

**Notice Calling for suggestions, views, comments etc from stakeholders on the draft notification related to standards of standards of Rice, Basmati Rice, Chia Seeds, Gari (Cassava product), Edible Cassava Flour, Roasted Bengal Gram Flour -Chana Sattu, Ragi Flour, Almond Kernels, Coconut Milk Powder (Non Dairy), Mixed Masala Powder, Spice Oleoresins, Tejpat, Star Anise and Phytostanol.**

File No. Stds/CPL & CP/Notification/01/FSSAI-2017. - In the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011,-

(a) in Regulation 2.3.-

(i) in Sub regulation 2.3.47, after clause 5, following shall be inserted namely:-

“6.ALMOND KERNELS-(1)Almond kernels means product obtained from mature seeds of *Prunusamygdalus*Batsch, syn. *Prunusdulcis*(Mill.) D.A. Webb, from which the shell (ligneous endocarp) has been removed. The product shall be sound, whole, clean and sufficiently dried. It shall be free from living or dead insects, rancidity, visible foreign matter, visible moulds and rodent contamination. The product shall be uniform in colour with pleasant taste and characteristic flavor of nuts, free from off odour and evidence of fermentation. The product shall be free from added colouring and flavouring matter.

(2) It shall conform to the following requirements:

S. no.	Characteristics	Requirements	
(i)	Moisture (m/m), %	Not more than 6.0	
(ii)	Inshell almonds, shell or skin fragments, (m/m), %	Not more than 0.25	Total tolerance Not more than 12.0
(iii)	Rancid, rotten and damaged by insects or other pests (m/m), %	Not more than 1.0	
(iv)	Gummy and brown spot (m/m), %	Not more than 2.0	
(v)	Blemishes and discoloration(m/m), %	Not more than 4.0	
(vi)	Shrunken or shrivelled and not sufficiently developed kernels(m/m), %	Not more than 4.0	
(vii)	Bitter almonds(m/m), %	Not more than 2.0	
(viii)	Split, broken and halves (m/m), %	Not more than 5.0	
(ix)	Chipped and scratched (m/m), %	Not more than 10.0	
(x)	Doubles or twins (m/m), %	Not more than 10.0	
(xi)	Acid insoluble ash in dil.HCl, %	Not more than 0.1	
(xii)	Oil content (m/m), %	Not less than 45.0	

(xiii)	Acidity of extracted oil, expressed as oleic acid , %	Not more than 1.25
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(3) Explanations:- for the purpose of this clause,-

- (a) Bitter almond: almond kernel with a characteristic bitter taste produced by amygdalin, a natural compound of bitter almond varieties.
- (b) Double or Twin: almond kernel of characteristic shape, with one side flat or concave, as a consequence of the development of two kernels in the same shell.
- (c) Clean: practically free from plainly visible adhering dirt or other foreign material.
- (d) Sufficiently developed: almond kernel of normal shape, without aborted or dried out portions; shrunken and shrivelled kernels are not sufficiently developed.
- (e) Shrunken or shrivelled: almond kernel which is extremely flat and wrinkled, or almond kernel with desiccated, dried out or tough portions when the affected portion represents more than one quarter of the kernel.
- (f) Chipped kernel: mechanically damaged almond kernel from which less than one quarter of the kernel is missing; it is not considered as a defect the loss, in aggregate, of less than the equivalent of a circle of 3 mm in diameter.
- (g) Scratched kernel: superficially mechanically damaged almond kernel with absence of part of the skin, affecting or not the endosperm; it is not considered as a defect lacks of skin or scratched areas of less, in aggregate, than the equivalent of a circle of 3 mm in diameter.
- (h) Half: longitudinally split almond kernel from which the two halves (cotyledons) are separated.
- (i) Split or broken kernel: mechanically damaged almond kernel from which more than one quarter of the kernel is missing.
- (j) Piece: small fragment of almond kernel which pass through a 10 mm round meshed sieve.
- (k) Mould: mould filaments visible to the naked eye, either inside or outside of the almond kernel.
- (l) Rancidity: oxidation of lipids or free fatty acid production giving a characteristic disagreeable flavour; an oily appearance of the flesh does not necessarily indicate a rancid condition.
- (m) Rotten: significant decomposition or decay caused by the action of micro-organisms or other biological processes, normally accompanied by changes in texture and/or colour.
- (n) Insect or pest damage: visible damage or contamination caused by insects, mites, rodents or other animal pests, including the presence of dead insects, insect debris or excreta.
- (o) Living pests: presence of living pests (insects, mites or others) at any stage of development (adult, nymph, larva, egg, etc.).
- (p) Gummy: resinous appearing substance, affecting or not the endosperm, covering in aggregate an area more than the equivalent of a circle of 6 mm in diameter

