôs (closed cup) method shall not be less than 250°C and the containers shall be marked "Solvent Extracted".

TOP

SCHEDULE-IX

(See Rules 3 and 4)

Agmark grade designation and definition of quality for Cotton seed Oil.

Definition of Quality

Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1/4" cell expressed as Y + 10R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value
1	2	3	4	5	6
Refined	0.10	10 (14)**	0.910 to 0.920	1.4630 to 1.4660	190 to 194
Washed	0.10	35	0.910 to 0.920	1.4660 to 1.4660	190 to 198

Definition of quality				
Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)	(Acid value (not more than)	Description	General requirements
7	8	9	10	11
98 to 112	1.5	0.5	Cotton seed oil shall be obtained either by a process of expression of clean and sound kernals of cotton seed (genus Gossypium) or by solvent extraction** of good quality of cotton seed oilcake or clean and sound kernals of cotton seed (genus Gossypium) only. The oil shall be deacidified with alkali and/or by physical refining or by miscella refining using permitted food grade solvents followed by bleaching with bleaching earth and/or activated carbon and deodorised with steam. No other chemical shall be used.	The oil shall be clear and free from turbidity when a filtered sample is kept at 30°C for 24 hrs. The oil shall be free from rancidity, admixture of other oils or substances. It shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring substances. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules 1955.
98 to 112	1.5	0.5	Cotton seed oil shall be obtained by expressing clean and sound kernals (genus Gossypium) only. The oil shall be neutralised with alkali, washed and dried.	The oil shall be clear and free from rancidity, admixture of other oils or substances. It shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring substances.

Note :- * In the absence of Lovibond Tintometer, the colour of the oil shall be matched against standard colour comparator.
** Applicable to solvent extracted oil only. In the case of solvent extracted oil, the flash point by Pensky-Martens (closed cup) method shall not be less than 250°C and the container shall be marked "Solvent Extracted"
*** This grade of oil is not suitable for direct consumption and the container should be marked "not for direct consumption".

TOP

SCHEDULE-X

(See Rules 3 and 4)

Agmark grade designation and definition of quality for Rice bran oil

Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1" cell expressed as Y + 5R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value
1	2	3	4	5	6
Refined	0.10	20 (no dominant green colour)	0.910 to 0.920	1.4600 to 1.4700	180 to 195

Definition of quality					
Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)	Flash point in in °C by Pensky Martens (closed cup) method (Min.)	Description	General requirement
7	8	9	10	11	12

90 to 105	3.5	0.5	250	Rice bran oil shall be obtained from the rice bran layer around the endosperm of rice, removed during the process of rice-milling from paddy of Oryza sativa linn family Gramineae by a process of solvent extraction** using permitted food grade solvent. The oil shall be deacidified with alkali and/or physical refining and/or by miscella refining using permitted food grade solvents followed by bleaching with bleaching earth and/or activated carbon and deodorised with steam. No other chemical agent except the salts of citric and phosphoric acid shall be used.	The oil shall be clear and free from turbidity when a filtered sample is kept at 35° C for 24 hrs. The oil shall also be free from rancidity, adulterants, sediments, foreign matter, mineral oil and other oils, suspended matter, separated water and added colouring and flavouring substances. The oil may contain permitted antioxi-dants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.

Note : * In the absence of Lovibond Tintometer, the colour of the oil shall be matched against standard colour comparators.
** In case of Solvent extracted oil, the containers of the oil shall be predominently marked "Solvent Extracted".

