

CHAPTER 2 FOOD PRODUCT STANDARDS

2.3: FRUIT & VEGETABLE PRODUCTS

2.3.1: Thermally Processed Fruits

1. Thermally Processed Fruits

(Canned/Bottled/Flexible packaged/Aseptically packed) means the products obtained from sound, matured, dehydrated, fresh or frozen, peeled or unpeeled, previously packed, whole, halves or cut pieces of fruits packed with any suitable packing medium and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage. ⁷²[Cherries may contain stems and shall be labelled accordingly.] It may contain water, fruit juice, dry or liquid nutritive sweeteners, spices and condiments and any other ingredients suitable to the product. The packing medium along with its strength shall be declared on the label.

2. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B. Drained weight of fruits shall be not less than the weight given below:-

(i)	Liquid pack	Not less than 50.0 percent of net weight of the contents
(ii)	Solid Pack	Not less than 70.0 percent of net weight of the contents

⁷²[In case of cherries with stems, drained weight of the cherries shall be calculated after removal of the stems from the cherries.]

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

⁵⁶[2.3.2: Thermally Processed Fruit Salad/Cocktail/Mix

1. **Description.**-Thermally Processed fruit salad/Cocktail/Mix (Canned, Bottled, Flexible pack and/ or Aseptically Packed) means the product,-

(a) prepared from mixture of fruits;

(b) such fruits may be fresh, frozen or canned;

(c) the fruit mixture is packed with water or other suitable liquid packing medium and may be packed with nutritive sweeteners and processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage.

2. Quality factors.-

(A) Packing Media.-

(i) The product may be packed in any one of the following packing media, namely:-

a) **Water**— in which water is the sole packing medium;

b) **Water and Fruit Juice**— in which water and fruit juice(s) from the fruits used in the product are the liquid packing medium;

c) **Fruit Juice**— in which one or more fruit juice(s) from the fruits used in the product which may be strained or filtered are the liquid packing medium;

d) **With Sugar(s)** — any of the above packing media, may have one or more of the following sugars added, namely, sucrose, invert sugar syrup, dextrose, dried glucose syrup, glucose syrup, fructose and fructose syrup.

(ii) Classification of packing media when sugars are added.-

(a) When sugars are added to fruit juice(s), the liquid media shall be not less than 10° Brix, and they are classified on the basis of the cut out strength as follows:

- | | |
|--|--|
| 1. Extra light sweetened:
(name(s) of fruit) Juice | Not less than 10° Brix
and not more than 13.9°
Brix; |
| 2. Lightly sweetened: (name(s)
of fruit) Juice | Not less than 14° and
not more than 17.9°
Brix; |
| 3. Heavily sweetened: (name(s)
of fruit) Juice | Not less than 18° and
not more than 21.9°
Brix; |
| 4. Extra heavy
sweetened(name(s) of fruit)
Juice | Not less than 22° Brix |

(b) When sugars are added to water or water and one or more fruit juices the liquid media shall be classified on the basis of the cut-out strength as follows:

- | | |
|---|--|
| 1. Slightly Sweetened Water/
Extra Light Syrup | Not less than 10° Brix
and not more than
13.9° Brix; |
| 2. Light Syrup | Not less than 14° Brix
and not more than 17.9°
Brix |
| 3. Heavy Syrup | Not less than 18° Brix
and not more than
21.9° Brix; |
| 4. Extra Heavy Syrup | Not less than 22° Brix. |

(B) Quality Criteria.-

(i)Colour.-Canned Tropical Fruit Salad shall have a colour characteristic of the mixed processed fruit;

(ii)Flavour.-Canned Tropical Fruit Salad shall have normal flavour and odour characteristic for the particular blend of fruit;

(iii)**Texture.-** The texture of the fruit ingredient shall be appropriate for the respective fruit;

(iv)**Defects and Limits.-**Canned Tropical Fruit Salad shall conform to the following limits:

S.No	Defects	Limits
1.	Blemished fruit pieces (consisting of pieces of fruit with dark surface areas, spots penetrating the fruit, and other abnormalities)	2 pieces/100 g of drained fruit
2.	Peel (based on averages) (considered a defect only when occurring on, or from those fruits which are peeled)	6.5 cm ² /500 g of total contents
3.	Seed Material and Extraneous Vegetative Matter	2 g/500 g of total contents

(v)**Minimum Fill.-**The container shall be well filled with fruit and the product (including packing medium) shall occupy not less than ninety per cent. of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled;

(vi)**Minimum Drained Weight.-** The drained weight of the product shall not be less than fifty percent. of the weight of distilled water at 20°C which the sealed container will hold when completely filled.

3. **Labelling.-**

(a) For labelling of the product, the provisions of the Food Safety and Standards (Packaging and Labelling) Regulations, 2011 shall apply.

(b) In addition, the following shall be declared as part of the name or in close proximity thereto, as:

(i)When the packing medium is composed of water, or water and one or more fruit juices in which water predominates—

"In water" or "Packed in water".

(ii) When the packing medium contains water and one or more fruit juice(s), in which the fruit juice comprises fifty percent or more by volume of the packing medium, the packing medium shall be designated to indicate the preponderance of such fruit juice, as, for example—

"(name of fruits) juice(s) and water"

(iii) When the packing medium is composed solely of a single fruit juice—

"In (name of fruit) juice"

(iv) When the packing medium is composed of two or more fruit juices—

"In (name of fruits) juice"

(v) When sugars are added to one or more fruit juices, it shall be mentioned as —

"Extra light sweetened: (name(s) of fruit) Juice"

or

"Lightly sweetened: (name(s) of fruit) Juice"

or

"Heavily sweetened: (name(s) of fruit) Juice"

or

"Extra heavy sweetened (name(s) of fruit) Juice"

(vi) When sugars are added to water, or water and one or more fruit juices, it shall be mentioned as —

"Slightly Sweetened Water/ Extra Light Syrup"

or

"Light Syrup"

or

"Heavy Syrup"

or

"Extra Heavy Syrup"]

2.3.3: Thermally Processed Vegetables

1. Thermally Processed Vegetables (Canned, Bottled/Flexible pack

/Aseptically Packed) means the product obtained from fresh, dehydrated or frozen vegetables either singly or in combination with other vegetables, peeled or un-peeled, with or without the addition of water, common salt and nutritive sweeteners, spices and condiments or any other ingredients suitable to the product, packed with any suitable packing medium appropriate to the product processed by heat, in an appropriate manner, before or after being sealed in a container so as to prevent spoilage. The packing medium alongwith its strength shall be declared on the label. The product may be prepared in any suitable style appropriate to the product. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B. The name of the vegetables used in the product and prepared in any style shall be declared on the label alongwith the range of percentage of each vegetable used in the product. Drained weight of vegetables shall be not less than the weight given below: —

(i) Liquid Pack

(a)	Mushroom	50.0 percent of net weight of contents
(b)	Green beans, carrots, peas, sweet corn/baby corn	50.0 percent of net weight of contents
⁷⁷ [(c)	Edible fungi/vegetables including baked beans packed in sauce	25.0 percent of net weight of contents]
(d)	Other Vegetables	50.0 percent of net weight of contents

(ii) Solid Pack 70.0 percent of net weight of contents

2. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

⁴¹**[2.3.3A. CANNED TOMATOES:**

1. Canned tomatoes shall be prepared from selected, fresh, washed, cleaned, firm and ripe tomatoes of variety *Lycopersicum esculentum* Mill, uniform shape and free from blemish, extraneous matter, artificial colouring matter and flavouring agents, but may contain natural spices and condiments, spice oils, aromatic herbs and their extracts, natural aromas, seasoning and salt (sodium chloride) and where acidifying agents are used, sugars as prescribed in these regulations may be added.

2. Tomatoes used for the purpose of canning shall be of the following styles, namely:-

- (1) Peeled tomatoes which are scalded, peeled and canned as whole or non-whole; and
- (2) Unpeeled- tomatoes packed as whole or non-whole without prior scalding and peeling.

3. The style shall be specified according to the type of grinding or cutting for non-whole tomatoes, namely:-

- (1) Diced: tomato cut into cubes;
- (2) Sliced: tomato cut perpendicularly to the longitudinal axis in rounds with a regular thickness;
- (3) Wedges: tomato cut into roughly equal parts;
- (4) Pulp or crushed or chopped: tomato crushed, ground or pulped when appropriate.

4. Any of the following pack may be used, namely:-

- (1) regular pack with a liquid medium added;
- (2) solid pack without any added liquid.

5. Where canned tomatoes are packed in such media as tomato juice, water or tomato puree, the media shall conform to the following requirements, namely:-

- (1) the quantity of added common salt shall not exceed 3 per cent. of the net;

Note- when determining the quantity of added common salt, the natural content of chlorides shall be considered as equal to 2 per cent. of the dry weight content.

(2) where calcium chloride is added as a firming agent, the total calcium-ion content must not exceed 0.045 per cent. in whole style and 0.080 per cent. in non-whole style;

(3) the pH of the covering liquid shall be not higher than 4.5.

6. Canned tomatoes on opening shall display the following characteristics, namely:-

(1) the product shall possess a good, practically uniform colour, characteristic of well-matured fruit, practically free from 'green shoulders' or any discoloration due to oxidation, processing and other causes;

Note- Uneven distribution of pigment and changes in colour normally associated with proper processing shall not be considered as defects.

(2) the product shall possess a good texture which means that it is just firm but not hard or unduly soft and have characteristic of tomato of proper stage of maturity and practically be uniform in size;

(3) Tomatoes shall be free from off odours and their colour shall be characteristic of the variety used and proper processing;

(4) the product shall be practically free from defects, the peeled product shall be virtually free from peel and in unpeeled product, the peel should be virtually intact.

7. The product shall not exceed the following tolerances given for 1 kg net weight to comply with the requirements, namely: -

(1) Blemishes: 3.5 cm² aggregate area;

(2) Presence of peel (peeled tomatoes)

- whole style: 30 cm² aggregate area;

- Non-whole: 125 cm² aggregate area;

(3) Absence of peel (unpeeled tomatoes)

- Whole style: 30 cm² aggregate area;

- Non-whole:125 cm² aggregate area.

8. The product shall also conform to the requirements specified in table below, namely:-

Table

S.No.	Characteristic	Requirement
(1)	(2)	(3)
1.	Vacuum in the can, in mm,(Minimum)	Negative
2.	Head space in the can in mm, (Maximum)	7
3.	Drained weight of the content of the can as percentage of the net weight,(Minimum)	56

9. Containers shall be well filled with the product which shall occupy not less than 90 per cent. of the water capacity of the container.

Note 1.- The water capacity of the container is the volume of distilled water at 27°C which the sealed container will hold when completely filled.

Note 2.-When the product is packed in glass containers, the water capacity shall be reduced by 20 ml.

Explanation:- for the purpose of this sub-regulation,-

(a) “whole, peeled tomatoes” means peeled tomatoes of suitable varieties having undergone a heat treatment, packed in hermetically sealed containers with or without added water or tomato juice.

(b) “non-whole, peeled tomatoes” means pieces of peeled tomatoes of suitable varieties having undergone a heat treatment, packed in hermetically sealed containers with or without added water or tomato juice.

(c) “whole, unpeeled tomatoes” means unpeeled tomatoes of suitable varieties having undergone a heat treatment, packed in hermetically sealed containers with or without added water or tomato juice.

(d) “non-whole, unpeeled tomatoes” means pieces of unpeeled tomatoes of suitable varieties having undergone a heat treatment, packed in hermetically sealed containers with or without added water or tomato juice.

(e) “head space” means the distance between the top of the double seam and the level of the surface of the contents.

(f) “absence of defects” means the degree of freedom from extraneous material, such as remnants of peel (in peeled tomatoes), core and other inedible matter, and also freedom from damage due to mechanical injury.

(g) “blemished Units” means units that are blemished with some injury caused by scab, hail, frost, sunburn, insect damage or physiological disorder, black spots or enzyme activity on the surface or any other; abnormality readily visible to the naked eye to a noticeable degree.]

2.3.4: Thermally Processed Curried Vegetables / Ready to Eat Vegetables

1. Thermally Processed Curried Vegetables / Ready to Eat Vegetables means the product prepared from fresh, dehydrated or frozen or previously processed vegetables, legumes, cereals or pulses, whether whole or cut into pieces. The vegetable(s), either singly or in combination, may be prepared in any suitable style applicable for the respective vegetable in normal culinary preparation. It may contain salt, nutritive sweeteners, spices and condiments, edible vegetable oils and fats, milk fat and any other ingredients suitable to the product and processed by heat, in an appropriate manner, before or after being in a container, so as to prevent spoilage.

2. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.5: Thermally Processed Vegetable soups

1. Thermally Processed Vegetable Soups (Canned, Bottled, flexible pack And/ Or Aseptically Packed) means unfermented but fermentable product, intended for direct consumption, prepared from juice/ pulp/puree of sound, mature vegetables, fresh, dehydrated, frozen or previously processed, singly or in combination, by blending with salt, nutritive sweeteners, spices and condiments and any other ingredients suitable to the product, cooked to a suitable consistency and processed by heat in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage. It may be clear, turbid or cloudy.

2. The product shall have total soluble solids (m/m) not less than 5.0 percent except for tomato soup where it shall be not less than 7.0 percent (w/ w).

3. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B.

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

⁷²[2.3.6: FRUIT JUICES

(1) For the purpose of this clause,-

a) Thermally Processed Fruits Juices (Canned, Bottled, Flexible and/or Aseptically Packed) means unfermented but fermentable product, pulpy, turbid or clear, intended for direct consumption obtained by a mechanical process or suitable means from sound, ripe fruit or the flesh thereof and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage. Some juices may be processed with pips, seeds and peel, which are not usually incorporated in the juice, but some parts or components of pips, seeds and peel which cannot be removed by good manufacturing practices (GMP) will be acceptable. The juice may have been concentrated and later reconstituted with water suitable for the purpose of maintaining the essential composition and quality factors of the juice.

b) Non-Thermally Processed or Cold-pressed Fruit Juices means unfermented but fermentable product, pulpy, turbid or clear, intended for direct consumption obtained directly by mechanical extraction processes, from the edible parts of sound, ripe and fresh fruit. It may undergo non-thermal processing, in an appropriate manner. No external heat shall be applied during the process.”

(2) Product shall maintain the essential physical, chemical, organoleptic and nutritional characteristics of the fruit from which it comes. It may contain salt, spices, herbs and condiments and their extracts and nutrients (vitamins, minerals) which are prescribed under these regulations. One or more of the nutritive sweeteners may be added in amounts not exceeding 50 g/kg but not exceeding 200g/kg in very acidic fruits except in case of Apple Juice, Orange Juice (reconstituted from concentrate), Grape Juice, Pineapple Juice (reconstituted from concentrate).

(3) The product shall have the characteristic colour, aroma and flavour of the fruit from which it has been prepared taking into consideration the addition of permitted ingredients.

