THE PUNJAB PURE FOOD RULES, 2011

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GOVERNMENT OF THE PUNJAB
HEALTH DEPARTMENT

Dated Lahore, the 29th Semptember, 2011

NOTIFICATION

No.S.O.(PH) 1-47 / 68.- In exercise of the powers conferred under section 37 of the Punjab Pure Food Ordinance 1960 (VII of 1960), in suppression of the Punjab Pure Food Rules 2007, the Governor of the Punjab is pleased to make the following rules:

PART- I

1. Short title and commencement.–(1) These rules may be cited as the Punjab Pure Food Rules 2011.

(2) They shall come into force at once.

2. Definitions.–(1) In these rules:

(a) "advertisement" Includes any notice, circular, label, wrapper, invoice or other document, and any public announcement made orally or by means of producing or transmitting light or sound; and "advertise" shall be construed accordingly;

(b) "and/or" means "and" where possible, otherwise it shall mean "or";

(c) "appliance" includes the whole or any part of any utensil, machinery, instrument, apparatus, or article used or intended to be used, in or for the making, preparing, keeping, selling or supplying for any food;

(d) "approved" means as approved by the Government;

(e) "bakery" means any place wherein is carried on the production or preparation, packing, storing, display or sale of cream, biscuits, cakes, other bakery products or confectionery;

(f) "bottling factory" means any place in which aerated water, soda water, mineral or spring water, syrup or other non-alcoholic beverage or any other food article is or are bottled by way of trade or for sale;

(g) "claim" means any representation which states, suggests or implies that a food has particular qualities relating to its origin, nutritional properties, nature, processing, composition or any other quality and "claim" shall be construed accordingly;

(h) "commercial operation" in relation to any food or contact material, means any of the following namely:

(i) selling, possessing for sale and offering, exposing or advertisement for sale;

(ii) consigning, delivering or serving by way of sale;

(iii) preparing for sale or presenting, labelling or wrapping for purposes of sale;

(iv) storing or transporting for purposes of sale;

(v) importing and exporting.

(i) “contact material” means any article or substance which is intended to come into contact with food;

(j) “container” means any packaging of food for delivery as a single item, whether by completely or partially enclosing the food and includes wrappers. A container may enclose several units or types of packages when such is offered to the consumer;

(k) “conteravention” in relation to any provision,includes any failure to comply with the provision;

(l) “covering” includes any stopper, glass bottle, vessel, box, capsule, case, frame or wrapper;

(m) “dairy” includes any farm, shed, milking-house, milk store, milk-shop, creamery or other premises from which milk is supplied on or for sale, or in which milk is kept or used for the purpose of sale or of manufacture into cream, butter, cheese, desi ghee, dried milk or condensed milk or other milk products for sale, or in which vessels used for the sale of milk are kept, but does not include a shop from which milk is supplied only in the properly closed and unopened vessels in which it is delivered to the shop, or a shop or other place in which milk is sold for consumption on the premises only;

(n) “Food Authority” here means Executive District Officer Health,responsible to carry out ,whitin his jurisdiction,the ececution and enforcement of the ordinance and these rules;

(o) “food business” means any business in the course of which commercial operations with respect to food or food sources are carried out;

(p) “food premises”, means any premises used for the purpose of a food business;

(q) “food source” means any growing crop or live animal, bird or fish from which food is intended to be derived whether by harvesting, slaughtering, milking, collecting eggs or otherwise;

(r) “Food Testing Laboratory” means any place where the food is to be checked in accordance with the standard set forth by the Government;

(s) ”Form” means a form appended to these rules;

(t) “fresh” means that the food is unprocessed, in its raw state and has not been frozen or subjected to any form of thermal processing or any other form of preservation;

(u) “Government” means Government of the Punjab;

(v) “homogenized milk” means milk which has been treated in such manner as to ensure break up of the fat globules contained therein to such an extent that after forty-eight hours of quiescent storage, no visible cream separation occurs on the milk;

(w) “human consumption” includes use in the preparation of food for human consumption;

(x) “importer” means any person who has imported any food from outside the jurisdiction of a local authority, or Pakistan by land, sea or air and includes any person who, whether as owner consignor or consignee, agent or broker, is in possession of or in any way entitled to the custody or control of any food; and the expression “import” shall be construed accordingly;

(y) “infant” means a person who is not more than twelve months age;

(z) “ingredient” means any substance, including a food additive, used in the manufacture or preparation of a food and present in the finished product although possibly in a modified form;

(za) “label” means a display of written, printed or graphic matter upon the immediate container of any article and upon the retail package of such article, unless it is easily legible through the outside container or wrapper;

(zb) “labelling” means all labels and other written, printed or graphic matter upon an article or any of its containers, wrappers; or accompanying such article;

(zc) “lot” means a definitive quantity of a commodity produced essentially under the same conditions;

(zd) “milk seller” means any person who offers for sale or sells to another any milk or milk products for human consumption;

(ze) “Ordinance**”** means the Punjab Pure Food Ordinance, 1960 *(VII of 1960)*;

(zf) “owner” includes consignor, consignee, indentor, importer, agent, broker, commission agent, manufacturers or sellers’s agent and any other person in possession of the food;

(zg) “person” means any individual, partnership, corporation, company, firm, trustee, or association by whatever name called;

(zh) “premises” includes any place, vehicle, stall or movable structure used for such purposes as may be specified in an order made by the Government;

(zi) “preparation”, in relation to food, includes manufacture and any form of processing or treatment, and “preparation for sale” includes packaging and “prepare for sale” shall be construed accordingly;

(zj) “presentation”, in relation to food, includes the shape, appearance and packaging of the food, the way in which the food is arranged when it is exposed for sale and the setting in which the food is displayed with a view to selling, but does not include any form of labelling or advertising, and “present” shall be construed accordingly;

(zk) “processed”, in relation to any food, means having undergone any treatment resulting in a substantial change in the original state of the food, but shall include dividing, parting, severing, boning, mincing, skinning, paring, peeling, grinding, cutting, cleaning, trimming, deep-

freezing, freezing, chilling, milling, husking, packing or unpacking, and "unprocessed" shall be construed accordingly;

(zl) "processing aid" means any substance not consumed as a food by itself, intentionally used in the processing of raw materials, foods or their ingredients to fulfill a certain technological purpose during treatment processing, and which may result in the unintentional but technically unavoidable presence of residues of the substance or its derivatives in the final product, provided that these residues do not present any health risk and do not have any technological effect on the finished product;

(zm) "proprietor" includes the owner, the occupier and any other person having the management or control of any eating house, hotel or restaurant;

(zn) "refrigerating factory" means an establishment employing refrigerating machinery or ice for purposes of refrigeration, or a place otherwise artificially cooled where articles of food are stored below a temperature of 45 degrees Fahrenheit and includes a cold storage;

(zo) "section means a section of the Ordinance;

(zp) "substance" includes any natural or artificial substance or other matter, whether it is in solid or liquid form or in the form of a gas or vapour;

(zq) "treatment", in relation to any food, includes subjecting it to heat or cold;

(zr) "young children" means children aged between one and three year;

(2) In these rules, the symbols specified in the first column of the following table shall have the meanings specified in relation to those symbols in the second column of the table:

Symbol	Meaning
C	Degrees in Celsius scale of temperature.
Cm	Centimeters.
g.	grams
I.U.	International Units.
Kcal.	Kilocalories
KGv	Kilograv.
Kg.	Kilograms
Kj	Kilojoules
mcg /µg	micrograms
mg	milligrams
ml	milliliters
mm	millimeters
ppm	parts per million
%	percent
m/m	mass by mass
w/v	weight by volume

w/w	weight by weight
v/v	volume by volume

3. Warranty.–(1) Every trader selling an article of food to a vendor shall, if the vendor so requires, deliver to the vendor a warranty in Form 4.

(2) No warranty shall be necessary if the label on the article of food or the cash receipt of that article contains a warranty certificate that the food contained in the package or container or mentioned in the cash-memo is the same in nature, substance or quality as demanded by the vendor.

PART - II

4. (1) "**Food additive**" means any safe substance that is intentionally introduced into on a food in small quantities in order to affect the food's keeping quality, texture, consistency, appearance, odour, taste, alkalinity, or acidity, or to serve any other technological function in the manufacture, processing, preparation, treatment, packing, packaging transport, or storage of the food, and that results or may be reasonably expected to result directly or indirectly in the substance or any of its by products becoming a component of, or otherwise affecting the characteristics of the food, and includes any colouring substance, preservative, flavour, flavour enhancer, antioxidant and food conditioner, but shall not include:

(a) vitamins; minerals or other nutrients in so far as they are used solely for purposes of fortifying or enriching food or of restoring the constituents of food;
(b) herbs or spices when used as seasoning hops;
(c) salt;
(d) yeast or yeast extracts;
(e) the total products of any hydrolysis or autolysis of food proteins;
(f) starter cultures;
(g) malt or malt extract;
(h) any substance which is present in food solely as a result of its addition to animal, bird or fish feeding stuffs or its use in a process or treatment carried out in crop husbandry, animal husbandry, veterinary medicine or storage (including any pesticide, fumigant, sprout depressant or veterinary medicine); and
(i) air or water.

(2) The addition to any article of food of any food additive in contravention of the following instructions shall be deemed to be a contravention within the meaning of section 4:

(a) No person shall import, manufacture, advertise for sale or introduce in to or on any food:

(i) any food additive other than a permitted food additive; or

(ii) any permitted food additive which does not comply with the standard prescribed in these rules where such standard is so specified; and

(iii) no food shall contain any food additive other than those specified in this rule unless it is approved by the notification issued by the Government.

(b) Additives used as ingredients in pre-packed foods to perform certain functions shall be declared in the labelling by the appropriate category name of the function along with their chemical names or European community number (E.E.C.No.) or Codex INS NO, the categories are:

Acid	Flour treatment agent
Acidity regulator	Gelling agent
Anti caking agent	Glazing agent
Anti-foaming agent	Humectant
Antioxidant	Modified starch
Bulking agent	Preservative
Colour	Propellant gas
Emulsifier	Raising agent
Emulsifying salts	Stabiliser
Firming agent	Sweetener
Flavouring agent	Thickener
Flavour enhancer	

(c) If an additive serves more than one function in food, the category name which represents its principal function must be used to describe it; but, Where no category name is available for the function performed by an additive in a food, the additive must be declared in the list of ingredients by its specific name.

(d) No person shall sell a food additive unless the label on the package carries:

(i) The common name or appropriate designation and chemical name;

(ii) The European community number (E.E.C.No.) or Codex INS No., or PSQCA Standard No.

(iii) The lot number of food additive.

(3) For the purposes of the standards specified in appendix II of rule 12, the “carry over” principle applies to the presence of food additives such as colours, flavouring agents, antioxidants, anti-caking agents, emulsifying and stabilizing agents, and preservatives in food, as a result of the use of raw material or other ingredients in which these additives were used provided that the presence of contaminants is not covered for this purpose.

(2) The presence of an additive in food through the application of the carry over principle is admissible in general unless otherwise specifically prohibited in these rules or in appendix II, provided the total additive including the carry over through the raw material or other ingredients and it does not exceed the maximum amount so permitted.

Colouring matter in food.– (1) No synthetic colour or mixture thereof except the following and as per Codex CAC. MISC-6-2010 and E.U. approved synthetic color shall be used in the preparation of any food.

(2) The extraneous colouring matter has been added to any article of food manufactured in Pakistan,shall be indicated on the label attached to any

package of food so coloured statement in capital letters as (contains permitted food colours*_____) ; (the blank is to be filled with colour index name of colour used).

(3) A list of permitted synthetic colours is given in the Table below:

	Colour Index No	Colour Index Name	Common Name	Chemical Name.	EEC. NO.
(a)	73015	Food Blue 1	Indigo Carmine	Indigoid	E132
(b)	42090	Food Blue 2	Brilliant Blue F.C.F	Triarylmethane	E133
(c)	42053	Food Green 3	A. F. Green No.3	Triarylmethane	E143
(d)	15985	Food Yellow 3	Sunset Yellow F.C.F	Monoazo	E110
(e)	19140	Food Yellow 4	Tartrazine	Monoazo	E102
(f)	14720	Food Red 3	Carmoisine	Monoazo	E122
(g)	16255	Food Red 7	Ponceau 4R	Mono Azo	E124
(h)	45430	Food Red 14	Erythrosine B.S	Xanthene	E127

Indigo Carmine:-

Common Name	Indigo Carmine
Synonyms	Indigotine, FD and C Blue No.2 , CI Food Blue 1, E.E.C. Serial No. E.132, L-Blau2
Color of the 0.1 per cent (m/v) solution in distilled water.	Blue
Colour Index Number (1975)	No. 73015
Class	Indigoid
Chemical Name	Disodium salt of indigotine-5-disulphonic acid.
Empirical formula	$C_{16}H_8N_2O_8S_2\ Na_2$
Molecular Weight	466.36
Solubility	Soluble in water Sparingly soluble in ethanol

GENERAL REQUIREMENTS:

The material shall conform to the requirements prescribed in Table below:-

Requirements for Indigo Carmine		
S.NO	**Characteristic**	**Requirement**
1	**2**	**3**
1.	Total dye content, corrected for sample dried at 105 ±1^{0}Cfor 2 hours, per cent by mass. Min	85
2.	Loss on drying at 135^{0}C, per cent by mass and	

	Chlorides and Sulphates expressed as sodium salt, per cent by mass, Max.	15
3.	Water insoluble matter, per cent by mass, Max.	0.4
4.	Combined ether extracts, per cent by mass, Max.	0.4
5.	Subsidiary dyes, per cent by mass, Max.	3.0
6.	Isatin sulphonic acid, percent by mass, Max.	1
7.	Lead, mg /Kg, Max.	10
8.	Arsenic, mg /Kg, Max.	3
9.	Heavy metals, mg / Kg. Max.	40

Note.-It shall be free from mercury, copper and chromium in any form, aromatic amines. Aromatic nitro compound, aromatic hydrocarbons, and cyanides;

Brilliant Blue F.C.F

Common Name	Brilliant Blue F.C.F
Synonyms	C.I.Food Blue, FD and C Blue No.1 Blue brilliant FCF E.E.C. Serial No.E133
Color of the 0.1 per cent (m/v) solution in distilled water.	Blue
Colour Index Number (1975)	No. 42090
Class	Triarylmethane
Chemical Name	Disodium salt of (4-(N-ethyl –β- sulfobenzyl-amino) -phenyl) (-(4-(N-.ethyl 1-3-sulfonatobenzylimino) cyclohexa-2, 5-dienylidence) toluence-2-sulfonate.
Empirical formula	$C_{37}H_{34}N_2\ Na_2\ O_9S_3$
Molecular Weight	792.86

GENERAL REQUIREMENTS:-

The material shall conform to the requirements prescribed in Table below:-

Requirements for Brilliant Blue F.C.F

S.NO	Characteristic	Requirement
1	**2**	**3**
1.	Total dye content, corrected for sample dried at 105 ±1^{0}Cfor 2 hours, per cent by mass. Minimum	85
2.	Loss on drying at 135^{0}C, per cent by mass and Chlorides and Sulphates expressed as sodium salt, per cent by mass, Max.	15
3.	Water insoluble matter, per cent by mass, Max.	0.2
4.	Combined ether extracts, per cent by mass, Max.	0.2

5.	Subsidiary dyes, per cent by mass, Max.	3.0
6.	Dye intermediates, percentby Mass, Max.	
	(a) 0, sulpho-benzaldehyde, Max.	1.5
	(b) N-N, ethyl-benzyl-aniline-3-sulphonic acid, Max	0.3
	(c) Leuco base, percent by mass, Max.	5
7.	Chromium, mg / Kg. Max.	50
8.	Lead, mg /Kg, Max.	10
9.	Arsenic, mg /Kg, Max.	3
10.	Heavy metals, mg / Kg. Max.	40

Note.-It shall be free from mercury, copper and aromatic amines. Aromatic nitro compound, aromatic hydrocarbons, and cyanides;

A. F. Green No.3:

Common Name	A. F. Green
Synonyms	CI Food Green 3, FD and C Green No.3 , Vert solids FCF E.E.C. Serial No E143
Color of the 0.1 per cent (m/v) solution in distilled water.	Green
Colour Index Number (1975)	No. 42053
Class	Triarylmethane
Chemical Name	Disodium salt of 4-(4-(N-ethyl –p- sulfobenzyl-amino) -phenyl-(4-hydroxy-2-sulphonumphenyl)- methylene) -N-ethyl –N-p-sulphobenzyl 2,5cyclohexadienimine)
Empirical formula	$C_{37}H_{34}O_{10}\ N_2S_2\ Na_2$
Molecular Weight	808.86

GENERAL REQUIREMENTS:-

The material shall conform to the requirements prescribed in Table below:-

Requirements for A. F. Green

S.NO	Characteristic	Requirement
1	**2**	**3**
1.	Total dye content, corrected for sample dried at 105 ±1^{0}Cfor 2 hours, per cent by mass. Min	85%
2.	Loss on drying at 135^{0}C, per cent by mass and Chlorides and Sulphates expressed as sodium salt, per cent by mass, Max.	15
3.	Water insoluble matter, per cent by mass, Max.	0.2
4.	Combined ether extracts, per cent by mass, Max.	0.4
5.	Subsidiary dyes, per cent by mass, Max.	1.0
6.	Organic compound other than colouring matter uncombined intermediates and product of side reactions	
	(a) Sum of 2, 3, 4, formyl benzene sulphonic acid, sodium salts, percent by mass, Max.	0.5
	(b) Sum of 3- and 4-(ethyl (4(4-sulfophenyl)	

	amino) methyl benzene sulphonic acid, disodium salts, percent by mass Max.	0.3
	(c) 2-formyl-5-hydroxybenzene sulphonic acid sodium salt, percent by mass, Max.	0.5
	(d) Leuco base, percent by mass, Max.	5.0
	(e) Unsulphonated primary aromatic amines (calculated as aniline), Percent by mass, Max.	0.01
7.	Lead, mg /Kg, Max.	10
8.	Arsenic, mg /Kg, Max.	3
9.	Chromium, mg /Kg, Max.	30
10.	Mercury, mg /Kg, Max.	Absent
11.	Heavy metals, mg / Kg. Max.	40

Note: - It shall be free from aromatic nitro compounds, aromatic hydrocarbons, and cyanides.

Sunset Yellow F.C.F:

Common Name	Sunset Yellow
Synonyms	FD and C Yellow No. 6 Jaune Orange S;C.I. Food Yellow 3/ Orange2 Janune Soil. / E.E.C. Serial No. E.110
Color of the 0.1 per cent (m/v) solution in distilled water.	Orange
Colour Index Number (1975)	No. 15985
Class	Monoazo
Chemical Name	Disodium salt of 2-hydroxy1 – (4 sulphonatophenylazo) 2-napthol-6-sulphonic acid.
Empirical formula	$C_{16}H_{10}N_2O_7S_2\ Na_2$
Molecular Weight	452.37
Solubility	Soluble in water Sparingly soluble in ethanol

GENERAL REQUIREMENTS:-

The material shall conform to the requirements prescribed in Table below:-

Requirements for Sunset Yellow, FCF

S.NO	Characteristic	Requirement
1	**2**	**3**
1.	Total dye content, corrected for sample dried at 105 ±1^{0}Cfor 2 hours, per cent by mass. Min	87
2.	Loss on drying at 135^{0}C, per cent by mass and Chlorides and Sulphates expressed as sodium salt, per cent by mass, Max.	13
3.	Water insoluble matter, per cent by mass, Max.	0.2
4.	Combined ether extracts, per cent by mass, Max.	0.2
5.	Subsidiary dyes (lower sulphonated dyes including traces of orange (II) per cent by mass, Max.	3.0
6.	Dye intermediates, per cent by mass, Max.	0.5

7.	Lead, mg /Kg, Max.	10
8.	Arsenic mg /Kg, Max.	3
9.	Heavy metals, mg / Kg. Max.	40

Note.-It shall be free from mercury, copper and chromium in any form, aromatic amines. Aromatic nitro compound, aromatic hydrocarbons, and cyanides;

Tartrazine:-

Common Name	Tartrazine
Synonyms	FD and C Yellow No. 5 E.E.C. Serial No. E.102 L;Gebb 2, C.I. Food Yellow 4
Color of the 0.1 per cent (m/v) solution in distilled water.	Yellow
Colour Index Number	No. 19140
Class	Monoazo
Chemical Name	Trisodium salt of 5-hydroxy-1-4-sulphonatophenyl-4(4-sulphonatophenylazo)pyrazol-3-carboxylic acid.
Empirical formula	$C_{16}H_9N_4O_9S_2\ Na_3$
Molecular Weight	534.37
Solubility	Soluble in water Sparingly soluble in ethanol

GENERAL REQUIREMENTS:

The material shall conform to the requirements prescribed in Table below:-

Requirements for Tartrazine

S.NO	Characteristic	Requirement
1	2	3
1.	Total dye content, corrected for sample dried at 105 ±1^{0}Cfor 2 hours, per cent by mass. Min	87
2.	Loss on drying at 135^{0}C andChlorides and Sulphates expressed as sodium salt, , per cent by mass, Max.	13
3.	Water insoluble matter, per cent by mass, Max.	0.2
4.	Combined ether extracts, per cent by mass, Max.	0.2
5.	Subsidiary per cent by mass, Max.	1.0
6.	Dye intermediates, per cent by mass, Max.	0.5
7.	Lead, mg /Kg, Max.	10
8.	Arsenic mg /Kg, Max.	3
9.	Heavy metals, mg / Kg. Max.	40

Note.-It shall be free from mercury, copper and chromium in any form, aromatic amines, Aromatic nitro compounds, aromatic hydrocarbons, and cyanides;

Carmoisine

Common Name	Carmoisine

Synonyms	Azorubine, C.I. Food Red 3 E.E.C. Serial No. E.122
Color of the 0.1 per cent (m/v) solution in distilled water.	Red
Colour Index Number (1975)	No. 14720
Class	Monoazo
Chemical Name	Disodium salt of 4-hydroxy-3-(4-sulfo-1-naphthylazo) 2 (4 –sulnaphthalene-1-sulphonate-1-naphthylazo)-1-hydroxy-napthalene-4-sulphonic acid.
Empirical formula	$C_{20}H_{12}N_2O_7S_2\ Na_2$
Molecular Weight	502.44

GENERAL REQUIREMENTS:-

The material shall conform to the requirements prescribed in Table below:-

Requirements for Sunset Yellow, FCF

S.NO	Characteristic	Requirement
1	2	3
1.	Total dye content, corrected for sample dried at 105 ±1^{0}Cfor 2 hours, per cent by mass. Min	87
2.	Loss on drying at 135^{0}C, per cent by mass and Chlorides and Sulphates expressed as sodium salt, per cent by mass, Max.	13
3.	Water insoluble matter, per cent by mass, Max.	0.2
4.	Combined ether extracts, per cent by mass, Max.	0.2
5.	Subsidiary dyes per cent by mass, Max.	3.0
6.	Dye intermediates, per cent by mass, Max.	0.5
7.	Lead, mg /Kg, Max.	10
8.	Arsenic mg /Kg, Max.	3
9.	Heavy metals, mg / Kg. Max.	40

Note.-It shall be free from mercury, copper and chromium in any form, aromatic amines , Aromatic nitro compound, aromatic hydrocarbons, and cyanides;

Ponceau 4R

Common Name	Ponceau 4R
Synonyms	C1 Food Red 7,L-Rot No. 4, Coccine Nouvelle,Cochineal Red A; E.E.C. Serial No. E.124
Color of the 0.1 per cent (m/v) solution in distilled water.	Red
Colour Index Number (1975)	No. 16255
Class	Monoazo
Chemical Name	Tisodium -2-hydroxy – 1- (4- sulfonato – 1-

	naphthylazo) naphthalene-6,8-disulfonate salt of 1 –(4 –sulpho-1-naphenyl-azo)-napthol-6,8-sulphonic acid.
Empirical formula	$C_{20}H_{11}N_2O_{10}S_3Na_3$
Molecular Weight	604.5
Solubility	Soluble in water Sparingly soluble in ethanol

GENERAL REQUIREMENTS:-

The material shall conform to the requirements prescribed in Table below:-

Requirements for Ponceau 4R

S.NO	Characteristic	Requirement
1	2	3
1.	Total dye content, corrected for sample dried at 105 ±1^{0}Cfor 2 hours, per cent by mass. Min	82
2.	Loss on drying at 135^{0}C, per cent by mass and Chlorides and Sulphates expressed as sodium salt, per cent by mass, Max.	18
3.	Water insoluble matter, per cent by mass, Max.	0.4
4.	Combined ether extracts, per cent by mass, Max.	0.4
5.	Subsidiary dyes per cent by mass, Max.	3.0
6.	Dye intermediates, per cent by mass, Max.	0.5
7.	Lead, mg /Kg, Max.	10
8.	Arsenic mg /Kg, Max.	3
9.	Heavy metals, mg / Kg. Max.	40

Note.-It shall be free from mercury, copper and chromium in any form, aromatic amines,aromatic nitro compound, aromatic hydrocarbons and cyanides;

Erythrosine B.S

Common Name	Erythrosine
Synonyms	FD and C Red No.3 C.I. Food Red 14 LB-Rot-I E.E.C. Serial No. E127
Color of the 0.1 per cent (m/v) solution in distilled water.	Red
Colour Index Number (1975)	No. 45430
Class	Xanthene
Chemical Name	Disodium or dipotassium salt of 2,4,5,7, tetraiodo- fluerescein.
Empirical formula	$C_{20}H_6O_5I_4\ Na_2$
Molecular Weight	879.87 (Disodium Salt)
Solubility	Soluble in water soluble in ethanol

GENERAL REQUIREMENTS:-

The material shall conform to the requirements prescribed in Table below:-

Requirements for Erythrosine		
S.NO	**Characteristic**	**Requirement**
1	**2**	**3**
1.	Total dye content, corrected for sample dried at 105 ±1^{0}Cfor 2 hours, per cent by mass. Min	87
2.	Loss on drying at 135^{0}C, percent by mass and Chlorides and Sulphates expressed as sodium salt, per cent by mass, Max.	13
3.	Water insoluble matter, per cent by mass, Max.	0.2
4.	Ether insoluble matter, (alkaline), percent by mass Max.	0.2
5.	Inorganic Iodide, per cent by mass as sodium iodide, Max.	0.1
6.	Subsidiary colouring matters except flourescein, per cent by mass, Max.	4
7.	Fluorescein, mg / Kg.Max.	20
8.	Organic compounds other than colouring matter:	
	(a) Tri-iodoresorcinol, percent by mass. Max	0.2
	(b) 2. (2,4-dihydroxy-3, 5-di-iodobenzoyl) benzoic acid, percent by mass, Max.	0.2
9.	Lead, mg /Kg, Max.	10
10.	Arsenic mg /Kg, Max.	3
11.	Zinc, mg/ Kg. Max.	50
12.	Heavy metals, mg / Kg. Max.	40

Note.-It shall be free from mercury, copper and chromium in any form, aromatic amines,aromatic nitro compounds, aromatic hydrocarbons and cyanides.~~.~~;

(b) **Natural colouring matters permitted**.– Natural colour used in food shall be pure, free from extraneous matter and adulterants. The following natural colouring matters may be used in or upon any article of food.

Annatto

Chlorophyll

Curcumin or turmeric

Caramel

Beta Carotenes

Beta-apo-8, carotenal

Methylester of Beta apo-8, carotenic acid

Ethylester of Beta-apo-8, carotenic acid

Cantchaxanthin

Saffaron

Riboflavin (Lactoflavin);

(c) **Inorganic colours and pigments prohibited**.– Inorganic colouring matters or pigments shall not be added to any article of food.

(d) **Artificial and synthetic colouring matter prohibited in raw food**.– The use of artificial or synthetic colouring matters in raw food stuffs which are consumed after cooking in the usual way is prohibited;

(e) **Labelling of colours**.– No person shall sell a synthetic colour or a mixture of synthetic colour unless the label on the package carries:

(i) The common and the colour index name(s) of the synthetic colour (s).
(ii) The lot number of synthetic colour.
(iii) The words " Food Colour".

(f) **Use of permitted synthetic colours restricted**.– The use of permitted synthetic dyes in or upon any food other than those shown below is prohibited:

(i) Ice cream;
(ii) Dairy products except milk, dahi, butter, ghee, cheese, yogurt, condensed milk, cream, skimmed milk, toned milk recombined/ reconstituted milk,
(iii) Smoked fish
(iv) Biscuit, pastry, confectionery, savouries, wafer and similar products and sweets.
(v) Peas, strawberries and cherries in hermatically sealed containers, preserved or processed papaya, canned tomato juice, fruit syrup, fruit squash, fruit cordial, jellies, jam, marmalade, candied crystallized or glazed fruits, fruit drink, flavoured drinks.
(vi) Non-alcoholic beverages (carbonated water) except tea, cocoa, coffee, malted foods.
(vii) Custard powder.
(viii) Jelly crystals.
(ix) Soup powder.
(x) Luncheon meat.
(xi) Flavouring agents.
(xii) Ice candy.
(xiii) Sweetened ice, thread candies and similar products.

(g) **Maximum limit of colour**.– The maximum limit of any permitted food colour (synthetic or natural) should be according to Codex Standard for food additives 192-1995.

(h) **Colour mixture**.– A mixture of two or more permitted synthetic food colour conforming to the prescribed standard without diluents and filler material and meant to be used for imparting colour to food. It may contain permitted preservatives and stabilizers.

(i) No person shall sell a mixture of permissible food colour for use in or upon any food unless the container carries a label stating the following:

(a) the word “food colour mixture” in capital words in a prominent position;
(b) the common name, the colour index name, and chemical name of the synthetic colours used in the mixture; and
(c) the ingredients shall be specified in descending order of the proportions by weight.