(q) Brown spot: slightly depressed brown spots on the almond kernel, affecting or not the endosperm, either single or multiple, caused by the sting of insects as the box elder bug (*Leptocoristruvittatus* Say), covering in aggregate an area more than the equivalent of a circle of 3 mm in diameter. Blemish and discoloration apparent and spread stains, other than gum and brown spot, or severe dark or black discoloration contrasting with the natural colour of the kernel skin, affecting in aggregate more than one quarter of the surface of the almond kernel; it is not considered as a defect the normal colour variations between the kernels of one lot. Abnormal external moisture: presence of water, moisture or condensation directly on the surface of the product.

(r) Foreign smell and/or taste: any odour or taste that is not characteristic of the product.

(s) Foreign matter: any visible and/or apparent matter or material, including dust, not usually associated with the product, except mineral impurities.”

(ii) After Sub regulation 2.3.62, the following shall be inserted namely:-

“2.3.63. COCONUT MILK POWDER (NON DAIRY)-(1) Coconut milk powder means dehydrated or spray dried product obtained by removal of water from the coconut milk obtained from fresh, wholesome kernels of the fruits of coconut palm (*Cocosnucifera* L.). It shall have flavour and odour characteristic of the products. It shall be smooth & free flowing in texture and creamish to white or off white in colour. The product shall be free from added colouring / flavouring matter.

The product shall conform to the following requirements:

Sl.No.	Characteristics	Requirements
(i)	Moisture, (m/m), %	Not more than 2.5
(ii)	Fat, on dry basis(m/m), %	Not less than 60.0
(iii)	FFA (of extracted fat as lauric acid) ,(m/m), %	Not more than 0.2
(iv)	Density g/cc	0.3-0.45

(b). in regulation 2.4,-

(i) In sub-regulation 2.4.6,-

(A) clause 5 shall be omitted;

(B) after clause 23 the following sub-regulations shall be inserted, namely:-

“24. Rice- (1) Rice shall be whole and broken kernels obtained from the species *Oryza sativa* L and shall be following types:-

a) Brown Rice (De- Husked) is obtained from paddy by removing husk. The process of de -husking and handling may result in some loss of bran.

b) Milled Rice is obtained by milling or polishing of dehusked rice of paddy and also removal of all or part of the bran and germ by polishing.

c) Parboiled brown (De- Husked) rice (Brown rice of parboiled paddy) is obtained by removing husk of parboiled paddy.

d) Milled Parboiled rice is obtained from de- husked parboiled paddy and removal of all or part of the bran and germ by polishing.

(2) They shall conform to the following standards for Rice:

S.No.	Characteristics	Requirements			
		Brown Rice (De-Husked)	Milled Rice	Parboiled brown (De-Husked) Rice(Brown rice of parboiled paddy)	Milled Parboiled Rice
(i)	Moisture % by mass, (Not more than)	12.0	12.0	13.0	13.0
(ii)a.	Other organic extraneous matter (% by mass)	1.5	0.5	1.5	0.5
(ii) b.	Inorganic extraneous matter (% by mass)	0.1	0.1	0.1	0.1
(iii)	Filth (% by mass), Not more than	0.1	0.1	0.1	0.1
(iv)	Weevilled kernels(% by count), Not more than	5	5	5	5
	Defective Kernels				
(v)	Heat – Damaged/Discoloured Kernels (%m/m)	4.0	3.0	8.0	6.0
(vi)	Damaged Kernels (%m/m)	4.0	3.0	4.0	3.0
(vii)	Pin point damaged	-	2.0	-	2.0