(4) The product shall meet the following requirements, namely:-

Table

S.No	Name of the Fruit	Botanical name	Total Soluble Solids in °Brix (Min)	Acidity expressed as Citric Acid Max.(%)
(1)	(2)	(3)	(4)	(5)
1	Cashewapple	<i>Anacardium occidentale L.</i>	11.5	3.5
2	Pineapple	<i>Ananas comosus (L.) Merrill Ananassativis L. Schult. f.</i>	10.0	3.5
3	Soursop	<i>Annonamuricata L.</i>	14.5	3.5
4	Sugar Apple	<i>Annonasquamosa L</i>	14.5	3.5
5	Carambola / Starfruit	<i>Averrhoacarambola L.</i>	7.5	3.5
6	Water Melon	<i>Citrullus lanatus (Thunb.) Matsum. & Nakai var. Lanatus</i>	7.0	3.5
7	Lime	<i>Citrus aurantifolia</i> (Christm.) (swingle)	7.0	3.5 (Min)
8	Lemon	<i>Citrus limon</i> (L.) Burm. f. <i>Citrus limonum</i> Rissa	6.0	⁸¹ [3.5(Min.)]
9	Grape fruit	<i>Citrus paradisi</i> Macfad	8.0	3.5
10	Sweetie grapefruit	<i>Citrus paradisi, Citrus grandis</i>	7.5	3.5
11	Mandarine/ Tangerine /Orange	<i>Citrus reticulata</i> Blanca	10.0	1.2
12	Sweet Orange	<i>Citrus sinensis (L.)</i>	10.0	1.1
13	Coconut*	<i>Cocos nucifera L.</i>	4.5	3.5
14	Melon	<i>Cucumis melo L.</i>	4.5	3.5
15	Casaba Melon	<i>Cucumis melo</i> L subsp. <i>melovar. inodorus</i> H. Jacq.	7.5	3.5

16	Honeydew Melon	<i>Cucumis melo</i> L. subsp. <i>melovar. inodorus</i> H. Jacq	10.0	3.5
17	Quince	<i>Cydonia oblonga</i> Mill.	11.2	3.5
18	Crowberry	<i>Empetrum nigrum</i> L.	6.0	3.5
19	Suriname Cherry	<i>Eugenia uniflora</i> Rich.	6.0	3.5
20	Fig	<i>Ficus carica</i> L.	18.0	3.5
21	Strawberry	<i>Fragaria</i> x. <i>ananassa</i> Duchense (<i>Fragaria chiloensis</i> Duchesne ex <i>Fragaria virginiana</i> Duchesne)	7.5	3.5
22	Genipap	<i>Genipa americana</i>	17.0	3.5
23	Buckthorn berry or Sallow-thornberry	<i>Hippophae rhamnoides</i> L.	6.0	3.5
24	Litchi/Lychee	<i>Litchi chinensis</i> Sonn.	11.2	3.5
25	Acerola (West Indian Cherry)	<i>Malpighia</i> sp. (Moc. & Sesse)	6.5	3.5
26	Apple	<i>Malus domestica</i> Borkh.	10.0	3.5 (as malic acid)
27	Crab Apple	<i>Malus prunifolia</i> (Willd.) Borkh. <i>Malus sylvestris</i> Mill.	15.4	3.5
28	Mango	<i>Mangifera indica</i> L.	13.5	3.5
29	Passion Fruit	<i>Passiflora edulis</i> Sims. f. <i>edulis</i> <i>Passiflora edulis</i> Sims. f. <i>Flavicarpa</i> O. Def.	12.0	3.5
30	Date	<i>Phoenix dactylifera</i> L.	18.5	3.5
31	Apricot	<i>Prunus armeniaca</i> L.	10.0	3.5

32	Sweet Cherry	<i>Prunusavium L.</i>	20.0	3.5
33	Sour Cherry	<i>Prunuscerasus L.</i>	14.0	3.5
34	Stonesbaer	<i>PrunuscerasusL. cv. Stevnsbaer</i>	17.0	3.5
35	Plum / Quetsche	<i>PrunusdomesticaL. subsp. domestica</i>	10.0	3.5
36	Prune	<i>PrunusdomesticaL. subsp. domestica</i>	18.5	3.5
37	Nectarine	<i>Prunuspersica(L.) Batsch var. nucipersica(Suckow) c. K. Schneid.</i>	10.5	3.5
38	Peach	<i>Prunuspersica(L.) Batsch var. persica, Prunus communis</i>	10.0	3.5
39	Sloe	<i>Prunusspinosa L.</i>	6.0	3.5
40	Guava	<i>Psidiumguajava L.</i>	8.5	3.5
41	Pomegranate	<i>Punicagranatum L.</i>	12.0	3.5
42	Pear	<i>Pyruscommunis L.</i>	10.0	3.5
43	Black Currant	<i>Ribesnigrum L.</i>	11.0	3.5
44	Red Currant /White Currant	<i>Ribesrubrum L.</i>	10.0	3.5
45	Goosberry	<i>Ribesuva-crispaL.</i>	7.5	3.5
46	Rosehip	<i>Rosa sp. L.</i>	9.0	3.5
47	Cloudberry	<i>Rubuschamaemorus L.</i>	9.0	3.5
48	Blackberry	<i>Rubusfruitcosus L.</i>	9.0	3.5
49	Dewberry	<i>Rubushispidus(of North America) R. caesius(of Europe)</i>	10.0	3.5
50	Red Raspberry	<i>RubusidaeusL. RubustrigosusMichx.</i>	8.0	3.5
51	Loganberry	<i>RubusloganobaccusL. H. Bailey</i>	10.5	3.5

52	Black Raspberry	<i>Rubusoccidentalis L.</i>	11.1	3.5
53	Boysenberry	<i>RubusursinusCham. &Schltdl.</i>	10.0	3.5
54	Youngberry	<i>Rubusvitifolius x Rubusidaeus Rubusbaileyanis</i>	10.0	3.5
55	Elderberry	<i>SambucusnigraL. Sambucuscanadensis.</i>	10.5	3.5
56	Rowanberry	<i>Sorbusaucuparia L.</i>	11.0	3.5
57	Cajá	<i>Spondialutea L.</i>	10.0	3.5
58	Umbu	<i>SpondiastuberosaArrud a ex Kost.</i>	9.0	3.5
59	Tamarind (Indian date)	<i>Tamarindusindica</i>	13.0	3.5
60	Cocoa pulp	<i>Theobroma cacao L.</i>	14.0	3.5
61	Cupuaçu	<i>Theobromagrandifloru m L.</i>	9.0	3.5
62	Cranberry	<i>Vacciniummacrocarpon Aiton& VacciniumoxycoccusL.</i>	7.5	3.5
63	Bilberry/Blue berry	<i>VacciniummyrtillusL. Vacciniumcorymbosum L. Vacciniumangustifolium</i>	10.0	3.5
64	Lingonberry	<i>Vacciniumvitis-idaeaL.</i>	10.0	3.5
65	Grape	<i>Vacciniumvitis-idaeaL. VitisViniferaL. or hybrids thereof VitisLabruscaorhybrids thereof</i>	16.0	3.5
66	Tomato**	<i>SolanumlycopersicumL.</i>	5.0	3.5
67	Sapota	<i>Manilkara zapota</i>	16.0	0.5
68	Jamun	<i>Syzygiumcumini</i>	9.0	3.5

69	Banana	<i>Musa acuminata, Musa balbisiana and Musa × paradisiaca</i>	19.0	1.5
70	Other fruit juices		10.0	3.5
71	Juice of two or more fruits		10.0	3.5
⁷³ [72]	Monk Fruit	<i>Siraitia grosvenorii</i>	14.0	0.013]

Note: ⁸¹[*This product is “coconut water” which is obtained from coconut without expressing the coconut meat]

*** For Non thermally processed/Cold pressed/Fresh tomato juice only.*

(5) The container shall be well filled with the product and shall occupy not less than 90 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

(6) The product may contain food additives permitted in Appendix A.

(7) The product shall conform to the microbiological requirement given in Appendix B.

(8) The products covered by this Standard shall be labelled in accordance with the Food Safety and Standards (Labelling and Display) Regulations, 2020. In addition, in the ingredient list, the word “reconstituted” shall be mentioned against the name of the juice, which is reconstituted from the concentrate. The product shall be labelled as Sweetened juice if the added nutritive sweeteners are in excess of 15 gm/kg.]

⁷²[2.3.7 VEGETABLE JUICES

(1) For the purpose of this clause,-

(a) Thermally Processed Vegetable Juices (Canned, Bottled, Flexible Pack and/or Aseptically Packed) means the unfermented but fermentable product intended for direct consumption obtained from the edible part of vegetables including roots, tubers, stems, shoots, leaves, flowers, legumes singly or in combination. The product may be clear, turbid or pulpy, may have been concentrated & reconstituted with water suitable for the purpose of maintaining the essential composition & quality factors of the juice and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage;

(b) Non-Thermally Processed/Cold-pressed/ Fresh Vegetable Juices means the unfermented but fermentable product intended for direct consumption obtained from the edible part of vegetables, including roots, tubers, stems, shoots, leaves, flowers and legumes singly or in combination. The product may be clear, turbid or pulpy. It shall be obtained directly expressed by mechanical extraction processes, packed in suitable packaging material and may undergo non-thermal processing in an appropriate manner.No external heat shall be applied during the process.

(2) The product may contain edible salt, spices and condiments and their extracts, vinegar, nutritive sweeteners and nutrients (e.g. vitamins, minerals) which are prescribed under these regulations.

(3) Whey or lactoserum having undergone lactic acid fermentation may also be added not more than 100 ml/litre.

(4) The product shall have the characteristic colour, aroma and flavour of the vegetables from which it has been prepared taking into consideration the addition of ingredients.

(5) The container shall be well filled with the product and shall occupy not less than 90 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

(6)The product may contain food additives permitted in Appendix A.

(7)The product shall conform to the microbiological requirement given in Appendix B.

(8)The products covered by this Standard shall be labelled in accordance with the Food Safety and Standards (Labelling and Display) Regulations, 2020. In addition, in the ingredient list, the word “reconstituted” shall be mentioned against the name of the juice, which is reconstituted from the concentrate. “Vegetable juice with added lactic acid fermented whey/lactoserum” shall be mentioned when whey or lactoserum is added.]

⁴¹ [2.3.8 THERMALLY PROCESSED TOMATO JUICE:

1. Thermally processed tomato juice means the unfermented juice obtained by mechanical process from sound, fresh and fully ripe tomatoes and processed by heat, before or after being sealed in a container so as to prevent spoilage. The juice may also be obtained by reconstituting the concentrate with water for the purpose of maintaining the essential composition and quality factors of the juice. The product shall be free from extraneous plant material including skins, seeds and other coarse parts of tomato but may contain finely divided insoluble solids from tomato flesh.

2. The product shall have characteristic red colour and good flavour which is characteristic of properly processed product and have an evenly divided texture and consistency and product shall be free from foreign taste, in particular, the taste of burned or caramelized products. Mineral impurities content shall not exceed 0.1 per cent of the dry weight content reduced by common salt.

3. The substances that may be added to the tomato juice are common salt, sugar, dextrose, spices, aromatic herbs and their extracts and natural aromas and other ingredients whose standards are prescribed in these regulations.

4. The product shall be free from any added colours or artificial flavours.

5. The product shall also conform to the requirements prescribed in table below:-

Table

S.No.	Characteristic	Requirement
(1)	(2)	(3)
1.	Vacuum in the can, in mm,(Minimum)	Negative
2.	Head space in the can in mm,(Maximum)	7
3.	Total soluble solids (exclusive of salt)% by weight,(Minimum)	5.0
4.	Sodium Chloride % by weight, (Maximum)	3.0
5.	Total titrable acidity (expressed as citric acid) % by weight, (Maximum)	10.0
6.	Volatile acidity (expressed as acetic acid) % by weight, (Maximum)	0.4
7.	pH, (Maximum)	4.5
8.	Sugar content (expressed as invert sugar), % by weight, (Maximum)	42.0

6. Containers shall be well filled the product which shall occupy not less than 90 per cent. of the water capacity of the container.

Note 1.- The water capacity of the container is the volume of distilled water at 27° C which the sealed container will hold when completely filled.

Note 2.- When the product is packed in glass containers, the water capacity shall be reduced by 20 ml.]

2.3.9 Thermally Processed Fruit Nectars:

1. Thermally Processed Fruit Nectars (Canned, Bottled, Flexible Pack And / Or Aseptically Packed) means an unfermented but fermentable pulpy or non-pulpy, turbid or clear product intended for direct consumption made from fruit singly or in combination, obtained by blending the fruit juice / pulp/fruit

juice concentrate and/ or edible part of sound, ripe fruit(s), concentrated or unconcentrated with water, nutritive sweeteners and any other ingredient appropriate to the product and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. Lemon and Lime juice may be added as an acidifying agent in quantities which would not impair characteristic fruit flavour of the fruit used. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements: —

		⁷² [Omitted]	<i>Min. Fruit Juice Content (%)</i>	<i>Acidity Expressed as Citric Acid Max (%)</i>
NECTARS OF				
CITRUS JUICE				
	Orange Nectar		40	1.5
	Grape Fruit Nectar		20	1.5
	Pineapple Nectar		40	1.5
	Mango Nectar		20	1.5
	Guava Nectar		20	1.5
	Peach Nectar		20	1.5
	Pear Nectar		20	1.5
	Apricot Nectar		20	1.5
	Non-pulpy Black			
	Currant Nectar		20	1.5
	Other Fruit Nectar		20	1.5
	Other Fruit Nectars of High Acidity/Pulpy /			
	Strong flavour		20	1.5
	Mixed Fruit Nectar		20	1.5

3. The container shall be well filled with the product and shall occupy not

less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.10: Thermally Processed Fruit Beverages / Fruit Drink/ Ready to Serve Fruit Beverages

1. Thermally Processed Fruit Beverages / Fruit Drink/ Ready to Serve Fruit Beverages (Canned, Bottled, Flexible Pack And/ Or Aseptically Packed) means an unfermented but fermentable product which is prepared from juice or Pulp/Puree or concentrated juice or pulp of sound mature fruit. The substances that may be added to fruit juice or pulp are water, peel oil, fruit essences and flavours, salt, sugar, invert sugar, liquid glucose, milk and other ingredients appropriate to the product and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall meet the following requirements: —

(i) ⁷²[Omitted]

(ii) Fruit juice content (m/m)

(a) Lime/Lemon ready to serve beverage	Not less than 5.0 percent
(b) All other beverage/drink	Not less than 10.0 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely

filled.

2.3.11: Thermally Processed Mango Pulp / Puree and Sweetened Mango Pulp / Puree

1. Thermally Processed Mango Pulp / Puree and Sweetened Mango Pulp / Puree (Canned, Bottled, Flexible Pack And/ Or Aseptically Packed) means unfermented but fermentable product intended for direct consumption obtained from edible portion of sound, ripe mangoes (*Mangifera indica*.L.), by sieving the prepared fruits, where as, the puree is obtained by finely dividing the pulp by a finisher or other mechanical means and processed by heat in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. It may contain one or more nutritive sweeteners in amounts not exceeding 50 gm/ kg. However, the product shall be described as sweetened Mango pulp/ puree if the amount of nutritive sweeteners is in excess of 15 gm / kg.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements: -

(i) Total Soluble Solids (m/m)		
(a)	Sweetened	Not less than 15.0 percent
(b)	Unsweetened (Natural Mango Pulp)	Not less than 12.0 percent
(ii)	Acidity as Citric Acid (For sweetened canned mango pulp)	Not less than 0.3 percent

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.12 Thermally Processed Fruit Pulp / Puree And Sweetened Fruit Pulp /

Puree other than Mango

1. Thermally Processed Fruit Pulp / Puree And Sweetened Fruit Pulp / Puree other than Mango (Canned, Bottled, Flexible Pack And / Or Aseptically Packed) means unfermented but fermentable product intended for direct consumption obtained from edible portion of sound, ripe fruit of any suitable kind & variety by sieving the prepared fruits, whereas, the puree is obtained by finely dividing the pulp by a finisher or other mechanical means and processed by heat in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. It may contain one or more nutritive sweeteners in amounts not exceeding 50 gm/Kg. However, the product shall be described as sweetened pulp/puree if the amount of nutritive sweeteners is in excess of 15 gm. /kg.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements: -

(i) Total Soluble Solids (m/m) exclusive of added sugar	Not less than 6.0 percent
(ii) Acidity as Citric Acid	Not less than 0.3 percent

The container shall be filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.13 Thermally Processed Concentrated Fruit / Vegetable Juice Pulp/ Puree

1. Thermally Processed Concentrated Fruit / Vegetable Juice Pulp/ Puree (Canned, Bottled, Flexible Pack And/ Or Aseptically Packed) means the unfermented product which is capable of fermentation, obtained from the juice

or pulp or puree of sound, ripe fruit(s) / vegetable(s), from which water has been removed to the extent that the product has a total soluble content of not less than double the content of the original juice/ pulp/ puree prescribed vide in regulation 2.3.6 and 2.3.7. Natural volatile components may be restored to the concentrates where these have been removed. It may be pulpy, turbid or clear and preserved by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.14 Thermally Processed Tomato Puree and Paste

1. Thermally Processed Tomato Puree and Paste (Canned, Bottled, Flexible Pack and/ Or Aseptically Packed) means unfermented product which is capable of fermentation, obtained by concentrating the juice of sound ripe tomatoes to the desired concentration. It may contain salt and other ingredients suitable to the products.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements: —

<i>S.No</i>	<i>Product</i>	<i>Total Soluble Solids (w/w)</i>
1	Tomato puree	Not less than 9.0 percent
2	Tomato Paste	Not less than 25 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.15 Soup Powders:

1. Soup Powders means the products obtained by mechanical dehydration of fresh vegetables/ fruits juice/ pulp/puree of sound, vegetables / fruits and or earlier concentrated, dehydrated, frozen or processed fruits & vegetables, singly or in combination by blending with salt, nutritive sweeteners, spices and condiments and any other ingredients suitable to the product, as appropriate to the product and packed suitably to prevent spoilage.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall comply with the following requirements: —

(i)	Moisture (m/m)	Not more than 5.0 percent
(ii)	Total soluble solids (m/m) (on dilution on ready to serve basis)	Not less than 5.0 percent

2.3.16 Fruit/Vegetable Juice / Pulp/ Puree with Preservatives for Industrial Use only:

1. Fruit/Vegetable Juice / Pulp/ Puree with Preservatives for Industrial Use only means an unfermented but fermentable product, pulpy, turbid or clear, obtained by a mechanical process from sound ripe fruits/ vegetables.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.17 Concentrated Fruit Vegetable Juice /Pulp / Puree with Preservatives for Industrial Use Only:

1. Concentrated Fruit Vegetable Juice /Pulp / Puree with Preservatives for Industrial Use Only means an unfermented product, which is capable of fermentation, obtained from the juice or pulp or puree of fruit(s) / vegetable (s), from which the water has been removed to the extent that the product has a soluble solids content of not less than double the content of the original juice, pulp, puree prescribed under Regulation 2.3.6 and Regulation 2.3.7. It may be pulpy, turbid or clear.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.18 Tamarind Pulp/Puree and Concentrate:

1. Tamarind Pulp/Puree and Concentrate means the unfermented product which is capable of fermentation, obtained from fresh or dried tamarind, by boiling with water and sieving it, and preserved either by thermal processing or by using permitted preservatives.