TOP

SCHEDULE-XI-A
(See Rules 3 and 4)

Agmark grade designation and definition of quality for Soyabean Oil

Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1/4" cell expressed as Y + 10R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)
1	2	3	4	5	6	7	8
Refined	0.10	20 shall not have predominant green colour	0.917 to 0.921	1.4649 to 1.4710	189 to 195	120 to 141	1.0

Acid value (not more than)	Phosphorus content percent by weight (not more than)	Insoluble bromide test	Flash point by Pensky Martens (closed cup) (not less than) °C	Definition of quality Description	General Requirement
9	10	11	12	13	14
0.5	0.02	to pass the test	250	Soyabean oil shall be obtained either by a process of expression or solvent extraction of sound and clean matured	The oil shall be clear and free from turbidity when a filtered sample is kept at 30°C for 24 hrs. The oil shall be

Soyabeans from the plant Glycine Max (L) Merill Syn. Glycine Soja Seib & Zucc, fam. Leguminosae or by solvent extraction of good quality of soyabean oil cake. The oil shall be deacidified with alkali and/or by physical refining using permitted food grade solvents, bleaching by bleaching earth and/or activated carbon and deodorised with steam. No other chemical agent shall be used.	free from rancidity, adulterants, suspended or other foreign matter, other oils, mineral oils, sediments, separated water added colouring and flavouring substances and obnoxious odour. The oil may contain permited anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.

Note : * In the absence of Lovibond Tintometer, the colour of the oil shall be matched against standard colour comparator.
** In case of solvent extracted oil, the containers of oil shall be marked "SOLVENT EXTRACTED".

TOP

SCHEDULE-XI-B
(See Rules 3 and 4)

Agmark grade designation and definition of quality for Refined, bleached, hydrogenated, winterised and deodourised Soyabean

Grade Designation	Definition Quality				
	Moisture and insoluble impurities percent by	Colour on Lovibond scale** in 5¼" cell expressed as	Specific gravity at 30°/30°C	Refractive Index at 40°C	Saponification value

	weight (not more than)	Y + 5R (not deeper than)			
1	2	3	4	5	6
RBHWD*	0.10	6 (shall not have a predominantly green colour	0.917 to 0.921	1.4630 to 1.4670	190 to 202

Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)	Flash point by Pensky-Martens (closed cup method) in °C (not less than)	Cloud point in °C (not less than)	Linolenic acid (18:3) percent by weight, not more than
7	8	9	10	11	12
107 to 120	1.2	0.5	250	10	3

Trans-fatty Acid Percent by weight, not more than	Description	General Requirements
13	14	15
10	Soyabean oil shall be obtained either by a process of expression or solvent extraction*** of sound and clean matured soyabeans from the plant Glycine Max (L) Merrill Syn. Glycine Soja Sieb	The oil shall be cleaned and free from turbidity when a filtered sample is kept at 30°C for 24 hours. The oil shall be free from rancidity, adulterants, suspended or other

and Zucc fam. Leguminosae or by solvent extraction of good quality of Soyabean Oil Cake. The oil shall be neutralised with alkali, bleached with bleaching earth and/or activated carbon, mildly hydrogenated using the nickel catalyst, reducing the Iodine value to the required level and then be winterised, the solid components that separate out are filtered through a filter press and the filtered oil is deodorised by steam.	foreign matter, other oils, mineral oil, sediments, separated water added colouring and flavouring substances and obnoxious odour. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.

N.B. : * The containers of this oil shall be marked in bold letters "BRHWD" Soyabean Oil.
** In the absence of Lovibond Tintometer, the colour of the oil shall be matched with standard colour comparators.
*** In case of solvent extracted oil, the containers shall be marked "SOLVENT EXTRACTED"

TOP

SCHEDULE-XII

(See Rules 3 and 4)

Agmark grade designation and definition of quality for Sunflower Seed Oil

	Definition Quality				
Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1" cell expressed in Y + 5R (not deeper than)	Specific gravity at 30°/30°C	Refractive Index at 40°C	Saponification value
1	2	3	4	5	6
Refined	0.10	5	0.913 to 0.918	1.4640 to 1.4800	188 to 194
Grade-I	0.25	20	0.913 to 0.918	1.4640 to 1.4800	188 to 194