S.No.	Characteristics	Requirements			
		Brown Rice (De-Husked)	Milled Rice	Parboiled brown (De-Husked) Rice(Brown rice of parboiled paddy)	Milled Parboiled Rice
	Kernels(%m/m)				
(viii)	Immature Kernels (%m/m)	12.0	2.0	12.0	2.0
(ix)	Chalky Kernels (%m/m)	11.0	11.0	Nil	Nil
(x)	Red / Red Streaked Kernels (%m/m)	12.0	4.0	12.0	4.0
(xi)	Uric acid (mg per kg), Maximum	100	100	100	100

(3) Explanation:- for the purpose of this clause-

- (a) Heat-Damaged/ Discoloured Kernels are kernels, whole or broken, that have changed their normal colour as a result of heating. This category includes whole or broken kernels that are yellow due to alteration. Parboiled rice in a batch of non-parboiled rice is also included in this category.
- (b) Damaged Kernels are kernels, whole or broken, showing obvious deterioration due to moisture, pests, diseases, or other causes, but excluding heat-damaged kernels.
- (c) Immature Kernels are unripe and/or undeveloped whole or broken kernels.
- (d) Chalky Kernels are whole or broken kernels except for glutinous rice, of which at least three quarters of the surface has an opaque and floury appearance.
- (e) Red Kernels are whole or broken kernels with a red-coloured pericarp covering more than one quarter of their surface.
- (f) Red-Streaked Kernels are kernels, whole or broken, with red streaks, the lengths of which may be equal to or greater than one-half of that of the whole kernel, but the surface area covered by these red streaks shall be less than one-quarter of the total surface.
- (g) Pinpoint Damaged kernels are Kernels or pieces of kernels having minute black spot of pin point size.

25. Basmati Rice-(1) Basmati Rice shall be mature kernels of *Oryza sativa L.* of the varieties notified under the Seeds Act, 1966 (54 of 1966). Basmati rice shall possess natural fragrance, characteristic of basmati rice both in raw and cooked forms. It shall be free from artificial colouring, polishing agents and artificial fragrances. It shall also be free from obnoxious smell.

(2) The Basmati Rice shall be following types:-

- (a) Brown Basmati Rice (De- Husked) is paddy rice from which the husk only has been removed. The process of husking and handling may result in some loss of bran. The kernels shall be long, slender, light brown in colour and having vitreous luster (glossy in appearance);
- (b) Milled Basmati Rice is husked rice from which all or part of the bran and germ has been removed by milling. The kernels shall be long, slender, white to creamy white or grayish colour and translucent;
- (c) Parboiled brown (De- Husked) basmati rice (Brown basmati rice of parboiled paddy) may be processed from paddy that has been soaked in water and subjected to a heat treatment so that the starch is fully gelatinized, followed by a drying process. The kernels shall be long, slender, brownish in colour;
- (d) Milled Parboiled Basmati Rice may be processed from husked rice that has been soaked in water and subjected to a heat treatment so that the starch is fully gelatinized, followed by a drying process. The kernels shall be long, slender, creamy white, brownish or grayish in colour and translucent;
- (e) Blended Basmati Rice: It shall be mixture of milled basmati rice (Minimum 80%) with other elongated long grain non basmati rice.

(3) They shall conform to the following standards:-

S. No.	Characteristic	Requirement				
		Brown Basmati Rice (De-Husked)	Milled Basmati Rice	Parboiled brown (De-Husked) basmati rice(Brown basmati rice of parboiled paddy)	Milled Parboiled Basmati Rice	* Blended Basmati Rice
(i)	Length	6.61 mm and above	6.61 mm and above	6.61 mm and above	6.61 mm and above	6.61 mm and above
(ii)	Length – breadth ratio	3.5 and above	3.5 and above	3.5 and above	3.5 and above	3.5 and above
(iii)	Average cooked rice length	12.0 mm and above	12.0 mm and above	12.0 mm and above	12.0 mm and above	12.0 mm and above
(iv)	Average volume expansion ratio	More than 3.5	More than 3.5	More than 3.5	More than 3.5	More than 3.5
(v)	Average pre-cooked milled rice breadth	Not more than 2 mm	Not more than 2 mm	Not more than 2 mm	Not more than 2 mm	Not more than 2 mm