2. The Tamarind Concentrate is the product obtained from tamarind pulp/puree from which water has been removed by evaporation to achieve appropriate concentration.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

	Minimum TSS Percent	Minimum Acidity Percent	Ash Insoluble in dilute HCl Percent (Maximum)
Tamarind Pulp/Puree	32	4.5	0.4
Tamarind Concentrate	65	9.0	0.8

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.19 Fruit Bar/ Toffee:

1. Fruit Bar/ Toffee means the product prepared by blending Pulp/Puree from sound ripe fruit, fresh or previously preserved, nutritive sweeteners, butter or other edible vegetable fat or milk solids and other ingredients appropriate to the product & dehydrated to form sheet which can be cut to desired shape or size.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall comply with the following requirements:-

- | | |
|---------------------------------|----------------------------|
| (i) Moisture (m/m) | Not more than 20.0 percent |
| (ii) Total soluble solids (m/m) | Not less than 75.0 percent |
| (iii) Fruit content (m/m) | Not less than 25.0 percent |

2.3.20 Fruit/Vegetable, Cereal Flakes:

1. Fruit/Vegetable, Cereal Flakes means the product prepared by blending fruit(s) Pulp/Puree of sound ripe fruit(s) / vegetables of any suitable variety, fresh, frozen or previously preserved, starch, cereals & nutritive

sweeteners, other ingredients appropriate to the product with or without salt & dehydrated in the form of flakes.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall comply with the following requirements:-

(i)	Moisture (m/m)	Not more than 6.0 percent
(ii)	Acid insoluble Ash (m/m)	Not more than 0.5 percent
(iii)	Starch (m/m)	Not more than 25.0 percent

2.3.21 Squashes, Crushes, Fruit Syrups/Fruit Sharbats and Barley Water:

1. Squashes, Crushes, Fruit Syrups/Fruit Sharbats and Barley Water means the product prepared from unfermented but fermentable fruit juice/puree or concentrate clear or cloudy, obtained from any suitable fruit or several fruits by blending it with nutritive sweeteners, water and with or without salt, aromatic herbs, peel oil and any other ingredients suitable to the products.

1.1 Cordial means a clear product free from any cellular matter, obtained by blending unfermented but fermentable clarified fruit juice with nutritive sweeteners & water with or without salt and peel oil and any other ingredients suitable to the products.

1.2 Barley water means the product prepared from unfermented but fermentable fruit juice by blending it with nutritive sweeteners, water with or without salt and peel oil and barley starch not less than 0.25 percent and any other ingredient suitable to the product.

1.3 The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall comply with the following requirements:-

<i>Name of the products</i>	<i>Min (%) of fruit juice/ puree in the final product</i>	<i>Total Soluble Solids</i>	<i>Acidity expressed as Citric Acid</i>
		<i>Min (%)</i>	<i>Max (%)</i>
(1) Squash	25	40	3.5
(2) Crush	25	55	3.5
(3) Fruit Syrup/Fruit Sharbats	25	65	3.5
(4) Cordial	25	30	3.5
(5) Barley Water	25	30	2.5

1.4 Any syrup/ sharbats containing a minimum of 10 percent of dry fruits shall also qualify to be called as fruits syrups.

1.5 The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.22 Ginger Cocktail:

1. Ginger Cocktail (Ginger Beer or Gingerale) means the product prepared by blending ginger juice or its oleoresin or essence with water and nutritive sweeteners.

2. The product shall be free from extraneous matter. When suitably diluted shall have the colour and flavour characteristic of the product.

3. The minimum total soluble solids shall not be less than 30.0 percent (m/ m).

4. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

5. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely

filled.

2.3.23 Synthetic Syrup for use in Dispensers for carbonated water:

1. Synthetic Syrup for use in Dispensers for carbonated water means carbonated water obtained by blending nutritive sweeteners with water and other ingredients appropriate to the product.

2. The total soluble solid content (m/m) of the product shall not be less than 30 percent. The product when suitably reconstituted shall conform to the requirements of carbonated water and match in all respects, except Carbon Dioxide contents, with similar product as bottled for direct consumption. It shall be free from extraneous matter.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.24 SYNTHETIC SYRUP or SHARBAT

1. Synthetic syrup or sharbat means the syrup obtained by blending syrup made from sugar, dextrose or liquid glucose.

It may also contain fruit juice and other ingredients appropriate to the product. It shall be free from burnt or objectionable taints, flavours, artificial sweetening agents, extraneous matter and crystallization. It may contain citric acid, permitted colours, permitted preservatives and permitted flavouring agents. It shall also conform to the following standards namely:—

Total soluble solids Not less than 65 per cent by weight.

2.3.25 Murabba

1. Murabba means the product, prepared from suitable, sound whole or cut grated fruits, rhizome or vegetables, appropriately prepared, suitable for the purpose, singly or in combination, by impregnating it, with nutritive sweeteners to a concentration adequate to preserve it.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall conform to the following composition:

(i) Total soluble solids (m/m)	Not less than 65.0 percent
(ii) Fruit contents (m/m)	Not less than 55.0 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.26 Candied, Crystallised and Glazed Fruit / Vegetable / Rhizome / Fruit Peel:

1.1 Candied Fruits / Vegetables/ Rhizome / Fruit Peel means the product prepared from sound and ripe fruits, vegetables, rhizomes or fruit peel, of any suitable variety, appropriately prepared, by impregnating it with nutritive sweeteners to a concentration adequate to preserve it.

1.2 Crystallised Fruit / Vegetable/ Rhizome / Fruit Peel means the product prepared from candied product by coating with pure crystallised sugar or by drying the syrup on wet candied fruit.

1.3 Glazed Fruit/ Vegetable/Rhizome / Fruit Peel means the product prepared from candied product by coating it with a thin transparent layer of heavy syrup with or without pectin which has dried to a more or less firm texture on the product.

1.4 The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:-

(i)	The percentage of total sugar (w/w)	Not less than 70.0
(ii)	Percentage of reducing Sugar to total sugar	Not less than 25.0

2.3.27 Tomato Ketchup and Tomato Sauce:

1. Tomato Ketchup and Tomato Sauce means the product prepared by blending tomato juice/Puree/Paste of appropriate concentration with nutritive sweeteners, salt, vinegar, spices and condiments and any other ingredients suitable to the product and heating to the required consistency. Tomato Paste may be used after dilution with water suitable for the purpose of maintaining the essential composition of the product.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:-

- (i) Total Soluble solids (m/m) Not less than 25.0 percent
Salt free basis
- (ii) Acidity as acetic acid ⁵⁶[Not less than 0.2 percent]

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.28 Culinary Pastes / Fruits and Vegetable Sauces Other Than Tomato Sauce and Soya Sauce

1. Culinary Pastes / Fruits and Vegetable Sauces Other Than Tomato

Sauce and Soya Sauce means a culinary preparation used as an adjunct to food, prepared from edible portion of any suitable fruit/vegetable including, roots, tubers & rhizomes, their pulps/purees, dried fruits, singly or in combination by blending with nutritive sweeteners, salt, spices and condiments and other ingredient appropriate to the product.

2. The product may contain food additives permitted in these regulations including Appendix A. It may contain caramel but shall not contain any other added colour whether natural or synthetic. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

<i>Name of the Product</i>	<i>Total Soluble Solids (Salt free basis) (m/m)</i>	<i>Acidity % (as acetic acid)</i>
(1) Chilli Sauce	Not less than 8.0 percent	Not less than 1.0 percent
(2) Fruits / Vegetable Sauces	Not less than 15.0 percent	Not less than 1.2 percent
(3) Culinary Paste/ Sauce	Not less than 8.0 percent	Not less than 1.0 percent
(4) Ginger Paste	Not less than 3.0 percent	Not less than 1.0 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

⁷⁵**[2.3.29 SOYBEAN SAUCE.** - (1) Soybean Sauce means the product obtained from wholesome soybeans, by fermenting the soybean paste in which trypsin inhibitors have been completely inactivated & blending with salt, nutritive sweeteners. It may contain spices and condiments and other ingredients appropriate to the product preserved by using permitted preservative.

(2) The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements, namely: —

(Total Soluble Solids) shall not apply and the quantity of fruit juice shall be declared on the label.]

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

⁴¹[2.3.31 JAMS, FRUIT JELLIES AND MARMALADES:

1. Jam means the product prepared from a suitable fruit ingredient of one or two or more types which shall be—

- (i) whole fruit, pieces of fruit, fruit pulp or fruit puree;
- (ii) with or without fruit juice or concentrated fruit juice or dehydrated fruit as an optional ingredient;
- (iii) mixed with a nutritive sweetener, with or without water; and
- (iv) processed to a suitable consistency.

2. Fruit jelly means product prepared by boiling fruit juice or fruit(s) or aqueous extracts of one or more fruits of sound quality, with or without water, expressing and straining the juice, adding nutritive sweeteners, and concentrating to such a consistency that gel formation takes place on cooling. The product shall be clear, sparkling and translucent. It may also contain any other ingredient suitable to the products including derivatives like fibre, extracts, spices and condiments.

3. Marmalade means a mixture brought to a suitable gelled consistency of sugars and one or more of the products obtained from fruit including pulp, puree, juice, aqueous extracts and peel.

4. Jelly marmalade means product from which all the insoluble solids, or all insoluble solids except for a small proportion of thinly cut peel, have been removed during the process of manufacture.

5. Jams, fruit jellies and marmalades shall be prepared from any fruit ingredient singly or in combination.

6. The prepared fruit content in jams, jellies and marmalades shall be not less than 45 per cent. by weight, except in strawberry, raspberry and ginger jams when the minimum fruit content shall be not less than 25 per cent. by weight. The minimum fruit content for cashew apples shall be 23 per cent. and 8 per cent. for passion fruit.

⁷⁷[7. The total soluble solid content, in the case of jams shall not be less than 65 Percent by mass content and not less than 60 percent by mass content, in case of jellies and marmalades. To be called as a reduced sugar product, Jam, Jellies and marmalades shall not have TSS more than 45 percent by mass content.]

8. The other substances that may be added to the products are cane sugar, sucrose, dextrose, and invert sugar, liquid glucose, honey, salt, herbs, spices, condiments and their extracts and other ingredients appropriate to the product whose standards are prescribed in these regulations.

9. Pectin derived from any fruit may be used at GMP level.

10. The product shall conform to the following quality factors, namely: -

(1) in case of jams, the finished product shall have gelled consistency. It shall have colour and flavour of original fruit and shall be free from burnt or objectionable flavours, weeping, crystallization, mould growth and shall show no sign of fermentation;

(2) in case of jellies and marmalades, the finished product shall be reasonably uniform and shall be of good keeping quality and attractive colour. Fruit jellies shall be of gelatinous consistency. It shall be clear, sparkling of attractive colour. It shall not be syrupy, sticky or gummy and should retain the flavour or aroma of original fruit. The product shall be free from burnt or objectionable flavours, weeping, and crystallization. Marmalades shall have a uniform suspension of peel.

11. The product shall be free from extraneous matter normally associated with the fruits such as skin, pits, pit fragments and seeds.

12. Containers shall be well filled with the product which shall occupy not less than 90 per cent. of the water capacity of the container.

Note 1.- The water capacity of the container is the volume of distilled water at 27°C which the sealed container will hold when completely filled.

Note 2.- When product is packed in glass containers, the water capacity shall be reduced by 20 ml.

⁷⁷[13. Standards specified in this sub-regulation shall not apply to the products which are clearly intended or labelled as intended for special dietary uses.]

Explanation: - for the purpose of this sub-regulation, -

- (a) “fruit” means fresh, frozen, canned, concentrated or otherwise processed or preserved fruit, free from deterioration containing all its essential constituents and sufficiently ripe for use in the removal of blemishes, topping and tailing, cores, pits and mayor may not be peeled;
- (b) “fruit pulp” means the edible portions of the fruit, mashed or cut into pieces, but not reduced to a puree;
- (c) “fruit puree” means fruit ingredient finely divided by sieving, screening or other mechanical means;
- (d) “fruit juice” means the juice obtained from fruit, fermentable but unfermented, having the characteristic colour, aroma and flavour typical of the juice from the fruit from which it comes;
- (e) “soluble solids” means per cent. by weight of soluble solids as determined by the refractometric method corrected to 20°C using the International Sucrose Scale but making no correction for insoluble solids or seeds;
- (f) “pit” means whole pit or stone in fruits, such as cherries, that are normally pitted; or a piece of pit of approximately one-half pit;
- (g) “pit fragments” means pieces of pit less than the equivalent of one-half pits, and which weighs at least 5 mg.]

2.3.33 Fruit Cheese:

1. Fruit Cheese means the product prepared from pulp/puree of sound, ripe fruit (s), whether fresh, frozen or previously preserved or dry fruits, by cooking with salt, nutritive sweeteners to attain a thick consistency so that it sets on cooling. Cheese shall be neither too soft nor too hard to chew. It may be prepared from any of the suitable fruits, singly or in combination. It shall have the flavour of the original fruit(s) and shall be free from burnt or objectionable flavours and crystallization.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirement: —

Total soluble solids (m/m)	Not less than 65.0 percent
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3. The product shall be manufactured from not less than 45 percent by weight, of original prepared fruit, exclusive of any added sugar or optional ingredients of finished product except where fruit is strawberry or raspberry where it shall contain not less than 25 percent fruit.

2.3.35 Dehydrated Fruits:

1. Dehydrated Fruits means the product, prepared from edible part of suitable variety of sound fruit, free from blemishes, insect or fungal infection, of appropriate maturity, from which, moisture has been removed, under controlled conditions of temperature, humidity and airflow, to the extent that the product is preserved. It may be whole, sliced, quarters, pieces or powdered. The finished product shall have uniform colour and shall be free from extraneous matter. The product shall have moisture content not more than 20 percent m/m. When in powder form, it shall be free flowing and free from agglomerates.

2. The product may contain food additives permitted in these regulations

including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

⁷⁷[2.3.36 Dehydrated Vegetables:

1. Dehydrated Vegetables means the product, prepared from edible portions of suitable variety of sound vegetable, free from insect or fungal infection, free from blemishes, suitably prepared, from which moisture has been removed under suitable conditions of temperature, pressure, humidity & airflow, to the extent that the product is preserved by any suitable method.

2. It may be whole, sliced, quarters, pieces, flakes, kibbled granules or powdered. The finished product shall have uniform colour and shall be free from discolouration due to scorching or enzymatic reaction. It shall be free from stalks, peels, stems and extraneous matter. When in powder form, it shall be free flowing and free from agglomerates.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the requirements as given in the Table below: -

No	Name of Vegetables	Moisture not more than (percent)	Acid insoluble Ash not more than (percent)	Peroxidase Test
1	All dehydrated vegetables	8.0	0.5	Negative
2	Powders of all vegetables	5.0	0.5	Negative.]