(j) **Colour preparation**.– (1) A preparation containing one or more of the permitted synthetic food colours conforming to the prescribed standards along with diluents and/or filler material and meant to be used for imparting colours to food, may contain preservatives and stabilizers permitted for that purpose. The colour preparation would be either in the form of liquid or powder. The powder preparation shall be reasonably free from lumps and any visible extraneous/foreign matter. Liquid preparation shall be free from sediments. Only the following diluents or filler material shall be permitted to be used in colour preparation conforming to the prescribed standards:

(a) potable water;
(b) edible common salt;
(c) sugar;
(d) dextrose monohydrate;
(e) liquid glucose;
(f) sodium sulphate;
(g) tartaric acid;
(h) glycerin;
(i) propylene glycol;
(j) acetic acid, dilute;
(k) sorbitol food grade;
(l) citric acid;
(m) sodium carbonate and sodium hydrogen carbonate;
(n) lactose;
(o) ammonium, sodium and potassium alginates;
(p) dextrins;
(q) ethyl acetate;
(r) Starches;
(s) diethyl ether;
(t) ethanol;
(u) glycerol mono, di and triacetate;
(v) edible oils and fats;
(w) isopropyl alcohol;
(x) bees wax;
(y) sodium and ammonium hydroxide;
(z) lactic acid;
(aa) carragenan and gum Arabic;

(bb) gelatin;

(cc) pectin.

(k) No person shall sell a preparation of permitted colours for use in or upon food unless its container carries a label stating the following particulars:

(i) the word “Food colours preparation” in capital words in a prominent position, two times larger in size than other words (sentence) used on the container;

(ii) the name of various ingredients used in the preparation; and

(iii the name of the filler shall be in a prominent position equal in size to the words “Food colours preparation” and shall be marked by a line all around as boundary line and no other matter shall be printed within such line.

6. Preservatives.- (1) **“** Preservatives in food”means any substance which is capable of inhibiting, retarding or arresting the process of fermentation, acidification or other decomposition of food or of masking any of the evidences of putrefaction but it does not include common salt, salt petre, sugars, acetic acid, glycerine, alcohol, herbs, hop extract, spices and essential oils used for flavouring purposes or any substance added to food by the process of curing known as smoking. Lactic acid shall be allowed to be used as preservatives, as permitted as preservative in rule sub-rule (2).

(2) The addition to any article of food of any preservative in contravention of the following instructions shall be deemed to be a contravention within the meaning of section 4:

(a) No preservatives other than those shown below and other preservatives permitted by Codex (Codex Stan:192-195) shall be used in or upon any food.

(b) No person shall use in or upon a food more than one preservative:

Provided that where in column (2) of the Table given below, the use of more than one preservatives may be used in combination with one or more alternatives, subject to the condition that the quantity of each preservative so used does not exceed such number of parts as are specified for worked out on the basis of the proportion in which such preservatives are combined.

Illustration.– In the group of foods specified in item 6 of the table given below sub-rule (c), sulpher dioxide or Benzoic acid can be added in the proportion of 40 parts per million or 200 parts per million respectively. If both preservatives are used in combination and the proportion of sulphur dioxide is 20^{th} part per million, the proportion of Benzoic acid shall not exceed the proportion of 100^{th} parts per million.

(c) The use of preservative shall be restricted to the following group of foods specified in the first column of the following table and may contain the preservative specified in the second column in proportion not exceeding the number of parts (estimated by weight) per million specified in the third column**:**

	Article of food	**Preservative**	**Part per million**
1	Sausages and sausage meat	Sulphur	450

	containing raw meat, cereals and condiments	dioxide	
2	Fruit, Fruit pulp or juice (not-dried) for conversion into jam or crystallized glace or cured fruit or other products-----		
	a) Cherries	Sulphur dioxide	2,000
	b) Strawberries and raspberries	-do-	2,000
	c) Other fruits	-do-	1,000
3	Fruit juice concentrate	-do-	1,500
4	Dried Fruits-----		
	a) Apricots, peaches, apples. Pears and other fruits.	-do-	2000
	b) Raisins and sultanas	-do-	750
5	Other non-alcoholic wines, cordials, Squashes, crushes, fruit syrups, fruits juices and barley water (to be used after dilution.)	Sulphur dioxide or Benzoic acid	350 600
6	Jam, marmalade, preserves, canned cherry and fruit jelly.	Sulphur dioxide or benzoic acid	40 200
7	Crystallised grace or cured fruit (including candied peel)	Sulphur dioxide	150
8	Fruit and fruit pulp not otherwise Specified in this schedule	Sulphur dioxide	350
9	Plantation white Sugar, cube sugar, dextrose, gur, jaggery, mesri.	Sulphur dioxide	150
	a) Desi Khand (Sulphur) and Bura	-do-	150
	b) Refined sugar	-do-	40
10.	Corn flour and such like starches	-do-	100
11.	Corn syrup	-do-	450
	a) Canned Rassogolla (The cans shall be internally Lacquered with Sulpher dioxide resistant Lacquer)	-do-	100
12.	Gelatine	-do-	1000
13.	Beer	-do-	70
14.	Cider	-do-	70
15.	Alcoholic wines	-do-	450
16.	Ready to serve Beverages.	Sulphur dioxide	70
17.	Brewed ginger beer	Benzoic acid	120
18.	Coffee extract	-do-	450
19.	Pickles and chutney made From fruits or vegetables.	Sulphur dioxide Benzoic acid	100 250

20.	Tomato and other sauces	Benzoic acid	750
21.	Pickled meat and bacon	Sodium Nitrite and / or Potassium Nitrite expressed as Sodium Nitrite	200
	a) Corned beef	-do-	100
	b) Luncheon meat, cooked ham, chopped meat, canned meat and goat meat and canned chicken	Sodium and / or Potassium Nitrite expressed as Sodium Nitrite	200
22.	Danish tinned caviar	Benzoic acid	50
23.	Dehydrated vegetables	Sulphur dioxide	2,000
24.	Tomato puree and paste	Benzoic acid	750
25.	Syrup and sherbets	Sulphur dioxide	350
		Benzoic acid	600
26.	Dried ginger	Sulphur dioxide	2,000
27.	Hard boiled sugar confectionery	Sulphur dioxide	350
28.	Cheese or processed cheese	Sorbic acid including its Sodium, potassium & calcium Salts (calculated as sorbic acid)	3,000
		nicin	12.5
29.	a) Flour confectionery b) Filled chocolate	Sorbic acid including sodium, potassium and calcium salts (Calculated as sorbic acid)	1,500
30.	Smoked fish (in wrappers)	Sorbic acid	Only wrappers may be impregnated

			with sorbic acid
31.	Dry mixes of Rasgollas.	Sulphur dioxide	100
32.	a) Soups other than canned	-do-	100
	b) Dried soups.	-do-	1500
	c) Dehydrated soup mix when packed in containers other than cans	-do-	1500
33.	Fruits and vegetables flakes, powder, figs	-do-	600
34.	Flour for baked food.	Sodium diaccetate	2,500
		Or Propionate or	3,200
		Methyl / propyl Hydroxy benzoate	500
35.	Preserved chapaties.	Sorbic acid	1,500
36.	Paneer or chhana	Sorbic acid and its sodium potassium or calcium salts (calculated as sorbic acid) Or	2,000
		Propionic acid & its sodium or potassium salts (calculated as propionic acid)	2,000
37.	Fat spread	Sorbic acid and its sodium potassium or calcium salts (calculated as sorbic acid) Or	1000
		Benzoic acid and its sodium and potassium salts (Calculated as benzoic acid or both)	1000

38.	Jam, jellies, Marmalades, preserves, crystallized, glazed or candied fruits, including candied peels, fruit bars.	Sorbic acid and its sodium potassium or calcium salts (calculated as sorbic acid)	500
39.	Fruit juices concentrates with preservatives for conversion in juices, nectors for ready to serve beverages in bottles, pouches, selling through dispenser.	Sorbic acid and its calcium, sodium potassium salts (calculated as sorbic acid)	100
40.	Fruit juices (tin, pouches or selling through dispensers)	-do-	500
41.	Nectars, ready-to-serve beverages in bottles, pouches or selling through dispensers.	-do-	50
42.	Prunes	Potassium Sorbate (Calculated as sorbic acid)	1000

(i) Sulphur dioxide shall not be added to meat or to any food recognizable as a source of Vitamin B, except as provided for in sub-rule above;

(ii) No food shall contain compounds of boron, salicylic acid or formaldehyde;and

(iii) No food shall contain sorbic acid or its compounds in excess of 0.1 percent by weight.

(d) **Use of preservatives in mixed foods**.– In a mixture of two or more food mentioned against each item in the Table, the use of preservative or preservatives shall be restricted to the limit up to which the use of such preservative or preservatives is permitted for the food or groups of food contained in such mixture.

Illustration.– In the food specified in the Table given, sulphur dioxide can be added to dehydrated vegetables in the proportion of 2,000 part per million. If this is mixed with the food specified in the said table, that is to say tomato puree and paste, where benzoic acid is permitted to an extent to 250 ppm, then in the mixture containing equal parts of these two foods, the proportion of Sulphur dioxide and benzoic acid, shall be 1,000 part per million and 125 part per million respectively.

(e) The word “pure” shall not be used on the label of the container of any food which contains preservative.

(f) No preservative shall be sold for use in food unless:

(i) the label carries the common name;

(ii) the chemical name;

(iii) the net weight;

(iv) adequate directions for use in accordance with the limits prescribed for such preservatives;

(v) the name and address of the manufacturer; and

(vi) the material safety data sheet(MSDS).

(3) Any person appointed as a food inspector under section 16, taking a sample of milk or milk products for analysis may add a preservative to the sample for the purpose of maintaining such sample in a condition suitable for such analysis.

(4) The preservative that shall be used for such purpose shall be the liquid commonly known as 'Formalin' that is to say a liquid containing about 40 per cent of formaldehyde in aqueous solution.

5 The amount of such preservative that shall be added shall be approximately one drop of formalin added from a dropping bottle to every 50ml of milk or milk products in the sample.

6 The vessel, in which a sample of milk or milk products to which formalin has been added under this rule is kept, shall have affixed to it a label that the sample has been artificially preserved.

7. **Flavouring compounds and agents in food.-** (1) " **Flavouring compounds and agents in Food"** means any substance that when added to food is capable of imparting flavour to that food and includes flavouring substances, flavour extracts or flavour preparations.

(2) The addition to any article of food of any flavouring agent in contravention of the following clauses shall be deemed to be a contravention within the meaning of section 4:

(a) No food shall contain any flavouring agent, which are by themselves toxic or contain contaminant materials which are toxic.

(b) Flavouring agents may be of following types.

(i) **Natural flavours and natural flavourig substances:**

"Natural flavours" and "natural flavouring substances" are flavour preparations and single substance respectively, acceptable for human consumption, obtained exclusively by physical processes from vegetable, fruit, in their natural state.

(ii) **Natural-Identical flavouring substances**:

"Natural-identical flavouring substances are substances chemically isolated from aromatic raw materials or obtained synthetically; they are chemically identical to substances present in natural products intended for human consumption, either processed or not.

(iii) **Artificial flavouring substances**:

Artificial flavouring substances are those substances, which have not been identified in natural products intended for human consumption, either processed or not.

(c) Any food, manufactured in Pakistan which contains any natural flavouring agents, shall be labelled with the legend 'NATURAL FLAVOUR' or CONTAINS NATURAL FLAVOURING'.

(d) Any food, manufactured in Pakistan which contains any artificial flavouring agents or any natural identical flavouring agents, shall be labelled with the legend 'ARTIFICIAL FLAVOUR' or 'IMITATION FLAVOUR'.

(e) The use of the following flavouring agents are prohibited in any article of food; namely -

(i) Coumarin and dihydrocoumarin;

(ii) Tonka bean (dipteryl odorate);

(iii) ß-asarone and cinamyl anthracilate;

(iv) Estragol;

(v) Ethyl methyl ketone;

(vi) Ethyl-3-phenyl glycidate;

(vii) Eugenyl methyl ether;

(viii) Methyl β-napthyl ketone;

(ix) P.Propylanisole;

(x) Saffrole and isosaffrole;

(xi) Thujone and isothujone α & β thujone;

(f) Diethylene glycol and monoethylether shall not be used as solvent in flavours.

(3) "**Flavour enhancer**" means any substance, which is capable of enhancing or improving the flavour of food, but does not include any sauce, gravy, gravy mix, soup mix, spice or condiment.

(4) No person shall import, sell, advertise, manufacture, consign or deliver any flavour enhancer for use in food intended for human consumption other than:

(i) monosodium salt of L-Glutamic acid (monsodium L-Glutamate), Sodium or calcium salts of guanylic acid or inosinic acid or a combination thereof;

(ii) yeast extract or dried inactive yeast or autolyzed yeast or a combination thereof;

(iii) (5) No person shall import, sell, advertise, manufacture, consign or deliver the flavour enhancer mono-sodium salt of L-glutamic acid unless it contains not less than 99 per cent of the monosodium salt calculated on a water free basis, and derive solely from vegetable sources;

(iv) (6) No person shall import, sell, advertise, manufacture, consign or deliver the flavour enhancer sodium or calcium salts of guanylic acid or inosinic acid or a combination thereof unless it contain not less than 97 per cent and not more than the equivalent of 102 per cent of the sodium or calcium salt of

guanylic or inosinic acid calculated on a water-free basis, and derived solely from vegetable source;

(v) (7)No person shall import, sell, advertise, manufacture, consign or deliver the flavour enhancer yeast extract or dried inactive yeast or autolyzed yeast or a combination thereof unless it contains not more than 0.04 mg per gram of total folic acid (approximately 0.008 milligram of pteroyglutamic acid per gram of yeast) and derived solely from saccharomyces cerevisiae or saccharomyces fragilis or torula yeast (candida utilize) or a combination thereof.

8. Antioxidants in food.- (1) "**Antioxidants in food**"means a substance which when added to food retards or prevents oxidative deterioration of food and does not include sugar, cereal oils, flours, herbs and spices.

(2) No anti-oxidant other than lecithin, ascorbic acid and tocopherol shall be added to any food unless otherwise provided in Appendix–II and Appendix B of these rules:

Provided that the following anti-oxidants, not exceeding in concentration mentioned against each, may be added to edible oils and fats except desi ghee and butter; namely -

1. Ethyl gallate 2. Propyl gallate 3. Octyl gallate 4. Dodecyl gallate	0.01 per cent
5. Ascorbyl palmitate	0.02 per cent
6. Butylated hydroxyanisole (BHA)	0.02 per cent
7. Citric acid 8. Tartaric acid 9. Galic acid	0.01 per cent
10 Resin Guaiace	0.05 per cent
11 Tertiary butyl hydro quinine (TBHQ)	0.02 per cent;

Provided that dry mixes of Rasgollas and similar other items may contain butylated hydroxyanisole (BHA) not exceeding 0.02 per cent calculated on the basis of fat content;

Provided further that the anti-oxidants permitted in these rules may be used in permitted flavouring agents in concentration not exceeding 0.01 percent;

Provided further that wherever butylated hydroxylanisole (BHA) is used in conjunction with the anti-oxidants mentioned at items Nos.1 to 4 of the preceding proviso, the quantity of the mixture shall not exceed the limit of 0.02 percent;

Provided further that desi ghee and butter may contain butylated hydroxylanisole (BHA) to be used in conjunction which shall not exceed 0.02 percent;

Provided further that fat spread may contain butylated hydroxylanisole (BHA) or Tertiary-butyl-hydro quinone (TBHQ) in a concentration not exceeding 0.02 percent by weight on fat basis;

Provided further that ready to eat dry breakfast cereals may contain butylated hydroxylanisole (BHA) not exceeding 0.005 percent (50 p.p.m);

Provided further that ready to eat drink infant milk substitute, lecithin and ascrobyl palmitate may be used up to a maximum limit 0.05gm/100 ml. and 1 mg/100mll respectively;

Provided further that chewing gum/ bubble gum may contain butylated hydroxylanisole (BHA) not exceeding 250 p.pm.

(3) Vitamin D preparation may contain anti-oxidants prescribed in these rules not exceeding 0.08 per cent.

TABLE
List of antioxidants for use in foods

S.NO.	Additives	Snacks / Saoutiries (fried products):- Chiwda, Bhujia, Dalmoth, Kadubale, Kharaboondi, Spiced & fried dals, bananas chips and similar fried products sold by any name.	Sweets (Carbohydrates based and milk product based):- Halwa, Mysor Pak, Boondi Ladoo, Jalebi, Khoya Burfi, Peda, Gulab Jamun, Rasogolla, and similar milk product based	Instant Mixes:- Idli mix, dosa mix, puliyogare mix, pongal mix, gulabjamoon mix, jalebi mix,vada mix.	Rice and Pulses based Papads	Ready – to- Serve BeveragesTea / Coffee based	Chewing gum/ Bubble gum	Sugar based / Sugar free confectionery.	Chocolates	Synthetic syrup for dispensers	Lozenges
1	2	3	4	5	6	7	8	9	10	11	12
Antioxidant											
1	Tocopherol,	GMP	GMP	--	--	--	--	--	--	--	--
2	Lecithin	GMP	--	--	--	--	--	--	--	--	--
3	Butylated Hydroxy-anisole (BHA)	200ppm Maximum	200ppm Maximum	--	--	--	250 ppm Max	--	--	--	--

9. **Food conditioners, stabilizers in food** (1) **Food conditioners, stabilizers in food**"means any substance that is added to food for a technological purpose to obtain the desired food and includes emulsifiers, antifoaming agents, stabilizers, thickeners, modified starches, gelling agents, acidity regulators, enzymes, solvents and anticaking agents, but shall not include preservative, colouring substance, flavouring substance, flavour enhancer and antioxidants.

(2) The addition to any article of food of any food conditioner in contravention of the following clauses shall be deemed to be a contravention within the meaning of section

(3) The substances specified in table 1 and in column (2) of Table II given below shall be permitted food conditioners.

(4) Notwithstanding sub-rule (3), the addition of food conditioner to food is prohibited except as otherwise permitted by these rules.

(iv) (5) Notwithstanding sub-rule (3), where the addition of food conditioner to food is permitted by these rules, only food conditioner specified in Table I may be added to such food:

Provided that the food conditioner specified in column (2) of Table II may also be added to the food specified opposite thereto in column (1) of the said table.

TABLE I

The following food conditioners listed under their class names are permitted in food:

1. Emulsifiers and anti-foaming agents.

Acetylated monoglycerides

Dimethylpolysiloxane

Glyceryl monostrearate

Lecithins

Monoglycerides and diglycerides and their lactic, tartaric, diacetyl tartaric and citiric acid esters.

Phosphoric acid (orthophosphoric acid) and its sodium, potassium and calcium monobasic, diabsic, and tribasic salt

Polyglycerol esters of fatty acid

Polyglycerol esters of interesterified ricinoleic acid

Polyoxyethylene sorbitan fatty acid esters

Propylene glycol alginate

Propylene glycol monoesters and diesters

Silicon dioxide amorphous

Sodium aluminium phosphate (basic)

Sodium and potassium pyrophosphates (tetrasdium and tetrapotassium disphosphate) and sodium and potassium acid pyrophosphates (disodium and dipotassium dihydrogen diphosphate)

Sodium and potassium salts of fatty acid, which are derived from edible vegetable oil and edible vegetable fat

Sodium and potassium tripolyphosphates

Sodium, potassium and calcium polyphosphates

Sorbitan fatty acid esters

Stearoyl lactylic acid and its sodium and calcium salt

Sucroglycerides

Sucrose esters of fatty acid

2. Stabilisers, thickeners, modified starches and gelling agents

Acacia (gum arabic)

Agar

Alginic acid and its sodium, potassium calcium and ammonium salts, and propylene glycol alginate

Almmonium salts of phosphatidic acid

Calcium disodium ethylenediamine tetra-acetate

Calcium, trisodium and tripotassium citrate

Calcium glyconate

Calcium lactate

Calcium sulphate

Carbonate and bicarbonates of sodium, potassium, calcium and ammonium

Carob bean gum (locust bean gum)

Carrageenan

Casein and its sodium, calcium and potassium compounds, powdered cellulose, methyl glucose, methyl cellulose, methyl ethyl cellulose, sodium
Carboxymethyl cellulose, microcrystalline cellulose, hydroxypropyl cellulose and hydroxypropyl methyl cellulose. cellulose

Dextrin

Dioctyl sodium sulfosuccinate

Flour and starch

Furcelleran

Gelatin

Guar gum

Karaya gum

Magnesium hydroxide

Modified starches

Nitrous oxide

Pectin

Penta potassium and penta sodium triphosphate (potassium and sodium tripolyphosphate

Phosphoric acid (orthophosphoric acid) and its sodium, potassium and calcium monobasic, dibasic, and tribasic salts

Potassium acetate

Potassium and calcium salts of hydrochloric acid

Potassium nitrate

Propylene glycol

Sodium and potassium pyrophosphate (tetrasodium and tetrapotassium diphosphate)

Sodium and potassium dihydrogen citrate

Sodium, potassium and calcium polyphosphate

Sorbitol

Tragacenth gum

Xanthan gum

3. Acidity Regulators

Acetic acid, citric acid, fumaric acid, lactic acid, malic acid, tartaric acid, and the sodium potassium and calcium salts of the acid set forth in this group

Adipic acid

Carbonates and bicarbonates of sodium, potassium, ammonium and magnesium

Glucono delta-lactone

Hydroxides of sodium, potassium, calcium and ammonium

Phosphoric acid (orthophosphoric acid) and its sodium, potassium and calcium monobasic salts, dibasic and tribasic salts.

Sodium aluminium phosphate

Vinegar

4. Enzymes

Amylase

Amyloglucosidase

Bromelain

Catalase

Cellulase

Dextranase

Ficin

Glucanase

Glucose isomerase

Glucose oxidase

Invertase

Malt Carbohydrases

Papain

Pectinase

Pepsin

Protease

Proteinase

Pullulanase

Rennet and protein coagulating enzymes

Lactase

Lipase

5. Solvents

Ethyl acetate

Ethyl alcohol

Glycerol, glyceryl monoacetate, glyceryl diacetate, and triacetin

Propylene glycol

6. Anticaking agents

Aluminium silicate

Calcium aluminium silicate

Calcium phosphate tribasic

Calcium silicate

Magnesium carbonate

Magnesium oxide

Magnesium phosphate tribasic

Magnesium silicate

Salts of myristic, palmitic and stearic acids with bases (sodium, potassium, calcium, aluminium, magnesium and ammonoium)

Silicon dioxide amorphous

Sodium alumino silicate.

TABLE II

Food Conditioner that may be added to specified Food

FOOD	**FOOD CONDITIONER**
Artificial sweetening Agents	Ethyl maltol, magnesium stearate Maltol, microcyrystalline cellulose
	Polyethylene glycol (in tablet form only) polyvinylpyrrolidone

	Silicon Dioxide, stearic acid, tricalcium phosphate, (in granular and powdered form only)
Bread	ammonium chloride, clacium and sodium salts of fatty acid lactylates and fumarates
Chocolate, white chocolate	polyglycerol polyricinoleate
Colouring preparation (liquid form)	acidity regulators
Cured, pickled or salted fish	ascorbic acid, sodium ascorbate,Isoascorbic acid, sodium isoascorbate
Evaporated milk	Sodium salts of hydrochloric acid
Flavoured syrup	ascorbic acid
Flour	ascorbic acid, benzoyl peroxide, sulphur dioxide or sulphites
Flour confection	ammonium chloride, calcium and sodium salts of fatty acid lactylates & fumarates
Fruit drink	ascorbic acid
Fruit juice and Fruit pulp	ascorbic acid
Fruit juice drink	ascorbic acid
Iodized table salt	Sodium thiosulphate
Meat paste and manufactured meat	ascorbic acid, sodium ascorbate, isoascorbic acid, sodium isoascorbate
Pasta	Sodium silicate
Salt	potassium ferrocyanide, sodium ferrocyanide, ferric ammonium citrate
Wheat flour and protein increased wheat for bread.	potassium bromate L-cysteine

Provided that the following emulsifying or stabilising agents shall not be used in milk and cream; namely -

Monoglycerides or diglycerides of fatty acids, synthetic lecithin, propyleneglycol stearate, propyleneglycol alginate, methyl ethyl cellulose, methyl cellulose, sodium carboxymethyl cellulose, stearyl tartaric acid esters of monoglycerides and digycerides of fatty acids, monostearin sodium sulphoacetate, sorbitan esters of fatty acids or in combination:

Provided further that polyglycerol esters of fatty acids and polyglycerol ester of interesterified ricinoleic acid may be used in bakery product and in chocolate to the extent of 0.2 per cent by weight.

Starch phosphate, a gum arabic substitute may be used in syrup, ice-cream powder, salad dressing and pudding to a maximum extent of 0.5 per cent.

The following emulsifying and stabilising agents may be added to fruit products:

1. Pectin.

2. Sodium alginate

3. Calcium alginate

4. Alginic acid

5. Propylene glycol alginate

The addition of the following anticaking agents to table salt, onion powder, garlic powder, fruit powder and soup powder shall contain in concentration not exceeding 2.0 per cent, either singly or in combinations, namely:-

1. Carbonates of calcium and magnesium;

2. Phosphates of calcium and magnesium;

3. Silicates of calcium, magnesium, aluminium or sodium or silicon dioxide;

4. Myristates, palmitates or stearates of aluminium, ammonium, calcium, potassium or sodium:

Provided further that calcium, potassium or sodium ferrocyanide may be used as crystal modifiers and anti-caking agent in common salt, iodised salt combination expressed as ferrocyanide.

Dimethyl polysiloxane, food grade may be used as an antifoaming agent in edible oils and fats for deep fat frying upto a maximum limit of 10 parts per million.

(3) (i) "**Antifoaming agent**" means substance, which retards deteriorative change and foaming height during heating. Spreadasil silicon spray (Dimethyl polysiloxane) if used as release agent in confectionery shall not exceed 100 p.p.m., of the finished product.

(ii) **Humectant:**

(a) means any substance which, when added to food, absorbs moisture and maintains the water content of food;

(b) No person shall sell any food containing glycerine unless it is expressly permitted by these rules.

(iii) "**Sequestrant**" means any substance which, when added to food, combines with a metal ion in the food and renders the metal ion inactive so as to stabilize certain characteristics associated with the food, including color, flavour and texture.

No person shall sell or advertise for sale, with a view to its use in the preparation of food for human consumption, any sequestrant other than a permitted sequestrant as given below:

Citric acid, phosphoric acid and tartaric acid or the calcium salts of the above-mentioned acids as well as glycine may be added to food to serve as sequestrants.

Calcium disodium ethylenediaminetetra acetate (EDTA) a sequerant may be used only in the following:

(a) canned fish including crusta ceans at a level not exceeding 250 ppm; and

(b) mayonnaise, salad dressing, french dressing and margarine at a level not exceeding 75 ppm.

(iv) "**Emulsifier**" means a substance which forms or maintains a uniform mixture of two or more immisible phases such surfaces as oil and water in a food.

(v) "**Antifoaming agent**" means a substance, which prevents or reduces foaming.

(v) "**Stabiliser**" means any substance, which makes it possible to maintain the physico chemical state of a food including any substance, which enables a homogenous dispersion of two or more immisible substances in a food to be maintained and any substance, which stabilises, retains or intensifies an existing colour of a food.

(vi) "**Thickener**" means a substance, which increases the viscosity of a food.

(viii) "**Gelling agent**" means a substance, which gives a food texture through formation of a gel.

(ix) "**Acidity regulator**" means a substance, which alters or controls the acidity or alkalinity of a food.

(x) "**Anti-caking agent**" means a substance, which reduces the tendency of particles of food to adhere to one another.

(xi) "**Bulking agent**" means a substance other than air or water, which contributes to the bulk of a food without contributing significantly to its available energy value.

(xii) "**Firming agent**" means a substance, which makes or keeps tissues of fruit or vegetables firm and crisp or interacts with gelling agents to produce or strengthen a gel.

(xiii) "**Foaming agent**" means a substance, which makes it possible to form or maintain a uniform dispersion of a gaseous phase in a liquid or solid food.

(xiv) "**Glazing agent**" means a substance which, when applied to the external surface of a food, imparts a shiny appearance or provides a protective coating.

(xv) (a) "**Gaseous packaging agent**" means any substance used:

(i) as an aerating agent or propellant in the storage or packaging of any fluid food; or

(ii) to displace air in a sealed package or in a place of storage, in the storage or packaging of any food.

(b) No person shall use in the storage or packaging of any food any gaseous packaging agent other than:

(i) Carbon dioxide;

(ii) Nitrogen; and

(iii) Helium.

(xvi) "**Raising agent**" means a substance or combination of substances, which liberate gas and thereby increase the volume of dough.

(xvii) "**Buffering agent**" are materials used to counter acidic and alkaline changes during storage or processing steps, thus improving the flavour and increasing the stability of food.

(xviii) **"Modified starch**" A product obtained from the treatment of starch with certain chemicals to modify the physical characteristic of the native starch. It is used in desserts, pie filling, gravies and fabricated food as thickeners, binders and stabilizers.

10. "**Non-nutritive constituents and artificial sweetening agent in food**" (1)

"Non-nutritive constituents and artificial sweetening agent in food" means any substance that, when added to food, is capable of imparting a sweet taste to that food but does not

include any sugar, other carbohydrate, polyhydric alcohols, honey and moreover does not have nutritive properties.

