

Vegetable Oils Grading and Marking Rules, 1955
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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) "Agricultural Marketing Adviser" means the Agricultural Marketing Adviser to the Government of India ;

(2) "Authorised packer" 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) "Certificate of authorisation" means a certificate issued under the General Grading and Marking Rules, 1988,

(4) "Schedule" 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 "AGMARK" and the figure of rising sun with the words "Produce of India", 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 "AGMARK", 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.

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., 500gms, 1Kg, 5Kgs and thereafter in multiples of 5 Kgs net weight. The edible vegetable oils may also be packed in corresponding volumetric packing's 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 authorized packer may after obtaining the prior approval of the Agricultural Marketing Adviser or an officer authorized 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 authorization. - 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 there under.

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

Schedule-I

(See Rules 3 and 4)

Agmark grade designation and designation of quality for Mustard Oil

Definition of Quality						
Grade Designation	Moisture and insoluble impurities percent by weight (not more than)	Color on Lovibond scale* in 1/4" cell expressed as Y+5R (not deeper than)	Specify gravity at 30°C/30°C	Refractive Index at 40°C	Saponification	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 content (Allyl isothiocyanate)	Acid value of oil (as not more than)	Ballier's turbidity temperature by Ever's acetic acid method (not more than)°C	Test for the presence of Argemone oil (by Circular 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	Neg.	Neg.	Neg.

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

Description	General Requirements
15	16
<p>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.</p> <p>Grade-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.</p> <p>Grade-II : Mustard oil shall be obtained by a process of</p>	<p>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 300C. 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 antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.</p> <p>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.</p>

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.	
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* 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 2500C and the containess shall be marked "Solvent Extracted".

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)	Color on Lovibond scale* in 1 inch (2.54 cms) cell expressed as Y+5R (not deeper than)	Specify gravity at 30°C/30°C	Refractive Index at 40°C	Saponification	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 by weight (not more than)	Acid value (not more than)	Bellier's Turbidity Temperature (acetic acid method) in °C	Description	General requirements	

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	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 any other sediments, suspended matter or separated water. The oil shall have natural characteristic and acceptable taste, flavour and be 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

			deodorised with steam. No other chemical agent shall be used.	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 and 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) 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 and flavouring agents. It shall also be free from

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	General Requirements
11	12
Sesame oil shall be obtained by a process of expression of clean and sound Sesame (Til and 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.	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 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 and gingelly) seeds (Sesamum orientale) belonging to black, brown or white varieties or mixture thereof	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 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 expression of clean and sound Sesame (Til and gingelly) seeds (Sesamum orientale) belonging to black, brown or white varieties or mixture thereof	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 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.

* 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-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 by	Color on Lovibond scale* in 1/4 inch by expres	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine value (Wij's method)	Unsaponifiable matter by weight (not more than)	Acid value (no more	Bellier's Turbidity Temperature by Ever's acetic acid method

	cell weight (not more than)	sed as Y±5 R (not deeper than)						tha n)	(not more than °C)
1	2	3	4	5	6	7	8	9	10
Refined (E.R.)	0.10	2	0.916 to 0.923	1.4662 to 1.4694	185 to 190	115 to 120	2.5	0.5	22
Grade-I (E.R.)	0.25	10	0.916 to 0.923	1.4662 to 1.4694	185 to 190	115 to 120	1.5	4.0	22
Grade-II (E.R.)	0.25	20	0.916 to 0.923	1.4662 to 1.4694	185 to 190	115 to 120	1.5	6.0	22

Description	General Requirements
11	12
Sesame oil shall be obtained by a process of expression of clean and sound Sesame (Til and 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 adsorbant earth and/or activated carbon and deodourisation with steam. No other chemical agent shall be used.	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 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 expression of	The oil shall have natural characteristic sweet smell

<p>clean and sound Sesame (Til and gingelly) seeds (Sesamum indicum linn) belonging to the white varieties grown in Tripura, Assam and West-Bengal</p>	<p>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.</p>
<p>Sesame oil shall be obtained by a process of expression of clean and sound Sesame (Til and gingelly) seeds (Sesamum indicum linn) belonging to the white varieties grown in Tripura, Assam and West-Bengal</p>	<p>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 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.</p>

* 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-IV

(See Rules 3 and 4)

Agmark grade designation and definition of quality of Coconut oil

Definition of Quality						
Grade	Moisture	Color	on	Specific	Refractive	Saponification

designation	and insoluble impurities percent by cell weight (not more than)	lovibond scale* in 1/4 inch expressed as Y±5 R (not deeper than)	gravity at 30°C/30°C	Index at 40°C	value
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	0.915 to 0.920	1.4481 to 1.4491	250

Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)	Acid value (not less 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 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	The oil shall have natural sweet smell and taste. It shall be clear and free from turbidity when a sample is kept for 24 hrs. at 30°C. The oil shall be free from rancidity, admixture of any other

				<p>(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 miscella refining followed by bleaching with adsorbant earth and/or activated carbon and deodourisation with steam. No chemical agent shall be used.</p>	<p>oils, substances or adulterants. The oil shall be free from mineral oil, sediments and suspended matter, separated water, obnoxious odour, added colouring and flavouring agents. The oil may contain permitted antioxidant not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.</p>
7.5 to 10.0	0.8	3.0	13.0	<p>The oil shall be the product obtained by expression of good quality copra (Cocos nucifera only).</p>	<p>The oil shall have natural sweet and characteristic odour. It shall be clear and free from rancidity, admixture of any other oils, substances</p>

					<p>or adulterants. The oil shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring agents. The oil may contain permitted antioxidant not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.</p>
7.5 to 10.0	0.8	6.0	13.0	<p>The oil shall be the product obtained by expression of good quality copra (Cocos nucifera only).</p>	<p>The oil shall have natural sweet and characteristic odour. It shall be clear and free from rancidity, admixture of any other oils, substances or adulterants.</p>

					<p>The oil shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and flavouring agents. The oil may contain permitted antioxidant not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.</p>
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* 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 2250C and the container shall be marked "Solvent Extracted".

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	Color on Lovibond scale* in 1/4	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine value (Wij's method) (not	Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)

	percent by weight (not more than)	inch cell expressed as Y+10R (not deeper than)				less than)		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 (not more than)	Test for the presence of break	Test of lead	Flash point by Pensky Martens (closed cup) method in	Description	General Requirements
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	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, sediments, suspended and other foreign matter or oils. It shall also be free from

				refining and/or activated carbon. The oil may be treated with mineral acid before alkali refining. No other chemical agent shall be used.	separated water and added colouring or flavouring substances. The oil may contain permitted antioxidant 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 extraction 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	The oil shall be clear and free from rancidity, adulterants, sediments, suspended and other foreign matter or oil. It shall also be free from separated water and added colouring or flavouring substances.

				refining bleached with bleaching earth and/or activated carbon. No other chemical shall be used.	
1.0	Neg.	----	----	Linseed oil shall be obtained either 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 oil. 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'.

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 0.960	1.4700 to 1.4740	10.0

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)	Acetylene value (minimum)
7	8	9	10	11	12
+3.5	0°C	176 to 187	80 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 Castor Seeds (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% of 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°C to 60°C) and is only partially soluble in two volumes.
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1	2	3	4	5	6	7	8	9	10	11	12
Firsts Special	0.25	36.7 (in to 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 to 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 to 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.
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 (Ricinus communis)	The oil shall be free from admixture with other oils or 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 castor oil in cold and refining the same and satisfy the conditions prescribed under the instructions issued from time to time in this behalf.

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 cell weight (not more than)	Color on Lovibond scale* in 1/4 inch 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) (not less than)	Unsaponifiable 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 0C and the container shall be marked "Solvent Extracted".

Definition of Quality			
Acid value (not more than)	Bellier's Turbidity (by Ever;s acetic acid method)	Description	General Requirements

	in °C		
9	10	11	12
0.5	25 to 29	<p>Niger seed oil shall be obtained either by process of expression of clean and sound seeds of niger plant (<i>Guizotia abyssinica</i>) or by a process of solvent extraction of good quality niger seed oil cake or clean and sound seeds of <i>Guizotia abyssinica</i>. 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.</p>	<p>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 any 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.</p> <p>The oil may contain permitted antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.</p>
5.0	25 to 29	<p>Niger seed oil shall be obtained by a process of expressing clean and sound seeds of Niger plants (<i>Guizotia abyssinica</i>) only.</p>	<p>The oil shall be clear and free from rancidity, admixture of any other oils or substances. The oil shall also be free from mineral oil, sediments, suspended matter, separated water, obnoxious odour, added colouring and</p>

			flavouring substances. The oil may contain permitted antioxidant not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
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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 cell weight (not more than)	Color on Lovibond scale* in 1/4 inch 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) (not less than)	Unsaponifiable matter percent by weight (not more than)
1	2	3	4	5	6	7	8
Refined	0.10	2.5	0.915 to 0.920	1.4674 to 1.4689	189 to 195	138 to 148	1.0
Grade-I	0.25	15	0.915 to 0.920	1.4674 to 1.4689	189 to 195	138 to 148	1.0
Grade-II	0.25	15	0.915 to 0.920	1.4674 to 1.4689	189 to 195	138 to 148	1.0