2.3.37 Frozen Fruits/Fruit Products:

1. Frozen Fruits/Fruit Products means the product frozen in blocks or individually quick frozen and offered for direct consumption, if required. Frozen Fruits/Fruit products are prepared from fresh, clean, sound, whole, fruits of suitable maturity, free from insect or fungal infection, which are washed,

sufficiently blanched to inactivate enzymes, if required, and are subjected to a freezing process in appropriate equipment. Freezing operation shall not be regarded as complete unless and until the product temperature has reached (minus) - 18°C at the thermal center after thermal stabilization. It may be prepared in any style appropriate for the respective Fruits/Fruit product in normal culinary preparation. It may contain salt, nutritive sweeteners, milk solids, spices and condiments and any other ingredient suitable to the product.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

2.3.38 Frozen Vegetables:

1. Frozen Vegetables means the product frozen in blocks or individually quick frozen and offered for direct consumption, if required. Frozen vegetables are prepared from sound, clean vegetables of suitable maturity, free from insect or fungal infection, which are washed, sufficiently blanched to inactivate enzymes and are subjected to a freezing process in appropriate equipment. Freezing operation shall not be regarded as complete unless and until the product temperature has reached (minus) - 18°C at the thermal center after thermal stabilization. It may be prepared in any style appropriate for the respective vegetable in normal culinary preparation. It may contain salt, nutritive sweeteners, milk solids, spices and condiments and any other ingredient suitable to the product.

2. It shall have normal colour characteristic of the individual Vegetable. It shall have taste & flavour characteristic of the kind & variety of the vegetable used & shall be free from sand, grit & other foreign matter.

3. The product shall test negative for peroxidase. The product shall conform to the microbiological requirements given in Appendix B.

⁶⁷[2.3.38.A FROZEN BEANS

1. Frozen Beans shall be prepared from fresh, clean, sound, succulent pods of the plants of the species *Phaseolus vulgaris L.* or *Phaseolus coccineus L.* Strings, stems, and stem ends shall be removed, and the pods are washed and sufficiently

blanched to ensure inactivation of enzymes and adequate stability of colour and flavour and shall be stored at -18°C or below.

2. The product shall be of reasonably uniform colour and free from foreign flavour or odour, other than those imparted by any added ingredients. It shall be clean, free from sand, grit and other foreign material and shall test negative for Peroxidase. It shall not contain any added colour.

3. The product may contain sugars (Sucrose, invert sugar, dextrose, fructose, glucose syrup, and dried glucose syrup), salt, spices and herbs, edible fats and oils, sauces, milk solids and any other ingredients suitable to the product whose standards are prescribed under Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

4. Frozen beans may be of the following styles and shall be labelled accordingly:-

- (i) Whole;
- (ii) Cut;
- (iii) Short cut;
- (iv) Sliced; and
- (v) Other- Any other style of presentation is permitted provided that it is sufficiently distinctive from other forms of presentation laid down in this standard and is adequately described on the label to avoid confusing or misleading the consumer.

5. The product shall not exceed the tolerance for visual defects as given in table below. The maximum number of defects in each category shall not exceed the tolerance given in column (3). The combined total of each category shall not exceed the limits indicated in S.No.10 of the Table. The standard sample size shall be 1kg for Category 1 defects and 300gm for other defect categories.

S.No	Defects	Total allowable numbers of defects for each Category (Maximum)	
(1)	(2)	(3)	
		Category 1 (For all styles except whole style)	Category 2 For whole style

1.	Extraneous Vegetable Material (EVM) (i) Bean Leaf (each piece) (ii) Other Extraneous Vegetable Material (EVM) (each piece)	15	15
2.	Stem end		
3.	Major and Minor blemish	30	20
4.	Mechanical Damage(Whole and cut style)	20	10
5.	Undeveloped (whole style)		
6.	Tough strings	10	6
7.	Fibrous unit		
8.	Combined total Allowable number of defects (Maximum)	60	40
9.	Small pieces(Whole, cut and slices styles)	Not more than 20 per cent. mm	

Explanation:-for the purposes of this sub-regulation,-

(i) Extraneous Vegetable Material(EVM).- Vegetable material from the bean plant, other than pod, such as leaf or vine, but excluding stem ends; other harmless vegetable material, not purposely included as an ingredient. For the purpose of assessment, extraneous vegetable material comprising bean leaf material shall be differentiated from the other.

(ii) Stem End.- A piece of the immediate stem which attaches the pod to the vine stem, whether present still attached to the pod or present loose in the product.

(iii) Minor Blemish.-Each piece blemished due to insect or pathological damage affecting an area greater than a 3 mm diameter circle, or blemished by other means to a degree which noticeably detracts from its appearance.

(iv) Major Blemish.-Each piece blemished due to insect or pathological damage affecting an area greater than 6 mm diameter circle, or blemished by other means to a degree which seriously detracts from its appearance.

(v) Mechanical Damage.-A unit, in whole and cut styles, that is broken or split into two parts, crushed, or has very ragged edges to an extent that the appearance is seriously affected.

(vi) Undeveloped (Whole Style only).- Each unit which measures less than 3 mm at its widest point.

(vii) Tough Strings.-Tough fibre which will support a weight of 250 g for 5 seconds or more.

(viii) Fibrous Unit.-Each piece having parchment like material formed during the ripening of the pod, to the extent that the eating quality is seriously affected.

(ix) Small Pieces.-(Cut and Sliced Styles): bean pieces less than 10 mm in length including loose seeds and pieces of seeds.

2.3.38.B FROZEN CAULIFLOWER:

1. Frozen cauliflower shall be prepared from fresh, clean, sound heads of the cauliflower plant of the species *Brassica oleracea* L. var. *botrytis* L., from which heads may be trimmed and separated into parts, are washed and sufficiently blanched to ensure inactivation of enzymes and stability of colour and flavour and shall be stored at -18°C or below. The product may contain salt, spices and herbs, sugars, edible fats and oils, sauces, milk solids and any other ingredients suitable to the product whose standards are prescribed under Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

2. The product shall be of reasonably uniform white to dark cream colour which may be slightly dull and have a tinge of green, yellow or pink over the flower surface. The stem or branch portions may be light green or have a tinge of blue. It shall be free from foreign flavours or odours, other than those imparted by any added ingredients. The product shall be clean, free from sand, grit and other foreign material and shall test negative for peroxidase. It shall not contain any added colour.

3. The product may be presented in one of the following styles and shall be labelled accordingly:-

(i) Whole: the whole, intact head, which is trimmed at the base and which may have attached small, tender, modified leaves.

(ii) Split: the whole head, cut vertically into two or more sections.

(iii) Florets: segments of the head, which may have a portion of the secondary stem attached. Small, tender modified leaves may be present or attached to the units.

(iv) Others: any other presentation of the product is permitted provided that it is sufficiently distinctive from other forms of presentation laid down in this standard and is adequately described on the label to avoid confusing or misleading the consumer.

4. The product shall not exceed the tolerance for visual defects as given in Table below. The maximum number of defects shall not exceed the tolerance given in column (3) (4) and (5) of the following Tables. The combined total of all categories shall not exceed the limits indicated in S.No.9 of Table 1 for whole styles and S.No 11 of table 2 for split, florets and other styles. The standard sample size shall be 500gm.

Table 1
Whole Style

S.No	Defects	Total allowable numbers of defects for each Category (Maximum)		
		Category 1 (Minor)	Category 2 (Major)	Category 3 (Serious)
(1)	(2)	(3)	(4)	(5)
1	Discolouration (each unit)- Light and Dark	10	6	4
2	Blemished (each head)- Minor, Major and Serious			
3	Mechanical Damaged (each head)			

4	Fibrous (each unit)- Fibrous Major and Fibrous Serious			
5	Poorly trimmed (each head)			
6	leaves (each 2cm ²)			
7	Not compact (Each area or combined area of 12 cm ²)			
8	Combined total Allowable number of defects(Maximum)	10		

Table 2
Split, Florets and Other Styles

S.No	Defects	Total allowable numbers of defects for each Category (Maximum)		
		Category 1 (Minor)	Category 2 (Major)	Category 3 (Serious)
(1)	(2)	(3)	(4)	(5)
1	Discolouration (each unit)-Light and Dark	25	16	4
2	Blemished (each unit)- Minor, Major and Serious			
3	Mechanical Damaged (each unit)			
4	Fibrous (each unit)- Fibrous Major and Fibrous Serious			
5	Poorly trimmed (each unit)			
6	Leaves (each 2 cm ²)			
7	Fragments (each 3per cent. m/m)			

8	Not compact (Each area or combined area of 12 cm ²)			
9	Loose stem (each piece)			
10	Combined total Allowable number of defects(Maximum)	25		

Explanation:- for the purpose of this sub-regulation,-

(i) Discolouration.- grey, brown, green or similar discolouration confined essentially to the flower surface of the unit and which materially detracts from the appearance of the product. Branches or stems with a bluish or greenish tinge are not be considered as discoloured.

(a) Light.- the discolouration disappears almost entirely upon cooking.

(b) Dark.- the discolouration does not disappear upon cooking.

(ii) Blemished.-A unit affected by pathological or insect injury, and which may extend into the cauliflower.

(a) Minor.-The appearance of the unit is only slightly affected.

(b) Major.-The appearance of the unit is materially affected.

(c) Serious.-The appearance of the units is objectionably affected to such an extent that it would customarily be discarded under normal culinary preparation.

(iii) Mechanically Damaged.-

(a) Major (for split and floret styles).-A unit in which more than 50 per cent. of the curd (head or combine florets) has been mechanically damaged or is missing.

(b) Major (for whole Styles).-A unit in which more than 25 per cent. of the curd(head or combine florets) has been mechanically damaged or is missing.

(iv) Major Fibrous.-A unit which possess tough fibres that are quite noticeable and materially affect the eating quality.

(v) **Serious Fibrous.**-A unit which possesses tough fibres that are objectionable and of such nature that it would be customarily discarded.

(vi) **Poorly Trimmed.**-A unit which had deep-knife gouges or a ragged appearance.

(vii) **Leaves.**-Coarse green leaves or parts thereof whether or not attached to the unit.

(viii) **Fragments.**-Portions of the florets 5 mm or less across the greatest dimension.

(ix) **Not Compact.**-A unit in which the florets are spreading, or the flower head has 'ricey' appearance or the flower head is very soft or musty.

(x) **Loose stem.**- Each piece of stem exceeding 2.5 cm in length detached from a cauliflower unit.

2.3.38.C FROZEN PEAS:

1. Frozen peas shall be prepared from fresh, clean, sound, whole, immature seeds of peas plant of the species *Pisumsativum* L which have been washed, sufficiently blanched to ensure inactivation of enzymes and adequate stability of colour and flavour. It shall be stored at -18°C or below.

2. The product may contain sugars (Sucrose, invert sugar, dextrose, fructose, glucose syrup, dried glucose syrup), salt, spices and herbs, edible fats and oils, sauces, milk solids and any other ingredients suitable to the product whose standards are prescribed under Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

3. The product shall be of reasonably uniform green colour according to type, whole, clean, free from foreign matter and damage by insects or diseases. It shall be free from any foreign taste or smell and shall have a normal flavour, taking into consideration any ingredients added. It shall not contain any added colour.

4. The Alcohol-insoluble solid content (m/m) of the product shall not be more than 23 per cent. for the sample size of 500 gm of product tolerance limits of defects shall not exceed the following:

S.No.	Defects	Tolerance limits
1.	Blond Peas, m/m	Not more than 10 per cent.
2.	Blemished Peas, m/m	Not more than 8 per cent.
3.	Seriously Blemished Peas, m/m	Not more than 4 per cent.
4.	Pea Fragments, m/m	Not more than 15 per cent.
5.	Extraneous Vegetable Matter, m/m	Not more than 1 per cent.

Explanation:- for the purpose of this sub-regulation,-

(i) Blond Peas.-Peas which are yellow or white but which are edible (that is, not sour or rotted).

(ii) Blemished Peas.-Peas which are slightly stained or spotted.

(iii) Seriously Blemished Peas.-Peas which are hard, spotted, discoloured or otherwise blemished to an extent that the appearance or eating quality is seriously affected. These shall include worm-eaten peas.

(iv) Peas Fragments.-Peas which are separated into portions or individual cotyledons; crushed, partial or broken cotyledons; and loose skins, but does not include entire intact peas with skins detached.

(v) Extraneous Vegetable Material. - Any vine or leaf or pod material from the pea plant, or other vegetable material such as poppy heads or thistles.

2.3.38.D FROZEN SPINACH:

1. Frozen spinach shall be prepared from fresh, clean, sound edible parts of the spinach plant of the species *Spinacioleruceu*L.. Frozen spinach shall be sorted, washed sufficiently and drained to ensure adequate inactivation of enzymes and stability of colour and flavour. It shall be stored at -18°C or below. The product

may contain salt, spices and herbs, sugars, edible fats and oils, sauces, milk solids and any other ingredients suitable to the product whose standards are prescribed under Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

2. The product shall be of a reasonably uniform green colour, characteristic of the variety. It shall be free from any foreign flavours and odours other than those imparted by any added ingredients. It shall be clean, sound and free from sand, grit and other foreign material. It shall also be free from fibrous material and for the styles of whole leaf and cut leaf not materially disintegrated due to mechanical damage. The product in pureed style shall be free from any dark particles or flower buds which affect the overall appearance of the product. It shall not contain any added colour.

3. The product may be presented in one of the following styles and shall be labelled accordingly:-

(i) **Whole spinach:** the intact spinach plant with root removed.

(ii) **Leaf spinach:** substantially whole leaves most of which are separated from the root crown

(iii) **Cut leaf spinach:** parts of leaves of spinach cut into pieces.

(iv) **Chopped spinach:** parts of leaves of spinach cut into small pieces but not comminuted to a pulp or puree.

(v) **Pureed spinach:** spinach finely divided or finely chopped or having passed through a sieve.

(vi) **Others:** any other presentation of the product shall be permitted provided that it is sufficiently distinctive from other forms of presentation laid down in this standard and is adequately described on the label to avoid confusing or misleading the consumer.

4. The product shall not exceed the tolerance for visual defect as given in Table below. The maximum number of each defects shall not exceed the tolerance indicated in column (3) (4) and (5) of the table 1 and column (3) and (4) of table 2. The combined total of all categories shall not exceed the limits indicated in S.No.8 of Table 1 for whole leaf and cut leaf style and S.No 6 of Table 2 for chopped style. The standard sample size shall be 300 gm for Table 1 and 100 gm for Table 2 and 3.

Table 1
Whole Leaf and Cut leaf Style

S.No	Defects	Total allowable numbers of defects for each Category (Maximum)		
		Category 1 (Minor)	Category 2 (Major)	Category 3 (Serious)
(1)	(2)	(3)	(4)	(5)
1.	Loose leaves (Whole style only)(each leaf)	20	10	4
2.	Discolouration- Minor and Major			
3.	E.V.M- Minor and Major			
4.	Seed heads (each whole head)			
5.	Seed heads (each portion)			
6.	Crowns (exclusive of whole style)(each whole crown)			
7.	Root material (each piece)			
8.	Combined total Allowable number of defects(Maximum)	20		
9.	Mineral impurities, m/m	not more than 0.1 per cent.		
10.	Salt-free dry matter, m/m	not less than 5.5 per cent.		

Table 2
Chopped Style

S.No	Defects	Total allowable numbers of defects for each Category (Maximum)

		Category 1 (Minor)	Category 2 (Major)
(1)	(2)	(3)	(4)
1.	Discolouration (each cm ²)- Minor and Major	20	10
2.	E.V.M (each 1 cm)- Minor and Major		
3.	Flower buds (each 50 pieces)		
4.	Crown material (each piece)		
5.	Root material (each piece)		
6.	Combined total Allowable number of defects (Maximum)	20	
7.	Mineral impurities, m/m	not more than 0.1 per cent.	
8.	Salt-free dry matter, m/m	not less than 5.5 per cent.	

**Table 3
Pureed Style**

S.No	Defects	Allowance
(1)	(2)	(3)
1.	Any dark particle or flower bud	Shall not affect the overall appearance of the product
2.	Mineral impurities, m/m	not more than 0.1 per cent.
3.	Salt-free dry matter, m/m	not less than 5.5 per cent.

Explanation:- for the purposes of this sub-regulation,-

(i) Loose leaves (Whole Style only).- Leaves which are detached from the crown.

(ii) Discoloration.-Discoloration of any kind on the leaves or stem portions and which materially detracts from the appearance of the product.

(a) Minor.-Discoloration which is light in colour.

(b) Major.-Discoloration which is dark in colour.

(iii) Extraneous Vegetable Matter.-Harmless vegetable material, such as grass, weeds and straw.

(a) Minor.-Extraneous vegetable matter which is green and tender.

(b) Major.-Extraneous vegetable matter which is other than green or is coarse.

(iv) Seed Heads (Flower Stems).-The flower bearing portion of the spinach plant, which is longer than 25 mm.

(v) Flower Buds.-The separate flower buds detached from the seed head.

(vi) Crown (Exclusive of Whole Style).-The solid area of the spinach plant between the root and the attached leaf clusters.

(vii) Root Material.-Any portion of the root, either loose or attached to leaves.]