S. No.	Characteristic	Requirement				
		Brown Basmati Rice (De-Husked)	Milled Basmati Rice	Parboiled brown (De-Husked) basmati rice (Brown basmati rice of parboiled paddy)	Milled Parboiled Basmati Rice	* Blended Basmati Rice
(vi)	Elongation ratio after cooking	Not less than 1.7	Not less than 1.7	Not less than 1.7	Not less than 1.7	Not less than 1.7
(vii)	Moisture % by mass, (Not more than)	14.0	14.0	14.0	14.0	14.0
(viii)	Organic extraneous matter (% by mass)	1.5	0.5	1.5	0.5	0.5
(ix)	Inorganic extraneous matter (% by mass)	0.1	0.1	0.1	0.1	0.1
(x)	Paddy grains (%by mass), Max.	0.2	0.1	0.1	0.1	0.1
(xi)	Other varieties of non basmati rice (%by mass), Max.	3.0	3.0	3.0	3.0	-
(xii)	Under milled and red striped/ red grains (%by mass), Max.	2.0	2.0	Red striped/ red grains: 2.0	2.0	2.0
(xiii)	Chalky grains (%by mass), Max.	10.0	10.0	NIL	NIL	10.0
(xiv)	Green grains (%by mass), Max.	4.0	-	4.0	-	-
(xv)	Broken and fragments (%by mass), Max.	5.0	5.0	3.0	3.0	5.0
(xvi)	Damaged discoloured grains (%by mass), Max.	1.0	1.0	1.0	1.0	1.0
(xvii)	Amylose content (range)	20-25%	20-25%	20-25%	20-25%	-

S. No.	Characteristic	Requirement				
		Brown Basmati Rice (De-Husked)	Milled Basmati Rice	Parboiled brown (De-Husked) basmati rice (Brown basmati rice of parboiled paddy)	Milled Parboiled Basmati Rice	* Blended Basmati Rice
(xviii)	Alkali spreading value (ASV), range	4.0-7.0	4.0-7.0	4.0-7.0	4.0-7.0	-
(xix)	Uric acid (mg per kg), Maximum	100	100	100	100	100

The confirmation for Basmati Rice variety shall be done by Polymerase Chain Reaction (PCR) test, if required.

\* Parameters given in S.No. 2 to 6, 17 and 18 will not be the requirement for non basmati rice in Blended basmati rice.

(4) Explanations:-for the purpose of this clause-

- (a) Broken and fragments includes pieces of rice kernels which are less than three fourth of a whole kernel.
- (b) Chalky Grains means the grain at least half of which are milky white in colour and brittle in nature.
- (c) Damaged, discoloured grains include rice kernels, broken fragments of whole kernels that are internally damaged or discoloured (including black grains), materially affecting the quality.
- (d) Elongation ratio (ER) means the ratio of the length of cooked rice to that of uncooked rice which measures the expansion of length upon cooking.
- (e) Length/ Breadth ratio means the ratio of the length of a grain to its breadth.
- (f) Other varieties means varieties of rice other than those notified as Basmati.
- (g) Red grains shall be the kernels, whole or broken which have 25% or more of their surface coated with red bran.
- (h) Under milled grain means grain whose bran portion is not completely removed during polishing or which has substantial bran streaks left on it.
- (i) Green grains mean the kernels whole or broken, which are greenish in colour.
- (j) Paddy grains mean the kernels whole or broken, with husk.
- (k) Average volume expansion ratio means ratio of volume of cooked rice to volume of raw rice.
- (l) Other varieties means varieties of rice other than those notified as Basmati.

(5) Every package of Blended Basmati Rice containing an admixture of Milled Basmati Rice with other elongated long grain rice shall carry the following label, namely:-

BLENDED BASMATI RICE contains an admixture of Milled Basmati Rice..... percent Other elongated long grain non basmati rice ..... percent
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26. Chia Seeds-(1) Chia seeds (*Salvia hispanica L*) are obtained from the plant of mint family (*Labiatae*).