Definition of Quality			
Acid value (not	Bellier's Turbidity (by	Description	General Requirements

more than)	Ever; s acetic acid method) in °C (not more than)		
9	10	11	12
0.5	16	Safflower seed oil shall be obtained either by a process of expression of clear and sound seeds of safflower (Carthamus tinctorious) or by a process of solvent extraction** of good quality of safflower seed oil cake or clean and sound seeds of safflower seed (Carthamus tinctorious). The oil shall be deacidified with alkali and/or by physical refining and/or by miscella refining using permitted food grade solvents followed by bleaching earth and/or activated carbon and deodorised with steam. No other chemical agent shall be used.	The oil shall be clean 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 any 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 antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
2.0	16	Safflower seed oil shall be obtained	The oil shall have characteristic odour

		either by a process of expressing clean and sound seeds of safflower (Carthamus tinctorious) only.s	and taste. The oil shall be clear and free from rancidity, admixture of any 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 antioxidant not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
6.0	16	Safflower seed oil shall be obtained either by a process of expressing clean and sound seeds of safflower (Carthamus tinctorious) only.	The oil shall have characteristic odour and taste. The oil shall be clear and free from rancidity, admixture of any 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 antioxidant not

			exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
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* 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-Marten's (closed cup) method shall not be less than 250°C and the containers shall be marked "Solvent Extracted".

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 cell weight (not more than)	Color on Lovibond scale* in 1/4 inch 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) (not less than)	Unsaponifiable matter percent by weight (not more than)
1	2	3	4	5	6	7	8
Refined	0.10	10 (14)**	0.910 to 0.920	1.4630 to 1.4660	190 to 194	98 to 112	1.5
Grade-I	0.25	15	0.910 to 0.920	1.4660 to 1.4660	190 to 194	98 to 112	1.5

Definition of quality		
Acid value (not more than)	Description	General Requirements
9	11	12
0.5	Cotton seed oil shall be	The oil shall be clear

	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 oil cake 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 earth and/or activated carbon and deodorised with steam. No other chemical agent shall be used.	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 any 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 antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
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 any 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".

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)	Color 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	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 (no dominant green colour)	0.910 to 0.920	1.4600 to 1.4700	180 to 195	90 to 105	3.5

Definition of Quality			
9	10	11	12
Acid value (not more than)	Flash point in °C by Pensky Martens (closed cup) method (min.)	Description	General Requirements
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 <i>Oryza sativa</i> linn family Gramineae	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

	than)						
1	2	3	4	5	6	7	8
Refined	0.10	20 shall not have to predominant green colour	0.917 to 0.921	1.4649 to 1.4710	189 to 195	120 to 141	1.0

Definition of Quality					
Acid value (not more than)	Phosphorus content (not more than)	Insoluble bromide test	Flash point by Pensky Martens (closed cup) (not less than) °C	Description	General Requirements
9	10	11	12	13	14
0.5	0.02	to pass the test	250	Soyabean oil shall be obtained either by process of expression or solvent extraction of sound and clean matured Soyabeans from the plant Glycine Max (L) Merrill Syn. Glycine Soja Seib & Zucc, fam. Leguminosae or by solvent extraction of	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, adulterants, suspended or foreign matter, other oils, mineral oils, sediments, separated water, added

				good quality of soyabean oil cake. The oil shall be deacidified with alkali and/or physical refining using permitted food grade solvents, bleaching by earth and/or activated carbon and deodorised with steam. No other chemical agent shall be used.	colouring and flavouring substances and obnoxious odour. The oil may contain permitted antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
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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".

Schedule-XI-B

(See Rules 3 and 4)

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

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
RBHWD*	0.10	6 (shall not have 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 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 present 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 Seib and Zucc, fam. Leguminosae or by solvent extraction of good	The oil shall be cleaned and free from turbidity when a filtered sample is kept at 30°C for 24 hrs. The oil shall be free from rancidity, adulterants, sediments or other foreign matter, other oils, mineral oil, sediments, separated water and added colouring and flavouring

	<p>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 soil components that separate out are filtered through a filter press and the filtered oil is deodorised by steam.</p>	<p>substances and obnoxious odour. The oil may contain permitted antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.</p>
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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".