(2) The addition to an article of food of any artificial sweetening agent/non-nutritive sweetener in contravention of the following clauses shall be deemed to be a contravention within the meaning of section 4:

~~(a)~~ any food which purports to be or is presented for any special dietary use by man, by reason of the presence of any constituent which is not utilised on normal metabolism shall bear on its label a statement of the percent by weight of such constituent and in (juxtaposition with the name of such constituent the word “artificial” or “artificial sweetening agent”;

~~(b)~~ where an artificial sweetening agent/ non-nutritive sweetener has been added to any food the label shall bear in lieu of the statement prescribed in clause (a) ‘contains artificial sweetening agent (here state the appropriate designation of the artificial sweetening agent (here state the appropriate designation of the artificial sweetening agent in capital letters) _____ (here state the percentage by weight of artificial sweetening agent in such food). AN ARTIFICIAL SWEETENING AGENT, NON-NUTRITIVE SWEETENER WHICH SHOULD BE USED ONLY BY PERSONS WHO MUST RESTRICT THEIR INTAKE OF ORDINARY SWEETS;

~~(c)~~ the use of artificial sweetening agents/non-nutritive sweetener in or upon any food, which is consumed by children for refreshment, shall be prohibited; and

~~(d)~~ the use of artificial sweetening agents in or upon supari, processed supari, pan masalas, pan flavouring substance, confectionery, chewing substances and including any such food is prohibited.

(3) No artificial sweetening agent/non-nutritive sweetener except the following shall be used in the preparation of any food:

(a) Saccharine and its sodium salt (E.954);

(b) Aspartame (E.951); and

(c)Acesulfame K (E.950)

(4) No artificial sweetener shall be added to any article of food:

Provided that artificial sweetener may be used in food articles in the Table below in quantities not exceeding the limits shown against them:

Table

S.No	**Name of Artificial Sweetener**	**Article of Food**	**Maximum Limit of Artificial Sweetener**
1	**2**	**3**	**4**
1	Saccharin Sodium	Carbonated Water	100ppm
		Soft Drink Concentrate	100ppm
		Pan Flavouring Material	8.0percent

		Synthetic Syrup for dispenser	450ppm
		Sweets (Carbohydrates based and milk products based):Halwa,Boondi Ladoo, Jalebi, Khoya, Burfim, Gulab Jamun, Rasogolla and similar milk product based sweets sold by any name.	500ppm
		Chocolaate (White, milk, plain, composite and filled)	500ppm
		Sugar based /sugar free confectionery	3000ppm
		Chewing gum/ bubble gum	3000ppm
2	Aspertame (methyl ester)	Carbonated water	700ppm
		Soft drink concentrate	7000ppm
		Biscuits, Bread, Cakes and Pasteries	2200ppm
		Sweets, (Carbohydrates based and milk products based)	200ppm
		Halwa,Boondi Ladoo, Jalebi.	200ppm
		Khoya burfi, gulab jamun, Rasgolla and similar milk product based sweet sold by any name.	200ppm
		Jam, Jellies, Marmalades	1000ppm
		Chocolate (white, milk, plain, composite and filled	2000ppm
		sugar based / sugar free confectionery	10000ppm
		Chewing gum /bubble gum	10000ppm
		Synthetic syrup for dispenser	3000ppm
3	Acesulfame Potassium	Carbonated water	300ppm
		Soft drink concentrate	300ppm
		Biscuits, bread, cakes and pasteries	1000ppm
		Sweets (carbohydrates based and milk product based):- Halwa, Boondi Ladoo, Jalebi, Khoya Burfi, Gulab Jamun, Rasogolla and similar milk product based sweet sold by any name.	500ppm
		Chocolate (white, milk plain, composite and filled)	500ppm
		Sugar based / sugar free confectionery.	3500ppm
		Chewing gum / bubble gum`	5000ppm
		Synthetic syrup for dispenser	1500ppm

Explanation I.- Pan flavouring material refers to the flavouring agents permitted for human consumption to be used for pan. It shall be labeled as "PAN FLAVOURING MATERIAL"

Explanation II.- The maximum limit of artificial sweetener in soft drink concentrate shall be as in reconstituted beverage or in final beverage for consumption. Soft drink concentrate label shall give clear instruction for reconstitution of products for making final beverage.

(5) No mixture of artificial sweeteners shall be added to any article of food or in the manufacture of table top sweeteners:

Provided that in case of carbonated water, soft drink concentrate and synthetic syrup for dispenser, wherein use of aspartame and acesulfame potassium have been allowed in the alternative, as per Table given, these artificial sweeteners may be used in combination with one or more alternative if the quantity of each artificial sweetener so used does not exceed the maximum limit specified for that artificial sweetener in column (4) of the said Table as may be worked out on the basis of proportion in which such artificial sweeteners are combined.

(6) The products containing mixture of artificial sweeteners shall bear the label as provided in rule 18.

Illustration.– In column (3) of the said Table, in carbonated water, Aspertame (Methyl Ester) or Acesulfame Potassium may be added in the proportion of 700 ppm or 300 ppm respectively. If both artificial sweeteners are used in combination and the proportion of aspartame (Methyl Ester) is 350 ppm, the proportion of Acesulfame Potassium shall not exceed the proportion of 150 ppm.

(7) No person shall sell table top sweetener except under label declaration as provided in these rules:

Provided that aspartame may be marketed as a table top sweetener in tablet or granular form in moisture proof package and the concentration of aspartame shall not exceed18 mg per 100 mg of tablet or granule.

(8) The label statement of foods containing artificial sweetening agents/non-nutritive sweetener shall, in addition, conform to the requirements of any other provisions of these rules.

(9) An artificial sweetening agent/non-nutritive sweetener preparation in a tablet, granular, powder or liquid form shall be the product of the artificial sweetening agent in a base which may contain any of the substance given below:

(a) Acacia (gum arabic), agar, alginic acid and its sodium, potassium and ammonium slats, calcium alginate and propylene, glycol alginate, carrageenan, citric acid, dextrin, dextrose, ethyl alcohol, gluconodelta-lactone, glycerol, guar gum, karaya gum, hydroxypropylmethylcelluloselactose, L-leucine, locust bean gum, mannitol, methylcellulose, mono-di-and polysaccharides, pectin, potassium acid tartrate, propylene glycol, sodium bicarbonate, sodium carboxymethylcellulose, sodium citrate, sodium phosphate, sorbitol, tartaric acid, tragacanth gum, water, xanthan gum.

(b) A liquid preparation of artificial sweetening agents/non-nutritive sweetener may contain sulphur dioxide, benzoic acid or sorbic acid in

a proportion not exceeding at total of 2000 ppm whether present singly or in any combination as permitted preservative.

(c) An artificial sweetening agents/non-nutritive sweetener preparation may contain polyethylene glycol in a proportion not exceeding 1 per cent and other food conditioners as specified by these rules.

(10) There shall be written in the label of a package containing an artificial sweetening agents/ non-nutritive sweetener preparation:

(a) In not less than 10 point lettering, the words “artificial sweetening agent/non-nutritive sweetener” to be followed immediately by the name of the artificial sweetening agent/ non-nutritive sweetener;

(b) a statement of concentration:

(a) in the case of tablets, as milligrams per tablet;

(b) in the case of liquids, as percentage weight in volume; and

(c) in the case of granules or powder as milligrams per serving contained in a sachet or similar package;

(c) a statement indicating the equivalence of the artificial sweetening agents/ non-nutritive sweetener both in sweetness and energy;

(11)Artificial sweetening agents/non-nutritive sweetener shall not be sold unless the package carries a label showing:

(a) The words “artificial sweetening agent/non-nutritive sweetener” to be followed immediately by the name of the artificial sweetening agent/non-nutritive sweetener;

(b)- The name of the chemical;

(c) Adequate direction for use in foods;

(d) a statement of concentration:

(i) in the case of tablets as milligrams per tablet;

(ii) in the case of granules or powder as milligrams per serving contained in a sachet or similar package;

(iii) a statement indicating the equivalence of the artificial sweetening agent/non-nutritive sweetener both in sweetness and energy;

(iv) The words “not recommended for children except on medical advice” except where the artificial sweetening agent preparation contains aspartame as the only artificial sweetening agent/non-nutritive sweetener; and

(v) a statement in the form “not recommended for phenylketonurics” and pregnant women” where the artificial sweetening agent/non-nutritive sweetener/preparation contains aspartame

11. “**Unsound food and food injurious to health/incidental constituent**”.- (1)

“Unsound food and food injurious to health/incidental constituent”means any extraneous substances, metal contaminants, crops contaminants and naturally occurring toxic substances/ mycotoxin residue, drug residue; antibiotic residue harmonal residue, insecticides residue, pesticides residue, microorganism and their toxins, and irradiated constituents that is contained or present in or any food but does not include any colouring matter, preservative, flavouring agent, flavouring enhancer, anti-oxidant, food conditioners, artificial sweetening agent, nutrient supplement.

(2) No person shall keep, carry, spread or use, or cause or permit to be kept, carried, spread or used any toxic, noxious or harmful substance so as to expose a food intended for sale to the risk of contamination by that substance at any time in the coarse of preparation, manufacture, storage, packaging, carriage, delivery, or exposure for sale, of the food.

(3) No person shall import, prepare or advertise for sale or sell any food containing any incidental constituent except as otherwise specified in these rules.

(4) Any article of food shall be considered as injurious to health and unfit for human consumption within the meaning of section 5, if:

(a) it is putrefied or decayed or emits a bad smell; or

(b) it is infested with insects; or

(c) it has evidence of filth or of rodent excretion or hair.

(5) No person shall import, prepare or advertise for sale or sell any food, specified in column (2) of the Table below, which contains any metal specified in excess of the quantity specified in column (3) of the said Table:

Metal	**Article of Food**	**Parts per million by weight**
Lead	(i) Beverages:	
	Concentrated soft drinks (but not including concentrates used in the manufacture of soft drinks).	0.2
	Fruit and vegetable juice (including tomato juice, but not including lime juice and lemon juice)	0.2
	Concentrates used in the manufacture of soft drinks, lime juice and lemon juice	1.0
	Baking powder	2
	Edible oils and fats	0.1
	Infant milk substitute and infant foods.	0.2
	Turmeric whole and powder	2.0
	(ii) Other foods	
	Anhydrous dextrose and dextrose monohydrate, edible oils and fats, refined white sugar (sulphated ash content not exceeding 0.03 %)	0.5

		Ice-cream, iced lollies and similar frozen confections.	0.5
		Canned fish, canned meats, edible gelatin, meat extracts and hydrolysed protein, dried or dehydrated vegetables (other than onions)	2.0
		Canned fish, canned meats, edible gelatin, meat extracts and hydrolysed protein, dried or dehydrated vegetables (other than onions)	
		Raw sugars except those solid for direct consumption or used for manufacturing purposes other than the manufacture of refined sugar.	
		Edible molasses, caramel, liquid and solid glucose and starch conversion products with a sulphated ash content exceeding 1.0%.	
		Cocoa powder	2.0(on the dry fat free substances)
		5.0(on the dry fat free substances)	2.0
		Tea, dehydrated onions, dried herbs and spices, flavorings, alginic acid, alignates, agar, carrageen and similar products deried from seaweed. Liquid pectin, chemicals not otherwise specified, used as ingredients or in the preparation or processing of food.	2.0
		Food Coloring other than caramel.	10.0
		Solid pectin	10.0
		Hard boiled sugar confectionery.	0.5
		Corned beef, luncheon meat, chopped meat, canned chicken, canned mutton and goat meat.	2.0
	(iii)	Foods not specified.	2.0
Copper	(i)	Beverages	
		Soft drinks excluding concentrates and carbonated water	7.0
		carbonated water	1.5
		Concentrates for soft drink	20
	(ii)	Other foods	
		Chicory dried or roasted, coffee beans, flavourings, pectin-liquid	30
		Coloring (on the dry coloring matter)	30
		Edible gelatin	30
		Tomato ketchup (on the dried total solids)	50

	Yeast and yeast products(on the dry matter)	60
	Cocoa powder(on the fat free substance)	70
	Tomato puree, paste, powder juice and cocktails (on the dried tomato solids)	50
	Tea	150
	Pectin-solid	300
	Hard boiled sugar confectionery	5
	Turmeric whole and powder	5
	Juice of orange, grape, apple, tomato, pineapple and lemon	5
	Infant milk substitute and infant foods (but not less than 2.8)	15
	Foods not specified	30
Arsenic	Milk	0.1
	Beverages soft drink intended for consumption after dilution except carbonated water	0.1
	carbonated water	0.1
	Infant Milk substitute and Infant food	0.05
	Turmeric whole and powder	0.1
	Juice of orange, grape, apple, tomato, pineapple and lemon	0.2
	Pulp and pulp products of any fruit.	0.2
	(iii) Preservatives, anti-oxidants, emulsifying and stabilizing agents and synthetic food colors.	0.30 On dry basis
	(iv) Other foods	
	Ice-cream, iced lollies and similar frozen confections	0.5
	Dehydrated onions, edible gelatin, liquid pectin	2.0
	Chicory-dried or roasted	1.0
	Dried herbs, fining and clearing agents, solid pectin all grades, spices	1.0
	Food coloring other than synthetic coloring. (on dry coloring matter)	3.0
	Hard boiled sugar confectionary	1.0
	(v) Foods not specified.	1.0
Tin	(i) Processed and canned products	40.0
	Jam, jellies and marmalade	40.0

	Juice of orange, apple tomato, pineapple and lemon.	40.0
	Pulp and products of any fruit	40.0
	Hard boiled sugar confectionary	5.0
	Infant milk substitute and infant foods	5.0
	Turmeric whole and powder	Nil
	Corned beef, luncheon meet, cooked ham, chopped meat, canned chicken, canned mutton and goat meat.	40.0
	(ii) Foods not specified	40.0
Zinc	(i) Ready to drink beverages	5.0
	Juice of orange, grape tomato, pineapple and lemon.	5.0
	Pulp and pulp products of any fruit	5.0
	Infant milk substitute and infant foods	50
	(ii) Edible gelatin	100
	(iii) Turmeric whole and powder	25
	(iv) Fruit products covered under the Fruit Products Order, 1955	50
	(v) Hard boiled sugar confectionery	5.0
	(vi) Foods not specified	50
Cadmium	(i) Infant milk substitutes and infant foods	0.1
	(ii) Termeric whole and powder	0.1
	(iii) Other foods	1.0
Mercury	Fish Other food	0.5
Methyl Mercury (Calculated as the element)	All foods	0.05
Chromium	Refined Sugar	20 ppb
Nickel	All hydrogenated, partially hydrogenated, interesterfied vegetable oils and fats such as vanaspati, table margarine, bakery shortening, fat spread and partially hydrogenated soyabean oil	0.025

(6) "**Crop contaminants"** mean any substance not intentionally added to food, but which gets added to articles of food in the process of their production (including operations carried out in crop husbandry, animal husbandry and veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging, transport or holding of articles of such foods as a result of environmental contamination.

(7) No article of food specified in column (2) of the Table below shall contain crop contaminant specified in the corresponding entry in column (1) thereof in excess of quantities specified in the corresponding entry in column (3) of the said Table:

TABLE

Name of the contaminants	Article of Food	mg /Kg
1	2	3
Aflatoxin	All articles of food excluding food grains, cereals.	0.03

(8) The toxic substances specified in column (1) of the Table below, which may occur naturally in any article of food, shall not exceed the limit specified in the corresponding entry in column (2) of the said Table.

TABLE

Name of Substance	Maximum Limit
1	2
Agaric acid	100 ppm
Hydrocyanic acid	5ppm
Hypericine	1 ppm
Saffrole	10ppm

(9) In these rules:

(a) “drug” means any substance or mixture used internally for therapeutic, prophylactic or growth promotion purposes or for modification of physiological function or behaviour in animals. ; and

(b) “Drug residue” means the parent compounds of the drug and their metabolities in any edible portion of the animal product, and includes residues of associated impurities of the drug concerned.

(10) The amount of antibiotic mentioned in column (2) on the sea foods including shrimps, prawns or any other variety of fish and fishery products shall not exceed the tolerance limit prescribed in column (3) of the Table given below.

TABLE

S.NO	Name of Antibiotics	Tolerance Limit mg /Kg (ppm)
1	2	3
1.	Tetracycline	0.1
2.	Oxytetracycline	0.05
3.	Trimethoprim	0.05
4.	Oxolinic acid	0.3

(11) The use of any of the following antibiotics and other pharmacologically active substances shall be prohibited in any unit processing sea foods including shrimps, prawns or any other variety of fish and fishery products:

TABLE

(i) All Nitrofurans Including

(a) Furaltadone

(b) Furazolidon

(c) Furylfuramide

(d) Nituratel

(e) Nifuroxime

(f) Nifurprazine

(g) Nitrofurnation

(h) Nitrofurazone

(ii) Chloramphenicol

(iii) Neomycin

(iv) Nalidixic acid

(v) Sulphamethoxazole

(vi) Aristolochia spp and preparation thereof

(vii) Chloroform

(viii) Cholropromaszine

(ix) Colchicine

(x) Dapsone

(xi) Dimetridazole

(xii) Metronidazole

(xiii) Ronidazole

(xiv) Ipronidazole

(xv) Other nitromidazoles

(xvi) Clenbuterol

(xvii) Diethylstibestol

(xviii) Sulfanoamide drugs (except approved sulfadimethoxine, sulfabromomethazine and sulfaethoxypyridazine)

(xix) Fluoroquinolones

(xx) Glycopeptides

(12) No person shall prepare, advertise for sale or sell any meat or any food derived from meat, which contains residues of the following compounds:

(i) Diethylstilbestrol;
(3,4-bis(p-hydroxyphenyl)-3-hexene);

(ii) Hexoestrol;
(3, 4-bis (p-hydroxyphenyl)-n-hexane);

(iii) Dienostrol
(3, 4-bis (p-hydroxyphenyl)-2, 4-hexadiene).

(13) The restriction on the use of insecticides is subject to the provision of the Table below and, no insecticide shall be used directly on article of food. The amount of

insecticide mentioned in column 2, on the foods mentioned in column 3, shall not exceed the tolerance limit prescribed in column 4 of the Table given below:

TABLE

	Name of Insecticide	Food	Tolerance limit mg/kg (ppm)
	Aldrin dieldrin, (The limits apply to aldrin or dieldrin singly or in any combination and are expressed as dieldrin)	Food grains Milled Food grains Milk and Milk Products Fruit an Vegetable Meat Eggs	0.01 Nil 0.15(on a fat basis) 0.1 0.2 0.1(on a shell free basis)
	Carbaryl	Fish Foodgrains Milled Foodegrains Okra and leafy vegetables Potatoes Other vegetables Cottonseed (whole) Maize cob (kernels) Maize Rice Chilies	0.2 1.5 Nil 10.0 0.2 5.0 1.0 1.0 0.5 2.5 5.0
	Choldrane (residue to be measured as cis plus trans chlorsdne)	Food grains Milled Food grains Milk and Milk Products Vegetables Fruits Sugar beet	0.02 Nil 0.05(on a fat basis) 0.2 0.1 0.3
	D.D.T. (The limits apply to D.D.T., D.D.D and D.D.E. singly or in any combination	Milk and Milk Products Fruits and Vegetables (including potatoes) Meat, poultry and fish Egg	1.25(on a fat basis) 3.5 7.0(on whole product basis) 0.5(on a shell free basis)
	Diazinon	Food grains Milled Food grains Vegetables	0.05 Nil 0.5
	Dichlorvos (content of dichloroacetaldehyde) (D.C.A) be reported where possible.	Foodgrains Milled foodgrains Vegetables Fruits	1.0 0.25 0.15 0.1
	Dicofol	Fruits and Vegetables	5.0

		Tea(dry manufactured) Chillies	5.0 1.0
	Dimethoate (residue to be determined as dimethoate and expressed as dimethoate)	Fruits and Vegetabeles Chillies	2.0 0.5
	Endosulfan (residues are measured and reported as total of endosulfan A and B and endosulfan-sulphate)	Fruits and Vegetabeles Cottonseed Cottonseed oil (crude) Bengal gram Pigeon pea Fish Chillies Cardamom	2.0 0.5 0.2 0.2 0.2 0.1 0.2 1.0 1.0
	Fenitrothion	Foodgrains Milled foodgrains Milk and Milk products Fruits Vegetables Meat	0.02 0.005 0.05(on a fat basis) 0.5 0.3 0.03
	Heptachlor (Combined Residues of heptachlor And epoxide to be Determined and expressed As heptachlor)	Foodgrains Milled foodgrains Milk and Milk Products Vegetables	0.01 0.002 0.15(on a fat basis) 0.05
	Hudrogen cyanide	Foodgrains Milled foodgrains	37.5 3.0
	Hydrogen phosphide	Foodgrains Milled foodgrains	Nil Nil
	Inoganic bromide (determined and expressed as total bromide from all sources	Food grains Milled foodgrains Fruits Dried fruits and spices	25.0 25.0 30.0 400.0
	Hexachlorocylohexane And its isomers (a) Alfa , isomer:	Rice grain unpolished Rice grain polished Milk (whole) Fruits and Vegetables Fish	0.10 0.05 0.02 1.0 0.25
	(b) Beta (B) isomer	Rice grain-unpolished Rice grain polished Milk (whole)	0.1 0.05 0.02

		Fruits and Vegetables Fish	1.0 0.25
	(c)Gamma (y) isomer known as Lindane	Food grains except rice Milled Food grains Rice grain Unpolished Rice grain polished Milkc Milk products (having less than 2 percent fat) Fruits and Vegetables Fish Eggs Meat and poultry	0.1 Nil 0.1 0.05 0.01(on a whole basis) 0.2(on a whole basis) 1.0 0.25 0.1(on shell free basis) 2.0
	(d) Delta (D) isomer	Rice grain Unpolished Rice grain polished Milk (whole) Fruits and Vegetable Fish	0.1 0.05 0.02 1.0 0.25
	Malathion (Malathion to be determined and expressed as combined residue of malathion and malaoxon)	Food grains Milled food grains Fruits Vegetables Dried fruits	4.0 1.0 4.0 3.0 8.0
	Parathion (Combined residues of parathion and paraoxon to be determined and expressed as parathion)	Fruits and vegetables	0.5
	Parathion methy1 (Combined residue of parathion methy1 and its oxygen analogue to be determined and expressed as parathion methy1)	Fruits Vegetable	0.2 1.0
	Phosphamidon residues (expressed as the sum Of Phosphamidon and itsdesethy1 derivative	Foodgrins Milled Foodgrains Fruits and Vegetables	0.05 Nil 0.2
	Phyrethrins (Sum of pyrethrins I and II and other structurally related insecticidal ingredients of pyrethrum)	Foodgrains Milled foodgrains Fruits and Vegetables	Nil Nil 1.0
	Chlorfenvinphos	Foodgrains	0.025

		Meat and Poultry Milk and Milk products Egg Coffee (Raw Beans)	0.02 0.02 0.02(On a shell free basis) 0.1
	Paraquate-Dichloride (Determined as paraquatcations	Food grains Milled food grains Potatoes Other vegetables Cotton seed Cottonseed oil (edible refined Milk (whole) Fruits	0.1 0.025 0.2 0.05 0.2 0.05 0.01 0.05
	Phosalone	Pears Citrus fruits Other fruits Potatoes Other vegetables Rapeseed/Mustard oil (crude)	2.0 1.0 5.0 0.1 1.0 0.05
	Trichlorfon	Food grains Milled food grains Sugar beet Fruits and vegetables Oil seeds Edible oil (refined) Meat and Poultry Milk (whole)	0.05 0.0125 0.05 0.1 0.1 0.05 0.1 0.05
	THIOMETON (Residues determined as thiometon its sulfoxide and sulphone expressed as thoimeton)	Food grains Milled food grains Fruits Potatoes, Carrots and Sugar beets Other vegetables	0.025 0.006 0.5 0.05 2.5
	Acephate	Safflower seed Cotton seed	2.0 2.0
	Methamido-phos (A Metabolite of Acephate)	Safflower seed Cotton seed	0.1 0.1
	Aldicarb (Sum of Aldicarb, its sulphoxide and sulphone, expressed as Aldicarb)	Potato Chewing Tobacco	0.5 0.1
	ATRAZINE	Maize Sugarcane	Nil 0.25
	Carbendazim	Food grains	0.5

		Milled food grains Vegetables Mango Banana (whole) Other fruits Cotton seed Groundnut Sugar beet Dry fruits Eggs Meat & Poultry Milk & Milk products	0.12 0.50 2.0 1.0 5.0 0.1 0.1 0.1 0.1 0.1(On shell free basis) 0.1(Carcass fat basis) 0.1 (Fat Basis)
	Benomy1	Food grains Milled food grains Vegetables Mango Banana (whole) Other fruits Cotton seed Groundnut Sugar beet Dry fruits Eggs Meat & Poultry Milk & Milk products	0.5 0.12 0.5 2.0 1.0 5.0 0.1 0.1 0.1 0.1 0.1(on shell free basis) 0.1(Carcass fat basis) 0.1(fat basis)
	Captan	Fruit & Vegetable	15.0
	Carbofuran (sum of carbofuran and 3-hydroxy carbofuran expressed as carbofuran)	Food grains Milled food grains Fruit & Vegetable Oil seed Sugarcane Meat & Poultry Milk & Milk products	0.1 0.03 0.1 0.1 0.1 0.1(carcass fat basis) 0.05(fat basis)
	Copper Oxychloride (Determined as copper)	Fruit Potato Other vegetables	20.0 1.0 20.0
	Cypermethrin (sum of isomers (fat soluble residue)	Wheat grains Milled wheat grains Brinjal	0.05 0.01 0.20

		Cabbage Bhindi Oil seeds except groundnut Meat & Poultry Milk & Milk products	2.0 0.2 0.2 0.2(Carcass fat basis) 0.01(fat basis)
	Decamethrin/Deltamethrin	Cotton seed Food grains Milled food grains	0.1 0.5 0.2
	Edifenphos	Rice Rice bran Eggs Meat & poultry Milk & Milk products	0.02 1.0 0.01(On shell free basis) 0.02(Carcass fat basis) 0.01(fat basis)
	Fenthion (sum of fenthion, its oxygen analogue and their sulphoxides and sulphones, expressed as fenthion)	Food grains Milled food grains Onion Potatoes Beans Peas Tomatoes Other vegetables Musk melon Meat & Poultry Milk & Milk products	0.1 0.03 0.1 0.05 0.1 0.5 0.5 1.0 2.0 2.0(Carcass fat basis) 0.05(fat basis)
	Frnvalerate (fat soluble residue)	Cauliflower Brinjal Okra Cotton seed Cotton seed oil Meat & Poultry Milk & Milk products	2.0 2.0 2.0 0.2 0.1 1.0(Carcass fat basis) 0.01(fat basis)
	Dithiocarbamates (the resudue tolerance limit are determined and expressed as mg/CS/Kg and refer separately to the residues arising of dithiocarbamates (a) Ethylene bis-dithio-	Food grains Milled food grains Potatoes Tomatoes Cherries Other fruits	0.2 0.05 0.1 3.0 1.0 3.0

	carbamates resulting from the use of mancozeb mane, or Zineb(including zineb derived from nabam plus zinc sulphate) (b) Dimethy1 dithiocar-bamates residue resulting from the use of ferbam or Ziram and (c) Mancozeb	Chillies	1.0
	Phenthoate	Food grains Milled food grains Oilseed Edible oils Eggs Meat & Poultry Milk & Milk products	0.05 0.01 0.03 0.01 0.05(On shell free basis) 0.05(Carcass fat basis) 0.01(fat basis)
	Phorate (sum of phorate, its oxygen anslogue and their sulphoxides and sulhones, expressed as phorate)	Foodgrains Milled foodgrains Tomatoes Other vegetables Fruits Oil seeds Edible oils Sugarcane Eggs Milk & Milk products	0.05 0.01 0.1 0.05 0.05 0.05 0.03 0.05 0.05(On shell free basis) 0.05(fat basis)
	Simazine	Maize Sugarcane	Nil 0.25
	Pirimiphos-methy1	Rice Food grains except rice Milled food grains except rice Eggs Meat & Poultry Milk & Milk products	0.5 5.0 1.0 0.05(On shell free basis) 0.05(Carcass fat basis) 0.05(fat basis)
	Alachlor	Cotton seed Groundnut Miaze	0.05 0.05. 0.1.