(2) It shall conform to the following standards:

S.No.	Characteristic	Requirement
(i)	Moisture( % m/m), Not more than	11.5
(ii)	Extraneous matters	Not more than 1 per cent. by mass of which not (Extraneous matter) more than 0.25 per cent. by mass shall be mineral matter and not more than 0.10 per cent. by mass shall be impurities of animal origin
(iii)	Other edible grains % by mass(Not more than)	0.5
(iv)	Damaged grains % by mass (Not more than)	3.0
(v)	1000 grain mass (gm), Range	1.2 -1.6
(vi)	Acidity of extracted fat (mg KOH/gm), Not more than	2.0
(vii)	Uric acid (mg per kg), Maximum	100

”

(ii) after sub-regulation 2.4.28, the following sub-regulations shall be inserted, namely-

“29. Gari (Cassava product)- (1) Gari is the finished product obtained by artisanal or industrial processing of cassava tubers (*Manihot esculenta Crantz*). The processing consists of peeling, washing and grating of the tubers, followed by fermentation, pressing, fragmentation, granulation, drying if necessary, sifting and suitable heat treatment. Gari is presented as flour of variable granule size. Gari shall be free from abnormal flavours, odours, and living insects.

(2) It shall conform to the following standards:

S.No.	Characteristic	Requirement
(i)	Moisture, % by mass (Not more than)	12.0
(ii)	Extraneous matter	Not more than 1 per cent. by mass of which not (Extraneous matter) more than 0.25 per cent. by mass shall be mineral matter and not more than 0.10 per cent. by mass shall be impurities of animal origin
(iii)	TOTAL ACIDITY, % determined as lactic acid (Range)	0.6 – 1.0
(iv)	Crude fiber % (Not more than)	2.0
(v)	Total Ash, %(Not more than)	2.75
(vi)	Acid insoluble ash in dilute HCl (percent on dry mass basis), Not more than	0.5

(vii)	extra-fine gari	MIN: 100% by mass shall pass through a 0.50 mm sieve  and  MIN: 40% by mass shall pass through a 0.25 mm sieve
(viii)	fine gari	MIN: 100% by mass shall pass through a 1 mm sieve  and  MAX: 40% by mass shall pass through a 0.5 mm sieve
(ix)	Medium gari	MIN: 100% by mass shall pass through a 1.25 mm sieve  and  MAX: 40% by mass shall pass through 1.00 mm sieve
(x)	coarse gari	MIN: 100% by mass shall pass through a 2 mm sieve  and  MAX: 40% by mass shall pass through a 1.25 mm sieve

30. Edible Cassava Flour-(1) Edible cassava (*Manihot esculenta Crantz*) flour is the product prepared from dried cassava chips or paste by a pounding, grinding or milling process, followed by sifting to separate the fibre from the flour. In case of edible cassava flour prepared from bitter cassava (*Manihot utilissima Pohl*), detoxification is carried out by soaking the tubers in water for a few days, before they undergo drying in the form of whole, pounded tuber (paste) or in small pieces

(2) It shall conform to the following standards:

S.No.	Characteristic	Requirement
(i)	Moisture, % by mass (Not more than)	13.0
(ii)	Crude fiber, % (Not more than)	2.0
(iii)	Total Ash, %(Not more than)	3.0
(iv)	Acid insoluble ash in dilute HCL (percent on dry weight basis), Not more than	0.5

(v)	PARTICLE SIZE  Fine flour  Coarse flour	Min: 90% shall pass through a 0.60 mm sieve  Min: 90% shall pass through a 1.20 mm sieve
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31. Roasted Bengal Gram Flour ( Chana Sattu)-(1)*Sattu* shall be obtained from clean, washed, dried and sound grains of gram (*Cicer arietinum*) after grinding of roasted and puffed form. It shall be of uniform color, having characteristic taste, smell and flavour associated with the product. It shall be free from insect infestation, live and dead insects, insect fragments, mould or mites, and larvae; free from rodent hair and excreta; fermented and musty odour, or any objectionable odour. It shall also be free from extraneous matter or any other adulterant and fungal contamination.