2.3.39 Frozen Curried Vegetables/Ready-to-Eat Vegetables:

1. Frozen Curried Vegetables/Ready-to-Eat Vegetables means the product prepared from Fresh, Dehydrated or Frozen or previously processed vegetables, legumes, cereals or pulses, whether whole or cut into pieces. Vegetable(s) either singly or in combination may be prepared in any suitable style applicable for the respective vegetables in normal culinary preparation. It may contain salt, nutritive sweeteners, spices and condiments, edible vegetable oils and fats and milk fat and any other ingredients suitable to the product and subjected to freezing process in appropriate equipments. Freezing operation shall not be regarded as complete unless and until the product temperature has reached (minus) - 18°C at the thermal center after thermal sterilization.

2. The product shall conform to the microbiological requirements given in Appendix B.

2.3.40 Fruit Based Beverage Mix/Powdered Fruit Based Beverage:

1. Fruit Based Beverage Mix/Powdered Fruit Based Beverage means a product, in powder form, intended for use after dilution, obtained by blending fruit solids with nutritive sweeteners and other ingredients appropriate to the product & packed in hermetically sealed containers to prevent spoilage. It shall have colour & flavour characteristic of the named fruit. It may contain Vitamins and Minerals.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

- | | | |
|------|---|---------------------------|
| (i) | Moisture (m/m) | Not more than 5.0 percent |
| (ii) | Fruit juice content (m/m) when reconstituted by dilution according to direction for use | Not less than 5.0 percent |

2.3.41 Fruits and Vegetable Chutney:

1. Fruits and Vegetable Chutney means the product prepared from washed, clean, sound raw fruit(s) and / or vegetable(s) of any suitable variety, which have been peeled, sliced or chopped or shredded or comminuted and cooked with nutritive sweetener. It may contain salt, spices and condiments and any other ingredients suitable to the product and preserved by thermal processing or other means.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:-

- | | | |
|-------|------------------------------------|----------------------------|
| (i) | Total soluble solids (m/m) | |
| | (a) Fruit Chutney | Not less than 50.0 percent |
| | (b) Vegetable Chutney | Not less than 25.0 percent |
| | (c) Hot and Sour (Spicy Chutney) | Not less than 25.0 percent |
| (ii) | Fruits and Vegetable content (m/m) | Not less than 40.0 percent |
| (iii) | pH | Not more than 4.6 |
| (iv) | Total ash (m/m) | Not more than 5.0 percent |

- (v) Ash insoluble in hydrochloric acid Not more than 0.5 percent
(m/m)

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled. This requirement shall not be applicable for bulk packs for industrial use.

2.3.42 Mango Chutney:

1. Mango Chutney means the product prepared from washed clean sound mango (*Mangifera indica* L.) of any suitable variety, which have been peeled, sliced or chopped or shredded or comminuted and cooked with nutritive sweeteners. It may contain Salt, Spices, Condiments and any other ingredient suitable to the product and preserved by thermal processing/ or other means.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:-

- | | |
|--|----------------------------|
| (i) Total Soluble solids (m/m) | Not less than 50.0 percent |
| (ii) Fruit content (m/m) | Not less than 40.0 percent |
| (iii) pH | Not more than 4.6 |
| (iv) Total ash | Not more than 5.0 percent |
| (v) Ash insoluble in hydrochloric acid | Not more than 0.5 percent |

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.43 Pickles:

1. Pickles means the preparation made from fruits or vegetables or other edible plant material including mushrooms free from insect damage or fungal infection, singly or in combination preserved in salt, acid, sugar or any combination of the

three. The pickle may contain onion, garlic, ginger, sugar jaggery, edible vegetable oil, green or red chillies, spices, spice extracts/oil, limejuice, vinegar/ acetic acid, citric acid, dry fruits and nuts. It shall be free from copper, mineral acid, alum, synthetic colours and shall show no sign of fermentation.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. Pickles may be of combinations as given below:-

(i) Pickles in Citrus juice or Brine conforming to the following requirements:-

(a) Drained Weight	Not less than 60.0 percent
(b) Sodium Chloride content when packed in Brine	Not less than 12.0 percent
(c) Acidity as Citric Acid when packed in Citrus Juice	Not less than 1.2 percent

(ii) Pickles in Oil

(a) Drained Weight	Not less than 60.0 percent
(b) Fruit and Vegetable pieces shall be practically remaining submerged in oil	

(iii) Pickles in Vinegar

(a) Drained Weight	Not less than 60.0 percent
(b) Acidity of vinegar as acetic acid	Not less than 2.0 percent

(iv) Pickle without medium means the pickles other than enumerated above. This may contain ingredients given in Para 1 of this specification. Such pickles shall be labelled as "(give name of vegetable or fruits) Pickle".

³²[2.3.44 TABLE OLIVES:

1. "Table Olives" means the product prepared from sound fresh fruits of varieties of the cultivated olive tree (*Olea europaea* L.) having reached proper

maturity for processing whose shape, flesh-to-stone ratio, fine flesh, taste, firmness and ease of detachment from the stone, make them suitable for processing and have characteristic colour, flavour, odour and texture of the fruits.

2. Table olives may be -

- (a) treated to remove its bitterness and preserved by natural fermentation, or by heat treatment, with or without the addition of permitted preservatives, or by any other means;
- (b) packed with or without brine.

3. Types of table olives:

Table olives may be classified in the following types depending on the degree of ripeness of the fresh fruits, namely:-

- (a) **green olives**:- fruits harvested during the ripening period, prior to colour development and when they reached to their normal size;
- (b) **olives turning colour**:- fruits harvested before the stage of complete ripeness is attained, at colour change;
- (c) **black olives**:- fruits harvested when fully ripe or slightly before full ripeness is reached.

4. Types of processed olives:

Olives shall be processed in the following manner, namely:-

- (a) **natural olives**:- green olives, olives turning colour or black olives placed directly in brine where they undergo complete or partial fermentation, whether preserved or not by the addition of permitted acidifying agents, namely:-

- (A) natural green olives;
- (B) natural olives turning colour;
- (C) natural black olives;

- (b) **treated olives**:- green olives, olives turning colour or black olives that have undergone alkaline treatment, namely:-

- (A) treated green olives in brine;
- (B) treated olives turning colour in brine;

- (C) treated black olives;
- (D) green ripe olives;
- (c) **dehydrated or shrivelled olives:-** green olives, olives turning colour or black olives that have undergone or not undergone mild alkaline treatment, preserved in brine or dehydrated in dry salt or by heating or by other technological process, namely:-
 - (A) dehydrated or shrivelled green olives;
 - (B) dehydrated or shrivelled olives turning colour;
 - (C) dehydrated or shrivelled black olives;
- (d) **olives darkened by oxidation:-** green olives or olives turning colour preserved in brine, fermented or not, and darkened by oxidation with or without alkaline medium and shall be of uniform brown to black colour;
- (e) **other types of olives:-** olives prepared by means distinct from or in addition to above, shall retain the name “olive” as long as the fruit is in accordance with the specification provided in regulation 1.2, but the name for such type shall be clearly indicated.

5. Styles:

Olives may be offered in the following styles, namely:-

- (a) **whole olives:-** olives, with or without their stem, which have natural shape and from which the stone (pit) has not been removed;
- (b) **cracked olives:-** whole olives undergone a process whereby the flesh is opened without breaking the stone (pit), which remains whole and intact inside the fruit;
- (c) **split olives:-** whole olives that are split lengthwise by cutting into the skin and part of the flesh;
- (d) **stoned (pitted) olives:-** olives from which the stone (pit) has been removed and which retain their natural shape;
- (e) **halved olives:-** stoned (pitted) or stuffed olives sliced into two parts, perpendicularly to the longitudinal axis of the fruit;
- (f) **quartered olives:-** stoned (pitted) olives split into four parts, perpendicularly to the major axis of the fruit;
- (g) **divided olives:-** stoned (pitted) olives cut lengthwise into more than four parts;

- (h) sliced olives:-** stoned (pitted) or stuffed olives sliced into segments of uniform thickness;
- (i) chopped or minced olives:-** small pieces of stoned (pitted) olives of no definite shape and devoid (no more than 5 per 100 of such units by weight) of identifiable stem insertion units as well as of slice fragments;
- (j) broken olives:-** olives broken while being stoned (pitted) or stuffed which may contain pieces of stuffing material;
- (k) stuffed olives:-** stoned (pitted) olives stuffed either with one or more suitable products including pimiento, onion, almond, celery, anchovy, olive, orange or lemon peel, hazelnut or capers with edible pastes;
- (l) salad olives:-** whole broken or broken-and-stoned (pitted) olives with or without capers, plus stuffing material, where the olives are the most numerous compared with the entire product marketed in this style;
- (m) olives with capers:-** whole, or stoned (pitted) olives, usually small in size, with capers and with or without stuffing, where the olives are the most numerous compared with the entire product marketed in this style.

6. Essential composition and quality factors:

(a) Composition:

(i) Ingredients:- Olives as specified in clause 3, which are treated and packed in the manner specified in clause 2 and may contain any of the following permitted ingredients, namely:-

(A) water (potable);

(B) edible salts;

(C) vinegar;

(D) olive oil or other edible vegetable oils as specified in regulation 2.2;

(E) honey and nutritive sugars as specified in regulation 2.8;

(F) any single or combination of edible material used as an accompaniment or stuffing;

(G) spices and aromatic herbs or natural extracts thereof;

(ii) Packing brines:- (A) Packing brines is the solution of salts dissolved in potable water, with or without addition of some or all the ingredients specified in entry (i).

(B) Brine shall be clean, free from foreign matter and shall comply with the hygiene requirements as specified in clause 9.

(C) Fermented olives held in packing medium may contain micro-organisms used for fermentation, including lactic acid bacteria and yeasts.

Table: Physico-chemical characteristics of the packing brine

Type and preparation	Minimum sodium chloride content	Maximum pH limit
Natural olives (by weight)	6.0 per cent.	4.3
Treated olives (by weight)	5.0 per cent.	4.3
Pasteurised treated and natural olives	GMP	4.3
Dehydrated or shrivelled olives (by weight)	8.0 per cent.	GMP
Darkened by oxidation with alkaline treatment	GMP	GMP

(b) Drained weight of product shall not be less than the following weight, namely:-

Whole olives	50.0 per cent. of net weight of the contents
Stoned (pitted) and stuffed olives	40.0 per cent. of net weight of the contents

(c) The container shall be well filled with the product and occupy not less than 90.0 per cent. of the water capacity of the container, when packed in the rigid containers.

(d) The water capacity of the container is the volume of distilled water at 20⁰C, which the sealed container is capable of holding when completely filled.

7. Food additives:

The product may contain food additives specified in Appendix A to these regulations.

8. Contaminants, toxins and residues:

The product shall comply with the provisions of the Food Safety and Standards (Contaminants, toxins and Residues) Regulations, 2011.

9. Hygiene:

(a) The product shall be prepared and handled in accordance with the guidelines specified in Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and such other guidelines as specified from time to time under the Food Safety and Standards Act, 2006 (34 of 2006).

(b) The product shall conform to the microbiological requirement specified in Appendix B.

10. Labelling:

(a) For labelling of the product, the provisions of the Food Safety and Standards (Packaging and Labelling) Regulations, 2011 shall apply.

(b) In the case of stuffed olives, the style of stuffing shall be indicated in the following manner, namely:-

(i) “olives stuffed with” (single or combination of ingredients);

or

(ii) “olives stuffed with paste”(single or combination of ingredients)

(c) The packing medium (brine) along with its strength shall also be declared on the label.

11. Methods of sampling and analysis:

The method for sampling and analysis of the product shall be as specified in the Food Safety and Standards Authority of India Manual of Method of Analysis of Food.]

82[2.3.45 Desiccated Coconut. - (1) “Desiccated Coconut” means the product-

(a) prepared by peeling, milling, grating and drying the sound white kernel obtained from the whole nut of coconut (*Cocos nucifera L.*), having reached appropriate development for processing, without oil extraction;

(b) processed in an appropriate manner, undergoing operations such as de-husking, hatcheting, paring, washing, comminuting, drying and sifting;

(c) described in points (a) and (b) from which oil has been partially extracted by appropriate physical means.

(2) The product may be presented in the form of powder, flakes, chips and shreds, which shall be white to light creamy white in colour and shall be free from foreign matter, living insects, mould, dead insects, insect fragments and rodent contamination.

(3) The product shall have pleasant taste and flavour, free from rancidity and evidence of fermentation.

(4) The product covered by this standard shall be labelled in accordance with the Food Safety and Standards (Labelling and Display) Regulations, 2020 and the product having oil content 35 to 60 percent shall be labelled as “Reduced Fat Desiccated Coconut”.

(5) The product shall conform to the following, namely: —

S.No.	Parameters	Limits
(1)	(2)	(3)
1.	Moisture % m/m (Max)	3.0
2.	Total acidity of the extracted oil measured as lauric acid % m/m (Max)	0.3
3.	Oil content % m/m	

(a)	For without oil extraction as described in 1 (a) (Min)	60.0
(b)	For partial oil extraction as described in 1 (c)	35.0 to 60.0
4.	Total Ash % m/m (Max)	2.5
5.	Extraneous vegetable material, fragments per 100 g (Max)	15
6.	Foreign matter, in 100 g	Absent

Explanation.- for the purposes of this clause,-

- (i) “extraneous vegetable material” means a harmless vegetable matter associated with the product; and
- (ii) “foreign matter” means any visible or apparent matter or material not usually associated with the product.]

2.3.46 VINEGAR:

1. Brewed Vinegar means a product obtained by alcoholic and acetic acid fermentation of any suitable medium such as fruits, malt (brewed exclusively from malted barley or other cereals), molasses, Jaggary, Sugar Cane juice etc. with or without addition of caramel and spices. It shall not be fortified with acetic acid.

a) The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:-

- (i) Acidity (m/v) Not less than 3.75 percent calculated as acetic Acid
- (ii) Total Solids (m/v) Not less than 1.5 percent
- (iii) Total ash content Not less than 0.18 percent

(iv) It shall not contain sulphuric acid or any other mineral acid. It shall be free from any foreign substances or colouring matter except caramel.

b) The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2. Synthetic Vinegar means the product prepared from acetic acid with or without caramel & spices and shall conform to the following requirements:

(i) Acidity of the product shall not be less than 3.75 percent m/v.

(ii) It shall not contain sulphuric acid or any other mineral acid. It shall be free from any foreign substance or colouring matter except caramel.

2. Synthetic vinegar shall be distinctly labelled as **SYNTHETIC - PREPARED FROM ACETIC ACID**.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2.3.47 NUTS AND RAISINS:

1. **Groundnut kernel** (deshelled) for direct human consumption commonly known as moongphali are obtained from the plant *arachis hypogaea*. The kernels shall be free from non-edible seeds such as mahua, castor, neem or argemone etc.

It shall be free from colouring matter and preservatives. It shall be practically free from extraneous matter, such as stones, dirt, clay etc. The kernels shall conform to the following standards, namely:—

Moisture	Not more than 7.0 per cent
Damaged kernel including slightly damaged kernel	Not more than 5.0 per cent by weight.
⁵¹ [omitted]	

2. Raisins means the product obtained by drying sound, clean grapes of proper maturity belonging to *Vitis vinifera* L. The product may be washed, with or without seeds and stems and may be bleached with Sulphur Dioxide. The product shall be free from foreign matter, living insects, mould, dead insects, insect fragments and rodent contamination. The product shall have uniform colour, pleasant taste and flavour, free from odour and taste and evidence of fermentation. The product shall be free from added colouring matter. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall conform to the following requirements:—

(i) Moisture (m/m)	Not more than 15.0 percent
(ii) Damaged Raisins (m/m)	Not more than 2.0 percent
(iii) Sugared Raisins (m/m)	Not more than 15.0 percent

Explanation.- for the purpose of this paragraph,—

(i) 'Damaged Raisins' means raisins affected by sunburn, scars, mechanical injury which seriously affects the appearance, edibility and keeping quality;

(ii) 'Sugared Raisins' means raisins with external or internal sugar crystals which are readily apparent and seriously affect the appearance of the raisins.