		Soyabeans	0.5
	Alfa Nephthy 1 Acetic Acid (A.N.A.)	Pine Apple	0.5
	Bitertanol	Wheat Groundnut	0.05 0.10
	Captafol	Tomato	5.0
	Cataphydrochlorice	Rice	0.5
	Chlormequatchloride	Grape Cotton seed	1.0 1.0
	Chlorothalonil	Groundnut Potato	0.1 0.1
	Difubenauron	Cotton seed	0.2
	Dodine	Apple	5.0
	Diuron	Cotton seed Banana Maize Ciytud(Sweet Orange) Grapes	1.0 0.1 0.5 1.0 1.0
	Ethephon	Pine Apple Coffee Tomato Mango	2.0 0.1 2.0 0.05
	Fluchloraline	Cotton seed Soya beans	0.05 0.05
	Malic Hydrazide	Onion Potato	15.0 50.0
	Metalyxy1	Bajra Maize Sorghum	0.05 0.05 0.05
	Methomy 1	Cotton seed	0.1
	Methy 1 Chloro phenoxyacetic Acid (MCPA)	Rice Wheat	0.05 0.05
	Oxydiazon	Rice	0.03
	Oxydemeton methy1	Food-grains	0.02
	Permethrin	Cucumber Cotton seed Soya beans Sunflower seed	0.5 0.5 0.5 1.0
	Quinolphos	Rice Pigeonpea	0.01 0.01

		Cardamom Tea Fish Chillies	0.01 0.01 0.01 0.2
	Thiophanatemethyl	Apple Papaya	5.0 7.0
	(a) Triazophos	Chillies Rice Cotton seed oil Soyabeans oil	0.2 0.05 0.1 0.05
	Perofenofos	Cotton seed oil	0.05
	Fenpropathrin	Cotton seed oil	0.05
	Fenarimol	Apple	5.0
	Hexaconazole	Apple	0.1
	Fenarimol	Apple	0.1
	Hexaconazole	Apple	0.1
	Iprodione	Rape seed Mustard Rice Tomato Grapes	0.5 0.5 10.0 5.0 10.0
	Tridemorph	Wheat Grapes Mango	0.1 0.5 0.05
	Penconazole	Grapes	0.2
	Myclobutanil	Groundnut seed Grapes	0.1 1.0
	Sulfosulfuron	Wheat	0.02
	Trifluralin	Wheat	0.05
	Ethoxysulfuron	Rice	0.01
	Metolachlor	Soyabean oil	0.05
	Glyphosate	Tea	1.0
	Linuron	Pea	0.05
	Oxyfluorfen	Rice Groundnut oil	0.05 0.05
	Carbosulfan	Rice	0.2
	Tricyclazole	Rice	0.02
	Imidacloprid	Cotton seed oil Rice	0.05 0.05
	Butachlor	Rice	0.05

	Chlorimuron-ethy1	Wheat	0.05
	Diclofop-methy1	Wheat	0.1
	Metribuzin	Soyabean oil	0.1
	Lambdacyhalothrin	Cotton seed oil	0.05
	Fenazaguin	Tea	3.0
	Pendimethalin	Wheat Rice Soyabean oil Cotton seed oil	0.05 0.05 0.05 0.05
	Pretilachlor	Rice	0.05
	Fluvalinate	Cotton seed oil	0.05
	Metasulfuon-methy1	Wheat	0.1
	Methbenzthiazuron	Wheat	0.5
	Imazethapyr	Soyabean oil Groundnut oil	0.1 0.1
	Cyhalofop-buty1	Rice	0.5
	Triallate	Wheat	0.05
	Spinosad	Cotton seed oil Cabbage Cauliflower	0.02 0.02 0.02
	Thiamethoxam	Rice	0.02
	Fenobucarb	Rice	0.01
	Thiodicarb	Cotton	0.02
	Anilphos	Rice	0.1
	Fenoxy-prop-p-ethy1	Wheat Soyabean seed	0.02 0.02
	Glyfosinate-ammonium	Tea	0.01
	Clodinafop-Propany1	Wheat	0.1
	Dithianon	Apple	0.1
	Kitazin	Rice	0.2
	Isoprothiolane	Rice	0.1
	Acetamiprid	Cotton seed oil	0.1
	Cymoxanil Triadimenton	Grapes Wheat Pea	0.1 0.1 0.1
	Fosetyl-Al	Grapes Cardamom	10 0.2
	Isoprturon	Wheat	0.1

(14) A mixed food containing one or more of the foods in which pesticide residues are permitted shall not contain such residues in greater amount than is permitted for the quantity of the food or foods containing residues used in the preparation of the mixed food.

(15) Any article of food containing the residue of two or more of the pesticides specified unless the sum of the fractions obtained by dividing the quantity of the pesticide present by the maximum quantity of each pesticide permitted to the present if use alone shall not exceed unity.

(16) "Microorganisms and their toxins" includes bacteria, fungi and their toxins:

(17) No food shall be prepared or advertised for sale or sell ready for consumption, which is contaminated with pathogenic microorganisms.

(18) No food shall contain bacteria in proportion greater than the proportion given below against each item.

(iv) (19) Without prejudice to the standards laid down in these rules, whenever water is used in the manufacture or preparation of any article of food such water shall be free from microorganism likely to cause disease and also from chemical constituents, which may impair health.

MICROORGANISMS AND THEIR TOXINS

Food	**Total Plate Count at 37^0C For 48 hr. Max**	**Coliform Count At 37^0C for 48 hr. Max**	**Escherichia Coli Count.**
Pasteurized milk, Pasteurized cream and milk powder (including full cream and skim milk powder).	10^5 per g or per ml	***5 per ml.***	
Ice cream.	$5x10^4$ per g	***10 per ml.***	Absent in 1 g
Meat and meat product ready for connsumption, excluding meat and meat product in hermetically sealed containers.	10^6 per g	***5x10 per ml.***	
Fish and fish product ready for consumption excluding fish and fish product in	10^6per g	***5x10 per ml.***	
Infant formula.	10^4 per g	***10 per ml.***	
Liquid whole egg, liquid egg yolk and liquid egg white.	$5x10^4$ per ml	***5x10 per ml.***	

Dried whole egg, Dried liquid egg Yolk and dried Liquid egg white.	$5x10^4$ per ml	***5x10 per ml.***	

Note: (i) In places where the Escherichia coli count is not specified, it shall comply with good manufacturing practice.

Note: (ii) Salmonella and Staphylococcus shall be absent.

(20) (a)"Irradiation" means any physical procedure involving the intentional exposure of food to ionizing radiation.

(b) "Ionizing radiation" means all radiations capable of producing ions directly or indirectly in their passage through matter.

(c) **"**Irradiated food" means articles of food subjected to radiation by:

(i) Gamma rays from radio nuclides Co60 and Cs137;

(ii) X-rays generated from radiation apparatus operated at or below an energy level of 5 Mev: and

(iii) electrons emitted from radiation apparatus operated at or below and every level of 10 Mev.

(iv) The over all average doses absorbed by a food subjected to treatment shall not exceed ten kilo gray (kGy).

(21) No person shall import, prepare or advertise for sale or sell any food that has been intentionally exposed to ionizing radiation unless it qualifies "The Pakistan Nuclear Safety and Radiation Protection (treatment of food by ionizing radiation) regulations 1996.

(22) No person shall import, prepare or advertise for sale or sell any food that has been evidently exposed to ionizing radiation.

(23) A package of irradiated food shall bear the following declaration and logo namely:

"Processed by irradiation method"
"Date of Irradiation"
"Licence No"
"Purpose of Irradiation".

"Contains acidity in excess of the limit prescribed in rule 12".

12. Standards of nature, substance or quality of foods.– An article of food listed in Appendix II to these rules, when not conforming to the standards shown against it, shall be deemed to be not of the nature substance or quality which it purports to be within the meaning of section 6.

PART - III

13. Mode of labeling of pre-packed food.– (1) No person shall sell by retail or display for sale by retail, any pre-packed food unless there appears on a label marked on or securely attached to the wrapper or container a true statement which:

(a) shall be clearly legible and shall appear conspicuously and in a prominent position on the label and if the food is pre-packed in more than one wrapper or container, the label shall be marked on or attached to the innermost wrapper or container and if it is not clearly legible through the outermost wrapper or container, a label bearing like statement shall be marked on the outermost wrapper or container;

Expalanation.- For purposes of this clause a "Liner" (that is to say a plain immediate wrapping which under ordinary conditions of use would not be moved from the next outer wrapper or container) shall not be counted as a wrapper or container;

(b) shall specify the name of either the packer or the labeller or the manufacturer of the food and complete address (including location) at which such person carries on business; and, in case of imported food, the name of either the packer or the labeller or the manufacturer or the agent, as the case may be, the name and complete business address of the importer in Pakistan and the name of the country of origin of the food:

(i) a telegraphic or code address or an address at a post office; or

Expalanation.- the name of the company or the trade name of the manufacturer, packer, seller on any disc or cap or lid or other device used for sealing any package of food shall not be sufficient;or

(ii) if more than one addresses appear, the addresses shall be presumed to be that of the manufacturer, packer of the food and one of these addresses at which such food is packed or labelled, shall appear at a prominent position and shall also be marked by a line all around as boundary line;

(c) shall also specify:

(i) in case of food consisting of one ingredient, the appropriate designation of the ingredient;

(ii) in case of food made of two or more ingredients, the common or usual name (if any) of the food and the appropriate designation of each ingredient, and unless the quality or proportion of each ingredient is specified, the ingredients shall be specified in the order of the proportion in which they were used: the ingredient used in the greatest proportion (by mass) being specified first:

Provided that:

(a) it shall not be necessary to state that the food contains water;

(b) where a food contains an ingredient which is made from two or more constituents, the appropriate designations of these constituents shall be so specified that it shall not be necessary to specify the appropriate designation of that ingredient.

(c) **Expalnation.-**For purposes of this clause "appropriate designation" means a name or description, which shall indicate to a prospective purchaser the true nature of the ingredient or constituents to which it is applied; and

(d) shall specify the net weight of the food in the wrapper or container expressed in terms of volumetric measure or net mass/weight or any other measure to indicate the quantity of the content.

Expalantion.-In the case of mass/weight measure, suitable words like 'net' shall be used to describe the manner of measure declaring the net quantity of the commodity contained in the package, the mass/weight of the wrappers and materials other than commodity shall be excluded.

(2) The label shall also bear:

(a) the license Number: the concerned Executive District Officer of Health will issue permanent license Number and the license will be renewed every year;

(b) a distinctive batch number or lot number or code number, either in numerical or alphabets or in combination, representing the batch number or lot number, code number being preceded by the words 'Batch No. or batch or lot No.' or lot or any distinguishing prefix:

Provided that in case of canned food, the batch number may be given at the bottom, or on the lid of the container, but the words "Batch No", given at the bottom or on the lid, shall also appear on the body.

(3) In this rule:

(a) "date marking", in relation to a package of food, means a date permanently marked or embossed on the package or in the label on the package of any food signifying the manufacturing date and the expiry date or the date of minimum durability of that food as the case may be;

(b) "manufacturing date ", in relation to a package of food, means the date on which the commodity is manufactured or pre-packed in Pakistan;

(c) "expiry date", in relation to a package of food, means the date after which the food, when kept in accordance with any storage conditions set out at the label of such food, may not retain the quality attributes normally expected by a consumer; and

(d) "date of minimum durability", in relation to a package of food, means the date until which the food, when kept in accordance with any storage conditions set out at the label of such food, will retain the specific qualities for which tacit or express claim has been made.

(4) For purposes of this rule:

(a) marking in clear unmistakable date, which can be correctly interpreted by the consumer, shall alone constitute date marking. The marking of date in code form for lot identification does not constitute date marking;

(b) "manufacturing date" is the date expressed in day, month and year or in months and year;

(c) expiry date in respect of any food shall be shown in one of the following forms:

(i) EXPIRY DATE OR EXP DATE : the date expressed in day, month and year or in months and year may be inserted;

(ii) USE BY : the date, expressed in day, month and year or in month and year may be inserted; or

(iii) CONSUME BY or CONS BY the date, expressed in day, month and year may be inserted;

(iv) BEST BEFORE or BEST BEF: the date, expressed in day, month and year or in month and year may be inserted":

Provided that where only a month of particular year is stated, it shall be presumed that the expiry date or date of minimum durability, as the case may be, shall be by the end of that month.

(5) The foods specified in sub- rule(6), requiring date marking when in a package intended for sale, shall bear or have embossed, the label or elsewhere on the package, a date marking in accordance with any of the alternatives as specified in sub rules (3) and (4):

(6) Biscuits, bread, canned food for infants, any cereal based food for infants and children, chocolate and its products, coconut and coconut products, edible fats and oils other than margarine in hermetically sealed containers, food additives with a shelf life of less than 18 months, infants formula, low energy form of any food which requires date marking, meat product in non-hermetically sealed containers, milk and milk products other than hard cheese, non-carbonated U.H.T soft drink, nutrient supplement or preparation of nutrient supplement sold as food, pasteurized fruit juice, pasteurized vegetable juice, peanut butter, sauces, bottled water, packaged drinking water and natural mineral water.

(7) Where the validity of the date marking of food to which this rule applies is dependent upon its storage, direction of that food shall also be indecated on its label.

(8) No person shall prepare or advertise for sale or sell any food specified in sub-rule (5) unless the package containing such food bears a date marking in any of the forms as specified in sub-rule (3) and (4).

(9) The date marking required by these rules shall be in capital boldface lettering of a non-serif character not smaller than 6 point.

(10) The lettering of every word on statement required by these rules shall appear in a colour that contrasts strongly with its background.

(11) Except as otherwise provided in these rules, any word, statement, information or direction that is required by these rules to be specified on the label of any package of food shall be in Urdu or English script:

Provided that nothing herein contained shall prevent the use of any other language in addition to the language required under this rule.

(12) The types used for declaration shall be of such dimension that it shall be conspicuous to a reader and shall not be in any case less than 3 mm in height. The word

‘Synthetic’, whenever it is used, shall be of the same size as used for the name of the product:

Provided that the height of types used in the declaration having an area not greater than 25 square centimeters shall not be less than 1.0 mm.

(13) The label shall not contain any reference to the Ordinance or any of these rules or any comment on, or reference to or explanation of any particulars or declaration required by the Ordinance or any of these rules to be included in the label which directly or by implication, contradicts, qualifies or modifies such particulars or declaration.

(14) Words to indicate quality, superiority, or any other words of similar meaning shall not appear on the label of any package of food.

(15) No written, pictorial, or other descriptive matter appearing on or attached to, or supplied or displayed with any food shall include any false or misleading statement, word, brand, picture or mark purporting to indicate the nature, stability, quantity, strength, purity, composition, weight, origin, age, effect, or proportion of the food or any ingredient thereof.

(16) There shall be no advertisement of any food, which is misleading or is in contravention of the provisions of ordinance and the rules made thereunder.

(17) No written, pictorial, or other descriptive matter appearing on or attached to or supplied or displayed with any food shall include the word “ Pure”, or any other word having indentical implecations unless the food is free from other added substances, abstraction or is of the composition, strength and quality required under these rules:

(18) unless specifically permitted by these rules, claims for therapeutic or prophylactic action or word of similar meaning shall not be made on any food.

(19) There shall not appear on the label of any package containing food for sale the words “Recommended by the medical profession” or any words which imply or suggest that the food is recommended, prescribed, approved by medical practitioners.

(20) Unless otherwise prescribed in these rules, no claim or suggestion shall be made that a food is a source of energy unless:

(a) there is stated on the label the quantity of that food to be consumed in one day;

(b) there is stated on the label the following statement;

“(Here state the weight of food) of this food contains (here state the weight of protein) energy”;

(iii) (c) the amount of the food stated on the label as the quantity to be consumed in one day yields at least 300 kcal.

(21) Unless otherwise prescribed in these rules, no claim or suggestion shall be made that a food is a source of protein unless:

(a) there is stated on the label the quantity of that food to be consumed in one day;

(b) there is stated on the label the following statement;

"(here state the weight of food) of this food contains (here state the weight of protein) protein";

(c) at least 20 per cent by weight of the calorie yield of the food is derived from protein; and

(d) the amount of food stated on the label as the quantity to be consumed in one day contains at least 10 g of protein.

(22) A recipe involving the use of any food or a suggestion or pictorial illustration on how to serve the food shall not be included on the label unless the recipe, suggestion or pictorial illustration is immediately preceded or followed or otherwise closely accompanied by the expression "Recipe" or "Serving Suggestion", as the case may be, in printed letters of minimum of 1.5 mm in height.

(23) There shall not appear on the label of any pet food any word to indicate, directly or by implication, that the food is also fit or suitable for human consumption.

(24) The use of the word "milk " alone on any label shall be reserved exclusively for describing milk complying with the standards laid down for milk.

(25) Any built-up product shall be so labelled as to make it clear to the purchaser/consumer that the product is artificial and is not made solely from milk and in no case shall the word "milk" be larger than any other word, descriptive of the product on the label.

(26) There shall be written on the label of a package containing milk or milk products, other than buffalo's milk and the product not prepared from buffalo's milk, in not less than 10 point lettering, the common name of the animal which is its source.

(27) A picture of an infant or parts of an infant shall not be displayed on the label of a package containing milk or milk product.

(28) There shall be written on the label of a package containing milk or milk product or on the accompanying leaflet a detail instructions or direction for its preparation and storage before and after the package has been opened.

(29) Every dealer who, in the street or other place of public resort, sells or offers or exposes for sale, ice cream, malai-ki-baraf, khoa-ki-baraf, malai-ki-kulfi, khoa-ki-kulfi or frozen dessert, ice-candy, kulfi or kulfa from a stall or from a cart, borrow or other vehicle or from a basket or other container used without a staff or a vehicle shall have his name and address along with the name and address of the manufacturer, if any, legibly and conspicuously displayed on the stall vehicle or container as the case may be.

(30) Every container for infant formula shall:

(a) shall not contain anything that may discourage breast-feeding;

(b) shall contain a conspicuous notice in bold characters in the prescribed height stating the following:

"**MOTHER'S MILK IS BEST FOR YOUR BABY AND HELPS IN PREVENTING DIARRHOEA AND OTHER ILLNESSES**";

(c) shall,in addition to the notice specified in clause (b), contain such other message as may be prescribed with respect to any designated product;

(d) shallneither use expressions such as “maternalized” or “humanized” or equivalent nor shall it contain any comparison with mother’s milk;

(e) shallnot show photographs, drawings or graphics except that the graphics may be used to illustrate the correct method of preparation;

(f) shallcontain the name and address of manufacturer and of wholesale distributor if a designated product is an imported item; and

(g) shall, except for bottles, teats, pacifiers and nipple shields, contain appropriate instructions in Urdu and English for the correct preparation in words and easily understood graphics, and indicate the ingredients, composition and analysis of a designated product, required storage conditions, batch number and expiry date, and contain any warning as may be prescribed for the implementation of the Protection of Breast-feeding and Child Nutrition Ordinance, 2002.

(31) Every container of refined vegetable oil shall bear the following label:

(a) “……Refined (here insert the name of the oil) Oil”:

Provided that the container of imported edible oil shall also bear the word, “Imported” conjoined with the words “Refined (name of the oil) Oil” in uniform lettering;

(b) where the word “Polyunsaturated” appears on the label, the percentage of polyunsaturated and saturated fatty acids shall be written on the label of a package containing refined vegetable oil or blended refined vegetable oil;

(32) No person shall sell powdered mixed spices except under packed condition.

(33) Any fruit syrup, fruit juice, fruit squash, fruit beverage or cordial or crush or drink which does not contain the prescribed amount of fruit juice, shall not be described as a fruit juice, fruit squash, fruit beverage or cordial or crush or drink as the case may be and shall be described as a synthetic product.

(34) Every synthetic product shall be clearly and conspicuously marked on the label as synthetic and no container containing such product shall have a label, whether attached thereto or printed on the wrapper of such container or otherwise, which may lead the consumer into believing that it is a fruit product. Neither the word “Fruit” shall be used in describing such a product nor be sold under the cover of any label which carries picture of any fruit.

(35) Carbonated water containing no fruit juice or pulp shall not have a label, which leads the consumer into believing that it is a fruit product; and

(36) Any fruit or vegetable product claimed to be fortified with vitamin “C” shall contain not less then 40 mgm of ascorbic acid per 100 gm of the product.

14. Requirements as to the sale of pre-packed food otherwise than by retail.– Every seller who delivers any pre-packed food pursuant to a sale otherwise than by retail shall deliver the food labelled in the manner prescribed in rule 13.

15. Special requirements where presence of vitamins or minerals, essential amino acids, essential fatty acids claimed.– (1) No preparation in the form of any vitamin or mineral shall be labelled and sold as food if the largest recommended daily dosage of the preparation as stated on it furnishes an amount of vitamin or mineral in accordance with the Codex Guidelines for vitamins and mineral supplement (CAC/GL 55-2005) of Codex Alimantarious.

(2) Subject to the provisions of rule 13 fo purpose of these rules, nutrient Supplement includes any mineral, vitamin, essential amino acid or essential fatty acid which, when added either singly or in combination to food, improves or enriches the nutrient contents of food.

(3) No person shall sell any food to which nutrient supplement other than a permitted nutrient supplement has been added.

(4) No person shall sell,or offer for sale, any nutrient supplement other than a permitted nutrient supplement.

(5) Every package containing food to which an essential amino acid or essential fatty acid or both has been added shall be labelled with:

(a) the name of the essential amino acid or essential fatty acid or both, as the case may be, added to the food; and

(b) the amount of the added essential amino acid or essential fatty acid or both, as the case may be, that is contained in a specific quantity to the food.

(6) The minerals, vitamins, essential amino acids and essential fatty acids given in the Table below shall be the permitted nutrient supplement.

(7) No label on a package containing any food shall bear a claim that such food is enriched, fortified, vitaminized, supplemented or strengthened or shall contain any statement that may or is likely to convey the meaning that the food is a source of one or more vitamins or minerals or both, unless a reference quantity of the food as given in first column of the Table-II given below provides not less than the amount of vitamin or mineral as the case may be, given in relation thereto in column 2 to 17 of the said Table, that is derived from the source of nutrient specified in Table I.

(8) Notwithstanding sub-rule (7), the label on a package of food to which an essential amino acid or essential fatty acid or both has been added may bear a claim that the food is enriched or supplemented with essential amino acid or essential fatty acid or both where such claim is made, it shall be expressed on the label in the following form:

> “This food is (state the quality claim as aforesaid) with (state the amount in milligram) of (state whether essential amino acid, essential fatty acid or both)”.

(9) Where any food is claimed to possess the quality as specified in sub-rule (7), there shall be written on the label of the package containing such food the following words:

"This food is (state the quality claimed as in sub-rule (7) with (state the vitamins or minerals or both and their amount in units as expressed in Table II".

(10) Every package of nutrient supplement sold, intended for sale, advertised for sale, imported as food shall be labelled with the maximum strength of the vitamin or mineral contained therein stated measurement.

(11) No preparation in the form of any vitamin or mineral shall be labelled and sold as food if the largest recommended daily dosage of the preparation as stated on it furnishes an amount of vitamin or mineral in accordance with the Codex Guidelines for vitamins and mineral supplement (CAC/ GL 55-2005) of Codex Alimentarious.

TABLE I

The following nutrient supplements are permitted in food:

1. Vitamin and mineral

Pantothenic acid
- Calcium pantothenate
- D- pantothenic acid
- D- pantothenyl alcohol
- Panthenol

Iron (III)- Casein Complex

Iron (Fe)
- Carbonyl iron
- Electrolytic iron
- Ferric ammonium citrate
- Ferric Caseinate
- Ferric citrate
- Ferric gluconate
- Ferric phosphate
- Ferric pyrosphate
- Ferrous Carbonate, stabilized
- Ferrous citrate
- Ferrous fumarate
- Ferrous gluconate
- Ferrous lactate
- Ferrous succinate
- Ferrous Sulphate
- Hydrogen reduced iron
- Sodium ferric pyrophosphate

Biotin (Vitamin H)
- d-biotin

Folate
- Folacin
- Folic acid

Phosphorus (P)

- Calcium phosphate, (mono, di and tri basic)
- Magnesium phosphate (di and tri basic)
- Potassium phosphate (mono, and basic)
- Sodium phosphate (di basic)

Inositol

Iodine (I)

- Potassium Iodate
- Potassium Iodide
- Sodium Iodate
- Sodium Iodide

Potassium (K)

- Potassium bicarbonate
- Potassium Carbonate
- Potassium chloride
- Potassium citrate
- Potassium gluconate
- Potassium glycerophosphate
- Potassium phosphate (mono and di basic)

Calcium (Ca)

- Calcium carbonate
- Calcium chloride
- Calcium gluconate
- Calcium glycerophosphate
- Calcium lactate
- Calcium oxide
- Calcium phosphate (mono, di- and tri- basic)
- Calcium pyrophosphate
- Calcium sulphate

Chloride (Cl)

- Calcium chloride
- Choline chloride
- Magnesium chloride
- Potassium chloride
- Sodium chloride
- Sodium chloride, iodized

Choline

- Choline bitartrate
- Choline chloride

Copper (Cu)

- Copper gluconate
- Cupric carbonate
- Cupric citrate
- Cupric sulphate

Magnesium (Mg)

- Magnesium carbonate
- Magnesium chloride
- Magnesium citrate
- Magnesium oxide
- Magnesium phosphate (di basic and tri basic)
- Magnesium sulphate

Manganese (Mn)

- Manganese carbonate
- Manganese chloride
- Manganese citrate
- Manganese sulphate

Sodium (Na)

- Sodium ascorbate
- Sodium bicarnbonate
- Sodium carbonate
- Sodium chloride
- Sodium chloride, iodized
- Sodium citrate
- Sodium ferric pyrophosphate
- Sodium gluconate
- Sodium iodate
- Sodium iodide
- Sodium lactate
- Sodium pantothenate
- Sodium sodium phosphate (mono, di and tri basic)
- Sodium sulphate.

Niacin / Nicotinic acid

- Nicotinamide / Niacinamide

Pro Vitamin A

- Beta-carotene

Riboflavin (Vitamin B_2)

- Riboflavin
- Riboflavin
- Riboflavin

Selenium

- Sodium selenate
- Sodium selenite

Milk-Protein Iron Complex (MPIC)

Taurine

Thiamine (Vitamin B_1)

Thiamine chloride hydrochloride
Thiamine hydrochloride
Thiamine mononitrate

Vitamin A

Retinol (vitamin A alcohol)
Retinol (vitamin A alcohol)
Retinol (vitamin A alcohol)
Retinyl propionate

Vitamin B_6

Pyridoxal
Pyridoxamine
Pyridoxine
Pyridoxine hydrochloride

Vitamin B_{12}

Cyanocobalamin
Hydroxyconbalamin

Vitamin C
Ascorbic acid
Ascorbyl-6 –palmitate
Calcium ascorbate
Sodium ascorbate

Vitamin D
Cholecalciferol – cholesterol
Vitamin D_2 (Ergocalciferol)
Vitamin D_3 (Ergocalciferol)

Vitamin E
D – alpha – tocopherol
dl – alpha – tocopherol
D – alpha – tocopherol acetate
dl – alpha – tocopherol acetate
D – alpha – tocopheryl succinate
dl – alpha – tocopheryl succinate
Tocopherol

Vitamin K
Phytylmenaquinone

Zinc (Zn)
Zinc acetate
Zinc chloride
Zinc oxide
Zinc sulphate

2. Amino acids
Isoleucine
Leucine
Lysine
Methionine
Phenylalanine
Threonine

Valine
Histidine
Arginine

3. Fatty acids
Alph- linolenic acid
Arachidonic acid
Docosahexaenoic acid
Elcosapentaenoic acid
Linoleic acid
Linolenic acid

4. Nucleotides
Adenosine 5 – monophosphate
Cytidine 5- monophosphate
Guanosine 5- monophosphate
Inosine 5- monophosphate
Uridine 5- monophosphate

Except as otherwise provided in these rules, the maximum permitted nutrient supplement shall be governed by Good Manufacturing Practice (GMP)

TABLE II

	NUTRIENT SUPPLEMENT															
(1) Food	(2) Vitamin A, Vitamin A alcohol and esters, carotenes (I.U. OF Vitamin A)	(3) Vitamin B_1, thiamine, thiamine hydrochloride, (milligrams of mononitrade	(4) Vitamin B_2, roboflavin (milligrams of riboflavin)	(5) Vitamin B6, pyridoxine, pyridoxal pyridoxamine (milligrams of riboflavin)	(6) Biotin (micrograms of biotin)	(7) Pantothenic acid, pantothenyl alcohol (milligrams of pantothenic	(8) Niacin, niacinamide, nicotinic acid, nicotinamide (milligrams of niacin)	(9) Vitamin C, ascorbic acid (milligrams of ascorbic acid)	(10) Vitamin D, Vitamin D_2, Vitamin D_3 of (I.U. of vitamin D)*	(11) Vitamin E, alphatocopherol (I.U. of vitamin E)*	(12) Calcium (milligrams of clacium)	(13) Iodine (micrograms of iodine)	(14) Iron (milligrams of ioron)	(15) Phosphorus (milligrams of phosphours)	(16) Folic acid (Micrograms of folic acid)	(17) Vitamin B_{12} (micrograms of vitamin B_{12}
Reference Quantity: 100 milliliters	500	0.21	0.33	0.42	40	1.46	2.3	6	83	4.2	150	20	2.1	150	8	0.3
Bread	2,000	0.83	1.33	1.67	165	5.83	9.2	25	333	16.7	580	85	0.3	580	32	1.2
Breakfast cereal (as purchased)	670	0.82	0.44	0.56	55	1.94	3.1	8	111	5.6	190	30	2.8	190	11	0.4
Condensed milk-sweetened and unsweetened;	2,000 12,000 1,000 4,000	0.83 5.00 0.42 1.67	1.33 8.00 0.67 2.67	1,67 10.0 0.83 3.33	165 1,00 0 85	5.83 35.0 0 2.92	9.2 55.0 0 4.6	25 150 13 50	333 2,000 167 667	16.7 100.0 8.3 33.3	580 3,500 290 1,170	85 500 40 165	4.3 50.0 4.2 16.7	580 3,500 290 1,170	32 192 16 64	1.2 7.2 0.6 2.4
Dried milk powder (Full cream or skimmed)	1,000	0.42	0.67	0.83	335 85	11.6 7 2.29	18.3 4.6	13	167	8.3	290	40	4.2	290	16	0.6
Extract of meat or vegetable or yeast (modified or not)																
Flour (wheat)																
Malted milk powder																
Other solid food not specified above excluding canned food for infant and children and cereal based food for infants and children																

TABLE III

	NUTRIENT SUPPLEMENT															
(1) Food	(2) Vitamin A, Vitamin A alcohol and esters, carotenes (I.U. OF Vitamin A)	(3) Vitamin B_1, thiamine, thiamine hydrochloride, mononitrade (milligrams of	(4) Vitamin B_2, roboflavin (milligrams of riboflavin)	(5) Vitamin B6, pyridoxine, pyridoxal pyridoxamine (milligrams of riboflavin)	(6) Biotin (micrograms of biotin)	(7) Pantothenic acid, pantothenyl alcohol (milligrams of pantothenic	(8) Niacin, niacinamide, nicotinic acid, nicotinamide (milligrams of niacin)	(9) Vitamin C, ascorbic acid (milligrams of ascorbic acid)	(10) Vitamin D, Vitamin D_2, Vitamin D_3 of (I.U. of vitamin D)*	(11) Vitamin E, alphatocopherol (I.U. of vitamin E)*	(12) Calcium (milligrams of clacium)	(13) Iodine (micrograms of iodine)	(14) Iron (milligrams of ioron)	(15) Phosphorus(milligrams of phosphours)	(16) Folic acid (Micrograms of folic acid)	(17) Vitamin B_{12} (micrograms of vitamin B_{12}
Reference Quantity100 milliliters	600	0.25	0.40	0. 50	50	1.75	2.8	8	100	5.0	180	25	2.25	180	9.6	0.4
Liquid food including vegetable juice, fruit juice, fruit juice concentrate, fruit syrup, flavoured syrup (diluted according to directions																

NOTE:

In places where the symbol "*" appears, it means that the substance may be expressed in milligrams or micrograms using the following conversion factor:

(a) in column (2)1 I.U. Vitamin A is equivalent to 0.3 micrograms Vitamin A alcohol (rentinol);

(b) in column (10) 1 I.U Vitamin D is equivalent to 0.025 micrograms Vitamin D_2/Vitamin D_3; and

(c) in column (11) 1I.U. Vitamin E is equivalent to 1 micrograms dl-alphatocopherl acetate.".