Definition of Quality

Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)	Flash point in Pensky-Martens (Closed cup) method in °C (not less than)	Description	General Requirements
7	8	9	10	11	12
100 to 140	1.5	0.5	250	Sunflower seed oil shall be obtained either by a process of expressing sound and clean mature sunflower seeds of the plant Helian-thus annus Linn. Fam.. Compositae or by a process of solvent extraction** of good quality Sunflower seed oil-cake or from sound and clean mature seeds of Sunflower (Helianthus annus). The oil shall be deacidified with alkali and refining by physical refining and/or by miscella process followed by bleaching with bleaching earth and or activated carbon and deodorisation by steam. No other chemical agent shall be used.	The oil shall have acceptable taste and odour. The oil shall be clear and free from turbidity when a filtered sample is kept at 30°C for 24 hrs. The oil shall also be free from rancidity, adulterants, sediments, suspended and foreign matters, mineral oil, separated water and added colouring and flavouring substances and obnoxious odour. The oil may contain permitted anti-oxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
100 to	1.5	3.0	--	Sunflower seed oil shall be obtained by a process of	The oil shall be clear, free from rancidity, admixture of

140		expression of sound clean and mature sunflower, seeds (Helianthus annus Linn fam. Compositae)	other oil or substances, mineral oil, suspended matter sediments, separated water and free from added colouring and flavouring substances and obnoxious odour. The oil may contain permitted anti-oxidants not exceeding in concentration specified under Prevention of Food Adulteration Rules, 1955

Note : * In the absence of Lovibond Tintometer, the colour of the oil shall be matched against standard colour comparators,
**In case of solvent extracted oil, the containers of oil, shall be marked "SOLVENT EXTRACTED"

TOP

SCHEDULE-XIII

(See Rules 3 and 4)

Agmark grade designation and definition of quality for Maize (Corn) Oil

Grade Designation	Definition Quality				
	Moisture and impurities percent by weight (not more than)	Colour on Lovibond scale* in 1/2" cell expressed as Y + 5R (not deeper than)	Specific gravity at 30°/30°C	Refractive Index at 40°C	Saponification value
1	2	3	4	5	6
Refined	0.10	10	0.913 to 0.920	1.4645 to 1.4675	187 to 195

Definition of Quality

Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)	Description	General Requirements
7	8	9	10	11
103 to 128	1.5	0.5	Maize (corn) oil shall be obtained by a process of expression from the germs of clean and sound seeds of the plant Zea mays Linn. fam. Gramineae which are separated from the remainder of the kernalby the wet or dry milling process in the manufacture of starch or glucose. The oil shall be refined by Neutralisation, with bleaching earth and/or activated carbon and deodorised with steam. No other chemical agent shall be used.	The oil shall be clear and free from turbidity when a filtered sample of oil is kept at 30°C for 24 hours. The oil shall be free from rancidity, adulterants, sediments, suspended and foreign matters, other oils and substances, mineral oil, separated water and added colour and flavouring substance and obnoxious odour. The oil may contain permitted anti-oxidants not exceding in concentration as specified under Prevention of Food Adulteration Rules 1955.

NOTE : *In the absence of Lovibond Tintometer, the colour of the oil shall be matched against standard colour comparators.

TOP

SCHEDULE-XIV

(See Rules 3 and 4)

Agmark grade designation and definition of quality for Mahua (Mowrah) Oil

	Definition Quality						
Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Colour on Lovibond scale* in 1/4" cell expressed as Y + 5R (not deeper than)	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine value (Wij's method)	Unsaponi-fiable matter per-cent by weight (not more than)
1	2	3	4	5	6	7	8
Refined	0.10	10	0.862 to 0.875	1.4590 to 1.4610	187 to 196	58 to 70	2.0

Definition of Quality				
Acid value (not more than)	Titer (°C) (not less than)	Flash Point by Pensky Martens (closed cup) method in °C (not less than)	Description	General Requirements
9	10	11	12	13
103 to 128	1.5	0.5	Mahua oil shall be obtained by expression of clean and sound kernals of either Madhuca indica S.F. Gmelin, syn. Madhuca latifolia or Madhuca longifolia or a mixture	The oil shall be clear and free from turbidity when a filtered sample is kept at 50°C for 24 hours. The oil shall be free from rancidity, adulterants, foreign substances, other

		of both. The oils shall be refined by oils, sediments, suspended matter,			
		neutralisation with alkali and/or by mineral oil, separated water and added			
		physical refining, bleaching with colouring and flavouring substances and			
		bleaching earth and/or activated obnoxious odour. The oil may contain			
		carbon and deodorised with steam. permitted anti-oxidants not exceding in			
		No other chemical agent shall be concentration as specified under			
		used. Prevention of Food Adulteration Rules			
		1955.			