3. Pistachio Nuts means the product obtained from mature seeds of *Pistacia vera* L which have been sun dried and their shells opened naturally or mechanically. The product may be raw, roasted, salted and/or lime juice treated. The product shall be free from foreign matter, living insects, mould, dead insects, insect fragments and rodent contamination. The product shall have pleasant taste and flavour, free from odour and taste, mustiness and rancidity. The product shall conform to the following requirements:—

(i)	Moisture (m/m)	Not more than 7.0 percent
(ii)	Unopened Shells (m/m)	Not more than 2.0 percent
(iii)	Empty Shells (m/m)	Not more than 1.0 percent

Explanation.-for the purpose of this paragraph,—

- (i) 'Unopened Shells' means shells which are not split open but contain a fully developed kernel;
- (ii) 'Empty Shells' means shells in which kernel is not developed;
- (iii) 'Mouldy Shells' means nuts affected by mould.

4. **Dates** means the product obtained by drying sound, clean fruits of proper maturity belonging to *Phoenix dactylifera*. The product may be washed, pitted or unpitted, with or without cap, pressed or loose. The product may be treated with sugar, glucose syrup, flour and vegetable oil. The product shall be free from foreign matter, living insects, mould, dead insects, insect fragments and rodent contamination. The product shall have pleasant taste and smell, free from odour and evidence of fermentation. The product shall be free from any added colouring matter. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall conform to the following requirements:—

(i)	Moisture (m/m)	Not more than 30.0 percent
(ii)	Ash insoluble in dil Hcl	Not more than 0.1 percent
(iii)	Blemished / Damaged Units	Not more than 5.0 percent
(iv)	Extraneous matter	Not more than 1.0 percent

Explanation:— For the purpose of this paragraph —

- (i) 'Blemished' means units showing scars, discoloration, sun burn, dark spots on the surface;

- (ii) 'Damaged' means dates affected by mashing and/ or tearing of the flesh exposing the pit or significantly changing the appearance.
- (iii) 'Extraneous vegetable matter' means stalks, pieces of shells, pits, fibre, peel, etc.

5. **Dry Fruits and Nuts** means the products obtained by drying sound, clean fruits and nuts of proper maturity. The product may be with or without stalks, shelled or unshelled, pitted or unpitted or pressed into blocks. The product shall be free from mould, living / dead insects, insect fragments and rodent contamination. The product shall be uniform in colour with a pleasant taste and flavour characteristic of the fruit/ nut free from off flavour, mustiness, rancidity and evidence of fermentation. The product shall be free from added colouring. The product shall conform to the following requirements:-

(i)	Extraneous Vegetable matter (m/m)	Not more than 1.0 percent
(ii)	Damaged/ Discoloured units (m/m)	Not more than 2.0 percent
(iii)	Acidity of extracted fat expressed as oleic Acid	Not more than 1.25 percent

Explanation — For the purpose of this paragraph —

(i) 'Extraneous vegetable matter' means stalks, pieces of shells, pits, fibre, peel;

(ii) 'Damaged or Discoloured' means units affected by sunburn, scars mechanical injury, discolouration and insects.

⁶⁶[6. **Almond kernels.**- (1) Almond kernels means the product obtained from mature seeds of *Prunus amygdalus* Batsch, syn. *Prunus dulcis*(Mill.) D.A. Webb, from which the shell (ligneous endocarp) has been removed.

(2) The product shall be sound, whole, clean, sufficiently dried and free from living or dead insects, rancidity, visible foreign matter, visible moulds and rodent contamination.

(3) The product shall be uniform in colour with characteristic flavor of nuts, free

from off odour and evidence of fermentation.

(4) The product shall also be free from added colouring and flavouring matter.

(5) It shall conform to the following requirements, namely:-

S. no.	Characteristics	Requirements	
(i)	Moisture (m/m), per cent	Not more than 6.0	
(ii)	Inshell almonds, shell or skin fragments, (m/m), per cent	Not more than 0.25	Total tolerance Not more than 10.0
(iii)	Rancid, rotten and damaged by insects or other pests (m/m), per cent	Not more than 1.0	
(iv)	Gummy and brown spot (m/m), per cent	Not more than 2.0	
(v)	Blemishes and discoloration(m/m), per cent	Not more than 4.0	
(vi)	Shrunken or shrivelled and not sufficiently developed kernels(m/m), per cent	Not more than 4.0	
(vii)	Split, broken and halves (m/m), per cent	Not more than 5.0	
(viii)	Chipped and scratched (m/m), per cent	Not more than 10.0	
(ix)	Doubles or twins (m/m), per cent	Not more than 10.0	
(x)	Acid insoluble ash , per cent	Not more than 0.1	
(xi)	Oil content (m/m), per cent	Not less than 45.0	
(xii)	Acidity of extracted oil, expressed as oleic acid , per cent	Not more than 1.25	

Explanation:- For the purposes of this clause,-

- (a) “double or twin” means almond kernel of characteristic shape, with one side flat or concave, as a consequence of the development of two kernels in the same shell;
- (b) “clean” means free from visible adhering dirt or other foreign material;
- (c) “sufficiently developed” means almond kernel of normal

- shape, without aborted or dried out portions; shrunken and shrivelled kernels are not sufficiently developed;
- (d) “shrunken or shrivelled” means 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;
 - (e) “chipped kernel” means 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;
 - (f) “scratched kernel” means 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;
 - (g) “half” means longitudinally split almond kernel from which the two halves (cotyledons) are separated;
 - (h) “split or broken kernel” means mechanically damaged almond kernel from which more than one quarter of the kernel is missing;
 - (i) “piece” means small fragment of almond kernel which pass through a 10 mm round meshed sieve;
 - (j) “mould” means mould filaments visible to the naked eye, either inside or outside of the almond kernel;
 - (k) “rancidity” means 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;
 - (l) “rotten” means significant decomposition or decay caused by the action of micro-organisms or other biological processes, normally accompanied by changes in texture and/or colour;
 - (m) “insect or pest damage” means visible damage or contamination caused by insects, mites, rodents or other animal pests, including the presence of dead insects, insect debris or excreta;
 - (n) “living pests” means presence of living pests (insects, mites

or others) at any stage of development (adult, nymph, larva, egg, etc.);

- (o) “gummy” means 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;
- (p) “brown spot” means 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 (*Leptocoristivittatus* Say), covering in aggregate an area more than the equivalent of a circle of 3 mm in diameter; and 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.
- (q) “abnormal external moisture” means presence of water, moisture or condensation directly on the surface of the product;
- (r) “foreign smell or taste” means any odour or taste that is not characteristic of the product;
- (s) “foreign matter” means any visible or apparent matter or material, including dust, not usually associated with the product, except mineral impurities.]

⁷²[7. CASHEW KERNELS

(1) Cashew kernels shall be obtained by roasting, shelling and peeling of the cashew nuts (*Anacardium occidentale* Linnaeus). The kernels shall be sound, clean, sufficiently developed and dry. Cashew kernels shall be free from any rancidity, shell liquid, foreign smell and/or taste, living insects, mites and moulds. It shall also be free from any, dead insects, rodent contamination, insect fragments and damage caused by insects, mites or other parasites visible to the naked eye.

(2) The kernels shall be of uniform and characteristic colour. They may be either in the form of whole or pieces.

(3) It shall conform to the following requirements, namely:-

Table

Sr. No.	Parameter	Limit
(i)	Moisture content, percent by mass(<i>Maximum</i>)	5.0
(ii)	Acid-insoluble ash, percent by mass, on dry basis (<i>Maximum</i>)	0.1
(iii)	Total tolerances percent by mass(<i>Maximum</i>)	5
	a. Superficial damage (<i>Maximum</i>)	2.0
	b. Immature or shrivelled (deformed) (<i>Maximum</i>)	2.0
	c. Speckled or spotted (black or brown) (<i>Maximum</i>)	0.5
	d. Presence of testa (<i>Maximum</i>)	2.0
	e. Insect damage (<i>Maximum</i>)	0.5
	f. Foreign matter (<i>Maximum</i>)	0.05
	g. Extraneous vegetable matter (<i>Maximum</i>)	1.0
(iv)	Free fatty acid (expressed as oleic acid) percent(<i>Maximum</i>)	1.25 For whole Kernels) 2.0 (For cut/pieces)
(v)	Peroxide value meq/kg (<i>Maximum</i>)	10.0

Explanations: For the purpose of this standard, the following definitions shall apply:

- (i) Superficial damage: Damage adversely affecting the appearance of the product, including blemishes and areas of discoloration. Scraped kernels, where characteristic shape is not affected are not considered defective
- (ii) Spotted or speckled: the presence of black or brown spots or specks.
- (iii) Insect damage: Containing dead insects, mites, insect fragments, webbing, frass, excreta, or visible damage caused by boring and feeding of insects and animal parasites.
- (iv) Mould: Mould filaments either on the inside or the outside of the kernel visible to the naked eye.

(v) Rancidity: Oxidation or free fatty acid production in the lipids producing a disagreeable flavour.

(vi) Foreign Matter: Any matter or material not usually associated with the product.

(vii) Testa: Skin adhering to any portion of the kernel.

(viii) Extraneous vegetable matter: Vegetative matter associated with the plant from which the product originates.

(4) The product may contain Food Additives permitted in Appendix A.

(5) The product shall conform to the microbiological requirement given in Appendix B.]

⁷⁵[**8. WALNUT KERNELS.** - (1) Walnut kernels means product obtained by deshelling nuts of varieties (cultivars) grown from *Juglansregia* L. after appropriate maturity. The kernels shall be sound, clean, sufficiently developed and dry. They shall be free from rancidity, visible mold, foreign smell and/or taste, living insects and mites. It shall also be free from dead insects, rodent contamination, insect fragments and damage caused by insects or other parasites visible to the naked eye.

2. The kernels shall be of uniform in colour (With permissible variation 15 %) with characteristic taste and flavour. It shall be free from added colour. It may be either in the form of halves or pieces. It shall conform to the following requirements:

Sr. No.	Parameter	Limit
1.	Moisture content, percent by mass (Maximum)	5.0
2.	Acid-insoluble ash, percent by mass (Maximum)	0.1
3.	Extraneous Vegetable matter, percent by mass (Maximum)	1.0
4.	Foreign Matter, percent by mass (Maximum)	0.1
5.	Damaged units, percent by mass (Maximum)	4.0

6.	Acidity of extracted fat expressed as Oleic Acid percent by mass (Maximum)	1.25
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Explanations: For the purpose of this clause,

1.Extraneous vegetative matter: Vegetative matter associated with the plant from which the product originates.

2.Foreign matter: Any matter or material not usually associated with the product.

3.Damaged units: units affected by sunburn, scars, mechanical injury, discolouration or visible damage caused by boring and feeding of insects and animal parasites.

4.Mold: Mold filaments either on the inside or the outside of the kernel visible to the naked eye.

5.Rancidity: Oxidation of lipids or free fatty acid production producing a disagreeable flavour.]

2.3.48 BEAN: means dry kidney shaped or flattened seeds of the leguminous varieties used as food, either whole or prepared as dal. It shall not contain hydrocyanic acid exceeding 20 parts per million as determined by Association of Official Analytical Chemists Maceration method.

³²[**2.3.49 SEEDLESS TAMARIND:**

1. Description: (a) Tamarind (without seed) shall be obtained from *Tamarindus indica* L. after removal of outer covering and seeds from the mature and ripe fruits.

(b) It shall be clean and will not contain deleterious substances, obnoxious odour, external moisture and inorganic extraneous matter.

(c) It shall be free from insect infestation, live or dead insects, mould growth, rodent hair and excreta, added colouring matter and impurities of animal origin.

(d) It shall also conform to the following standards, namely:-

S.No	Characteristics	Requirements (in per cent.)
1.	Moisture content	Not more than 20.0
2.	Organic extraneous matter (w /w)	Not more than 5.0
3.	Total Ash w /w (on dry basis)	Not more than 6.0
4.	Acid Insoluble ash w/w (on dry basis)	Not more than 1.0
5.	Crude fibre w/w (on dry basis)	Not more than 9.0
6.	Tamarind seeds	Not more than 0.5

2. Food additives:

The product may contain food additives specified in Appendix A to these regulations.

3. Contaminants, toxins and residues:

The product shall comply with the Food Safety and Standards (Contaminants, toxins and Residues) Regulations, 2011.

4. Hygiene:

(a) The products shall be prepared and handled in accordance with the guidelines specified in Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and such other guidelines as specified from time to time under the Food Safety and Standards Act, 2006 (34 of 2006).

(b) The product shall conform to the microbiological requirement specified in Appendix B.

5. Labelling:

For labelling of the product, the provisions of the Food Safety and Standards (Packaging and Labelling) Regulations, 2011 shall apply.

6. Methods of sampling and analysis:

The method for sampling and analysis of the product shall be as specified in the Food Safety and Standards Authority of India Manual of Method of Analysis of Food.

2.3.50 VANILLA

1. **Description:-** Vanilla in the form of pods, cut or powder means product obtained from species of *Vanilla fragrans* (Salisbury) Ames, syn *Vanilla planifolia* Andrews.

(a) (i) **“Vanilla pods”** means whole pods which may be split.

(ii) The pods shall be sound, dry or wooded, of typical flavour, reddish in colour and which may have few to several stains, the total length of which doesnot exceed half the length of the pod.

(iii) It shall not be insect infested, mouldy, creosoted, blistered or oxidized and free from bird and rodent damage.

(iv)The product may not have undergone any treatment which could inducea change in their natural vanillin content or in the content of any other constituent of the flavour.

(b) (i) **“Cut vanilla”** means parts of pods, split or not, and deliberately cut or broken.

(ii) It shall not be insect infested, mouldy, creosoted, blistered or oxidized and free from bird and rodent damage.

(iii) The product may not have undergone any treatment which could induce a change in their natural vanillin content or in the content of any other constituent of the flavour.

(c) (i) **“Vanilla Powder”** shall be obtained by grinding the vanilla pods or cut vanilla meeting the specified requirements.

(ii) It shall be clean, have natural flavour of vanilla and shall be sufficiently fine to pass through a sieve of aperture size 1.25 mm.

(iii) The product may not have undergone any treatment which could induce a change in its natural vanillin content or in the content of any other constituent.

- (d) The product shall be free from added colour, undesirable taste, or any extraneous matter and shall conform to the following standards, namely: —

Sl. No.	Characteristics	Requirements		
		Vanilla pods	Cut vanilla	Vanilla powder
1.	Moisture % (Maximum)	30.0	30.0	20.0
2.	Vanillin Content % (on wet basis) (Minimum)	2.0	2.0	2.0
3.	Total ash % (on dry basis) (Maximum)	5.0	5.0	5.0
4.	Acid Insoluble ash % (on dry basis) (Maximum)	1.0	1.0	1.0
5.	Colour	Dark chocolate brown to reddish in colour	Dark chocolate brown to reddish in colour	Dark chocolate brown to reddish in colour

2. Food additives:

The product may contain Food Additives permitted in Appendix A.

3. Contaminants, toxins and residues:

The product covered in this standard shall comply with the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011.

4. Food hygiene:

(a) The products shall be prepared and handled in accordance with the guidance provided in the Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance

provided from time to time under the provisions of the Food Safety and Standards Act, 2006 (34 of 2006).

(b) The product shall conform to the microbiological requirement given in Appendix B.

5. Labelling:

The product covered by this standard shall be labelled in accordance with the Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

6. Method of analysis:

The product shall be analysed as provided in the relevant Food Safety and Standards Authority of India Manual of Method of Analysis of Food.

2.3.51 COCONUT MILK (NON-DAIRY)

1. Description:- Coconut milk is the product prepared by :—

(a) using a significant amount of separated, whole, disintegrated, macerated or comminuted fresh endosperm (kernel) of coconut palm (*Cocos nucifera* L.) and expelled, where most filterable fibres and residues are excluded;

(b) reconstituting coconut cream powder with potable water; or

(c) dispersing finely comminuted dehydrated coconut endosperm with potable water; or

(d) combining any of the above;

⁵⁹[(e) Coconut water, Maltodextrin and Sodium caseinate may be added. The product shall have characteristic colour, flavor and odour of the products. It may be processed by heat, in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage.]

2. Styles:- (a)The product shall be any of the following styles: —

(i) **light coconut milk-** light coconut milk shall be the product obtained from either the bottom portion of centrifuged coconut milk or by further dilution of coconut milk.

(ii) **coconut milk-** coconut milk is the dilute emulsion of comminuted coconut endosperm (kernel) in water with the soluble and the suspended solids distributed.

(b) The product shall conform to the following standards, namely:-

S. No.	Characteristics	Requirements	
		Light coconut milk	Coconut milk
1.	Moisture % (w/w) (Maximum)	93.4	87.3
2.	Total Solids % (w/w)	6.6 - 12.6	12.7-25.3
3.	Solids Not-Fat% (w/w) (Minimum)	1.6	2.7
4.	Fat % (w/w) (Minimum)	5.0	10.0
5.	pH (Minimum)	5.9	5.9

(c) The hermetically sealed container should be well filled with the product, and it should occupy not less than 90 per cent. v/v of the water capacity of the container, which shall be the volume of distilled water at 20°C which the sealed container will hold when completely filled.