16. Exemption from labelling of food.– The provisions of rules 13, 14 and 15 shall not apply to:

(a) fruit and vegetables, including fruit and vegetables which have been preserved by freezing or by gas or cold storage or by any other method of storage, but excluding fruit or vegetables which have been canned or bottled or preserved otherwise than as aforesaid;

(b) liquid milk (not including prepacked liquid milk);

(c) shell eggs;

(d) fish of any description, including shell fish and processed fish, but not including canned or bottled fish or any manufactured product containing fish;

(e) any food served by a caterer as a meal or part of a meal in the course of his catering business.

17. Defacing of labels.–No person shall remove, add to, alter deface or render illegible any statement upon a label printed on or attached to a wrapper or container in pursuance of rules 13, 14, 15 and 16.

18. Labelling of milk and milk products.– (1) Every receptacle containing milk and milk products shall distinctly state on a label in Urdu or English the animal from which the milk is derived and the name in case of prepared milk product.

(2) The label in case of glass or earthenware vessel or metallic or plastic ware containing milk shall be a printed label, etched, engraved on the glass or earthenware or painted thereon.

(3) The label in case of a metallic vessel shall be a plate to be fixed on the receptacle.

(4) The provisions of sub-rule (1) to (3) shall apply *mutatis mutandis* to skimmed milk.

(5) Every package containing condensed milk or any milk product shall bear a label upon which is printed one of the following declarations as may be applicable or such other declaration substantially to the like effect as may be allowed by the Government:

(a) In the case of condensed milk (unsweetened):

CONDENSED MILK UNSWEETENED This package contains the equivalent of (x)……liters of milk

(b) In the case of condensed milk (sweetened):

CONDENSED MILK SWEETENED This package contains the equivalent of (x)……liters of milk with added sugar

(c) In the case of condensed skimmed milk (unsweetened):

CONDENSED SKIMMED MILK UNSWEETENED This package contains the equivalent of (x)……liters of skimmed milk

(d) In the case of condensed skimmed milk (sweetened):

CONDENSED SKIMMED MILK SWEETENED This package contains the equivalent

of (x)…… liters of skimmed milk with added sugar

(e) In the case of condensed milk (sweetened and flavoured):

This has been flavoured with ……..

NOT TO BE USED FOR INFANTS BELOW SIX MONTHS

(f) In the case of condensed milk/condensed skimmed milk (unsweetened) sterilized by ultra-high temperature (UHT) treatment:

This has been sterilized by UHT process

(g) Every package containing milk for making tea /tea whitener liquid shall bear the following label:

***---------Milk for making tea/tea whitener liquid**

****Contains added sugar**

**Here insert the brand or trade name in the equal uniform size (lettering).*

***Size of font shall be not less than 12 point lettering.*

(h) Every package containing tea whitener powder /tea mix powder shall bear the following label:

***--------- Milk powder for making tea/tea whitener powder**

****Contains added sugar**

**Here insert the brand or trade name in the equal uniform size (lettering).*

*** Size of font shall be not less than 12 point lettering.*

(i) Frozen desserts:

There shall be written on the label of a package containing frozen dessert, "the brand or trade name" immediately followed by the words "frozen dessert contains edible vegetable oil" in equal uniform lettering. These words shall form the first line or lines of the label and no other word shall appear in the same line or lines and these words will be surrounded by rectangular surrounding line:

*……. **Frozen Dessert Contains**
****……..Edible Vegetable Oil**

**Here insert the brand or trade name in the equal uniform size (lettering).*

*** Source of edible vegetable oil.*

(j) In the case of milk powder:

MILK POWDER

This tin contains the equivalent of (x)……Litres of milk.

(k)

In the case of milk powder which contain lecithin:

MILK POWDER IN THIS PACKAGE CONTAINS LECITHIN

(l) In the case of partly skimmed milk powder:

PARTLY SKIMMED MILK POWDER **This tin contains the equivalent of** **(x)……Litres of partly skimmed milk having** **….. Percent milk fat.**

(m) In the case of skimmed milk powder:

SKIMMED MILK POWDER **This tin contains the equivalent of** **(x)……Litres of skimmed milk having**

(6) The declaration shall in each case be completed by inserting at (x) the appropriate number in figures' for example, "One and Half (1/½)", any fraction being expressed as eight quarters of a half, as the case may be […….].

(7) There shall not be placed on any package containing condensed milk any comment on, explanation of, or reference to, either the statement of equivalence, contained in the prescribed declaration or on the words "machine skimmed" or skimmed" or unsuitable for babies" except instructions as to dilution as follows:

> "To make a fluid not below the composition of milk or skimmed milk as the case may be with the contents of this package, add (here insert the number of parts) of water by volume to one part by volume of this condensed milk."

(8) Sweetened condensed milk and other similar products which are not suitable for infant feeding shall not contain any instructions for modifying them for infant formula.

(9)Wherever the word "milk" appears on the label of a package of condensed skimmed milk or of part of the description of the contents, it shall be immediately preceded or followed by the word "partly skimmed", as the case may be.

(10) Every package of Cheese (hard), surface treated with Natamycin, shall bear the following label, namely:

Surface treated with Natamycin

(11)There shall be written on the label of a package containing margarine, "the brand or trade name" immediately followed by the words "margarine contains edible vegetable oil" in the equal uniform lettering. These words shall form the first line or lines of the label and no other word shall appear in the same line or lines and these words will be surrounded by rectangular surrounding line.

*……. **Margarine** ****Contains ……..edible Vegetable Oil**

** (…….) insert the brand or trade name.*

***Source of edible Vegetable oil.*

(12) Every package containing an admixture of refined vegetable oils shall carry the following label namely:-

This Blended refined edible vegetable oil contains an admixture of:

(i) *……%By weight.

(ii) *……..% By weight.

(*Name of refined vegetable oils)

Date of Packing……

(13) A package containing tea with added flavour shall bear the following label, namely:-

FLAVOURED TEA

(14) (a) Any package containing coffee and chicory mixture shall not be labelled “French coffee” or any other misleading expression.

(b) Any package containing coffee and chicory mixture shall have affixed to it a label upon which shall be printed the following declaration.

Coffee blended with chicory

This mixture contains:

Coffee per cent.

Chicory per cent.

(15) Every container or package of flavour emulsion and flavour paste meant for use in carbonated or non-carbonated beverages shall carry the following declaration, in addition to the instruction for dilution, namely:

“FLAVOUR EMULSION AND FLAVOUR PASTE FOR USE IN CARBONATED OR NON-CARBONATED BEVERAGES ONLH”

(16) Every package containing atta/maida treated with improver or bleaching agents shall carry the following label, namely:

WHEAT FLOUR TREATED WITH IMPROVER/

BLEACHING AGENTS.

TO BE USED BY BAKERIES ONLY

(17) Every package of dried glucose syrup, containing sulpherdioxide exceeding 40ppm, shall bear the following:

DRIED GLUCOSE SYRUP

FOR USE IN SUGAR CONFECTIONERY ONLY

(18) Every package of chewing tobacco shall bear the following label, namely:-

“Chewing of tobacco is injurious to health”

(19) Every package of food which is permitted to contain an artificial sweetener, mentioned in rule 10, shall carry the following label, namely:-

(i) This ….(Name of food) contains…..(Name of artificial sweetener)

(ii) Not recommended for children

(iii) Not for phenylketoneuries (if aspartame is added)

(20)Every package of Aspertame (Methyl ester), Acesulfame-K and Saccharin Sodium marketed as Table Top Sweetener and every advertisement for such Table Top Sweetener shall carry the following label, namely:

Contains…..…..(Name of artificial sweetener) Not recommended for children

Provided that the package of aspartame (Methyl ester) marketed as Table Top Sweetener and every advertisement for such Table Top Sweetener shall also carry the following label, namely:

"Not for Phenylketoneurics"

(21) Every package of pan masala and advertisement relating thereto shall carry the following warning, namely:-

"Chewing of Pan Masala is injurious to health"

(22)Every package containing "cinnamon" shall bear the following label:

CINNAMON (DALCHINI)

(23) Every package of mixed masala fried in oil shall bear the following label:-

MIXED MASALA (FRIED) **THIS MASALA HAS BEEN FRIED IN ……..** (Name of the edible oil used)

(24)Every package of drinking water shall carry the following declaration in capital letters having the size of each letter as prescribed in rule 13.

PACKAGED/BOTTLED DRINKING WATER

One time usable plastic/pet bottles of packaged drinking water shall carry the following declaration:.

CRUSH THE BOTTLE AFTER USE

(25) Every package of mineral water shall carry the following declaration in capital letters having the size of each letter as prescribed in rule 13.

NATURAL MINERAL WATER

One time usable drinking water shall carry the above declaration.

(26) Every package of fruit squash, by whatever name it is sold, containing additional sodium or potassium salt, shall bear the following label, namely:

"IT CONTAINS ADDITIONAL SODIUM /POTASSIUM SALT"

(27) Every package of synthetic food colour preparation and mixture shall bear a label upon which is printed a declaration giving the percentage of total dye content.

(28) Every advertisement for and/or a package of food containing added Monosodium Glutamate shall carry the following declaration, namely:

This package of ……(name of the food) contains added **MONOSODIUM GULTAMATE:** **NOT RECOMMENDED FOR INFANT BELOW-12MONTHS**

(29)Every container or package of edible common salt or iodised salt containing permitted anticaking agent shall bear the following label, namely:

EDIBLE COMMON SALT OR IODISED SALT

CONTAINS PERMITTED ANTICAKING AGENT

* Stricke out whichever is not applicable

(30) Every package of irradiated food shall bear the following declaration and logo, namely:-

PROCESSED BY IRRADIATION METHOD /

DATE OF IRRADIATION /

lOGO

LICENCE NO/

PURPOSE OF IRRADIATION

(31) Every package of food having added caffeine shall carry the following label, namely:

CONTAINS CAFFEINE

PART- IV

19. Manner of manufacture, sale or custody for sale.– (1) Every utensil or vessel used for manufacturing, preparing or keeping any articles of food or ingredient of food intended for sale, shall be kept at all times in good order and repair and in a clean and good sanitary condition, and shall not be used for any other purpose.

(2) No person shall use for manufacturing, preparing or keeping any article of food or ingredient of food, intended for sale, any utensil or vessel which is imperfectly enameled or imperfectly tinned or which is made of such material or is in such state as is likely to injure or affect the quality of such food or render it noxious.

(3) Every utensil or vessel containing any article of food or ingredient of food intended for sale shall all times be either provided with a tight fitting cover or kept closed or covered by a properly fitting lid or by a close fitting cover of gauze, net or other material of a texture sufficiently fine to protect the article of food or ingredient of food completely from dirt, flies and other insects.

(4) No utensil or vessel for the manufacture or preparation of or containing any article of food or ingredient of food intended for sale shall be kept in any place in which such utensil or vessel is likely by reason of impure air or dust or any offensive noxious or deleterious gas or substance or any noxious or injurious emanation, exhalation or effluvium, to be contaminated and thereby render such food noxious.

(5) All packages, wrappers or containers, containing food meant for sale shall be of such material as will not contaminate the food and render it noxious.

(6) The food prepared in a utensil or container having one or more of the following defects or made of the following materials or metals, when used in the preparation of food shall be deemed to render it unfit for human consumption:

(a) containers which are rusty;

(b) enameled containers which have become chipped and rusty;

(c) copper or brass containers which are not properly tinned;

(d) containers made of aluminum not conforming in chemical composition to limits prescribed by the Government;

(e) containers made of plastic materials not conforming to limits prescribed by the Government, used as appliances or receptacles for packing or storing whether partly or wholly, food articles; and

(f) second hand tin containers used for packaging of edible oils and fats.

(7) All vehicles, carriers and other devices, whether power or hand driven, used for inter-factory movement or transmission or ex-factory transportation of food shall be kept in all times in good order and repairs and in a clean sanitary conditions.

(8) Except as otherwise provided in these rules, no person shall import, manufacture, advertise for sale or sell, or use or cause or permit to be used in the preparation packaging, storage, delivery or exposure of food for sale, any package, appliance, container or vessel which yields or could yield to its contents toxic, injurious or tainting substance or which contributes to the deterioration of the food.

(9) No person shall import, manufacture, advertise for sale or sell any package, appliance, container or vessel made of enamel or glazed earthenware that is intended for use in the preparation, packaging, storage, delivery or exposure of food for sale and is either capable of imparting lead, antimony, arsenic, cadmium or any other toxic substance to any food prepared, packed, stored, delivered or exposed in it or is not resistant to acid unless the package, appliance, container or vessel satisfies the test described in these rules.

(10) No person shall prepare, manufacture or advertise for sale or sell or use in the preparation, packaging, storage, delivery or exposure of food for sale, any rigid or semi-rigid package, appliance, container or vessel made of polyvinyl chloride which contains more than 1 mg/kg of vinyl chloride monomer.

(11) No person shall prepare or advertise for sale or sell any food in any rigid or semi-rigid package, appliance, container or vessel made of polyvinyl chloride if the food contains more than 0.05 mg/kg of vinyl chloride monomer.

(12) No person shall use or cause or permit to be used, in the preparation, packaging, storage, delivery or exposure for sale of any food, any package, appliance, container or vessel that had been used or intended to be used for any non-food product.

(13)No person shall use or permit to be used, in the preparation, packing, delivery or exposure for sale:

(a) of any sugar, flour, any sack that has previously been used for any purpose;

(b) of any edible fat or edible oil, any bottle or metal container that has previously been used for any purpose;

(c) of any food, other than packaged in an extra wrapper, any plastic bottle that has previously been used for any purposes;

(14) A Polycarbonate container of not less than 18.95liter/5Gallon in size that has previously been used for natural mineral water may be used again for the same purpose;

(15)Except as otherwise provided in rule 19, no person shall use or cause or permitted to be used in the preparation, packaging, storage, delivery or exposure for sale:

(a) of any milk, soft drink, beverage, any glass bottle that has previously been used for another food;

(b) of any vegetable, fish or fruit, any box or crate that has previously been used for another food.

(16)Any glass bottle that has previously been used for beverage may again be used for the same purpose.

(17)Any box or crate that has previously been used for vegetable may be used in the preparation, packaging and storage of fruit and vice versa.

~~(iii)~~ (18)All stalls/shops which sell juices and drinks as loose shall serve to the consumer in disposable container/glass.

(19) For the purpose of this rule, where a package, appliance, container or vessel containing food bears any mark or label belonging to another food, it shall be presumed that such package, appliance, container or vessel has been used for that particular food as shown by such mark or label.

(20) Any prepared food, ready for direct consumption on retail premises, which is offered, exposed or kept for sale in such manner at the said premises that the customer may himself select the food shall be kept in properly covered metal or glass or glazed ware receptacles or which in turn shall be kept on a suitable shelf or any other device provided for the purpose in close proximity not too loose and such shelf or device shall be maintained in a clean condition.

(21) For purposes of sub-rule (20), a ticket or notice which indicates any additive used in the food to perform the function of any antioxidant, artificial sweeteners, colour, flavour enhancer or preservative shall be displayed near the food.

20. Special provision for milk and dairy produce.– No person shall offer or keep in possession for sale or deliver for sale or supply to any person:

(a) impure or unwholesome milk or milk drawn from animals affected with any disease of livestock whether contagious, infectious or otherwise capable of causing the milk to become unwholesome;

(b) milk drawn from animals within thirty days before or ten days after parturition or for butter, curd or cheese-making; and

(c) milk drawn from animals shall be free from veterinary drug residues like estrogen residue, and others.

21. Restriction on the employment of an ill person.– (1**)** No person shall allow any person suffering from communicable disease:

(a) to milk animals;

(b) to handle any vessel used for the reception of milk intended for sale;

(c) to take part or assist in the business of dairyman, cow or buffalo keeper or vendor of milk;

(d) to be employed in a dairy; and

(e) to be employed in hotels, restaurants, and food business, with respect to offering, exposing prepared food ready for human consumption, preparing for sale or presenting, labelling or wrapping for the purpose of sale.

(2) Any person engaged in food business as specified in sub-rule (1) shall furnish Health Certificate of his staff including himself, issued by the medical officer of the civil hospital of the respective area in such form as may be prescribed, and shall be renewed annually.

22. **Special conditions for manufacture of pasteurized, sterilized or UHT milk**.– (1) No person shall designate milk or milk products as “Pasteurised” unless he complies with the following conditions:

(a) the milk has been retained at a temperature of not less than 162^{o}F(72^{o}C) for at least 15 seconds continuously and has been cooled immediately to a temperature of not more than 40^{o}F(4^{o}C) in a plant approved for the purpose;

(b) the milk has been retained at such temperature for such period as specified by the Government by notification for a plant-approved for the purpose; and

(c)the milk shows efficient pasterisation as evidenced by satisfactory negative phosphatase test;

(d)the milk does not show a coliform count exceeding 10 per milliliter at any time after pasteurisation and before delivery to the consumer.

(2) No person shall designate milk as “Sterilised/UHT” unless he complies with the following conditions:

(a) the milk has been filtered or clarified and homogenized;

(b)the milk has been heated to and maintained at such temperature, not less than 212^{o}F (100^{o}C) for a period as to ensure that it will comply with prescribed Turbidity Test;

(c)the milk has been heated as above in such a manner that on completion of the treatment, the receptacle was hermetically sealed;

(d) the processing has been done in plant approved for the purpose in licensed premises; and

(e)the milk shows efficient sterilisation at any time after processing before delivery to the consumer as evidenced by a satisfactory Turbidity Test.

(3) For purposes of carrying into effect the provisions of sub-rules (1) and (2), samples may be taken at any time and from any place subject to the following conditions:

(a)sampling shall be done by an inspector;

(b)when the milk is in containers not exceeding one kilogram in capacity, the sample shall consist of one such container which shall be delivered intact to the Public Analyst;

(c) when the milk is in containers exceeding one kilogram in capacity it shall be thoroughly stirred before sampling, and the sample shall be taken from well below the surface of the milk;

(d)the instruments used for stirring and sampling shall be sterile;

(e)the sample shall be poured into a sterile bottle, which shall thereupon the stopper shall immediately be placed. The part of the stopper, which may come into contact with the milk, shall be sterile;

(f)the bottle or other container containing the sample shall be transferred forthwith to an insulated container for transport to the Public Analyst; and

(g)a sample shall be transported to the testing laboratory with the least possible delay and shall be delivered to the Public Analyst on the day on which it is taken. If the sample does not arrive on the same day it shall be discarded.

23. Conditions for approval pasteurisatoin/sterlisation/UHT plants.–No Plant shall be approved for purposes of pasterurisation/sterlisation/UHT, unless it complies with the following conditions in addition to any other conditions with regard to the testing of pasturisation/sterlisation/UHT plant equipment that may be imposed in writing:

I. All Types of pasteuriser/sterlizer/UHT plant shall have:

(a) indicating thermometer of approved accuracy;

(b) recording thermometer of approved temperature and time accuracy;

(c) phosphatase test kit for determining pasteurisation, turbidity test apparatus and chemicals for sterilization efficiency in field and plant laboratory;

(d) air space thermometer.

(e) leak-protector inlet/outlet and diversion valves;

(f) bottles washers; and

(g) plant sanitization equipment.

II. All continuous flow pasteurisers/sterilesers/UHT plant shall have:

(a) indicating thermometers on pipelines;

(b) milk flow stop controllers and diversion lines;

(c) automatic holder heaters;

(d) recorder controllers;

(e) automatic vat or pocket holders;

(f) continuous flow holder;

(g) back flow prevention devices; and

(h) automatic time/temperature/holding recorder.

III. All types of pasteurization/sterilization/UHT plants shall:

(a) use “sanitary milk piping” for conducting milk, and the piping shall be easy to clean;

(b) use multi-use containers and equipment made of non-corrodible, non-toxic material and so located as to be easily cleaned;

(c) preserve recordings of automatic recording equipment for at least six months;

(d) maintain vehicles for the transportation of milk;

(e) maintain well equipped and adequately staffed laboratories for the daily examination of milk; and

(f) undertake to exclude the milk supply in respect of which reasonable cause exists to suspect the possibility of infection or contamination.

24. (1) **Mode of marking of packages containing banaspati, refined vegetable oil, refined blended vegetable oil, margarine or fat spread, animal fat (Halal).–**(1) Every unopened package containing banaspati, refined vegetable oil, refined blended vegetable oil, margarine or fat spread, animal fat exposed or transported for sale shall bear the words “banaspati”, “refined vegetable oil/refined blended vegetable oil”, “margarine”, “fat spread”, or “animal fat”, as the case may be, distinctly marked in English and Urdu.

(2)Every package in which banspati, refined vegetable oil/refined blended vegetable oil, margarine or fat spread, animal fat is exposed for sale by retail, shall have painted or otherwise durably marked thereon in block types letters upon a light colour ground in Urdu and English, the words banaspati, refined vegetable oil/refined blended vegetable oil, margarine or fat spread or animal fat, as the case may be.

(3)The space occupied by the white ground shall not measure less than the dimensions shown below:

Package weight	15 kg	4"x3"
Package weight	5 kg	3"x2"
Package weight and below	2.5 kg	2"x1"

(4) No person selling banaspati, refined vegetable oil refined blended vegetable oil, margarine, fat spread or animal fat shall deliver to a customer a portion of banaspati, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat in any package, unless the word banspati, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat, as the case may be, is clearly printed on the outside of such package in block types letters upon a light coloured ground in Urdu or English.

25. **Conditions under which banaspati, refined vegetable oil/refined blended vegetable oil, margarine or fat spread, animal fat (Halal), may be advertised.–** (1) Every advertisement and every price or trade list advertising for sale banaspati, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat or any article of food containing or prepared with banaspati, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat shall specifically describe such food as banaspati, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat as the case may be.

(2)No such advertisement or price or trade list shall contain any words or description implying that the food is other than banaspati, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat or has not been prepared with banaspati, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat.

(3)Every person selling or manufacturing banaspatti, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat or any food containing or prepared with banaspati, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat shall display in a conspicuous position on the premises in which he sells or manufactures such banaspati, refined vegetable oil/refined blended vegetable oil, margarine, fat spread or animal fat or such food, a sign board showing that banaspati, refined vegetable oil/ refined blended vegetable oil, margarine, fat spread or animal fat as the case may be, is being sold or manufactured therein.

(4) Margarine, fat spread and butter shall only be sold in a sealed package weighing not more than 500 grams bearing the label requirements as provided under the rules.

(5) any food which resembles ghee but not solely derived from milk fat shall not be described on any label, invoice, voucher, advertisement, price or trade list by any expression combining the word ghee therewith.

(6) the use of such expressions as “vegetable ghee”, “khalis banaspati ghee”, “artificial ghee”, “natural/pure banaspati” or “velayati ghee is prohibited.

(26) **Licensing of loose sale of banaspati.–** (1) A licence for loose sale of banaspati may be issued to a retailer in Form 7 on payment of Rs.50 as fee.

(2) Any person who intends to sell banaspati loose or from an open package shall apply in writing to the Food Authority concerned stating the exact location of the business premises and shall certify that:

(a) he does not hold a licence for the wholesale business of banaspati;

(b) he will display a signboard at a prominent place on his premises bearing the following inscription in block types letters upon a light coloured ground:

LICENSED DEALER
FOR
RETAIL & LOOSE SALE
OF
BANASPATI
Shopkeeper’s Name----------
Licence No.----------
Licence expires on ----------

(3) A licence shall be issued on payment of a fee of Rs.50 and shall expire on the next 31st day of December, unless renewed earlier.

(4) A licence shall be renewed on payment of a fee of Rs.30.

(5) A licence must be renewed before the 31st day of January following the date of expiry, after which the licence shall be renewed on payment of a fee of Rs.50 before the first day of March following.

(27) **Sale of loose refined vegetable oil/refined blended vegetable oil/ vegetable oil, blended vegetable oil.–** The loose refined vegetable oils, refined blended vegetable oils/vegetable oil, blended vegetable oil shall not be sold or offered for sale except sarson oil (mustard oil), til oil (sesame oil), coconut oil, linseed oil or taramira oil.

28. Prohibition of sale of food articles.–(1) save as otherwise provided in these rules, no person shall:

(a) irradiate for sale, store for sale or transport for sale irradiated food; and

(b) manufacture, sell, stock, distribute or exhibit for sale any article of food, including prepared food or ready to serve, irradiated food except under a licence:

Provided that no person shall manufacture, sell, stock, distribute or exhibit for sale any article of food which has been subjected to the treatment of irradiation except under a licence from Pakistan Atomic Energy Commission.

(2) No person shall offer for sale or sell under any description, fruit which have been artificially ripened by use of acetylene gas, commonly known as Carbide gas.

(3) Reheating of ready to serve food is not permissible more than once.

(4) No person shall sell, offer, expose for sale or have in his premises for the purpose of sale under any description food articles, which have been coated with mineral oil.

(5) No person shall store, expose for sale or permit the sale of any insecticide in the same premises where articles of food are stored, manufactured or exposed for sale.

(6) Carbia Callosa and Honey dew shall only be sold in a prepacked container, which is correctly labelled to indicate its true character, composition (in percent) with respect to its contents, after the approval of the Government.

(7) An Infant Food the standard of which is not prescribed in these rules shall be prepared, manufactured, kept or stored for sale, or sold or offered to sell only on approval of such article of food by the Government.

(8) The package and/or label and/or the advertisement of infant food shall not use the word “Full Protein Food”, “Complete Food” or “Health Food”, or similar expression.

(9) Matteri/Kesari/ Chikling Vetch (Lathyrus Sativus) and its products shall not be sold or offered or exposed for the purpose of sale.

(10)There shall be no televised advertising for any product which is directed to, or seen by, audiences composed of significant proportion of children who are too young to understand the selling purpose of or otherwise comprehend to evaluate advertising.

(11) There shall be no televised advertising for sugared food products, which is directed to, or seen by audiences composed of significant proportion of elder children, the consumption of such products poses the most serious dental health risks.

(12)No person shall import any article of food, which is prohibited by the law of the country of origin from which it is exported.

(13)No person shall import, export, prepare, manufacture, keep or store for sale any food unless the Rules providing for the mode of its manufacture, processing or preparation, packaging, labeling, consignment, delivery, standard of quality, or bill of containers have been complied with; the importation of any food which does not comply with the provisions of this rule is prohibited.

(14)No food shall be sold or offer for sale which is specifically labelled as “export goods”, “export quality”, any word conjoined with the word “export”, or/ and similar expression.

29. Offences by companies.—(1) Where an offence under the rules has been committed by a company, the person, if any, who has been nominated under the rules to be in charge of and responsible to the company for the conduct of the business of the company (hereafter in the rules to be referred as the “person responsible”) shall be guilty of the offence and shall be liable to be proceeded against and punished accordingly.

(2) where no person has been so nominated, every person who at the time the offence was committed was in charge of, and was responsible to, the company for the conduct of the business of the company shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

(3) Nothing in this rule shall render any such person liable to any punishment provided in the rules if he proves that the offence was committed without his knowledge and that he exercised all due diligence to prevent the commission of such offence.

(4) A company may, by order in writing, authorize any of its directors or managers (such manager being employed mainly in a managerial or supervisory capacity) to exercise all such powers and take all such steps as may be necessary or expedient to prevent the commission by the company of any offence under the Ordinance and thses rules and may give notice to the Food Authority, in such form and in such manner (Form No.11) that it has nominated such director or manager as the person responsible, along with the written consent of such director or manager for being so nominated.

Explanation.- Where a company has different establishments or branches or different units in any establishment or branch, different persons may be nominated in relation to different establishments or branches or units and the person nominated in relation to any establishment, branch or unit shall be deemed to be the person responsible in respect of such establishment, branch or unit.

(5)The person nominated under sub-rule (4)shall continue to be the responsible person, until:

(a)further notice canceling such nomination is received from the company by the Food Authority; or

(b)he ceased to be a director or, as the case may be, manager of the company; or

(c)he makes a request in writing to the Food Authority under intimation to the company, to cancel the nomination, which request shall be complied with by the Food Authority;

Provided that where such person ceases to be Director or, as the case may be, manager of the company, he shall intimate the fact of such cesser to Food Authority:

Provided further that, and the Food Authority shall not cancel such nomination with effect from a date earlier than the date on which the intimation is received.

(6)Notwithstanding anything contained in the foregoing sub-rules, where an offence under the Ordinance and the rules framed thereunder has been committed by a company and it is proved that the offence was committed with the consent or connivance of, or is attributable to, any neglect on the part of, any director, manager, secretary or other officer of the company, (not being a person nominated under sub-rule) such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished with accordingly.

Explanation.– For purposes of this rule:

(a) "company" means any body corporate and includes a firm or other association of individuals;

(b) "director" in relation to affirm, means a partner in the firm; and

(c) "manager" in relation to a company engaged in hotel industry, includes the person in charge of the catering department of any hotel managed or run by it.