Schedule-XII

(See Rules 3 and 4)

Agmark grade designation and definition of quality for Sunflower Seed Oil

Definition of Quality							
Grade designation	Moisture and insoluble impurities percent by weight (not more than)	Color 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	Iodine value (Wij's method)	Unsaponifiable matter percent by weight (not more than)

1	2	3	4	5	6	7	8
Refined	0.10	5	0.913 to 0.918	1.4640 to 1.4800	188 to 194	100 to 140	1.5
Grade-I	0.25	20	0.913 to 0.918	1.4640 to 1.4800	188 to 194	100 to 140	1.5

Definition of Quality			
Acid value (not more than)	Flash point in Pensky Martens (closed cup) method in °C (not less than)	Description	General Requirements
9	10	11	12
0.5	250	Sunflower seed oil shall be obtained either by a process of expressing sound and clean mature sunflower seeds of the plant <i>Helianthus annus</i> Linn. Fam.. Compositate or by a process of solvent extraction** of good quality Sunflower seed oil-cake or from sound and clean mature seeds of Sunflower (<i>Helianthus annus</i>). The oil shall be deacidified with alkali and refining by physical refining and/or by miscella process followed by	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 antioxidants not

		bleaching with bleaching earth and/or activated carbon and deodorisation by steam. No other chemical agent shall be used.	exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
3.0	–	Sunflower seed oil shall be obtained by a process of expression of sound clean and mature sunflower, seeds (<i>Helianthus annuus</i> Linn. Fam. Compositae)	The oil shall be free from rancidity, admixture of 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 antioxidants 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 oil, shall be marked "SOLVENT EXTRACTED".

Schedule-XIII

(See Rules 3 and 4)

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

Definition of Quality						
Grade designation	Moisture and insoluble impurities	Color on Lovibond scale* in 1/2" cell	Specific gravity at 30°C/30°C	Refractive Index at 40°C	Saponification value	Iodine value (Wij's method)

	percent by weight (not more than)	expressed as Y+5R (not deeper than)				
1	2	3	4	5	6	7
Refined	0.10	10	0.913 to 0.920	1.4645 to 1.4675	187 to 195	103 to 128

Definition of Quality			
8	9	10	11
Unsaponifiable matter percent by weight (not more than)	Acid value (not more than)	Description	General Requirements
1.5	0.5	Maize (corn) oil shall be obtained by a process of expressing from the germs of sound and clean seeds of the plant <i>Zea mays</i> Linn. Fam. Gramineae which are separated from the remainder of the kernal by 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	The oil shall be clear and free from turbidity when a filtered sample of oil is kept at 30°C for 24 hrs. The oil shall also be free from rancidity, adulterants, sediments, suspended and foreign matters, other oils and substances, mineral oil, separated water and added colouring and flavouring substance and obnoxious odour. The oil may contain permitted antioxidants not

		other chemical agent shall be used.	exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
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Note : *In the absence of Lovibond Tintometer, the colour of the oil shall be matched against standard colour comparators.

Schedule-XIV

(See Rules 3 and 4)

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

Definition of Quality							
Grade designation	Moisture and insoluble impurities percent by weight (not more than)	Color 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)	Unsaponifiable matter percent 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 of both. The oil shall be refined by Neutralisation, physical refining, bleaching 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 50°C for 24 hrs. The oil shall also be free from rancidity, adulterants, foreign substances, other oils, sediments, suspended matter, mineral oil, separated water and added colouring and flavouring substance and obnoxious odour. The oil may contain permitted antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
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Note : *In the absence of Lovibond Tintometer, the colour shall be matched against standard colour comparaters.

Schedule-XV

(See Rules 3 and 4)

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

Definition of Quality						
Grade designation	Moisture and	Specific gravity	Saponification at	Iodine value	Unsaponifiable matter	Acid value

	insoluble impurities percent by cell weight (not more than)	30°C/30°C		(Wij's method)	percent weight (not more than)	by (not more than)
1	2	3	4	5	6	7
Refined	0.10	1.4500 to 1.4600	180 to 195	31 to 45	2.5	0.5

Definition of Quality			
9, 10- exosy and 9-10- dihydroxy stearic acids, percent by wt. (not more than)	10- Flash point by Pensky martens (closed cup) method in °C (not less than)	Description	General Requirements
8	9	10	11
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 and deodorised	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 matters, separated water and added colouring and flavouring substances and

		with steam. No other chemical agent shall be used. Alternatively, deacidification, bleaching and de-odorisation may be done by physical means.	obnoxious odour. The oil may contain permitted antioxidants not exceeding in concentration as specified under Prevention of Food Adulteration Rules, 1955.
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Schedule-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* (not specified)	Any vegetable oil mentioned in the Schedule I 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 I to XV; and

- (iii) to the vegetable oils for which definitions of quality have been mentioned in the said schedules, but those definitions 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.

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:

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.