(2) It shall conform to the following:

S.No.	Characteristic	Requirement
(i)	Moisture, % by mass, Not more than	6.0
(ii)	Acid insoluble ash (dry basis), % by mass, Not more than	0.5
(iii)	Alcoholic acidity, percent by mass, Not more than	0.15
(iv)	Crude fibre(on dry basis), % by mass, Not more than	3.0
(v)	Crude protein (Nx6.25), % by mass(on dry basis), Not less than	20.0
(vi)	Particle size	100% pass through 500 Micron mesh
(vii)	Uric acid (mg per kg), Not more than	100

32. Ragi Flour-(1)Ragi flour is the product obtained from dried mature grains of *Eleusinecoracana L. Gaertn.* through a process of milling. It shall be free from added colouring matter, flavouring substances, moulds, weevils, obnoxious substances, discolouration, and all other impurities except to the extent indicated below. It shall be free from rodent hair and excreta.

(2) It shall conform to the following standards:

S.No.	Characteristic	Requirement
(i)	Moisture, % by mass, Not more than	10.0
(ii)	Crude fiber, % by dry mass basis	3.0 – 4.5
(iii)	Crude protein, % on dry mass basis (NX6.25), Not less than	8.0
(iv)	Acid insoluble ash, % on dry mass basis, Not more than	0.15
(v)	Particle Size, %	Max 80 % shall pass through a 180 micron sieve (80 mesh)
(vi)	Uric acid (mg per kg), Maximum	100

(c) In regulation 2.9,-

(i) In sub-regulation 2.9.20, after clause 1, the following clause shall be inserted, namely: -

“2.MIXED MASALA POWDER-(1). Mixed masala powder means the powder obtained from grinding clean and dried spices and herbs, including their extracts. It may contain ingredients such as edible starches,

edible salt, dried fruits and vegetables or their products, edible vegetable oil and fats or their products, nuts and their products, cereals and pulses or their products, nutritive or non-nutritive sweeteners. It may also contain other ingredients suitable to the product.

(2) All the above ingredients should either be standardised or permitted for use in the preparation of other standardised food under Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011.

(3) The spices and herbs covered under Spices Board and Food Safety and Standards (Food or Health Supplements, Nutraceuticals, Foods for Special Dietary Uses, Foods for Special Medical Purpose, Functional Foods and Novel Food) Regulations, 2016 may also be used. It shall be free from extraneous matter, mould growth, and insect infestation.

(4) It shall meet the following requirements:

Sr. No.	Characteristic	Requirement		
		High spice mixed masala powder	Medium spice mixed masala powder	Low spice mixed masala powder
(i)	Spice Content, per cent by mass ( <i>Minimum</i> )	85.0	40.0	25.0
(ii)	Moisture, per cent by mass ( <i>Maximum</i> )	10.0	10.0	10.0
(iii)	Volatile oil, per cent volume by mass (on dry basis) ( <i>Minimum</i> )	0.4	0.2	0.1
(iv)	Non-volatile ether extract per cent by mass (on dry basis) ( <i>Minimum</i> )	10.0	5.0	3.0
(v)	Acid Insoluble Ash per cent by mass (on dry basis) ( <i>Maximum</i> )	1.5	1.5	1.5

(5) The category High Spice or Medium spice or Low Spice mixed masala powder shall be mentioned on the label. In addition, the name of the specific product such as Chana masala, Sambar Masala may also be mentioned. Salt content above 5% shall be declared on the label.

(ii) after sub-regulation 2.9.31, the following sub-regulation shall be inserted, namely:-

“2.9.32 SPICE OLEORESINS-(1). Spice Oleoresins are the volatile and non-volatile constituents of spices/herbs. These shall be obtained by extraction of the spice/herb with permitted food grade solvent(s), either singly or in combination, followed by separation of solvent(s) and volatile portion. The non-volatile portion after separation of the solvent shall be added back to the volatile portion.