PART-V

30. Licensing of food trades businesses and premises.– (1) For purposes of licensing, the premises shall be divided into the following categories:

(a) premises for the business of wholesale dealers in margarine, banaspati, fat spreads, animal fat (Halal), ghee, fish oil, edible oils, spices, confectionary, cereal products, soft drinks aerated water and cold storages;

(b) creameries, dairies, dairy farms, bakeries, hotels, eating houses and other small scale food manufacturing concerns;

(c) premises for the manufacture or preparation of:

(i) pasteurised/sterelized/UHT milk, milk powder, condensed and evaporated milk, cheese and any other milk products;
(ii) edible oils, margarine and banaspati;
(iii) biscuits;
(iv) canned food;
(v) alcoholic drinks and beverages;
(vi) bottling factories;
(vii) sugar factories;
(viii) cereal products; and
(ix) natural mineral water/bottled drinking water.

(2) For purpose of categories (a) and (b) in sub-rule (1), the Food Authority concerned, on the advice of the concerned Executive District Officer Health, shall be the Licensing Authority.

(3) For purposes of category (c) in sub-rule (1), the Food Authority concerned on the advice of the Government Public Analyst having jurisdiction in the area, shall be the Licensing Authority in the district including cantonment area.

31. Licences.–(1) Any person who intends to use any place for the purpose for which a licence is required under section 11 shall apply in writing to the licensing authority concerned stating the purpose for which the place is intended to be used and shall submit block plans in triplicate showing:

(a)the actual area purposed to be used; and

(b) the location at which various operations connected therewith are to be carried on.

(2) On receipt of an application and plans, the Government Public Analyst concerned or the Executive District Officer Health, as the case may be, shall inspect the said place and may recommend the issue of the necessary licence in Form 8, Form 10 and Form 11, as the case may be, if the said place conforms to the requirements as laid down under sub-rule (13) for the sale or manufacture of food.

(3) A licence may at any time be cancelled or suspended if any of the restrictions or conditions laid down therein are infringed or evaded by the licensee, or if the said person is previously convicted of infringement of any of the provisions of the Ordinance or the rules.

(4) When any licence is cancelled or suspended or when the period for which it was granted has expired,the formal licence, shall for purposes of the Ordinance, be deemed to be without such licence until the order cancelling or suspending the licence is revoked or the licence is renewed.

(5) An application for the grant or renewal of a licence shall be accompanied by a fee of rupees five thousand for the premises in category (a), rupees ten thousand for the premises in category (b), and rupees fifty thousand for the premises in category (c) mentioned in sub-rule (1) of rule 30

(6) Every licence for purposes of the Ordinance and the rules shall be displayed at a prominent place within the licensed premises and shall be open to inspection by Executive District Officer Health or an inspector authorised by the Food Authority.

(7) For purposes of these rules, any act or omission by any owner or occupier of a premises in respect of which a licence has been granted, or by the manager, agent, employee or other person engaged in or connected with the trade or business carried on in such premises shall be deemed to be an act or omission by the licensee.

(8) Any person whose application for a licence has been rejected by a Food Authority may file an appeal to the Government on payment rupees one thousand as fee.

(9) The Government, after making such enquiries as it deems necessary, may either reject the appeal or direct the Licensing Authority to issue the licence on such conditions and limitations as are necessary or deemed fit.

(10) No application for the renewal of any licence that has been cancelled shall be entertained until after the lapse of a period of not less than three weeks from the date of cancellation.

(11)The Food Authority shall maintain a register, permanently bound and serially paged, containing the name, and addresses of licence holders and applicants for licences and the location of their premises.

(12) Every licence shall be renewed annually.

(13) The register shall contain particulars of the disposal of the applications, the grounds of rejection, if any,annual renewal,cancellation or suspension or impostition of a penality.

(14) Each Food Authority shall provide the particulars regarding the name, address, the nature and the location of the business for which a licence has been granted, cancelled or suspended to the Government Public Analyst concerned and to the Executive District Officer Health of the area in which the premises is situated.

(15) The Executive District Officer Health or a Food Inspector authorized by the Food Authority,in case of the licensed premises of categories (a) and (b) and concerned Executive District Officer Health shall inspect the licensed premises of category (c) in sub-rule (1) of rule 30 shall inspect the respective premises.

(16) No person shall be granted a licence for a premise to operate a food manufacturing plant unless he complies with the following conditions:

(a) the application is accompanied by a site plan showing the building and structure and medical fitness certificate as required under these rules; and

(b) the building for housing the plant has:

(i) floors constructed of concrete or other impervious material, smooth and provided with trapped drains clean and in good repairs;

(ii) walls and ceilings having a smooth, washable light coloured surface, clean and in good repair;
(iii) doors and windows provided with auto-closing and with effective means to prevent the access of flies and to screen the outer air ;
(iv) adequate lighting on all working surfaces;
(v) sufficient ventilation for emission of smoke and off odours condensing on structures and equipment;
(vi) effective means for protection from contamination from insects and rodents;
(vii) toilet rooms, wherever provided, bearing a sign and having self-closing doors, not opening into any rooms used for handling or storing of food;
(viii) easily accessible, adequate water supply, and a safe sanitary quality;
(ix) convenient hand-washing facilities with running water, soap and towels; and
(x) cold storage facilities for perishable articles.

(17) If the articles of food are manufactured, stored or exhibited for sale at different premises situated in more than one local area, separate applications, shall be made and separate licences shall be issued in respect of such premises not falling within the same local area:

Provided that the itinerant vendors who have no specified place of business may be licensed to conduct business within the jurisdiction of the licensing authority.

(18) A licnece granted under these rules unless suspended, withdrawn or cancelled earlier by the Licensing Authority, shall continue to be in force up to the end of the calendar year in which it is issued and shall be renewable annually on application by the licensee to the Licensing Authority on payment of renewal fee of rupees five hundred.

(19) If a licensee fails to apply for renewal of licence before the date it was due to expire, the license shall not be renewed unless the licensing Authority is satisfied that there was sufficient cause for delay and in that case licensee shall pay an extra fee of rupees two fifty.

(20) An application for the grant of a licence shall:

(a) specify name and address of the applicant;
(b) indicate the location, full particulars and address of the premises for which the licence is required; and
(c) shall be accompanied with 2 passport size photographs of the applicant.

(21)An application for the renewal of a licence shall specify:

(a) the name of the licensee;
(b) licence number;
(c) the location and full particulars of the licensed premises;
(d) the date up to which the licence was valid.

(22) An application for the renewal of a licence shall be subject to the condiionsfor the grant of licence under this and an endorsement of renewal of licene shall be made on the original license.

(23) If a licencee contravenes any condition of the licence, then without prejudice to any other action which may be taken against him, his licence may be cancelled or suspended by the licensing Authority after affording the licensee reasonable opportunity of showing cause against the proposed action.

(24) An itinerant vendor granted a licence under these rules shall carry a metallic badge on his arm showing clearly the licence number, the nature of articles for the sale of which the licence has been granted, his name and address and the name, address of the owner, if any, for whom he is working. His containers of food and the vehicle shall also be similarly marked. In addition to the metallic badge, the vendor shall carry an identity card with his photograph and the number of his licence issued by Food authority. The identity card shall be renewed every year:

Provided that the whole time employees of the companies shall not be treated as itinerant vendors for the purpose of carrying a metallic badge on their arms or obtaining separate licences if an identity card containing particulars of the valid license is carried by them.

32. "Cooked, grilled meat (mutton, beef, poultry and sea food)" .- **(1) "**Cooked, grilled meat (mutton, beef, poultry and sea food)"means the meat cooked or grilled in the form commonly known as Karachi Gosht, Karachi Tikka, Balti/karahi Gosht, Tikka (chicken, mutton, beef, fish), Mutton Chop, Roast Leg and in any other form of similar type by whatever name it is or may be called.

(2) No person shall sell or offer for sale or prepare or store for sale either directly or indirectly, meat at any place and in any area or locality except under a licence granted under this Ordinance and at the place specified in the licence.

(3) The meat shall be sold, offered for sale, prepared and stored for sale in accordance with the terms and conditions specified in the Form-10.

(4) A licence may be issued on a payment of rupees one thousand as fee and in the form appended to this Rule.

(5) A duplicate licence may be issued on a payment of rupees fifty if it is proved to the satisfaction of licensing Authority that the original licence was lost or damaged in a bona fide manner.

33. Special conditions for butter, desi ghee, cream or khoa factory.– (1) A licensee shall not keep butter, desi ghee, cream or khoa or permit to be kept outside the licensed premises on the public road or street.

(2) No oil, margarine, banaspati, paraffin, fat, or charbi or other substance capable of being used for the adulteration of ghee, shall be kept on the premises.

(3) No essences or colouring matters likely to give semblance of desi ghee, butter, creamery shall be kept on the premises.

(4) The premises shall not form part or communicate otherwise than by a public street with any other premises upon which is kept any of the substances in sub rule (2).

(5) All butter or cream brought to the premises for being manufactured into desi ghee or milk for the manufacturing of butter, desi Ghee, cream, khoa shall, until actually required for such manufacture, be stored in a room separate from the room or rooms in which the processes of manufacturing, packing, pressing, cleaning or preparation are carried on.

(6) Butter, cream, desi ghee and khoa shall be kept in properly covered metal or glass or glazed-ware receptacles.

(7) The process of melting shall be carried out in a properly constructed fire-place provided with a suitable fuel.

(8) The utensil used for skimming the refuse matters from the surface of the melted butter shall at all times be kept in a clean state and shall not be placed on the floor but on a suitable shelf or table provided for the purpose in close proximity to the fire place and such shelf or table shall be maintained in a clean condition.

(9) The licensee shall not keep, handle or sell any butter, cream, khoa under any condition which renders the said butter, cream, khoa liable to contamination.

(10) All coal, coke or fire wood or liquid/gas fuel to be used in the process of melting butter, ghee or condensing milk shall be kept in suitable containers.

34. Special condition for banaspati, vegetable oil, margarine, charbi and animal fat (Halal).– (1) No substance capable of being used for the adulterations of banaspati, vegetable oil, margarine, charbi, or animal fat (Halal) shall be kept on the premises.

(2) Banaspati, vegetable oil, margarine, charbi or Animal fat (Halal) kept on the premises shall be conspicuously labelled or durably marked as provided for in the rules.

(3) The premises shall not form a part of or communicate, otherwise than by a public street, with any premises upon which is kept any of the substances capable of being used for adulteration.

35. Special condition for all licensed premises.– (1) A licensee shall not keep or store on the premises of a creamery or a dairy any condensed milk or dried milk or dried skimmed milk or any preservative or any other substance capable of being used as an adulterant.

(2) The adulterants shown in column II below shall be prohibited to be stored in premises in which substances shown in column I below are made.

I	II
Substances	**Adulterants**

Milk	Skimmed milk, any preservative condensed milk, dried milk, whey powder or any other substance.
Desi Ghee	Vegetable oil products of all kinds edible oils, hydrogenated fish oil, coconut oil, any other vegetable oil, fat, white oil or paraffin any mixture made of two or more of the above articles.
Butter	animal fat, margarine, vegetable oils, banaspati and other edible oils or fats.
Tea	Artificial tea, Phutri, fine chaffing of wheat or bran, or pulse, tea sweepings
Edible oil	Ghee, butter, white oil or paraffin
Fats	Ghee, butter.
Coffee	Chicory.
Vinegar	Acetic Acid, glacial acetic acid, all colouring matters excepts caramel, preservatives, any mineral acid.
Fruit juice & Lime juice	Tartaric, phosphoric or otherforeign acid other than cirtic acid.
Aerated water	Food Additives other than those allowed under the Ordinance. All colouring matters except those permitted under the rules
Syrup	Artificial sweetening agents, food additives other than those allowed under the rules. All Colouring matters except those permitted under the rules.

36. Form of register for purposes of section 12.– (1) The register required to be kept and maintained under section 12 shall be kept and maintained in the form shown below:

Front page Name and address of applicant.
Address of premises.
Number and date of licence.
Operation carried on.

(2) Subsequent pages

Disposal									
Sr No.	Quantity Manufactured, Prepared or Purchased	Date of Manufacture Preparation, Purchase or Receipt.	Nature of substance	Descriptive marks	Name and Address of Party to Whom sold or from whom received.	Quantity]sold or received.	Date of sale or receipt.	Brand of Article	Remarks
1	2	3	4	5	6	7	8	9	10

(3) The prescribed register shall be maintained in the form of a permanently bound and serially paged register and shall be kept in the licensed premises. The said register shall be open to inspection by an officer or any inspector appointed by the Food Authority at any time when the business of manufacture or sale is being carried on, or at any other reasonable time after notice to the licensee of not less than twenty four hours.

PART-IV

37. Prevention of food poisoning.–(1) If a registered medical practitioner becomes aware, or suspects that a patient under his treatment is suffering from food poisoning, he shall forthwith send to the Health Officer of the concerned Food Authority a certificate stating:

(a) the name, age and sex of the patient and the address of the premises where the patient happens to be;
(b) particulars of the suspected food poisoning; and
(c) full particulars of the registered medical practitioner sending the certificate.

(2) If the Health Officer has reasonable ground for suspecting that any food of which he, or any other officer of the Food Authority of the district has procured a sample under provisions of the Ordinance or the rules , is likely to cause food poisoning or

communicable disease, he may give notice in form 6 to the person in charge of the food that until his investigations are completed, the food or any specified portion thereof, is not to be used for human consumption and is not to be removed except to the place specified in the notice.

(3) A person who uses or removes any food in contravention of the requirements of the notice given under this rule shall be guilty of offence under the Ordinance.

(4) If as a result of investigation, the Health Officer is satisfied that the food in question or any portion thereof is likely to cause food poisoning, he may deal with it as food falling within the meaning of section 5, but if he is satisfied that it may safely be used for human consumption, he shall immediately withdraw the notice.

(5) If a notice given under sub-rule (2) is withdrawn by the Health Officer or if the court before whom any food is brought under the said sub-rule refuses to condemn it, the Food Authority shall compensate the owner of the food to which the notice relates for any depreciation in its value resulting from the action taken by the Health Officer.

(6) The Health Officer of a Food Authority may, by notice in writing, require the person in charge of a dairy or source of milk suspected of causing communicable disease to stop the supply of milk from such dairy or source:

Provided that the milk supplied from a dairy would be deemed as likely to cause communicable disease if any person suffering from communicable disease is employed in a dairy or in the mill trade as a seller, purveyor producer or in any other capacity.

(7) The Health Officer of the Food Authority shall without undue loss of time collect samples of material suspected of food poisoning and shall forward samples in case of contamination of food by poisonous chemical to the Government Public Analyst, and in case of bacterial infection of food to the Bacteriologist of the Government.

(8) The food specimens and all pathological material so collected shall be kept as far as applicable in an icebox or refrigerator until delivery to the Public Analyst or, as the case may be, l to the Bacteriologist.

38. Power to deal with persons engaged in food business suffering from communicable disease.–(1) Where the Medical Officer Health of a local government or District Officer Health is of opinion that any person engaged in selling or manufacturing any article of food is suffering from or harbouring the germs of any communicable disease, he may order him in writing to appear before the Medical Superintendent of the area for a medical certificate.

(2) If on such examination, the Medical Officer Health or District Officer Health finds that such person is suffering from communicable diseases he may by order in writing direct such person not to take part in selling or manufacturing any article of food.

PART- VII

39. Appointment of Public Analyst.–(1) No person shall be appointed as Public Analyst unless he holds the qualification of Ph.D in chemistry or biochemistry or food technology and has at least three years practical experience in the analysis of food.

(2) If a person of the qualifications mentioned in sub-rule (1) is not available, a person who holds the qualification of M.Phil in chemistry or biochemistry or food technology and has at least seven years practical experience in the analysis of food.

(3) Nothing in this rule shall affect the appointment of Public Analysts made before the coming into force of these rules.

40. Duties of Public Analyst.– (1) On receipt of a package containing a sample for analysis from an Food inspector or any other person notified under rule 42, the Public Analyst or an officer authorised by him shall compare the seals on the package and the outer cover of the sample with specimen impression received and shall note the condition of the seals thereon.

(2) The Public Analyst shall cause to be analysed such samples of articles of food as may be sent to him by an Inspector or by an officer authorised under the Ordinance or by any other person notified under rule 42.

(3) After the analysis has been completed, the Public Analyst shall, within a period of forty days from the receipt of any sample for analysis, deliver or send to the Food Authority concerned two copies of the certificate in the Form specified in the Schedule of the Ordinance showing the result of such analysis.

41. Duties of Food Authority.–(1) It shall be the duty of a Food Authority to:

(a) take steps for the creation of the post of one Food Inspector for every 500,000 population or part thereof and for his appointment;

(b) ensure that the Food inspector collects a minimum of 100 samples a month, and an ex-officio inspector, at least 20 samples a month;
(c) maintain permanent registers of licensees category-wise as required under these rules;
(d) ensure that the cases of food offence cases are neither withheld nor are they compounded, without the approval in writing of the Government;
(e) maintain permanent record of the prosecution of food offenders and of the revenues from the costs realized; and
(f) enforce the provisions of the Ordinance and the rules;

(2) The Food Authority shall, within a period of seven days of the receipt of copies of the report of the result of analysis, before initiating prosecution, forward a copy of the report of the said analysis, by registered post or by hand, to the person from whom the sample of the article was taken by the Inspector and also to the person, if any, whose name, address and other particulars have been disclosed under rule 46.

(3) Where a Food Authority, without reasonable cause fails to enforce the Ordinance and the rules for a period exceeding six months, the District Coordinator Officer may invoke the provisions of section 35.

42. Appointment of Food Inspector.–(1) No person shall be appointed to be a Food inspector under section 16 unless he possesses a Master's or Bachelor's degree in Science with Chemistry, Food Science, Food Technology, Food Science and Technology or Dairy Technology from a recognized University.

(2) On appointment, an Inspector shall receive three months' training in food inspection and sampling work in an institution approved for the purpose by the Government.

(3) Nothing in this rule shall affect the appointment of Food Inspectors made before the coming into force of these rules

(4) The Health Officers of a local authority and such officers in the service of Government, as have qualification as prescribed in sub-rule 1 or as the Government may, by notification in the official Gazette, specify in this behalf, shall be ex-officio Inspectors in respect of all foods within the limits of their respective jurisdiction.

43. Powers of Food inspector.–A Food inspector shall:
(a) at all reasonable hours, have access to all public or private sale rooms occupied or used by merchants, brokers, wholesale dealers, or other persons, and to all public and private warehouses, factories, stores, quays, sheds, ships or barges where food is offered for sale, or deposited for the purpose of sale, and seize or procure samples of any food;
(b) seize or procure samples of any food at the place of delivery, or at any railway station, or other place during transit, or upon the premises of or elsewhere in possession of any person for purposes of carriage;
(c) seize on board a vessel or procure at the port of entry or elsewhere samples of any food imported as merchandise;
(d) seize or procure samples of an food which he may suspect to have been sold or intended to be sold as food not of the nature, substance, and quality as prescribed under rule and
(e) for any of the purposes aforesaid, open any parcel box, barrel, basket, bag, case, tin or other package in which such food may be contained;

(2) The officer seizing any food, apparatus, utensil or vessel is seized under these rules may, with the consent in writing of the owner or the person in whose possession, custody or control it is found, may destroy it;

provided that if any food seized is of perishable nature and is, in the opinion of the Inspector, unsound, unwholesome or unfit for human consumption, it may, in the presence of two respectable witnesses, be destroyed without such consent.

44. Duties of Food inspector.–(1) It shall be the duty of a Food inspector:
(a) to inspect frequently, as may be prescribed by the Food Authority or the Local Authority, all establishments licensed for the manufacture, storage, or sale of an article of food within the area assigned to him;
(b) to satisfy himself that the conditions of a licence are being observed;
(c) to procure and send for analysis, samples of any article of food which he has reason to suspect are being manufactured, stocked or sold or

exhibited for sale in contravention to the provisions of the Ordinance or the rules;

(d) to maintain a record of all inspections made and action taken by him in the performance of his duties, including the taking of samples and the seizure of stocks, and to submit copies of such record to the Health Officer of the Food Authority as directed in this behalf;

(e) to make such inquiries and inspections as may be necessary to detect the manufacture, storage or sale of articles of food in contravention of the Ordinance or these rules;

(f) to stop any vehicle suspected of containing any food intended for sale or delivery for human consumption; and

(g) perform such other duties as may be entrusted to him by the Health Officer having jurisdiction in the local area or the Food Authority.

(2) A Food inspector shall maintain the record of the court decisions of each case under clause (a), (b) and (c) of sub-section (1) of section 23 of Ordinance, as the case may be, for the production as evidence of the facts contained therein the name, address, the nature and the location of the business for which a licence has been granted or suspended, in any enquiry, trail or other proceedings under this Ordinance; and shall send a copy of the court decision of each case under this Ordinance to the concerned Food Authority.

(3) When so authorised by the Health Officer, having jurisdiction in the local area concerned or the Food Authority, an Inspector may detain an imported package, which he has reason to suspect, contains food the import or sale of which is prohibited.

(4) On receipt of a complaint is made in writing about the contravention of the any provisions of the Ordinance or these rules, the Food inspector shall investigate the complaint and, where necessary, shall seize a sample in fulfillment of the requirements of section 19.

45.Fees for analysis.– (1) The fees for the analysis of samples by a Public Analyst shall be levied in accordance with the following scales:

Source	Fee per sample Rs.
1. Samples from private individuals or companies or foreign state.	1000.00
2. Samples from local Government having their own laboratories	100.00
3. Samples from local Government not having their own laboratories	30.00
4. Water samples	500.00
5. a)Samples other than foods requiring three tests.	300.00
b) For every extra test	1000.00
6. Copying fee	50.00
7. Fee for summoning a Public Analyst, Under section 26 (2)	1000.00 Plus traveling Allowances.

Explanation.– The expenses for the Public Analyst appearing in a court will be credited to Government Revenues and the Public Analyst will only draw Travelling Allowance and Daily Allowance prescribed under the West Pakistan Travelling Allowance Rules.

(2) The prescribed fees shall be paid in advance to the Public Analyst in cash or by money order or by Postal Order or through a Bank Draft, or by credit to a treasury in the same place where the Public Analyst is stationed.

(3) Any person, from whom any food is purchased or obtained for purposes of analysis, may obtain a copy of the certificate of the Public Analyst in respect of such article on payment of a fee of Rs.50.

(4) Any person who, under section 19, requires a Food inspector to purchase a sample of food for the purpose of analysis shall pay in addition to the above mentioned scale of fees, a sum of Rs. 50:

Provided that the whole amount so paid shall not be refunded.

PART-VIII

46. Procedure for seizure of unsound food.–(1) If in any market, godown, shop, stall or other place used for the sale of any food intended for human consumption or for the preparation, manufacture or storage of any such food for the purpose of trade or sale, a Food Inspector finds any article of food which, in his opinion, is or appears to be injurious to health or is decayed or putrefied, he shall in the presence of two respectable persons and if practicable of the owner of the articles or his agent or of the occupant of the premises forthwith cause the article to be seized and taken into his custody.

(2) An inventory of the article seized under sub –rule (1) and of the receptacles or utensils in which it was kept shall be prepared, and signed by the persons witnessing the seizure, and the articles so seized shall be sealed in their presence.

(3) The Food Inspector shall before sealing the articles so seized take sample thereof in the manner prescribed in the Ordinance or these rules .

(4) If any food seized under this rule is certified by the Public Analyst as fit for human consumption or of the same nature, substance, or quality which it purports to be, a Food Inspector shall restore the food to the owner subject to previous permission of the officer authorized in this behalf by the Food Authority.

47. Order not to dispose of stock.– Where a Food Inspector decides to keep food seized under the Ordinance or the rules in the safe custody of the vendor, he shall after sealing the stock, make an order to the vendor to that effect in Form I and the vendor shall comply with such order.

48. Receipt for food seized TheFood Inspector, while seizing and removing food articles under section 17, shall issue a receipt in Form or , as the case may be in Form 3 to the person concerned for each such article of food.

49. Hours during which a Food Inspector may enter into and inspect places used for the sale of food.– A Food Inspector may, at any reasonable time, exercise the powers conferred on him by section 17 for the inspection of any place ordinarily used for sale, preparation, manufacture, or storage of any food.

50. Method of taking sample.– (1) The Food Inspector who seizes or procures a sample of a food, which is consigned to any person, shall forthwith divide the same into three parts and shall deliver or forward one of the parts to the person from whom the sample is seized or procured, shall send or submit the second part to the Food Authority for future comparison, and shall submit the third part to the Public Analyst.

(2) Every vendor of an article of food shall disclose to the Food Inspector, the name, address and other particulars of the person from whom he purchases the article of food.

51. Packing of samples of food for analysis.– (1) A`` Samples of food for purposes of analysis shall:

(a) in case of pre-packed food, be taken in original containers as far as practicable;

(b) in case of other food and in the case of pre-packed foods in large containers, be placed in clean dry bottles or jars, which shall be closed sufficiently tight to prevent leakage or evaporation of moisture; and

(c) in case of dry or solid food, be placed in cartons, paper bags, plastic containers, or polyethylene bags accordingly as their nature permits.

(2) All such bottles or jars or tins or cartons or paper bags or plastic containers or polyethylene bags shall be labelled and covered all round with a piece of cloth to be sewn at the ends and sealed on the stitches, if possible, in the presence of the person from whom the sample has been taken and of two other respectable persons, shall clearly indicate the name of the article, the name of the vendor, the place of collection and the date and time of the taking of the sample.

(3)The sealed container of one part of the sample shall be forwarded to the Public Analyst immediately but not later than the succeeding working day by any suitable means alog with a letter in Form 5 giving full particulars of the sample and enclosing a clear impression of the seal used for packing

(4) The sealed container of the third part of the sample and a copy of letter in Form 5 giving full particulars of the sample shall be sent in a sealed packet to the Food Authority concerned immediately but not later than the succeeding working day by any suitable means.

(5) A Food Inspector shall indicate in the forwarding letter the number of times for which the person from whom a sample has been taken was convicted for food offences previously. In the case of a person from whom the sample has been taken for the first time, the Food Inspector shall indicate in the remarks column by inserting the word “New”.

52. Quantity of sample.–The quantity of a sample to be supplied for analysis to a Public Analyst shall not the less than specified below:

No	**Article of Food**	**Approximate Quantity To be Supplied.**
1	Milk	250 ml
2	DesiGhee, Butter,	150 ml / gm
3	Khoa, Dahi	250gm
4	Edible oils & fats	150ml
5	Tea	125gm
6	Atta, maida, suji, basan,	200gm
7	Sugar, honey, gur, shaker or other sweeteners.	250gm
8	Prepared food	500gm
9	Aerated Carbonated water	500 ml
10	Banaspati	500gm
11	Spices,	200gm
12	Cereal & Cereal Product(other than atta)	250gm
13	Saffron	15gm
14	Bakery Products	500gm
15	Confectionary	300gm
16	Ice Cream, cream, condensed milk, cheese	250gm
17	Silver leaf	1gm
18	Baby Foods	450gm
19	Milk Powders	450gm
20	Syrup, sherbets, Fruit and Vegetable concentrates	250 ml
21	Foods not specified.	500gm/ml

53. Repeal.- The Punjab Pure Food Rules,2007 stand repealed.

APPENDIX

[See rule 12]

12.1 MILK AND MILK PRODUCTS

12.1.01 “Milk”, means the normal, clean and pure secretion obtained from the memory glands of a healthy cow, buffalo, goat, camel or sheep (halal milch animals), whether boiled, homogenized, pasteurized, sterilized or UHT and includes standardized, reconstituted milk. Milk shall contain not less than 34 percent of milk protein in milk solids other than milk fat and Lactose not less than 4.6 percent in milk solids other than milk fat. It shall be free from colostrum. Milk shall not contain any added water,

permitted food additive, other added substances, traces of antibiotic substance and hormonal residue.

12.1.02 "Milk Product" means and includes cream, concentrated milk, condensed milk, skimmed milk, separated milk, flavoured milk, milk for making tea/tea whitener, milk shake, milk drink, dahi, yoghurt, khoa, barfi, pera, kalakand, cheese, dried milk, dried milk for making tea/tea whitener, ice cream and any other product made by the addition of any substance to milk or to any of the milk products and used for similar purposes. Milk Products shall not contain any substance not found in milk unless specified in the standards.

12.1.03 "Homogenized milk" means milk which has been treated in such a manner as to ensure break up of the fat globules contained therein to such an extent that after forty-eight hours of quiescent storage, no visible cream separation occurs on the milk.

12.1.04 "Pasteurisation", "pasteurised" and their grammatical variations when used to describe a dairy product means that every particle of such product shall have been heated in properly operated equipment to one of the temperatures specified in the table of this paragraph and held continuously at or above that temperature for the specified time (or other time / temperature relationship which has been demonstrated to be equivalent thereto in microbial destruction):

Temperature	Time
145^0F (63^0C)	30 minutes
161^0F (72^0C)	15 Seconds
191^0F (88^0C)	1 Second

12.1.05 "Sterilisation", "Sterilised" and similar terms shall be taken to refer to the process of heating every particle of milk to at least 212^0 F (100^0C) or equivalent approved temperature- time combination for such a period as to ensure that it will comply with the Turbidity Test as prescribed in Appendix II to these Rules, and shall be packed in hermetically sealed containers.

12.1.06 "Ultra High Temperature milk or UHT milk" means the milk which has been subjected to heat treatment by being retained at a temperature of not less than 135^0C for at least 2 seconds to render it commercially sterile and immediately aseptically packed in a sterile container.

There shall be written on the label of a package containing ultra high temperature milk or U.H.T milk the words "Ultra High Temperature Milk" or "U.H.T milk", as the case may be.