NOTE : *In the absence of Lovibond Tintometer, the colour shall be matched against standard colour comparaters

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SCHEDULE-XV

(See Rules 3 and 4)

Agmark grade designation and definition of quality of Salseed oil (fat).

	Definition Quality				
Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Specific gravity at 30°/30°C	Saponification Value	Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)
1	2	3	4	5	6
Refined	0.10	1.4500 to 1.4600	180 to 195	31 to 45	2.5

Definition of Quality				
Acid value (not more than)	9,10-epoxy and 9-10-dihydroxy stearic acids, percent by wt.	Flash-point by Pensky-Martens (closed cup) method in °C	Description	General requirements

	(not more than)	(not less than)		
7	8	9	10	11
0.5	3.0	250	The Sal seed fat shall be obtained by a process of solvent extraction of clean and sound seed kernals of Saltress (Shorea robusta Gaertn. using permitted food grade solvents. The oil shall be neutralised with alkali, bleached with bleaching earth and/or activated carbon de-odorised with steam. No other chemical agents shall be used. Alternatively, deacidification, bleaching and de-odorisation may be done by physical means.	The fat shall be clear on melting and free from turbidity when a filtered sample is kept at 40°C for 24 hrs. The fat shall have agreeable taste and flavour and free from adulterants, other fats, rancidity, sediments, suspended and foreign matter, separated water and added colouring or flavouring substances and obnoxious odour. The oil may contain permitted anti-oxidants not exceeding in concentrations specified under Prevention of Food Adulteration Rules, 1955.

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SHCEDULE-XVI

(See Rules 3 and 4)

Grade designation definition of quality for Vegetable Oils (Non-specified)

Grade designation	Special Characteristics	General Requirements
1	2	3
N.S. Grade* (non-specified)	Any vegetable oil mentioned in the Schedule 1 to XV shall conform to the specific characteristics referring to the quality of the oil as agreed between the buyer and seller.	1. The specific vegetable oils shall be obtained in the manner prescribed in the respective schedule and satisfy the requirements of the buyer. 2. The oil shall be free from adulterants, contamination, sediments, separated water, suspended foreign matter, other oils, added colouring and flavouring substances.

NOTE : 1. The non-specified (N.S.) grade is applicable only :

(i) to the vegetable oils meant for export :

(ii) to the vegetable oils for which definitions of quality have not been mentioned in any of the Schedule 1 to XV; and

(iii) to the vegetable oils for which definitions of quality have been mentioned in the said schedules, but those difinitions do not satisfy the quality requirements of the buyer.

2 The buyers' specific requirements regarding quality and quantity of the vegetable oil shall be produced along with the application for inspection.

3. The certificate of Agmark Grading shall bear the details of quality requirements of the buyer and a copy of the buyer's order shall be appended.

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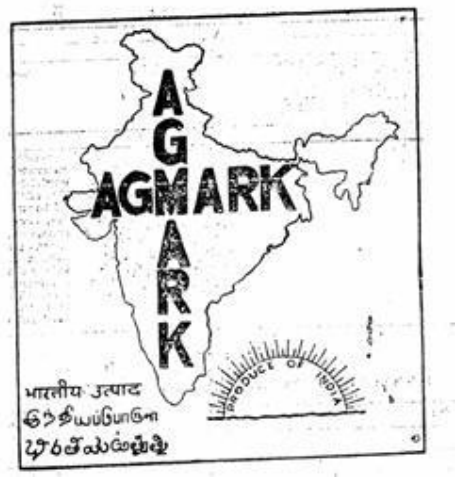
SCHEDULE-XVII (A)

[See Rule 5 (i)]

Grade designation mark

(Design on Agmark Label)



SCHEDULE-XVII (B)
[See Rule 5 (ii)]

Grade designation mark

(Design on Agmark Replica)

Name of Commodity :

Grade :

TOP

SCHEDULE - XVIII

Special conditions of the Certificate of Authorisation

(a) An authorised packer shall take all precautions to avoid contamination of edible vegetable oils with lead or zinc during processing, storage and packing.