(2) The list of permitted food grade solvents and their residual limits are specified in the Table given below:-

Sr. No.	Solvent	Limit (Max, in ppm)
(i)	Acetone	30
(ii)	Ethyl Acetate	50
(iii)	Hexane	25
(iv)	Isopropyl alcohol	30
(v)	Methyl alcohol	50
(vi)	Carbon dioxide	GMP
(vii)	Water	GMP
(viii)	Diethyl Ether	2
(ix)	Ethyl alcohol	GMP
(x)	Butan-1-ol	2
(xi)	Butan-2-ol	2
(xii)	Propan-1-ol	1
(xiii)	Methyl tert-butyl ether	2

(3) Spice Oleoresin shall meet the requirements as specified in the Table given below:

Sr. No.	Spice Oleoresin	Botanical Name of the Spice/ Herb	Active component	Volatile Oil Content (VOC in ml/100g of oleoresin)
(i)	Ajowan or Bishop's weed	<i>Trachyspermum ammi</i> L.	Thymol	1.5 - 9.0
(ii)	Allspice	<i>Pimentadioica</i> (L) Merr.	Eugenol	20.0 - 50.0
(iii)	Aniseed	<i>Pimpinellaanisum</i> L.	Anethole and fenchone	9.0 - 22.0
(iv)	Black Pepper	<i>Piper nigrum</i> L.	Piperine	10.0 - 35.0
(v)	Basil	<i>Ocimumbasilicum</i> L.	E-Beta-CaryoPhyllene (BCP)	4.0 - 17.0
(vi)	Capsicum	<i>Capsicum frutescens</i> L. or <i>Capsicum annum</i> L.	Capsaicin	-
(vii)	Caraway	<i>Carumcarvi</i> L.	Carvone, Carveol and Hydrocarvone	10.0 - 20.0
(viii)	Cardamom (Small)	<i>Elettariacardamomum</i> Maton	1,8-cineole and $\alpha$ -terpinyl acetate	10.0 - 80.0
(ix)	Celery	<i>Apiumgraveolens</i> L.	d- limonene and sedanolides	7.0 - 20.0

(x)	Chilli <sup>1</sup>	<i>Capsicum annum L.</i> or <i>Capsicum frutescens L.,</i>	Capsaicin	-
(xi)	Cinnamon Bark	<i>Cinnamomumzeylanicum</i>	Cinnamaldehyde	2.0 - 6.0
(xii)	Clove	<i>Syzygiumaromaticum (L)</i> Merr.& Perry	Eugenol	12.0 - 18.0
(xiii)	Coriander	<i>Coriandrumsativum L.</i>	Linalool	1.0 - 12.0
(xiv)	Cumin	<i>Cuminumcyminum L.</i>	Cuminaldehyde	10.0 - 30.0
(xv)	Dillseed	<i>Anethumgraveolens L.</i>	Apiole and dillapiole	10.0 - 20.0
(xvi)	Fennel	<i>FoeniculumvulgareMill.</i>	Anethole	3.0 - 20.0
(xvii)	Ginger	<i>ZingiberofficinaleRosc</i>	Gingerol	10.0 - 40.0
(xviii)	Laurel Leaf / Bay Leaf	<i>LaurusnobilisL.</i>	1,8-cineole, linalool, $\alpha$ - terpinyl acetate and methyl eugenol	5.0 - 25.0
(xix)	Mace	<i>MyristicafragransHoutt.</i>	Sabinene and Pinenes	10.0 - 85.0
(xx)	Marjoram Sweet	<i>MarjoranahortensisMoench.</i>	Pinenes, Ethereal oil	8.0 - 20.0
(xxi)	Nutmeg	<i>MyristicafragransHoutt.</i>	Sabinene and Pinenes	10.0 - 85.0
(xxii)	Oregano	<i>OriganumvulgareL.</i>	Carvacrol, Thymol, Eugenol, Rosmarinicacid	20.0 - 45.0
(xxiii)	Paprika <sup>2</sup>	<i>Capsicum annum L</i>	Capsaicin	-
(xxiv)	Parsley Leaf	<i>PetroselinumcrispumMill.</i>	Myristicin and Apiole	2.0 - 10.0
(xxv)	Parsley Seed	<i>PetroselinumcrispumMill.</i>	Myristicin and Apiole	2.0 - 7.0
(xxvi)	Rosemary	<i>RosmarinusofficinalisL.</i>	Carnosic acid and Carnosol	2.0 - 15.0
(xxvii)	Star Anise	<i>IlliciumverumHook.</i>	Anethole	9.0 - 22.0
(xxviii)	Thyme	<i>Thymus vulgaris L.</i>	Thymol	5.0 - 12.0
(xxix)	Turmeric	<i>Curcuma longa L.</i>	Curcumin	-
(xxx)	White Pepper	<i>Piper nigrumL.</i>	Piperine	10.0 - 35.0