12.1.07 "Cow's milk" shall be the milk obtained from one or more cows. It shall contain not less than 12 percent of milk solids, and not less than 3.5 percent of milk fat, and not less 8.5 percent of milk solids other than milk fat.

12.1.08 "Buffalo's milk" shall be the milk obtained from one or more buffaloes. It shall contain not less than 14percent of milk solids and not less than 5.0 percent of milk fat and not less than 9.0 percent of milk solids other than milk fat.

12.1.09 "Goat's milk" shall be obtained from one or more goats. It shall contain not less than 12.5 percent of milk solids and not less than 3.5 percent of milk fat and not less than 9.0 percent of milk solids other than milk fat.

12.1.10 "Sheep's milk" shall be the milk obtained from one or more sheep. It shall contain not less than 15 percent of milk solids and not less than 6.0 percent of milk fat and not less than 9.0 percent of milk solids other than milk fat.

12.1.11 "Camel's milk" shall be the milk obtained from one or more camels and shall contain not less than 12.5 percent of milk solids and not less than 3.5 percent of milk fat and not less than 9.0 percent of milk solids other than milk fat.

12.1.12 "Standardized milk" means milk which has been reduced to the prescribed level of milk fat by removal of fat. It shall contain not less than 8.9 percent of milk solids other than milk fat and it shall contain not less than 12.4 percent of milk solids including 3.5 percent of milk fat provided that the term standardized refers to the standardization of fat contents alone. It shall be homogenized, sterilized / UHT. It shall show a negative phosphatase test, turbidity test and methylene blue reduction test. The standardized milk shall be free from any added non-dairy ingredients except the permitted food additives and nutrient supplements.

12.1.13 "Skimmed milk", shall be milk from which fat has been removed by centrifugal operation. It shall contain not less than 9.5 percent of milk solids and not more than 0.5 percent of milk fat and not less than 9.0 percent of milk solids other than milk fat.

12.1.14 (i) "Milk" where milk other than skimmed or separated milk is sold or offered for sale without indication as to whether it is derived from cow, buffalo, goat, camel or sheep, the standard prescribed for buffalo milk shall apply.

(ii) "Mixed milk" means a combination of milk of cow, buffalo, sheep, goat or any other halal milch animal. The standard prescribed for buffalo milk shall apply.

12.1.15 "Condensed milk (Evaporated) Un-sweetened" means the product obtained by the partial removal of water from cow or buffalo milk or combination thereof by heat or by any other process which leads to a product of the same composition and characteristics. The fat and/or protein content of the milk may have been adjusted only to comply with the compositional requirements given below of this standard, by the addition and /or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted. It may contain added calcium chloride, citric acid and sodium citrate, sodium salts of orthosphophoric acid and polyposphoric acid (as linear phosphate) not exceeding 0.3 percent by weight of the finished product. It shall conform to the following standards:

a)	Milk fat	Not less than 9.0 percent
b)	Milk solids including milk fat.	Not less than 26.0 percent
c)	Milk solids other than milk fat	Not less than 17.0 percent
d)	Milk protein in milk solids not fat	Not less than 34.0 percent
e)	Titratable Acidity (as lactic acid)	Not more than 0.3 percent
f)	Bacterial Count per gram	Nil

12.1.16 "Condensed milk (Evaporated) Sweetened" means the product obtained from cow or buffalo milk or combination thereof or from standardized milk by the partial removal of water and after addition of sugar. It may contain added refined lactose, calcium chloride, citric acid, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate) not exceeding 0.3 percent by weight of the finished product. The fat and/or protein content of milk may have been adjusted only to comply with compositional requirements given below of its standard, by the addition and/or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted. It shall conform to the following standards:

a)	Milk fat	Not less than 9.0 percent
b)	Milk solids including milk fat.	Not less than 31.0 percent
c)	Milk solids other than milk fat	Not less than 21.0 percent
d)	Milk protein in milk solids not fat	Not less than 34.0 percent
e)	Titratable Acidity (as lactic acid)	Not more than 0.3 percent
f)	Bacterial Count Per gram	Not more than 500
g)	Test for coliform organism	Negative

12.1.17 "Condensed Skimmed milk (Evaporated Skimmed milk) Unsweetened" means the milk product obtained by the partial removal of water from cow or buffalo skimmed milk or a combination thereof by heat or by another process which leads to a product of the same composition and characteristics. It may contain added calcium chloride, citric acid and sodium salts of orthophosphoric acid (as linear phosphate) not exceeding 0.3 percent by weight of the finished product. It shall conform to the following standards:

a)	Milk fat	Not more than 1.0 percent
b)	Milk solids including milk fat.	Not less than 20.0 percent
c)	Milk protein in milk solids not fat	Not less than 34.0 percent
d)	Titratable Acidity (as lactic acid)	Not more than 0.3 percent
e)	Bacterial Count Per gram	Nil

12.1.18 "Condensed Skimmed Milk Sweetened (Evaporated Skimmed Milk)" means the product obtained by the partial removal of water from cow or a buffalo skimmed milk or combination thereof by heat or by any other process which leads to a product of the same composition and characteristics. It may contain added calcium chloride, citric acid and sodium salts of orthophosphoric acid and polyphosphoric acid

(as linear phosphate) not exceeding 0.3 percent by weight of the finished product. It shall conform to the following standards:

a)	Milk fat	Not more than 1.0 percent
b)	Milk solids including milk fat.	Not less than 26.0 percent
c)	Milk protein in milk solids not fat	Not less than 34.0 percent
d)	Sugar	Not less than 40.0 percent
e)	Titratable Acidity (as lactic acid)	Not more than 0.3 percent
f)	Bacterial Count Per gram	Not more than 500
g)	Test for coliform organism	Negative.

12.1.19 "Flavoured Milk" means milk to which has been added syrup or flavour made from wholesome ingredients, by whatever name called, may contain nuts (whole, fragmented or ground) chocolate, coffee or any other permitted flavour, permitted colour, with or without other permitted food additives and sugar. It shall be boiled, pasteurized or sterilized, UHT. The flavoured milk shall have not less than 3.5 percent of milk fat and not less than 9.0 per cent of milk solids not fat and total milk solids not less than 12.5 percent.

There shall be written on the label of a package containing flavoured milk, the words "flavoured milk" or the name of the flavour conjoined with the words "flavoured milk". These words shall form the first line of the label and no other words shall appear in the same line.

12.1.19 (a) "Low Fat Flavored milk" It shall contain milk fat not less than 2 percent and conform to the standards of flavoured milk except milk fat.

12.1.20 (I) "Reconstituted / Recombined Milk" means the homogenized product prepared from milk fat, non-fat milk solids and potable water. It shall conform to the following standards.

a)	Milk fat	Not less than 3.5 percent
b)	Milk solids not fat	Not less than 9.0 percent
c)	Total milk solids	Not less than 12.5 percent
d)	Phosphatase activity test	Negative
e)	Turbidity Test	Negative
f)	Methylene blue Reduction test.	Negative
g)	Colony Count per ml	Not more than 50,000
h)	Test for coliform organism	Negative.

(II) "Liquid milk for making tea" means and shall conform to the following standards:-

a)	Milk fat	Not less than 7.0 percent
b)	Refractive Index of extracted fat at 40^0 C	1.4524 - 1.4538
c)	Milk solids other than milk fat	Not less than 9.0 percent
d)	Turbidity Test	Negative
e)	Colony Count per ml	Not more than 50,000
f)	Test for coliform organism	Negative

g) It shall be sterilized /UHT. It may contain permitted food additives not exceeding permissible limit but shall not contain any non dairy ingredients.

h) There shall be written on the principal panel of the label just below the common name of product that the product is not recommended for infant and children.

(III) "Liquid Tea Whitener" means with 6.5 percent fat (3.5% milk fat and 3.0% vegetable fat), Minimum 3.0 percent solid not fat (SNF) and other permissible food additives.

(IV) Dried milk powder for making tea means and shall conform to the following standards:-

a)	Moisture	Not more than 4.0 percent
b)	Milk fat	Not less than 25.0 percent
c)	Refractive Index of	

	extracted fat at 40^0 C	1.4524 - 1.4538
d)	Milk protein	Not less than 25 percent
e)	Total Bacterial Count Per gram	Not more than 50,000
f)	Coliform count per gram	Absent
g)	Salmonella per gram.	Absent.

h) It shall be sterilized /UHT. It may contain permitted food additives not exceeding permissible limit but shall not contain any non dairy ingredients except sugar. The percentage of sugar shall be given on the principle panel of label in lettering not less than 14 just below the common name of food.

i) There shall be written on the principal panel of the label just below the common name of product that the product is not suitable for baby.

(V) "Powder tea Whitener" shall contain minimum of 15 percent milk fat or vegetable fat minimum 30 percent milk solids not fat (SNF) and other permissible food additives.

12.1.21 "Cream / Raw Cream", cream or raw cream means that portion of the milk of cow or buffalo which is rich in fat and rises to the surface of milk on standing or which has been separated by skimming or otherwise. Cream shall contain not less than 40 percent of milk fat and shall not contain any added substance. The fat separated from cream shall conform to the standards of ghee (milk fat).

12.1.22 "Homogenized / Pasteurized / Sterilized / UHT Cream" means cream which has been heat- treated and has been processed in such a manner as to break up the globules of butter fat and cause them to remain uniformly distributed throughout the milk instead of rising to the surface. It shall not contain any added substances other than permitted emulsifiers and permitted stabilizers. Cream shall contain not less than 40 percent of milk fat and shall not contain any added substance. The fat separated from cream shall conform to the standards of ghee (milk fat).

12.1.23 "Khoa" means the product derived from cow or buffalo milk by evaporation of a part of the water from the milk by a process of heating and it shall not contain any ingredient not found in milk. It shall contain not less than 24 percent of milk fat and not more than 33 percent of water.

12.1.24 "Barfi, Pera, Kalakand" means the sweetmeat prepared from khoa and sugar with or without other ingredients except starch. It shall contain not less than 10 percent of milk fat and milk solids not fat not be less than 18 percent.

12.1.25 "Dried Milk, Milk Powder or Whole Milk Powder" It shall be the material prepared by spray drying or roller drying of pasteurized, homogenized milk obtained from cow or buffalo or a mixture thereof or by standardised milk by the removal of water and may contain calcium chloride, citric acid and sodium citrate, sodium salts of orthophosphoric acid and polyphoric acid (as linear phosphate) with a degree of polymerization up to 6 units not exceeding 0.3 percent by weight and 0.01 percent of butylated hydroxyanisole (BHA) by mass of finished product. In case of instant full cream milk powder, it may also contain mono and diglycerides not exceeding 0.25 percent and lecithin not exceeding 0.5 percent. It may contain permitted anticaking agent not exceeding 1.0 percent, either singly or in combination. It shall conform to the following standards:—

a)	Moisture	Not more than 4.0percent
b)	Milk fat	Not less than 26.0percent
c)	Total milk solids	Not less than 95 percent
d)	Ash on dry basis.	Not more than 7.0 percent
e)	Milk protein in milk solids not fat	Not less than 34.0 percent
f)	Solubility index.	
	(i) Roller dried	Not less than 85 percent
	(ii) Spray dried	Not less than 98 percent
g)	Titratable Acidity(as lactic acid)	Not more than 1.0 percent
h)	Total Bacterial Count Per gram	Not more than50,000
i)	Coliform count per gram	Absent
j)	Salmonella per gram.	Absent.

12.1.25(a) Whey Powder" means the product obtained by spray or roller drying sweet whey or acid whey from which major portion of milk fat has removed. Sweet whey

means the fluid separated from the curd after coagulation of milk, cream, skimmed milk or butter milk in the manufacture of cheese, casein or similar products, principally with non-animal rennet type enzymes. The product may contain permitted food additives. It shall conform the following standard.

(a)	Moisture	Not more than 5.0 percent
(b)	Milk fat	Not more than 2.0 percent.
(c)	Milk protein	Not less than 10.0 percent.
(d)	Total Ash	Not more than 9.5 per cent.
(e)	pH(in 10.0% solution)	Not less than 5.1 per cent.
(f)	Lactose content expressed as anhydrous Lactose	Not less than 61.0 percent.
(g)	It shall comply with the microbiological standards prescribed in these rules.	

12.1.26 "Partly Skimmed Milk Powder" It shall be the material prepared by spray drying or roller drying of pasteurized, homogenized partly skimmed milk obtained from cow or buffalo or a mixture thereof and may contain calcium chloride, citric acid and sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate with a degree of polymerization up to 6 units) not exceeding 0.3 percent by mass and 0.01 percent of butylated hydroxyanisole (BHA) by mass of finished product. It shall conform to the following standards:

a)	Moisture	Not more than 4.0percent
b)	Milk fat	Not less than 1.5 percent and Not more than 26 percent
c)	Total milk solids	Not less than 95 percent
d)	Ash	Not more than 8.0 percent
e)	Milk protein in milk solids not fat	Not less than 34.0 percent
f)	Solubility index	
	(i) Roller dried	Not less than 85 percent
	(ii) Spray dried	Not less than 98 percent
g)	Titratable Acidity (as lactic acid)	Not more than 1.0 percent
h)	Total Bacterial Count Per gram	Not more than50,000
i)	Coliform count per gram	Absent
j)	Salmonella per gram.	Absent.

The exact fat content shall be indicated on the label.

12.1.27 "Dried Skimmed Milk Or Non Fat Dried Milk Powder Or Skimmed Milk Powder" means the products obtained from skimmed cow or buffalo milk or a combination thereof by the removal of water. It may contain added calcium chloride, citric acid and sodium citrate, sodium salts of orthophosphoric acid as linear phosphate not exceeding 0.3 percent by weight of the finished product. It shall conform to the following standards:--

a)	Moisture	Not more than 4.0 percent
b)	Milk fat	Not more than 1.5 percent
c)	Total milk solids	Not less than 95 percent
d)	Ash	Not more than 9.0 percent
e)	Milk protein in milk solids not fat	Not less than 34.0 percent
f)	Solubility Index	
	(i) Roller dried	Not less than 85 percent
	(ii) Spray dried	Not less than 98 percent
g)	Titratable Acidity (as lactic acid)	Not more than 1.0 percent
h)	Total Bacterial Count Per gram	Not more than 50,000

i)	Coliform count per gram	Absent.
j)	Salmonella per gram.	Absent.

Note:- The following milk products are allowed for protein adjustment purposes.

Milk Retentate:- Milk retentate is the product obtained by concentrating milk protein by ultra-filtration of milk, partly skimmed milk, or skimmed milk .

Milk Permeate:- Milk permeate is the product obtained by removing milk proteins and milk fat from milk, partly skimmed milk, or skimmed milk by ultra-filtration.

12.1.28 "Dahi Or Curd" means the product obtained by fermentation of pasteurized or boiled milk by wild or pure/ selected culture of lactic acid bacteria. It shall contain not less than 5.0 percent milk fat and not less than 9.0 percent milk solids other than milk fat.

12.1.29 "Skimmed Milk Dahi Or Curd" means the product obtained by fermentation of skimmed milk by wild or pure/selected culture of lactic acid bacteria. It shall conform to the standards of skimmed milk. It shall not contain milk fat not more than 0.5%.

12.1.30 "Cheese (Hard)" means the product obtained by draining after coagulation of milk with a harmless milk coagulating agent under the influence of harmless bacterial culture. It shall not contain any ingredient not found in milk, except coagulating agent, sodium chloride, calcium chloride (anhydrous salt) not exceeding 0.02 percent by weight, annatto or carotene, and may contain emulsifiers and / or stabilizers, namely citric acid, sodium citrate or sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate) not exceeding 0.2 percent by weight. Wax used for covering the outer surface shall not contain any thing harmful to health. Hard cheese shall contain not more than 43.0 percent moisture and not less than 42.0 percent of milk fat on water free basis. It may contain 0.1 percent of sorbic acid, or its sodium, potassium or calcium salts calculated as sorbic acid or 0.1 percent nisin either singly or in combination.

12.1.31 "Processed Cheese" means the product obtained by heating cheese with permitted emulsifiers and/or stabilizers namely citric acid, sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate) with or without added condiments and acidifying agents namely vinegar, lactic acid, acetic acid, citric acid and phosphoric acid. Processed cheese may contain not more than 4.0 percent of anhydrous permitted emulsifiers and / or stabilizers, provided that the content of anhydrous inorganic agents shall in no case exceed 3.0 percent of the finished product. It shall not contain more than 47.0 percent moisture. The milk fat content shall not be less than 40.0 percent on the water free basis. Processed cheese may contain 0.1 percent sorbic acid or its sodium, potassium or calcium salts (calculated as sorbic acid) or 0.1 percent of nisin either singly or in combination. It may contain calcium chloride (anhydrous) not exceeding 0.02 percent by weight.

(a) " Mozzarella Cheese" it shall conform to the standard of processed cheese except milk fat which shall be not less than 45 per cent on dry basis and moisture shall be not less than 52 per cent and not more than 60 per cent.

(b) " Feta Cheese" it shall confirm to the standard of processed cheese except milk fat which shall be not less than 40 per cent on dry basis and moisture shall be not less than 52 percent.

12.1.32 "Processed Cheese Spread" means a product obtained by comminuting and mixing one or more types of hard cheeses into a homogenous, plastic mass with the aid of heat. It may or may not contain butter, cream and butter oil, milk, skimmed milk powder, cheese, whey, sweet butter milk or one or any of these from which part of water has been removed. It may also contain permitted emulsifying and stabilizing agents.

It may contain one or more of the sodium/potassium salts of citric acid, phosphoric acid, tartaric acid, lactic acid in such quantities that mass of the solids of such emulsifying agents is not more than 4 percent of mass of the processed cheese spread. It may contain sequestering and buffering agents, namely, lactic acid, acetic acid, citric acid and phosphoric acid.

It may contain vegetable colouring matter such as annatto, carotene, permitted flavouring agents and milk coagulating enzymes with or without purified calcium chloride (anhydrous salt) and sodium citrate not exceeding 0.02 percent may be added. It may

contain natural sweetening agents namely, sugar, dextrose, corn syrup, honey, corn syrup solids, maltose, malt syrup and hydrolysed lactose in a quantity necessary for seasoning the spices and condiments. It may contain sodium chloride not exceeding 3 percent by weight. Processed cheese spread may contain sorbic acid or nisin or both to the maximum extent of 0.1 percent by weight. It shall not contain more than 60 percent moisture and milk fat content on dry basis shall not be less than 40 percent by weight.

12.1.33 "Cottage Cheese" means the soft uncured cheese prepared from the curd obtained by adding harmless lactic acid producing bacteria to pasteurized skimmed milk. It shall contain not more than 70 percent moisture.

12.1.34 "Un-Named Cheese" sold without any name or classification shall contain not less than 48 percent (w/w) milk fat on water free basis substance and not more than 39 percent moisture.

12.1.35 "Ice Cream, Fruit Ice Cream, Sunde Ice Cream, Malai-Ki-Baraf, Khoa-Ki-Baraf, Malai-ki-Kulfi, Khoa-Ki-Kulfi, Kulfi, Milk Kulfi, Kulfa, Cone Ice Cream" means the pure clean frozen product made from a combination of milk or cream or other milk products, with or without eggs, but with potable water, sugar and harmless flavouring and harmless colouring, and with or without added stabilizer, and with or without fruit, juices, nuts, coffee cocoa or chocolate, syrup, cakes or confections. It shall conform to the following standards.

i.	Milk fat	Not less than 10 per cent.
ii	Total solids	Not less than 36 per cent
iii.	Milk Solids not fat.	Not less than 10.1 per cent.

Provided that when the ice cream contains fruit or nuts or both, the contents of milk fat may be reduced proportionality but not less than 8.0 percent of milk fat.

a) Ice cream ingredients shall be efficiently heat-treated either by being kept at temperature of not less than 69^0C for at least 20 minutes, or not less than 74^0C for at least 10 minutes, or not less than 80^0C for at least 15 seconds or not less than 86^0C for at least 10 seconds or other equivalent time-temperature relationship and then frozen.

b) The volume of air incorporated in ice cream shall be such that the weight per unit volume of the ice cream in its frozen condition shall be not less than 0.43 percent calculated as gram per milliliter.

c) Where fruit, chocolate or other food is added to ice cream, or cream is externally coated, the fruit, chocolate or other food, or coating, if it is capable of being readily separated for the purpose of analysis, shall be deemed to be not part of the ice cream for the purpose of determining the content of fat or the weight per unit volume.

d) No person shall import, prepare or advertise for sale or sell any ice cream, the flavour of which is indicated by the name of a fruit, unless the ice cream contains not less than 5 percent of that fruit, or the word "flavour" is conjoined in uniform lettering, with the name of the fruit.

e) No picture of any fruit, or expression or device (other than the name of the fruit conjoined with the word "flavour") that indicates, suggests or implies the presence of a fruit or fruit juice in any ice cream shall appear on the label of any package of ice cream that does not contain at least 5 percent of the fruit or fruit juice, as the case may be.

f) It shall comply with the microbiological standards prescribed in these rules.

12.1.36 "Frozen Dessert" means the pure clean frozen product made from pasteurized mix prepared with the combination of milk and milk products, milk fat and / or edible vegetable protein products, with or without eggs, but with portable water, nutritive sweetening agents like sugar, dextrose, fructose, liquid glucose, dried liquid glucose, maltodextrin, high maltose, corn syrup, invert sugar, artificial sweeteners, honey, and harmless flavouring and colouring agents, with or without added stabilizer and emulsifier and with or without fruit and fruit products, juices, nuts, coffee, cocoa, oak, chocolate, syrup cakes and bakery products and / or confections.

Frozen desert by whatever name it is called, is further classified as:

12.1.36 (a) "High Fat" shall contain not less than 36 percent of total solids and not less than 10 percent edible vegetable fat or oil.

12.1.36 (b) "Medium Fat" shall contain not less than 30 percent of total solids and not less than 5.0 percent edible vegetable fat or oil.

12.1.36 (c) "Low Fat" shall contain not less than 26 percent of total solids and not less than 2.5 percent edible vegetable fat or oil.

12.1.37 "Desi Ghee" is a product exclusively obtained from milk, cream or butter by means of processes which results in almost to a removal of water and non fat solids, with an especially developed flavour and physical structure. It shall conform to the following standards:-

a)	Moisture	Not more than 0.5 percent.
b)	Acid Value.	Not more than 4.0 mg KOH/g oil.
c)	Milk fat.	Not less than 99.0 percent.
d)	Peroxide value. milliequivalents	Not more than 10.0 of Oxygen/Kg fat.
e)	Polenske value.	Not more than 2.8
f)	Refractive index at 40^0C	1.4524 to 1.4538
g)	Reichert value.	Not less than 28
h)	Kirschner value.	Not less than 24.0
i)	Baudouins test.	Negative.

Provided that where an analyst finds that on account of minor variations in the specifications, he must perform additional tests to arrive at a correct assessment of the quality of a specimen he may perform additional tests such as the specific tests for various oils and fats, the Phytosteryl Acetate Test, the Critical Temperature of Dissolution, the Ultra Violet Fluorescence test, fatty acid profile (GLC) and others.

12.1.38 "Butter" means the substance usually known as butter, made exclusively from cow's or buffalo's milk, from cream or dahi prepared from such milk, or with or without annatto or carotene. It shall be free from any synthetic colouring matter. It may contain acidity regulator not exceeding 0.2 percent by weight in the finished product. It shall conform to the following standards:-

a)	Milk fat	Not less than 80.0 percent.
b)	Water	Not more than 16.0 percent.
c)	Milk Solids not fat content.	Not more than 2.0 percent.

12.1.39 "Milk Fat, Butter Oil, Anhydrous Milk Fat and Anhydrous Butter Oil" are fatty products derived exclusively from milk and products obtained from milk by means of processes which result in almost total removal of water and non fat solids. These shall conform to the standards of desi ghee laid down above except milk fat, which shall be not less than 99.8 percent and shall contain not more than 0.1 percent moisture and shall contain acid value not more than 0.4 per cent.

12.1.40 "Yogurt" shall be a fermented product made by inoculating pasteurized milk to which dried milk or dried non-fat milk solids have been added before pasteurization, with cultures of lactobacillus bulgaricus and one or more of the following bacteria, namely, Streptococcus thermophilus, Lactobacillus acidophilus and Bacterium yoghurti Lactobacillus bulgaricus and one or more of such other bacteria as aforesaid shall predominate substantially in the product. Yogurt subjected to final heat treatment shall be described as pasteurized, sterilized or UHT as appropriate. Yogurt shall contain not less than 8.9 percent milk solid not fat and not less than 3.5 percent of milk fat and shall not contain any non-dairy substance. Permitted Food Additives as per Codex are allowed to add in yogurt.

12.1.41 "Skimmed Milk Yogurt Or Non-Fat Yogurt" shall contain not more than 0.5 percent milk fat and not less than 9.0 percent of milk solids not fat.

12.1.42 "Fruit Yogurt" shall be yogurt blended together with fruit, fruit pulp, sliced fruit or fruit juice, with or without sugar and permitted additives other than colouring matter. It shall contain not less than 8.5 percent milk solids not fat and not less than 3.0% percent milk fat and not less than 5.0 percent fruit and fruit juice.

12.1.42 (a) "Low Fat Fruit Yogurt" It shall contain milk fat not less than 1.5 percent and conform to the standards of "Fruit Yogurt" except milk fat.

12.1.43 "Infant Formula" means a breast-milk substitute specially manufactured to satisfy, by itself, the nutritional requirements of infants during the first months of life up to the introduction of appropriate complementary feeding. The product is so processed

by physical means only and so packaged as to prevent spoilage and contamination under all normal conditions of handling, storage and distribution.

i) Whereas, the term infant means a person not more than 12 months of age.

ii) Only products that comply with the criteria laid down in the provisions of this section of this Standard would be accepted for marketing as Infant Formula.

iii) No product other than Infant Formula may be marketed or otherwise represented as suitable for satisfying by itself the nutritional requirements of normal healthy infants during the first months of life.

12.1.43.1 Essential Composition

Infant formula is a product based on milk of cows or other halal milch animals or a mixture thereof and/or other ingredients which have been proven to be suitable for infant feeding. The nutritional safety and adequacy of Infant Formula shall be scientifically demonstrated to support growth and development of infants. All ingredients and food additives shall be gluten-free.

12.1.43.1.1 Infant formula prepared ready for consumption in accordance with instructions of the manufacturer shall contain per 100 ml not less than 60 kcal (250 kJ) and not more than 70 kcal (295 kJ) of energy.

12.1.43.1.2 Infant formula prepared ready for consumption shall contain per 100 kcal (100 kJ) the following nutrients:

a) Protein

Protein Unit	Minimum	Maximum
g/100 kcal	1.8*	3.0
g/100 kJ	0.48	0.7

*Infant formula based on milk protein less than 1.8 g protein/ 100 kcal should be clinically evaluated

i) The calculation of the protein content of the final product prepared ready for consumption should be based on N x 6.25.

ii) The protein content in Formula shall be milk protein having at least whey: casein ratio of 1: 1.

iii) For an equal energy value the formula must contain an available quantity of each essential and semi-essential amino acid at least equal to that as mentioned in Table below (Table 1):

Table 1.

Minimum level of essential and semi-essential amino acids in Infant Formula

Amino acids	mg/g nitrogen	mg/g protein	mg/100 kcal (mg/100 kJ)
Cysteine[1)]	131	21	38 (9)
Histidine	141	23	41 (9.8)
Isoleucine	319	51	92 (22)
Leucine	586	94	169 (40)
Lysine	395	63	114 (27)
Methionine[1)]	85	14	24 (5.7)
Phenylalanine[1)]	282	45	81 (19.3)
Threonine	268	43	77 (18.4)
Tryptophan	114	18	33 (7.9)
Tyrosine[1)]	259	42	75 (17.9)

[1)] For calculation purposes, the concentrations of tyrosine and phenylalanine may be added together. The concentrations of methionine and cysteine may be added together if the ratio is less than 2:1.

vi) Isolated amino acids may be added to Infant Formula only to improve its nutritional value for infants. Essential and semi-essential amino acids may be added to improve protein quality, only in amounts necessary for that purpose. Only L-forms of amino acids shall be used.

b) Lipids

Lipids

Total fat

Unit	Minimum	Maximum
g/100 kcal	4.4	6.0
g/100 kJ	1.05	1.4

i) Commercially hydrogenated oils & fats and the same being used for commercial hydrogenation shall not be used in Infant Formula.

ii) Lauric and myristic acids combined shall not exceed 20% of total fatty acids.

iii) The content of trans fatty acids shall not exceed 3% of total fatty acids provided 100% milk fat is used in the formula.

iv) Plant oils and fats intended to be used in Infant Formula should be virtually tans fat free and the maximum allowance level for tans fatty acids shall be proportionately decreased with increasing level of plant oils and fats in the formula.

v) The erucic acid content shall not exceed 0.5% of total fatty acids.

vi) The total content of phospholipids should not exceed 300 mg/100 kcal (72 mg/100 kJ).

vii) The fatty acid composition of Infant Formula fat should also conform to the standards mentioned in the following table (Table 2)

Table 2.

Levels of polyunsaturated fatty acids in Infant Formula

Fatty acids	Minimum		Maximum	
	mg/100 kcal	mg/100 kJ	mg/100 kcal	mg/100 kJ
Linoleic acid	300	72	1000	238
α-Linolenic acid	50	12	-	-
Arachidonic acid	25	6	-	-
Docosahexaenoic acid	15	4	30	7

Arachidonic acid (20:4 n-6) contents should reach at least the same concentration as Docosahexaenoic acid (22:6 n-3). The content of eicosapentaenoic acid (20:5 n-3) should not exceed the content of DHA.