(b) If an authorised packer handles more than one type of vegetable oils in the same premises, adequate precautions shall be taken by him to avoid the mixing of different oils.

(c) An authorised packers shall make such arrangements for testing vegetable oils as may be prescribed from time to time by the Agricultural Marketing Adviser. He shall also maintain proper records of the analysis of samples.

(d) All instructions regarding method of sampling and analysis, sealing and marking of containers and the maintenance of records etc. which may be issued from time to time by the Agricultural Marketing Adviser, shall be strictly observed.

(e) Each container of approved packing material shall be filled with oil from one storage tank or tank wagon only.

FOOT NOTE :-

(1) Principal rules published as S.R.O. 1719 dated 13-8-1955 in the Gazette of India, Part-II, Section 3 dated 13-8-1955

(2) First Amendment published as S.O. 409 dated 25-1-1964 in the Gazette of India, Part-II, Section 3(ii) dated 1-2-1964

(3) Second Amendment published as S.O. 2472 dated 6-8-1966 in the Gazette of India, Part-II, Section 3(ii) dated 20-8-1966

(4) Third Amendment published as S.O. 2792 dated 9-8-1967 in the Gazette of India, Part-II, Section 3(ii) dated 19-8-1967

(5) Fourth Amendment published as S.O. 1283 dated 15-3-1982 in the Gazette of India, Part-II, Section 3(ii) dated 27-3-1982

(6) Fifth Amendment published as S.O. 2987 dated 13-8-1982 in the Gazette of India, Part-II, Section 3(ii) dated 28-8-1982

(7) Sixth Amendment published vide GSR 289 dated 4-4-1990 appeared on pages 1003-1007 in the Gazette of India, Part-II, Section-3, Sub-section (i) dated 12-3-1990.

(8) Seventh Amendment published vide GSR 24(E) dated 1-1-1993 appeared in the Gazette of India, Part-II, Section 3, Sub-section (i) dated 18-1-1993.

TOP

(10)	(11)	(12)	(13)	(14)	(15)	(16)
कलर लोविबॉन्ड स्केल* ¼" सेल में Y+5R के रूप में व्यक्त (इससे गहरा नहीं)	बेलीर्स टर्बिडिटी तापमान एवर एसिटिक अम्ल विधि (डिग्री सेल्सियस)	ओरिजनॉल विद्यमानता परीक्षण	अर्जिमोन तेल की विद्यमानता का परीक्षण	हाइड्रोसायनिक अम्ल की विद्यमानता का परीक्षण	पॉलीब्रोमाइड परीक्षण	खनिज तेल की विद्यमानता का परीक्षण
15	23.0-27.5	नेगेटिव	नेगेटिव	नेगेटिव	नेगेटिव	नेगेटिव
50	23.0-27.5	नेगेटिव	नेगेटिव	नेगेटिव	नेगेटिव	नेगेटिव
50	23.0-27.5	नेगेटिव	नेगेटिव	नेगेटिव	नेगेटिव	नेगेटिव
नोट : श्रेणी –I और श्रेणी –II कच्चे एवं फ़िल्टर किए गए सरसों तेल के लिए।						