3. Food additives:

The product may contain food additives permitted in Appendix A.

4. Contaminants, toxins and residues:

The product covered in this standard shall comply with the Food Safety and Standards (Contaminants, toxins and Residues) Regulations, 2011.

5. Food hygiene:

(a) The products shall be prepared and handled in accordance with the guidance provided in the Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standards Act, 2006 (34 of 2006).

(b) The product shall conform to the microbiological requirement given in Appendix B.

6. Labelling:

The product covered by this Standard shall be labelled in accordance with the Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

7. Method of analysis

The product shall be analysed as provided in the relevant Food Safety and Standards Authority of India Manual of Method of Analysis of Food.

2.3.52 COCONUT CREAM (NON-DAIRY)

1. Description: Coconut cream is the product prepared by:—

- (a) using a significant amount of separated, whole, disintegrated, macerated or comminuted fresh endosperm (kernel) of coconut palm (*Cocos nucifera* L.) and expelled, where most filterable fibres and residues are excluded;
- (b) reconstituting coconut cream powder with potable water; or
- (c) dispersing finely comminuted dehydrated coconut endosperm with potable water; or
- (d) combining any of the above;

⁵⁹[(e) Coconut water, Maltodextrin and Sodium caseinate may be added. The product shall have characteristic colour, flavor and odour of the products. It may

be processed by heat, in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage.]

2. Styles: (a) The product shall be any of the following styles: —

- (i) **Coconut cream-** Coconut cream is the emulsion extracted from matured endosperm (kernel) of the coconut fruit with or without any addition of coconut water or water;
- (ii) **Coconut cream concentrate-** Coconut cream concentrate is the product obtained after the partial removal of water from coconut cream.

(b) The product shall conform to the following standards, namely: —

S. No	Characteristics	Requirements	
		Coconut cream	Coconut cream concentrate
1.	Moisture % (w/w) (Maximum)	74.6	62.6
2.	Total Solids % (w/w)	25.4 - 37.3	Min 37.4
3.	Solids Not Fat% (w/w) (Minimum)	5.4	8.4
4.	Fat % (w/w) (Minimum)	20.0	29.0
5.	pH (Minimum)	5.9	5.9

(c) The hermetically sealed container should be well filled with the product, and it should occupy not less than 90 per cent. v/v of the water capacity of the container, which shall be the volume of distilled water at 20°C which the sealed container shall hold when completely filled.

3. Food additives:

The product may contain food additives permitted in Appendix A.

4. Contaminants, toxins and residues:

The product covered in this standard shall comply with the Food Safety and Standards (Contaminants, toxins and Residues) Regulations, 2011.

5. Food hygiene:

(a) The products shall be prepared and handled in accordance with the guidance provided in the Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standards Act, 2006 (34 of 2006).

(b) The product shall conform to the microbiological requirement given in Appendix B.

6. Labelling:

The product covered by this standard shall be labelled in accordance with the Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

7. Method of analysis:

The product shall be analysed as provided in the relevant Food Safety and Standards Authority of India Manual of Method of Analysis of Food.

2.3.53 DRIED APRICOTS

1. Description- (a) “Dried apricots” means product prepared from sound ripe fruit of varieties of *Armeniaca vulgaris* Lam. (*Prunus armeniaca* L.) and processed by sun drying or by other methods of dehydration.

(b) The product shall have colour characteristic of the variety and the type of treatment and shall have flavour and odour characteristic of the product.

(c) The product shall be free from living insects or mites and reasonably free from extraneous vegetable matter, insect debris and other objectionable matter.

2. Styles: (a) The product shall be presented in one of the following styles:-

- (i) whole, unpitted;
- (ii) whole, pitted;
- (iii) halves; or

(iv) slabs - consisting of portions of sound, ripe apricots of characteristic colour, irregular in shape, size and thickness and excluding whole fruit.

(b) It shall also conform to the following standards, namely: —

S.No	Characteristics	Requirement
1.	Moisture Content % (w/w) (Maximum)	
	a) Dried apricots not treated with any preservatives.	20.0
	b) Dried apricots treated with permitted preservatives.	25.0
2.	Defects for Styles (i)a , (i)b and (i)c	
	(a) Slabs % (w/w) (Maximum)	10.0
	(b) Damaged fruits % (w/w) (Maximum)	10.0
	(c) Broken fruits % (w/w) (Maximum)	10.0
	(d) Insect damaged and dirty fruits % (w/w) (Maximum)	5.0
	(e) Mouldy fruit % (w/w) (Maximum)	1.0
	(f) Immature fruits % (w/w) (Maximum)	10.0

(c) **Definitions:**

- (i) **“Damaged fruit”** means fruit affected by any damage or blemish on the surface resulting from factors such as hail, etc., affecting more than 5 mm² of fruit surface.
- (ii) **“Broken fruit”** means fruit affected by any damage resulting from improper halving or other mechanical action.
- (iii) **“Immature fruit”** means fruit which is generally deficient in sugar and may be sour in taste.
- (iv) **“Insect damaged fruit”** means fruit which is affected by insect damage or containing dead insects, mites or other pests.

- (v) **“Mouldy fruit”** means fruit which is affected by mould to a visible extent, or decay.
- (vi) **“Dirty fruit”** means fruit affected by imbedded dirt or any other foreign material.

3. Food additives:

The product may contain food additives permitted in Appendix A.

4. Contaminants, toxins and residues:

The product covered in this standard shall comply with the Food Safety and Standards (Contaminants, toxins and Residues) Regulations, 2011.

5. Food hygiene:

(a) The products shall be prepared and handled in accordance with the guidance provided in the Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standards Act, 2006 (34 of 2006).

(b) The product shall conform to the microbiological requirement given in Appendix B.

6. Labelling:

The product covered by this standard shall be labelled in accordance with the Food Safety and Standards (Packaging and Labelling) Regulations, 2011 and in addition, the name of style of product shall be labelled on the product.

7. Method of analysis:

The product shall be analysed as provided in the relevant Food Safety and Standards Authority of India Manual of Method of Analysis of Food.

2.3.54 COCOA BEANS

- 1. Description:** (a) “Cocoa bean” means the properly fermented and dried whole seeds of tree *Theobroma cacao* Linnaeus.

(b) The product shall be free from any abnormal or foreign odour or flavor and admixture of any other seeds.

(c) It shall be reasonably free from broken beans, fragments and pieces of shell and the product shall be free from living insects.

(d) The product shall conform to the following requirements, namely:-

S.No.	Characteristics	Requirements
1.	Moisture content % (Maximum)	8
2.	Moldy Beans % by count (Maximum)	4
3.	Slaty beans % by count (Maximum)	8
4.	Insect damaged % by count (Maximum)	2
5.	Germinated and flat beans % by count (Maximum)	4

(e) **Definitions:**

- (i) **“Moldy beans”** include beans on internal parts of which mould is visible to the naked eyes.
- (ii) **“Slaty beans”** include beans which show a slaty colour over half or more of the surface exposed.
- (iii) **“Insect damaged”** include beans, the internal parts of which contain insects at any stage of development or which have been damaged beans, attacked by insects causing damage visible to the naked eyes.
- (iv) **“Germinated beans”** include beans which have been pierced, slit or broken by the seed germ.
- (v) **“Flat beans”** means beans of which the cotyledons are so thin that it is not possible to obtain a cotyledons surface by cutting.
- (vi) **“Broken Beans”** means beans of which a fragment equivalent to less than half the bean is missing.
- (vii) **“Fragments”** include pieces equal to or less than half bean.

- (viii) **“Piece of shell”** part of the shell without any of the kernel.
- (ix) **“Smoky bean”** means cocoa bean which has a smoky smell or taste or which shows signs of contamination by smoke.

2. Food additives:

The product may contain Food Additives permitted in Appendix A.

3. Contaminants, toxins and residues:

The product covered in this standard shall comply with the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011.

4. Hygiene:

(a) The products shall be prepared and handled in accordance with the guidance provided in the Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standards Act, 2006 (34 of 2006).

(b) The product shall conform to the microbiological requirement given in Appendix B.

5. Labelling:

The product covered by this standard shall be labelled in accordance with the Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

6. Method of analysis:

The product shall be analysed as provided in the relevant Food Safety and Standards Authority of India Manual of Method of Analysis of Food.

2.3.55 ARECANUTS OR BETELNUTS OR SUPARI

1. Description: (a) “Arecanuts” or “Betelnuts” or “Supari” means nuts obtained from Areca Palm (*Areca catechu* L.).

(b) The product shall be dry, well matured, sound, clean, whole or cut, fully dehusked, uniform in colour, i.e., bright shining to dull red colour.

(c) It shall be free from synthetic colouring matter and shall be free from insect infestation, visible moulds, fissures and shrinkage and shall not be hollow.

(d) The product shall not have any off flavour, odour or other undesirable characteristics and shall also conform to the following standards, namely: —

S.No.	Characteristics	Requirements
1.	Moisture % (Maximum)	7
2.	Damaged Nuts % (by weight) (Maximum)	12
a)	For whole nuts or supari (Damaged nuts include blemish or cracked nuts, broken nuts, nuts not fully dehusked and those the pith of which is black)	
b)	For cut nuts or supari (Damaged nuts include blemish/cracked nuts, nuts not fully dehusked and those the pith of which is black)	
3.	Damaged by moulds and insects % (by weight) (Maximum)	3

2. Food additives:

The product may contain food additives permitted in Appendix A.

3. Contaminants, toxins and residues:

The product covered in this standard shall comply with the Food Safety and Standards (Contaminants, toxins and Residues) Regulations, 2011.

4. Food hygiene:

- (a) The product shall be prepared and handled in accordance with the guidance provided in the Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standards Act, 2006 (34 of 2006).
- (b) The product shall conform to the microbiological requirements given in Appendix B.

5. Packaging and labelling:

The product covered by this standard shall be labelled in accordance with the Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

6. Method of analysis:

The product shall be analysed as provided in the relevant Food Safety and Standards Authority of India Manual of Method of Analysis of Food.’]

⁵⁶[**2.3.56: Date Paste**

1. Description. -

- (a) Date paste means product prepared from fruits of the date palm (*Pheonix*) that are sound, consistent in colour and texture, harvested at the stage of maturity, washed, pitted and capped.
- (b) Dates used for making date paste shall be free from diseases and contain no parthenocarpic or unripe fruits. They shall be free from fermentation and mould, insects or insect fragments, eggs, larvae, dirt and foreign matter.
- (c) Date paste shall be soft and have no alteration in smell and flavor.
- (d) It shall not contain whole or broken pits, stalks or extraneous fragments.
- (e) The product shall be made from single variety of dates or a blend of several varieties of dates.
- (f) It shall also conform to the following standards, namely:-

S.No	Characteristics	Requirements (in per cent.)
1.	Moisture % by weight	Not more than 20.0
2.	Total ash % by weight	Not more than 1.2
3.	Acid insoluble ash % by weight	Not more than 0.1

2. Food Additives. - No additives are allowed in the product.

2.3.57: Fermented Soybean Paste

1. Description. - Fermented Soybean Paste is a fermented food whose essential ingredient is soybean from which trypsin inhibitor has been inactivated. The product is a paste type which has various physical properties such as semi-solid and partly retained shape of soybean.

2. Essential Composition and Quality Factors. -

(A) Composition:

(i) Basic Ingredients, -

- (a) Soybean;
- (b) Salt;
- (c) Water;
- (d) Naturally occurring or cultivated microorganisms (*Bacillus* spp. and/or *Aspergillus* spp., which are not pathogenic and do not produce toxins).

(ii) Optional Ingredients, -

- (a) Grains and/or Flour as defined in sub-regulation 2.4 of Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011;
- (b) Yeast and/or yeast extracts;
- (c) *Lactobacillus* and/or *Lactococcus*;
- (d) Distilled ethyl alcohol derived from agricultural products;

- (e) Nutritive sugars including honey as defined in sub-regulation 2.8 of Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011;
- (f) Starch syrup;
- (g) Permitted Natural flavouring materials.

(B) Quality Factors:

(i) The product shall have the flavour, odour, colour and texture characteristic of the product. It shall conform to the followings

S.No	Characteristics	Limits	
		Fermented soybean paste manufactured with soybean only	Fermented soybean paste manufactured with soybean and grains
1.	Moisture % by weight (maximum)	60.0	
2.	Total nitrogen % by weight (minimum)	1.6	0.6
3.	Amino nitrogen % by weight (minimum)	0.3	0.12

(ii) **Minimum Fill.**-The container should be well filled with the product which should occupy not less than ninety percent. (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the value of distilled water at 20°C which the sealed container will hold when completely filled.

2.3.58: Harrisa (Red Hot Pepper Paste)

1. Description.- (a) Harissa or Red Hot Pepper Paste means the preserved pulp of fresh red hot pepper of the *Capsicum annuum* variety, concentrated and preserved using thermal treatment only.

(b) The product shall contain fresh red hot peppers of the *Capsicum annuum* variety, fresh garlic, coriander, caraway and salt. The peppers used in the preparation shall be sufficiently ripe, wholesome, free of spoilage, rot and impurities and free of insects.

(c) The taste shall be typical to the product, spicy (hot), free from bitterness or burned taste or any other foreign taste. The smell shall be typical of the product and free of foreign smells.

(d) The final product shall be free of crusts and seeds using a 2 mm sieve.

(e) It shall also conform to the following standards, namely:-

S.No.	Characteristics	Requirements (in per cent.)
1.	Total acidity % by weight (expressed as citric acid) of total dry residue	Not more than 3.6
2.	Dry extract % by weight (of total soluble solids excluding salt)	Not less than 14.0
3.	Added salt % by weight (on dry weight basis)	Not more than 1.5
4.	Acid insoluble ash% by weight (of total weight of dry extract)	Not more than 0.15

(f) The container should be well filled with the product, which should occupy not less than ninety percent. (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C temperature, which the sealed container will hold when completely filled. Flexible containers should be filled as full as commercially practicable.

2. Food Additives.- No additives are allowed in the product covered by this Standard.

2.3.59: Vegetable Protein Products

1. Description.-

(a) Vegetable Protein Products means the food products produced by the reduction or removal of the major non-protein constituents (water, oil, starch, other carbohydrates) from vegetable materials other than single cell protein sources in a manner to achieve protein content forty percent. or more.

(b) It shall be prepared from clean, sound, plant material, free from foreign matter or from Vegetable Protein Products of lower protein content meeting the specifications contained in this standard.

(c) Carbohydrates including sugars, edible fats and oils covered under Food Safety and Standards (Food Products and Additives) Regulations, 2011, other protein products, vitamins and minerals, salt, herbs and spices may be added as optional ingredients.

(d) It shall also conform to the following standards, namely:-

S.No	Characteristics	Requirements (in per cent.)
1.	Moisture content	Not more than 10.0
2.	Crude Protein (N 6.25) (on dry weight basis)	Not less than 40.0
3.	Total Ash (on dry weight basis)	Not more than 10.0
4.	Residual Fat (by weight)	Compatible with GMP
5.	Crude Fibre (on dry weight basis)	Not more than 10.0

2.3.60 Quick Frozen Fried Potatoes

1. Description

Quick Frozen Fried Potatoes are the product prepared from clean, sufficiently developed, sound tubers of the potato plant of the species *Solanum tuberosum* L., *Solanum Andigena* L. and rhizomes of the sweet potato of the species *Ipomoea batatas*. They shall have been sorted, washed, peeled or unpeeled, cut into strips, and treated as necessary to achieve satisfactory colour and fried or precooked in edible oil or fat prescribed under Food Safety and Standards (Food Products and Additives) Regulations, 2011 or water blanched. The treatment, precooking and

frying operations shall be sufficient to ensure adequate stability of colour and flavour. The product is subjected to a freezing process in appropriate equipment until its temperature has reached -18°C at the thermal centre after thermal stabilization.

Sugars (sucrose, invert sugar, dextrose, fructose, glucose syrup, and dried glucose syrup), salt (Sodium Chloride), spices, herbs and condiments and batters may be added as optional ingredients.

The product shall be presented in one of the following styles:

- (a) **Straight cut**- strips of potato with practically parallel sides and with smooth surfaces.
- (b) **Crinkle cut**- strips of potato with practically parallel sides and in which two or more sides have a corrugated surface.
- (c) **Other Styles**-Any other presentation of the product, distinctive from above two styles to be adequately described on the label.

Dimension of Cross Section: The cross sectional dimensions of strips of quick frozen fried potatoes which have been cut on all four sides shall be uniform and not be less than 4 mm when measured in the frozen condition.