<sup>1</sup>Color Value (expressed as Nesslerimetric units): 4000 - 20,000

<sup>1</sup>Scoville Heat Units, *Min*: 240000

<sup>2</sup>Color Value in ASTA Color Units (CU):250 -5000

2.9.33 TEJPAT-(1)Tejpat means the dried leaves of the tree *Cinnamomum tamala*, Nees and Ebermof family *lauraceae*. It shall have characteristic aroma. It shall be clean and free from musty odour, off-flavor, mould growth, insect infestation, rodent contamination and other impurities except to the extent as per the requirements given below. It shall be free from admixture of leaves other than Tejpat.

(2) It shall conform to the following requirements:

S.No	Characteristics	Requirements
(i)	Moisture content, percent by mass, on dry basis( <i>Maximum</i> )	10.0
(ii)	Extraneous matter, percent by mass, on dry basis ( <i>Maximum</i> )	1.0
(iii)	Shrivelled and discoloured leaves, percent by mass, on dry basis( <i>Maximum</i> )	10.0
(iv)	Cut and broken leaves, percent by mass, on dry basis( <i>Maximum</i> )	20.0
(v)	Insect bored and diseased leaves, percent by mass, on dry basis( <i>Maximum</i> )	10.0
(vi)	Twigs, leaf stalk, percent by mass, on dry basis( <i>Maximum</i> )	5.0
(vii)	Volatile oil content, (ml/100g) on dry basis( <i>Minimum</i> )	0.5
(viii)	Uric acid, mg/kg, on dry basis ( <i>Maximum</i> )	100.0

(3) Explanations :- for the purpose of this sub-regulation,-

(a) Extraneous matter means stones, dust, other dirt and all organic and vegetable matters not of Tejpat origin.

(b) Shrivelled and discoloured leaves means leaves that are discoloured or not properly developed which materially affect the quality, shrivelled leaves do not include small and tender leaves.

(c) Insect bored and diseased leaves that are partly or wholly bored or eaten by insects or diseased.

(d) Twigs and leaf stalk means small branches and stalks attached with the tejpat leaves.

2.9.34 STAR ANISE-(1).Star Anise means the dried mature fruit of the tree *Illicium verum* Hook. of the family *Illiciaceae*. The fruit shall comprise of boat-shaped follicles arranged radially around a central stalk. The colour of star anise shall be brownish red or reddish brown. It shall have a characteristic odour and an aromatic, sweet and anise-like flavour. It shall be free from living and dead insects, moulds, insect fragments and rodent contamination visible to the naked eye.

(2) It shall conform to the following requirements:

S. No	Characteristics	Requirements
(i)	Extraneous matter, percent by mass on dry basis( <i>Maximum</i> )	1.0
(ii)	Stalks, percent by mass on dry basis( <i>Maximum</i> )	3.0
(iii)	Broken and abnormal fruits, percent by mass on dry	25.0

	basis( <i>Maximum</i> )	
(iv)	Moisture content, percent by mass on dry basis( <i>Maximum</i> )	10.0
(v)	Acid insoluble ash, percent by mass on dry basis ( <i>Maximum</i> )	1.0
(vi)	Volatile oil, per cent (ml/100 g) on dry basis ( <i>Minimum</i> )	8.0

(3) Explanations:- for the purpose of this sub-regulation,-

(a) Extraneous matter means all that does not belong to the star anise fruit and all other extraneous matter of animal, vegetable or mineral origin.

(b) Broken fruits are those which contain fewer than five follicles.

(c) Abnormal or undeveloped fruits are those containing three or more under-developed follicles.

(d) in regulation 3.3, in sub-regulation 3.3.5, for para1 , the following para shall be substituted, namely,-

"Phyto or Plant stanol esters may be added to the following products so as to allow users to easily restrict their consumption to maximum 3 g stanol per day through the use of either one portion containing maximum 3 g or three portions each containing 1 g and it shall be added subject to the table declaration under sub-regulation 48 of Regulation 2.4.5 of the Food Safety and Standards (Packaging and Labelling) Regulations, 2011:-".