(17)	(18)
विवरण	न्यूनतम अपेक्षाएँ
सरसों का तेल ब्रासिका कैंपेस्ट्रिस लिन (पीली और भूरी सरसों) या ब्रैसिका जुनेशिया लिन (लाही, राई या लाहा) या ब्रैसिका नैपस (रेपसीड या तोरिया) के स्वच्छ और ठोस बीजों या इन बीजों के मिश्रण से निष्कर्षण की प्रक्रिया द्वारा प्राप्त किया जाएगा। निष्कासन दवाब विधि द्वारा प्राप्त तेल, विलायक निष्कर्षित तेलों और हेक्सेन अवशेषों से मुक्त होगा।	न्यूनतम अपेक्षाएं: (1) सरसों के तेल में निम्नलिखित विशेषताएँ होंगी:- (क) विशिष्ट और स्वीकार्य स्वाद एवं गंध होगा; (ख)जब फ़िल्टर किए गए तेल का नमूना 30 डिग्री सेल्सियस तापमान पर 24 घंटे के लिए रखा जाता है तो यह साफ और गंदलापन से मुक्त होगा; (ग) बासीपन, दुर्गंध, निलंबित अथवा अघुलनशील पदार्थ अथवा अन्य किसी विजातीय पदार्थ से मुक्त होगा; (घ) पृथक्कृत जल; तलछट जमाव, योजित रंजक पदार्थ और किसी भी तरह के अन्य गंधयुक्त पदार्थ से मुक्त होगा; (ङ) सिंथेटिक तेल से मुक्त होगा । (2)सरसों तेल यदि विलायक निष्कर्षण के जरिए उत्पादित किया जाता है तो इसे मानव खपत के लिए आपूर्ति करने से पूर्व परिष्कृत किया जाएगा और यह खाद्य सुरक्षा और मानक (खाद्य उत्पाद मानक और खाद्य सहयोज्य) विनियम, 2011 के अंतर्गत बनाए गए यथावर्णित मानकों के अनुरूप होगा तथा हेक्सेन सीमा 5 पीपीएम से अधिक नहीं होगी।

2. विशेष शर्त: यदि सरसों तेल में प्राकृतिक एलियल आइसोथियोसाइनेट की मात्रा वजन के अनुसार 0.20 % से कम नहीं हो तो तेल को कच्ची घानी या कोल्ड प्रेस्ड घोषित किया जा सकता है।"

[फा. सं. क्यू -11047/01/सरसों तेल/2023–मानक]
फ़ैज़ अहमद किदवई, अपर सचिव (विपणन)

नोट:- मूल नियमों को एस.ओ.संख्या 1719 के रूप में दिनांक 13 अगस्त 1955 को भारत के राजपत्र में भाग –II, खंड -3 में प्रकाशित किया गया था और अंतिम बार अधिसूचना संख्या सा.का.नि.383(अ), दिनांक 3 जून 2009 द्वारा संशोधित किया गया था।

MINISTRY OF AGRICULTURE AND FARMERS WELFARE

(Department of Agriculture and Farmers Welfare)

NOTIFICATION

New Delhi, the 11th July, 2023

G.S.R. 497(E).—Whereas, the draft of the Vegetable Oils Grading and Marking (Amendment) Rules, 2023 was published *vide* notification number G.S.R. 192(E), dated the 15th March, 2023 in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), to amend the Vegetable Oils Grading and Marking Rules, 1955,

inviting objections and suggestions from all persons likely to be affected thereby within forty-five days from the date on which copies of the Gazette of India containing the said notification were made available to the public;

And, whereas, copies of the said Gazette were made available to the public on the 15th March, 2023;

And, whereas, the objections and suggestions received from the public in respect of the said draft rules within the specified period have been considered by the Central Government;

Now, therefore, in exercise of the powers conferred by section 3 of the Agricultural Produce (Grading and Marking) Act, 1937 (1 of 1937), the Central Government hereby makes the following rules, namely:-

1. Short title, application and commencement. - (1) These rules shall be called the Vegetable Oils Grading and Marking (Amendment) Rules, 2023.

(2) They shall come into force on the date of their final publication in the Official Gazette.