Designation	Dimension in mm across the largest cut surface
Shoestring	4 upto 8
Medium	more than 8 upto 12
Thick cut	more than 12 upto 16
Extra large	more than 16

A tolerance of 10% by length of non-conforming styles units applies, when specific lengths are not indicated. The product shall conform to the following requirements:

S.No	Characteristics	Requirements
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1.	Moisture content % (m/m) (Maximum)	78.0
2.	Free Fatty Acid content in the oil extracted % (m/m as oleic acid) (Maximum)	1.5
3.	Frying defects(burnt pieces-any unit which is dark brown to black) % (m/m) (Maximum)	0.5

2.3.61 Canned Chestnuts and Canned Chestnut Puree

1. Description

(a) **Canned chestnuts** is the product (i) prepared from fresh, sound, mature chestnuts of varieties conforming to the characteristics of the species *Castaneacrenata* Sieb et Zucc. (Japanese chestnut) or *Castanea sativa* Miller (European chestnut) which shall be shelled and may be pellicled or unpellicled; (ii) packed with or without water which may or may not contain sugars, seasonings and other ingredients appropriate to the product; and (iii) processed by heat in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage.

It may contain "salt" (sodium chloride) in an amount not exceeding 1 percent of total net contents.

(b) **Canned chestnut puree** is the product (i) pureed by sieving, or other mechanical means in order to obtain a fruit pulp from chestnuts, as defined at (a) (i) above; (ii) packed with or without sugars and other ingredients appropriate to the product; and (iii) heat processed by a procedure as defined above in (a) (iii).

It may contain "sugars", as listed in 3(i) (b). They shall amount to not more than 2 percent of total net contents. It may contain "salt" (sodium chloride) in an amount not exceeding 1 percent of total net contents.

2. Styles

(i) **Canned Chestnuts.-** Canned chestnuts may be packed in the following styles:-

(a) **Whole** - whole chestnuts which are pellicled or unpellicled and/or trimmed into a practical tetrahedron.

Heavy syrup -	Not less than 18° Brix but less than 22° Brix
Extra Heavy syrup -	Not less than 22° Brix

The cut-out strength for any packing medium shall be determined on average, but no container may have a Brix value lower than that of the next category below.

(iii) Quality Criteria

- (a) **Colour:** When colour is not added, canned chestnuts or canned chestnut puree shall have a normal colour characteristic of the varieties used. Browning and discolouration shall be regarded as defects.
- (b) **Flavour:** Canned chestnuts or canned chestnut puree shall have a normal flavour and odour free from flavours and odours foreign to the products.
- (c) **Texture:** Canned chestnuts shall have a reasonably uniform thick texture and shall not be excessively firm nor unreasonably soft. Canned chestnut puree shall have a uniform consistency and particle size.
- (d) **Uniformity of size :** Whole - in 95 percent, by count, of units that are most uniform in size, the weight of the largest unit shall be no more than twice the weight of the smallest unit.

(iv) Defects and Allowances

The products shall be substantially free from defects such as harmless plant material, shell, pellicle (in pellicled styles), blemished units, split and broken units (in whole styles) and discoloured units. Slight syneresis in canned chestnut puree should not be regarded as a defect. Certain common defects shall not be present in amounts greater than the following limitations:

-Not more than 14 percent by mass of chestnuts on the net drained weight;
and

-Not more than 20 percent of chestnuts which are not whole on the net drained weight for the style "whole".

(v) Minimum Fill

The container shall be well filled with chestnuts or chestnut puree and the product (including packing medium) shall occupy not less than 90 percent of the water

capacity of the container. The water capacity of the container, is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

(vi) Minimum Drained Weight

The drained weight of the product packed with liquid packing medium shall be not less than the following percentages, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled:

- Not less than 300 ml of water capacity of the container 60%
- Less than 300 ml of water capacity of the container 55%

The requirements for minimum drained weight shall be deemed to be complied with when the average drained weight of all containers examined is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.

4. Food Additives.- No additives are allowed in the product covered by this Standard.

5. Labelling

The product covered by this Standard shall be labelled in accordance with the Food Safety and Standards (Packaging & Labelling) Regulation, 2011. In addition the name of packing media shall be declared as part of the name or in close proximity thereto, as:

- (i) when the packing medium is composed of water, the packing medium shall be declared as:

“In water" or "Packed in water".

- (ii) When nutritive sweeteners are added to water, the packing medium shall be declared as:

“Slightly Sweetened Water/ Extra Light Syrup”

or

“Light Syrup”

or

“Heavy Syrup”

or

“Extra Heavy Syrup”

- (iii) When salt is added to water, the packing medium shall be declared as:
“Brine”

2.3.62 EDIBLE FUNGI PRODUCTS

1. Description

Edible Fungi Products means products prepared from fresh edible fungi. The products may be dried edible fungi (including freeze-dried fungi, fungi grits, fungi powder), pickled fungi, salted fungi, fermented fungi, fungi in vegetable oils, quick frozen fungi, sterilized fungi, fungi extract, fungi concentrate and dried fungi concentrate.

Edible fungi products shall be clean, undamaged, free, as far as possible, of maggot damage and possess the flavour and taste appropriate to the species.

Edible Fungi products may contain salt (sodium chloride), vinegar, spices and herbs, sugars (any carbohydrate sweetening matter), refined edible vegetable oil, refined edible animal fat, butter, milk, milk powder, cream, water or any other suitable ingredients whose standards are prescribed in Food Safety & Standards (Food Product Standards and Food Additives) Regulations, 2011.

2. General Requirements

(i) Styles

(A) The products may be presented in various styles, e.g. whole with stalks, whole caps(buttons) without stalks, slices, pieces and stalks, grits, powder or concentrate.

(B) Other Styles.- The product may be presented in any other presentation provided it:

- (a) is sufficiently distinctive from other forms of presentation laid down in this standard;
- (b) meets all relevant requirements of this standard, including requirements relating to limitations on defects, drained weight, and any other requirements in this standard which are applicable to that style in the standard which most closely resembles the style or styles intended to be provided for under this provision;
- (c) is adequately described on the label to avoid confusing or misleading the consumer.

(ii) Composition

Except in the case of fungi products consisting entirely of caps or where the addition of stalks is stated on the label in accordance with the labelling provisions, the number of stalks shall not exceed the number of caps.

3. Specific Requirements

- (i) **Dried fungi** mean the product obtained by drying edible fungi of one species, whether whole or sliced. It shall conform to the following requirements:

S.No	Requirements	Limits
1	Water Content % m/m (Maximum)	
	a. Freeze-dried fungi	6.0
	b. Dried (other than freeze-dried) fungi	12.0
	c. Dried fungi Shii-ta-ke	13.0
2	Mineral impurities % m/m (Maximum)	2.0
3	Organic impurities of vegetable origin % m/m (Maximum) except for Shii-take mushrooms.	0.02
	Shii-take mushrooms	1.0
4	Content of maggot damaged fungi % m/m(Maximum)	

	a. Fungi	1.0 % of total damage including not more than 0.5 % serious damage.
	b. Crushed fungi	6.0
	c. Carbonized fungi	2.0
	d. Damaged fungi	20.0

(ii) Fungi Grits & Fungi Powder

Fungi grits means coarsely ground dried edible fungi of one species. Fungi Powder means dried edible fungi of one species ground so finely as to allow the powder to pass through a sieve having a 200 microns mesh. It shall conform to the following requirements:

S.No	Requirements	Limits
1	Water Content % m/m(Maximum)	
	a. fungi grits	13.0
	b. fungi powder	9.0
2	Mineral impurities % m/m (Maximum)	2.0

(iii) Pickled Fungi means fresh or previously preserved edible fungi of one or more species appropriately prepared after previous cleaning, washing and blanching, soaked in vinegar and with or without the addition of salt, spices, sugars, vegetable oils, acetic, lactic, citric or ascorbic acid, and then pasteurized in hermetically sealed containers. It shall conform to the following requirements:

S.No	Requirements	Limits
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1	Salt (sodium chloride) % m/m(Maximum)	2.5
2	Sugars % m/m (Maximum)	2.5
3	Vinegar (expressed as acetic acid) % m/m (Maximum)	2.0
4	Mineral impurities % m/m(Maximum)	0.1
5	Organic impurities of vegetable origin % m/m (Maximum)	0.02
6	Content of maggot damaged fungi % m/m(Maximum)	1.0% of total damage including not more than 0.5 % serious damage

(iv) **Fermented Fungi** means fresh edible fungi of one species preserved by salt and by lactic acid fermentation. It shall conform to the following requirements:

S.No	Requirements	Limits
1	Lactic acid, (naturally occurring) % m/m (Minimum)	1.0
2	Salt (sodium chloride) % m/m	3.0-6.0
3	Mineral impurities % m/m(Maximum)	0.2
4	Organic impurities of vegetable origin % m/m(Maximum)	0.1
5	Content of maggot damaged fungi % m/m (Maximum)	4.0

(v) **Fungi in Olive Oil and other Vegetable Oils** means edible fungi either fresh or previously salted, of one species, whole or sliced, packed in airtight containers in olive oil or other edible vegetable oil and heat treated to a degree

to ensure the resistance of the product to spoilage. It shall conform to the following requirements:

S.No	Requirements	Limits
1	Salt (sodium chloride) % m/m(Maximum)	1.0
2	Mineral impurities %m/m (Maximum)	0.1
3	Organic impurities of vegetable origin % m/m (Maximum)	0.02
4	Maggot damaged fungi % m/m (Maximum)	1.0 % of total damage including not more than 0.5 % serious damage

(vi) **Quick Frozen Fungi** means fresh edible fungi of one species which, after cleaning, washing and blanching, are subjected to a freezing process in appropriate equipment. This freezing operation shall be carried out in such a way that the range of temperature of maximum crystallization is passed quickly. The quick-freezing process shall not be regarded as complete unless and until the product temperature has reached -18oC (0oF) at the thermal centre after thermal stabilization. It shall conform to the following requirements:

S.No	Requirements	Limits
1	Mineral impurities % m/m (Maximum)	0.2
2	Organic impurities of vegetable origin % m/m (Maximum)	0.02
3	Maggot damaged fungi % m/m (Maximum)	1.0 % of total damage including not more than 0.5 % serious damage

(vii) **Sterilized Fungi** means edible fungi, either fresh, salted or frozen, of one or more species, whole or sliced, packed in airtight containers in water and salt, and heat

treated to a degree to ensure the resistance of the product to spoilage. It shall conform to the following requirements:

S.No	Requirements	Limits
1	Salt (sodium chloride) % m/m(Maximum)	2.0
2	Mineral impurities % m/m (Maximum)	0.2
3	Organic impurities of vegetable origin % m/m (Maximum)	0.02
4	Maggot damaged fungi % m/m (Maximum)	1.0 % of total damage including not more than 0.5 % serious damage.

(viii) Fungi Extract and Fungi Concentrate

Fungi Extract means a product concentrated from fresh edible fungi juice or from dried fungi water of edible fungi of one or more species with the addition of salt and which is concentrated to 7% of saltless extract.

Fungi concentrate means a product concentrated from fresh edible fungi juice or from dried fungi water of edible fungi of one or more species with the addition of salt and which is concentrated to 24% of saltless extract. It shall conform to the following requirements:

S.No	Requirements	Limits
1	Salt (sodium chloride) % m/m(Maximum)	20.0
2	Mineral impurities	none
3	Organic impurities of vegetable origin	none

(ix) **Dried Fungi Concentrate** means the dried product obtained from fungi extract or fungi concentrate. It shall conform to the following requirements:

S.No	Requirements	Limits
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1	Water Content % m/m(Maximum)	9.0
2	Salt (sodium chloride) % m/m(Maximum)	5.0
3	Mineral impurities	none
4	Organic impurities of vegetable origin	none

(x) **Salted Fungi (semi-processed product)** means fresh edible fungi of one species, either whole or sliced, preserved in brine after previous cleaning, washing and blanching. It shall conform to the following requirements:

S.No	Requirements	Limits
1	Salt (sodium chloride) % m/m	15.0-18.0
2	Mineral impurities % m/m (Maximum)	0.3
3	Organic impurities of vegetable origin % m/m (Maximum)	0.05
4	Maggot damaged fungi % m/m (Maximum)	1.0% of total damage including not more than 0.5% serious damage

4. Definition of Defects

- a. **Damaged fungi** means fungi with more than quarter of the cap missing.
- b. **Carbonized fungi** means whole or cut dried fungi with traces of carbonization on their surface
- c. **Crushed fungi** means parts of fungi passing through a sieve having a 15 x 15 mm mesh for fresh fungi and a 5 x 5 mm mesh for dried fungi.
- d. **Spoiled fungi** means fungi which are brownish or rotten as a result of attack by microorganisms and/or mould.
- e. **Maggot damaged fungi** means fungi having holes caused by maggots.
- f. **Seriously maggot damaged fungi** means fungi having four or more holes caused by maggots.
- g. **Fallen off stalks** means stalks separated from the caps.

- h. **Organic impurities of vegetable origin** means admixtures of other edible fungi, parts of plants such as leaves and pine needles.
- i. **Mineral impurities** means those substances which, after ashing, remain as insoluble residues in hydrochloric acid.

5. Labelling

The product covered by this Standard shall be labelled in accordance with the Food Safety and Standards (Packaging & Labelling) Regulation, 2011. In addition the following shall be declared as part of the name or in close proximity thereto, as:

- (i) The terms "fungi" may be replaced by the terms genus or species, e.g. "mushroom" or "mushrooms" for the genus *Agaricus*. The method of processing to which the product has been subjected, e.g. "dried", "sterilized" or "quick-frozen", shall be indicated on the label.
- (ii) In the case of dried, salted, quick-frozen, fermented, pickled and canned fungi, the common name of the species of fungi shall be stated in addition to the word "fungi". The scientific name of the species shall also be stated.
- (iii) In the case of fungi products consisting of more than one species of fungi, the word "mixed" shall be indicated on the label.
- (iv) In the case of fungi products made from fungi other than fresh fungi, there shall be a statement on the label indicating the method of processing to which the fungi used in the preparation of the final product have been subjected.
- (v) Where salted fungi are used for the preparation of other fungi products, there shall be a statement on the label indicating that salted fungi have been used.
- (vi) If stalks have been added to fresh fungi or fungi products, the words "stalks added" shall appear on the label.]

66[2.3.63. COCONUT MILK POWDER. - (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.), maltodextrin and sodium caseinate may be added to the product.

(2) It shall have flavour and odour characteristic of the products and shall be smooth and free flowing in texture and creamish to white or off white in colour.

(3) The product shall be free from added colouring or flavouring matter.

(4) The product shall conform to the following requirements, namely: -

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

⁷²[2.3.64 WATER CHESTNUT FLOUR (SINGHARE KA ATTA). -

(1) Water Chestnut flour means the product obtained by grinding clean, sound and dried nuts of *Trapabispinosa* or *Trapaquadriscopinosaspecies* commonly known as Singhara. It shall be white in colour, and shall be free from rancid and objectionable odour, extraneous matter, insects, fungus, rodent hair and excreta. It shall be free from added colour and flavour. It shall conform to the following standards, namely: —

Table

S.No.	Characteristics	Requirements
1.	Moisture % (m/m), Maximum	12.0
2.	Alcoholic acidity % (with 90 per cent alcohol) expressed as H ₂ SO ₄ (on dry basis), Maximum	0.18
3.	Ash insoluble in dilute HCl % (m/m), Maximum	0.5

4.	Protein content % (m/m) on dry basis, Minimum	9.0
5.	Uric acid	100 mg/kg

(2) The product may contain food additives permitted in Appendix A.

(3) The product shall conform to the microbiological requirement given in Appendix B.

2.3.65 Colouring Foods

(1) Colouring foods, means product obtained from the fruits, vegetables, spices and herbs with aqueous extraction which are normally consumed as such or normally used as a characteristic ingredient of food. It shall be prepared without a selective extraction of pigments in dried or in the concentrated form. It shall retain their essential characteristics and shall be used as ingredients in food products for the primary function of colouring. It shall have characteristic colour, taste, odour to the source material.

(2) It may include nutritive sugars not exceeding 20% by weight of the final product in case of liquid and maltodextrin in case of powder to make the product stable.

(3) It shall conform to the following requirements, namely: -

Table

Requirements	Liquid	Powder
Total solids (g/100g) Min	45	90
Marker Pigment % Min	0.5	1.0

(4) The product may contain Food Additives permitted in Appendix A.

(5) The product shall conform to the microbiological requirement given in Appendix B.]