2. In the Vegetable Oils Grading and Marking Rules, 1955 (hereinafter referred to as the said rules), for rule 10, the following shall be substituted, namely:-

"10 (1) Vegetable oils for domestic trade, shall comply with the restrictions in regard to residual levels of metal contaminants, pesticides residues, microbial requirements, crop contaminants, naturally occurring toxic substances and other food safety requirements as specified under the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011, Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011, and other regulations made for domestic trade under the provisions of Food Safety and Standards Act, 2006 (34 of 2006).

(2) The Vegetable oils for export trade, shall comply with the residual limits of heavy metals, pesticides and other food safety requirements as laid down by the Codex Alimentarius Commission or importing countries requirement for export".

3. In the said rules, after rule 11, the following rules shall be inserted, namely:-

"12. The Vegetable oils may be fortified with the micronutrients Vitamin A and Vitamin D at the level of nutrients prescribed in Food Safety and Standards (Fortification of Foods) Regulations, 2018.

13. The Vegetable oils may contain permitted anti-oxidants, food additives, in the concentration as specified under Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

14. The vegetable oils covered under these rules shall comply with the fatty acid composition of the oils as per Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011".

4. In the said rules, for Schedule I, the following schedule shall be substituted, namely:–

"SCHEDULE-I

Agmark grade designation and definition of quality for Mustard Oil

1. Definition of quality

Grade Designation	Limit of Tolerance								
	Moisture and insoluble impurities percent by wt. (not more than)	Percentage of Natural Essential Oil Content as allylisothiocynate (Minimum)	Refractive Index at 40°C	Unsaponifiable matter percent by weight (Not more than)	Acid Value (not more than)	Iodine Value (Wij's method)	Saponification Value	Specific gravity at 30°C/30°C	Colour Lovibond scale* in ¼" cell expressed as Y+5R (not deeper than)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Refined	0.10	-	1.4646 to 1.4662	1.2	0.6	96-112	168-177	0.907 to 0.910	15
Grade - I	0.25	0.20			2.0				50
Grade-II	0.25	0.10			4.0				50

Belliers Turbidity Temperature Ever's acetic acid Method°C	Test for Presence of Oryzanol	Test for Presence of Argemone Oil	Test for Presence of Hydrocynaic Acid	Polybromide Test	Test for Presence of Mineral Oil
(11)	(12)	(13)	(14)	(15)	(16)
23.0-27.5	Negative	Negative	Negative	Negative	Negative
23.0-27.5	Negative	Negative	Negative	Negative	Negative
23.0-27.5	Negative	Negative	Negative	Negative	Negative
Note: Grade - I and Grade- II are for Raw and filtered Mustard Oil.					

(17)	(18)
Description	Minimum requirement
Mustard Oil shall be obtained by a process of expression of clean and sound mustard seed of *Brassica campestris Linn* (yellow and Brown sarson) or *Brassica junecea Linn* (Lahi, Rai or laha) or *Brassica napus* (rapeseed or toria) or admixture of these seeds. The oil obtained by expelled pressed method shall be free from solvent extracted oils and hexane residues.	Minimum requirement: (1) Mustard Oil shall,- (a) have characteristic and acceptable taste and flavor; (b) be clear and free from turbidity when a filtered sample of oil is kept for 24 hours at 30°C; (c) be free from rancidity, obnoxious smell, suspended or insoluble matter or any other foreign matter; (d) be free from separated water, sedimentations, added colouring matter and any other flavouring substances; (e) be free from synthetic oil. (2). Mustard oil, if produced by solvent extraction shall be refined before it is supplied for human consumption and shall conform to the standards as laid down or made under Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 and Hexane should be not more than 5 ppm.

2. Special Condition. - The Mustard oil may be declared as Kachi Ghani or cold pressed, as the case may be, if the content of natural allylisothiocynate in the oil is not less than 0.20% by weight."

[F. No.-Q-11047/01/Mustard Oil/2023-Std]

FAIZ AHMED KIDWAI, Addl. Secy. (Marketing)

Note. - The principal rules were published as S.O. 1719, dated 13th August 1955, in the Gazette of India Part-II, Section-3 and were last amended *vide* notification number G.S.R. 383(E), dated the 3rd June, 2009.

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