Ratio of Linoleic acid: α-Linolenic acid should be b/w 5:1 to 15:1

c) Carbohydrates

Total carbohydrates

Unit	Minimum	Maximum
g/100 kcal	9.0	14.0
g/100 kJ	2.2	3.3

Oligosaccharides

Unit	Minimum	Maximum
mg/100 kcal	250	400
mg/100 kJ	60	95

Oligosaccharides should be one or combination of oligosaccharides and include neutral oligosaccharides containing galactose, *N*-acetylglucosamine, fucose, and lactose core; anionic oligosaccharides containing the same oligosaccharide compositions with *N*-acetylneuraminic acid; galacto-oligosaccharides and fructo-oligosaccharides.

i) Lactose and glucose polymers are the preferred carbohydrates in formula based on milk protein and hydrolyzed protein.

ii) Only precooked and/or gelatinized starches gluten-free by nature may be added to Infant Formula up to 2.8 g/100 kcal.

iii) Sucrose and fructose as an ingredient are not allowed in Infant Formula.

d) Vitamins

i) Vitamin A

Unit	Minimum	Maximum
µg RE/100[5)] kcal	80	180
µg RE/100 kJ	19	43

[5)]1 µg RE (retinol equivalents) = 3.33 IU Vitamin A = 1 µg all-trans retinol. Retinol contents shall be provided by preformed retinol, while any contents of carotenoids should not be included in the calculation and declaration of vitamin A activity.

ii) Vitamin D3

Unit	Minimum	Maximum
µg/100[6)] kcal	1	2.5
µg/100 kJ	0.24	0.6

[6)]Calciferol: 1 µg calciferol = 40 IU vitamin D

iii) Vitamin E

Unit	Minimum	Maximum
mg α-TE/100[7)] kcal	0.5[8)]	5
mg α-TE/100 kJ	0.12[8)]	1.2

[7)]1mg α-TE (alpha-tocopherol equivalent) = 1 mg d-α-tocopherol

Vitamin E content shall be at least 0.5 mg α-TE per g PUFA, using the following factors of equivalence to adapt the minimal vitamin E content to the number of fatty acid double bonds in the formula: 0.5 mg -TE/g linoleic acid (18:2 n-6); 0.75 α-TE/g α-linolenic acid (18:3 n-3); 1.0 mg α-TE/g arachidonic acid (20:4 n-6); 1.25 mg α-TE/g eicosapentaenoic acid (20:5 n-3); 1.5 mg α-TE/g docosahexaenoic acid (22:6 n-3).

iv) Other Vitamins should conform to the following standards

Vitamin K

Unit	Minimum	Maximum
µg/100 kcal	4	27
µg/100 kJ	1	6.5

Thiamin

Unit	Minimum	Maximum
µg/100 kcal	60	300
µg/100 kJ	14	72

Riboflavin

Unit	Minimum	Maximum
µg/100 kcal	80	500
µg/100 kJ	19	119

Niacin (refers to preformed niacin)

Unit	Minimum	Maximum
µg/100 kcal	400	1500
µg/100 kJ	95	357

Vitamin B6

Unit	Minimum	Maximum
µg/100 kcal	35	175
µg/100 kJ	8.5	42

Vitamin B12

Unit	Minimum	Maximum
µg/100 kcal	0.1	1.5
µg/100 kJ	0.025	0.36

Pantothenic acid

Unit	Minimum	Maximum
µg/1 00 kcal	400	2000
µg/100 kJ	96	476

Folic acid

Unit	Minimum	Maximum

µg/100 kcal	13	50
µg/100 kJ	3.1	12

Vitamin C (expressed as ascorbic acid**)**

Unit	**Minimum**	**Maximum**
mg/100 kcal	10	70
mg/100 kJ	2.4	17

Biotin

Unit	**Minimum**	**Maximum**
µg/100 kcal	1.5	10
µg/100 kJ	0.4	2.4

e) Minerals and Trace Elements should conform to the following standards

Iron

Unit	**Minimum**	**Maximum**
mg/100 kcal	0.45	1.5
mg/100 kJ	0.10	0.35

Calcium

Unit	**Minimum**	**Maximum**
mg/100 kcal	50	140
mg/100 kJ	12	33

Phosphorus

Unit	**Minimum**	**Maximum**
mg/100 kcal	25	70*
mg/100 kJ	6	17*

Ratio calcium/ phosphorus	**Minimum**	**Maximum**
	1:1	2:1

Magnesium

Unit	**Minimum**	**Maximum**
mg/100 kcal	6	15
mg/100 kJ	1.4	3.6

Sodium

Unit	**Minimum**	**Maximum**
mg/100 kcal	20	60
mg/100 kJ	5	14

Chloride

Unit	**Minimum**	**Maximum**
mg/100 kcal	50	160
mg/100 kJ	12	38

Potassium

Unit	**Minimum**	**Maximum**
mg/100 kcal	60	190
mg/100 kJ	14	45

Manganese

Unit	**Minimum**	**Maximum**
µg/100 kcal	1	100
µg/100 kJ	0.25	24

Iodine

Unit	**Minimum**	**Maximum**
µg/100 kcal	20	60
µg/100 kJ	4.8	14

Selenium

Unit	**Minimum**	**Maximum**
µg/100 kcal	3	9

µg/100 kJ	0.71	2.2

Copper

Unit	**Minimum**	**Maximum**
µg/100 kcal	30	100
µg/100 kJ	7	24

Zinc

Unit	**Minimum**	**Maximum**
mg/100 kcal	0.5	1.5
mg/100 kJ	0.12	0.36

f) Other Substances

Choline

Unit	**Minimum**	**Maximum**
mg/100 kcal	7	50
mg/100 kJ	1.7	12

Myo-Inositol

Unit	**Minimum**	**Maximum**
mg/100 kcal	4	40
mg/100 kJ	1	9.5

L-Carnitine

Unit	**Minimum**	**Maximum**
mg/100 kcal	1.2	-
mg/100 kJ	0.3	-

Taurine

Unit	**Minimum**	**Maximum**
mg/100 kcal	3	12
mg/100 kJ	1.2	3

Only L(+)lactic acid producing cultures should be used.

12.1.43.2 **Fluoride** should not be added to Infant Formula. In any case its level should not exceed 100 µg /100 kcal (24µg/100 kJ) in Infant Formula.

12.1.43.3 **Vitamin Compounds and Mineral Salts** and other nutrients should be selected and added in accordance with the Advisory Lists of Mineral Salts and Vitamin Compounds for Use in Foods for Infants and Children (CAC/GL 10-1979).

12.1.43.4 **Consistency and Particle Size** when prepared according to the label directions for use, the product shall be free of lumps and of large coarse particles and suitable for adequate feeding of young infants.

12.1.43.5 **Purity Requirements** all ingredients shall be clean, of good quality, safe and suitable for ingestion by infants. They shall conform to their normal quality requirements, such as color, flavor and odor.

12.1.43.6 **Specific Prohibitions** the product and its component shall not have been treated by ionizing irradiation.

12.1.43.7 **Food Additives** only the food additives listed below (Table 3) may be present in the foods, as a result of carry-over from a raw material or other ingredient (including food additive) used to produce the food, subject to the following conditions:

a) The amount of the food additive in the raw materials or other ingredients (including food additives) does not exceed the maximum level specified; and

b) The food into which the food additive is carried over does not contain the food additive in greater quantity than would be introduced by the use of the raw materials or ingredients under good manufacturing practice, consistent with the provisions on carry-over in the Preamble of the General Standard for Food Additives (CAC/STAN 192-1995).

Table 3.

The following food additives are acceptable for use in the preparation of Infant Formula, as described of this Standard (in 100 ml of product, ready for consumption prepared following manufacturer's instructions, unless otherwise indicated):

INS	Additive	Maximum level in 100 ml of the product ready for consumption
Thickeners		
412	Guar gum	0.1 g in liquid formulas containing hydrolysed protein
410	Carob bean gum (Locust bean gum)	0.1 g in all types of infant formula
1412	Distarch phosphate	0.5 g singly or in combination in soy-based infant formula only 2.5 g singly or in combination in hydrolyzed protein and/or amino acid based infant formula only
1414	Acetylated distarch phosphate	
1413	Phosphated distarch phosphate	
1440	Hydroxypropyl starch	
Emulsifiers		
322	Lecithins	0.5 g in all types of infant formula*
471	Mono- and diglycerides	0.4 g in all types of infant formula*
Acidity Regulators		
524	Sodium hydroxide	0.2 g singly or in combination and within the sodium, potassium and calcium in section 3.1.3 (e) in all types of infant formula
500ii	Sodium hydrogen carbonate	0.2 g singly or in combination and within the limits for sodium, potassium and calcium in section all types of infant formula
500i	Sodium carbonate	
525	Potassium hydroxide	
50 1ii	Potassium hydrogen carbonate	
501i	Potassium carbonate	
526	Calcium hydroxide	
Antioxidants		
307b	Mixed tocopherol concentrate	1 mg in all types of infant formula singly or in
304i	Ascorbyl palmitate	1 mg in all types of infant formula singly or in
Packaging Gases		
290	Carbon dioxide	GMP
941	Nitrogen	

12.1.43.8 Contaminants

a) Pesticide Residues the product shall be prepared with special care under good manufacturing practices, so that residues of those pesticides which may be required in the production, storage or processing of the raw materials or the finished food ingredient do not remain, or, if technically unavoidable, are reduced to the maximum extent possible.

b) Other Contaminants the product shall not contain contaminants or undesirable substances (e.g. biologically active substances) in amounts which may represent a hazard to the health of the infant. The product covered by the provisions of the Standard

shall comply with those maximum residue limits and maximum levels established by the Codex Alimentarius Commission.

c) Lead the maximum content allowed is 0.02 mg/kg in the ready-to-use product

12.1.43.9 Hygiene it is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969), and other relevant Codex texts such as the Code of Hygienic Practice for Powdered Formulae for Infants and Young Children (CAC/RCP 66 - 2008). If the formula is in powdered form, in addition to above mentioned conformity requirements, it should also conform to the guidelines laid down by WHO/ FAO (2007) for Safe Preparation, Storage and Handling of Powdered Infant Formula.

12.1.43.10 Microbiological Criteria the products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

12.1.43.11 Packaging the product shall be packed in containers which will safeguard the hygienic and other qualities of the food. When in liquid form, the product shall be packed in hermetically sealed containers; nitrogen and carbon dioxide may be used as packing media. The containers, including packaging materials, shall be made only of substances which are safe and suitable for their intended uses. Where the Codex Alimentarius Commission has established a standard for any such substance used as packaging materials, that standard shall apply.

12.1.43.12 Fill of Container

In the case of products in ready-to-eat form, the fill of container shall be:

(a) not less than 80% v/v for products weighing less than 150 g (5 oz.);

(b) not less than 85% v/v for products in the weight range 150-250 g (5-8 oz.); and

(c) not less than 90% v/v for products weighing more than 250 g (8 oz.) 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

12.1.43.13 Labelling

The requirements of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985), the Codex Guidelines on Nutrition Labelling (CAC/GL 2-1985) and the Guidelines for Use of Nutrition and Health Claims apply to Infant Formula and formula for special medical purposes for infants. These requirements include a prohibition on the use of nutrition and health claims for foods for infants and young children except where specifically provided for in relevant Codex Standards. In addition to these requirements the following specific provisions apply:

a) The Name of the Food

i) The text of the label and all other information accompanying the product shall be written in Urdu or Urdu and English both.

ii) The name of the product shall be either "Infant Formula" or any appropriate designation indicating the true nature of the product.

iii) The sources of protein in the product shall be clearly shown on the label.

iv) If milk is the only source of protein, the product may be labeled "Infant Formula Based on Milk"

b) List of Ingredients

i) A complete list of ingredients shall be declared on the label in descending order of proportion except that in the case of added vitamins and minerals, these ingredients may be arranged as separate groups for vitamins and minerals. Within these groups the vitamins and minerals need not be listed in descending order of proportion.

ii) The specific name shall be declared for ingredients of animal or plant origin and for food additives. In addition, appropriate class names for these ingredients and additives may be included on the label.

c) Declaration of Nutritive Value the declaration of nutrition information shall contain the following information which should be in the following order:

i) The amount of energy, expressed in kilocalories (kcal) and/or kilojoules (kJ), and the number of grams of protein, carbohydrate and fat per 100 grams or per 100 milliliters of the food as sold as well as per 100 milliliters of the food ready for use, when prepared according to the instructions on the label.

ii) In addition, the total quantity of each essential and semi-essential amino acid, lauric and myristic acids combined, trans fatty acids, erucic acid, phospholipids, linoleic acid, α-linolenic acid, arachidonic acid, docosahexaenoic acid, eicosapentaenoic acid, oligosaccharides, choline, myo-inositol, L-carnitine, each vitamin and each mineral as listed per 100 grammes or per 100 milliliters of the food as sold as well as per 100 milliliters of the food ready for use, when prepared according to the instructions on the label.

iii) The declaration of nutrients per 100 kilocalories (or per 100 kilojoules) is also permitted.

d) Date Marking and Storage Instructions

i) The date of minimum durability (preceded by the words "best before") shall be declared by the day, month and year in uncoded numerical sequence except that for products with a shelf-life of more than three months, the month and year will suffice. The month may be indicated by letters.

ii) In addition to the date, any special conditions for the storage of the food shall be indicated if the validity of the date depends thereon.

iii) Where practicable, storage instructions shall be in close proximity to the date marking.

e) Information for Use

i) Products in liquid form may be used either directly or in the case of concentrated liquid products, must be prepared with water that is safe or has been rendered safe by previous boiling before feeding, according to directions for use. Products in powder form should be reconstituted with water that is safe or has been rendered safe by previous boiling for preparation.

ii) Adequate directions for the appropriate preparation and handling should be in accordance with Good Hygienic Practice and in case the formula intended for sale is in powder form, the leaflet or label should also contain “Part 3: In the Home” section of WHO/ FAO (2007) guidelines for Safe Preparation, Storage and Handling of Powdered Infant Formula in Urdu or Urdu & English both language(s).

iii) Adequate directions including its storage and disposal after preparation, i.e. that formula remaining after feeding should be discarded shall appear on the label and in any accompanying leaflet.

iv) The label shall carry clear graphic instructions illustrating the method of preparation of the product.

v) The directions should be accompanied by a warning about the health hazards of inappropriate preparation, storage and use.

vi) Adequate directions regarding the storage of the product after the container has been opened shall appear on the label and in any accompanying leaflet.

f) Additional Labelling Requirements

i) Labels should not discourage breastfeeding. Each container label shall have a clear, conspicuous and easily readable message which includes the following points:

   a) the words "important notice" or their equivalent;

   b) the statement "Breast milk is the best food for your baby" and its translation in Urdu;

   c) a statement that the product should only be used on advice of a independent medical practitioner/nutritionist as to the need for its use and the proper method of use.

ii) The label shall have no pictures of infants and women nor any other picture or text which idealizes the use of Infant Formula.

iii) The terms "humanized", "maternalized" or other similar terms shall not be used.

iv) Information shall appear on the label to the effect that infants should receive complementary foods in addition to the formula, from an age that is appropriate for their specific growth and development needs, as advised by an independent medical practitioner/nutritionist, and in any case from the age over six months.

v) The products shall be labelled in such a way as to avoid any risk of confusion between Infant Formula, follow-up formula, and formula for special medical purposes.

12.1.43-A "Infant Formula with edible vegetable fat" means any food described or sold as an alternative for human milk for the feeding of infants not compromising on exclusive breast feeding as described in WHO code. It is a product prepared from milk of cow or buffalo or other halal milch animals or edible constituents of halal milch animals or both including fish, or from plant suitable for infant feeding. Infant formula prepared in accordance with the direction on the label shall have the energy value of not less than 640 K.Cal and not more than 720 Kcal per liter of the product ready for consumption. The milk may be modified by the partial removal / substitution of different milk solids; carbohydrates such as sucrose, dextrose and dextrin in maltose and lactose, salts like phosphates and citrates; vitamins A.D.E.B group vitamin c and other vitamins like iron, copper, Zinc and iodine.

(i) Infant formula or the ingredient used in making the formula shall not have been treated by ionizing radiation.

(ii) Infant formula shall be prepared by spray drying of the ilk of cow or buffalo or other halal milch animal.

(iii) The source of iron may be selected from "Ferrous Sulphate", "Ferrous Citrate", "Ferrous Fumaerate", "Ferrous Succcinate", "Ferric Ammonium Citrate", "Ferric Pyrophosphate".

(iv) It shall be free from starch, preservatives, antioxidants, colors and flavor except permitted additives specified in column (1) of given below table in proportion not greater than the maximum permitted proportion specified opposite there to in the column (2) of the said table. It shall not have rancid taste and musty colour. Vegetable oils rich in polyunsaturated fatty acids shall be added to substitute the milk fat and minimum of linoleate content of 1.398 gram per 100 gram of the product.

(v) There shall be written on the label of the package containing infant formula with edible vegetable fat, : the brand or trade name" immediately followed by the word edible vegetable fat in the equal uniform lettering. These words shall be from the first line or lines of the label and no other word shall appear in the same line or lines with these words will be surrounding by rectangular surrounding line.

*----------   *Contains edible vegetable fat

It shall conform to the following standards:

(1)	Moisture	Not more than 4%
(2)	Total Ash.	Not more than 8.5%
(3)	Ash insoluble in hydrochloric acid.	Not more than 0.1%
(4)	Total milk protein.	Not less than 10 %
(5)	Total Fat.	Not less than 18%
(6)	Solubility Index.	Not more than 2%
(7)	Solubility by weight	Not less than 98.5%

12.1.44 "FOLLOW-UP FORMULA" means a food intended for use as a liquid part of the weaning diet for the infant from the 6th month on and for young children and is a food prepared from the milk of cows or other halal milch animals and / or other constituents of animal and/or plant origin, which have been proved to be suitable for infants from the 6th month on and for young children.

i) The product should be processed by physical means only so as to prevent spoilage and contamination under all normal conditions of handling, storage and distribution.

ii) Whereas, the term infant means a person of not more than 12 months of age and the term young children means persons from the age of more than 12 months up to the age of three years (36 months).

iii) Follow-up formula in liquid form, is suitable for use either directly or diluted with water before feeding, as appropriate.

iv) In powdered form, the product requires water for preparation.

v) The product shall be nutritionally adequate to contribute to normal growth and development when used in accordance with its directions for use.

12.1.44.1.- ESSENTIAL COMPOSITION

The standards for essential composition and energy content of follow-up formula shall conform to the standards as mentioned hereafter:

12.1.44.1.1.- Follow-up formula prepared ready for consumption in accordance with instructions of the manufacturer shall contain per 100 ml not less than 60 kcal (250 kJ) and not more than 85 kcal (335 kJ) of energy.

12.1.44.1.2.- Follow-up formula prepared ready for consumption shall contain per 100 kcal (100 kJ) the minimum and maximum levels of nutrients:

a) Protein

Unit	Minimum	Maximum
g/100 kcal	3.0	5.5
g/100 kJ	0.71	1.31

i) The calculation of the protein content of the final product prepared ready for consumption should be based on N x 6.25.

ii) The protein content in Follow-up Formula shall be milk protein having at least whey: casein ratio of 1: 1.

iii) For an equal energy value the formula must contain an available quantity of each essential and semi-essential amino acid at least equal to that as mentioned in Table below (Table 1):

Table 1.

Minimum level of essential and semi-essential amino acids in follow-up formula

Amino acids	mg/g nitrogen	mg/g protein	mg/100 kcal (mg/100 kJ)
Cysteine	131	21	38 (9)
Histidine	141	23	41 (9.8)
Isoleucine	319	51	92 (22)
Leucine	586	94	169 (40)
Lysine	395	63	114 (27)
Methionine	85	14	24 (5.7)
Phenylalanine	282	45	81 (19.3)
Threonine	268	43	77 (18.4)
Tryptophan	114	18	33 (7.9)
Tyrosine	259	42	75 (17.9)

For calculation purposes, the concentrations of tyrosine and phenylalanine may be added together. The concentrations of methionine and cysteine may be added together if the ratio is less than 2:1.

vi) Isolated amino acids may be added to follow-up formula only to improve its nutritional value for infants. Essential and semi-essential amino acids may be added to improve protein quality, only in amounts necessary for that purpose. Only L-forms of amino acids shall be used.

b) Lipids

Total fat

Unit	Minimum	Maximum
g/100 kcal	4.0	6.0
g/100 kJ	0.95	1.4

viii) Commercially hydrogenated oils & fats and the same being used for commercial hydrogenation shall not be used in follow-up formula.

ix) Lauric and myristic acids combined shall not exceed 20% of total fatty acids.

x) The content of trans fatty acids shall not exceed 3% of total fatty acids provided 100% milk fat is used in the formula.

xi) Plant oils and fats intended to be used in follow-up formula should be virtually trans fat free and the maximum allowance level for tans fatty acids shall be proportionately decreased with increasing level of plant oils and fats in the formula.

xii) The erucic acid content shall not exceed 0.5% of total fatty acids.

xiii) The total content of phospholipids should not exceed 300 mg/100 kcal (72 mg/100 kJ).

xiv) The fatty acid composition of follow-up formula fat should also conform to the standards mentioned in the following table (Table 2)

Table 2.

Standards for polyunsaturated fatty acids in follow-up formula

Fatyy acids	**Minimum**		**Maximum**	
	mg/100 kcal	mg/100 kJ	mg/100 kcal	mg/100 kJ
Linoleic acid	300	72	1000	240
α-Linolenic acid	50	12	-	-
Arachidonic acid	25	6	-	-
Docosahexaenoic acid	15	4	30	7

Arachidonic acid (20:4 n-6) contents should reach at least the same concentration as Docosahexaenoic acid (22:6 n-3). The content of eicosapentaenoic acid (20:5 n-3) should not exceed the content of DHA.

Ratio of Linoleic acid: α-Linolenic acid should be b/w 5:1 to 15:1.

c) Carbohydrates

i) **Total carbohydrates** The product shall contain nutritionally available carbohydrates suitable for the feeding of the older infants and the young child in such quantities as to adjust the product to the energy density in accordance with the requirements set out 12.44.1.1.

ii) Follow-up formula should also contain oligosaccharides from 250 mg/100 kcal (60 mg/100 kJ) to 440 mg/100 kcal (105 mg/100 kJ). Oligosaccharides should be one or combination of oligosaccharides and include neutral oligosaccharides containing galactose, *N*-acetylglucosamine, fucose, and lactose core; anionic oligosaccharides containing the same oligosaccharide compositions with *N*-acetylneuraminic acid; galacto-oligosaccharides and fructo-oligosaccharides.

iii) Lactose and glucose polymers are the preferred carbohydrates in follow-up formula based on milk protein and hydrolyzed protein.

iv) Only precooked and/or gelatinized starches gluten-free by nature may be added to follow-up formula up to 2.8 g/100 kcal.

v) Sucrose and fructose as an ingredient are not allowed in follow-up formula.

d) Vitamins

i) Vitamin A

Unit	**Minimum**	**Maximum**
µg RE/100[4)] kcal	80	225
µg RE/100 kJ	19	54

1 µg RE (retinol equivalents) = 3.33 IU Vitamin A = 1 µg all-trans retinol. Retinol contents shall be provided by preformed retinol, while any contents of carotenoids should not be included in the calculation and declaration of vitamin A activity.

ii) Vitamin D3

Unit	**Minimum**	**Maximum**
µg/100[5)] kcal	1	3.5
µg/100 kJ	0.23	0.8

Calciferol. 1 µg calciferol = 40 IU vitamin D

iii) Vitamin E

Unit	**Minimum**	**Maximum**
mg α-TE/100[6)] kcal	0.5[7)]	5

mg α-TE/100 kJ	0.12[7)]	1.2

1mg α-TE (alpha-tocopherol equivalent) = 1 mg d-α-tocopherol

Vitamin E content shall be at least 0.5 mg α-TE per g PUFA, using the following factors of equivalence to adapt the minimal vitamin E content to the number of fatty acid double bonds in the formula: 0.5 mg -TE/g linoleic acid (18:2 n-6); 0.75 α-TE/g α-linolenic acid (18:3 n-3); 1.0 mg α-TE/g arachidonic acid (20:4 n-6); 1.25 mg α-TE/g eicosapentaenoic acid (20:5 n-3); 1.5 mg α-TE/g docosahexaenoic acid (22:6 n-3).

iv) Other Vitamins should conform to the following standards

Vitamin K

Unit	**Minimum**	**Maximum**
µg/100 kcal	4	27
µg/100 kJ	1	6.5

Thiamine

Unit	**Minimum**	**Maximum**
µg/100 kcal	60	300
µg/100 kJ	14	72

Riboflavin

Unit	**Minimum**	**Maximum**
µg/100 kcal	80	500
µg/100 kJ	19	119

Niacin (refers to preformed niacin)

Unit	**Minimum**	**Maximum**
µg/100 kcal	400	1500
µg/100 kJ	95	358

Vitamin B6

Unit	**Minimum**	**Maximum**
µg/100 kcal	45	200
µg/100 kJ	11	48

Vitamin B12

Unit	**Minimum**	**Maximum**
µg/100 kcal	0.15	2
µg/100 kJ	0.035	0.48

Pantothenic acid

Unit	**Minimum**	**Maximum**
µg/1 00 kcal	400	2000
µg/100 kJ	96	478

Folic acid

Unit	**Minimum**	**Maximum**
µg/100 kcal	13	50
µg/100 kJ	3.1	12

Vitamin C (expressed as ascorbic acid**)**

Unit	**Minimum**	**Maximum**
mg/100 kcal	10	45
mg/100 kJ	2.4	11

Biotin

Unit	**Minimum**	**Maximum**
µg/100 kcal	1.5	10
µg/100 kJ	0.4	2.4

e) Minerals and Trace Elements should conform to the following standards

Iron

Unit	**Minimum**	**Maximum**

mg/100 kcal	1	2
mg/100 kJ	0.25	0.50

Calcium

Unit	**Minimum**	**Maximum**
mg/100 kcal	60	250
mg/100 kJ	14.3	60

Phosphorus

Unit	**Minimum**	**Maximum**
mg/100 kcal	60	150
mg/100 kJ	15	36

Ratio calcium/ phosphorus	**Minimum**	**Maximum**
	1:2	2:0

Magnesium

Unit	**Minimum**	**Maximum**
mg/100 kcal	12	18
mg/100 kJ	2.9	4.3

Sodium

Unit	**Minimum**	**Maximum**
mg/100 kcal	20	85
mg/100 kJ	5	20

Chloride

Unit	**Minimum**	**Maximum**
mg/100 kcal	55	160
mg/100 kJ	13	38

Potassium

Unit	**Minimum**	**Maximum**
mg/100 kcal	80	220
mg/100 kJ	19	53

Manganese

Unit	**Minimum**	**Maximum**
µg/100 kcal	1	50
µg/100 kJ	0.25	12

Iodine

Unit	**Minimum**	**Maximum**
µg/100 kcal	20	60
µg/100 kJ	5	14

Selenium

Unit	**Minimum**	**Maximum**
µg/100 kcal	3	9
µg/100 kJ	0.71	2.2

Copper

Unit	**Minimum**	**Maximum**
µg/100 kcal	30	70
µg/100 kJ	7	17

Zinc

Unit	**Minimum**	**Maximum**
mg/100 kcal	0.5	1.5
mg/100 kJ	0.12	0.36

f) Other Substances

Choline

Unit	**Minimum**	**Maximum**

mg/100 kcal	7	50
mg/100 kJ	1.7	12

Myo-Inositol

Unit	**Minimum**	**Maximum**
mg/100 kcal	4	40
mg/100 kJ	1	9.5

L-Carnitine

Unit	**Minimum**	**Maximum**
mg/100 kcal	1.2	-
mg/100 kJ	0.3	-

Taurine

Unit	**Minimum**	**Maximum**
mg/100 kcal	3	12
mg/100 kJ	1.2	3

Only L(+)lactic acid producing cultures should be used.

12.1.44.2 - The standards laid down for infant formula (12.1.43) for fluoride, vitamin compounds and mineral salts, consistency and particle size, purity requirements, specific prohibitions, food additives, contaminants, hygiene, microbiological criteria, packaging, fill of container and labeling will also apply for follow-up formula with the exception of The Name of the Food, which shall be read as "Follow-up Formula" instead of “Infant Formula”.

After the rule 12.1.44, the following shall be inserted

12.1.45 - “Formula for Special Medical Purposes Intended for Infants” means a substitute for human milk or Infant Formula that is specially manufactured to satisfy, by itself, the special nutritional requirements of infants with specific disorders, diseases or medical conditions during the first months of life up to the introduction of appropriate complementary feeding.

i) Formula for Special Medical Purposes Intended for Infants is food for special dietary uses which is specially processed or formulated and presented for the dietary management of infants and may be used only under medical supervision.

ii) Formula is intended for the exclusive or partial feeding of infants with limited or impaired capacity to take, digest, absorb or metabolize mother’s milk or ordinary Infant Formula or certain nutrients contained therein, or who have other special medically-determined nutrient requirements, whose dietary management cannot be achieved only by mother’s milk or normal Infant Formula.

iii) The application of this section of the Standard should take into account, as appropriate for the products to which the section applies and the special needs of the infants for whom they are intended, the recommendations made in the International Code of Marketing of Breast-milk Substitutes (1981), the Global Strategy for Infant and Young Child Feeding and World Health Assembly resolution WHA54.2 (2001).

12.1.45.1 - Essential Composition and Quality Factors

i) Formula for Special Medical Purposes Intended for Infants is a product based on ingredients from animal, plant and/or synthetic origin suitable for human consumption. All ingredients and food additives shall be gluten-free.

ii) The composition of Formula for Special Medical Purposes Intended for Infants shall be based on sound medical and nutritional principles.

iii) The nutritional safety and adequacy of the formula shall be scientifically demonstrated to support growth and development in the infants for whom it is intended, as appropriate for the specific products and indications.

iv) Use of the Formula shall be demonstrated by scientific evidence to be beneficial in the dietary management of the infants for whom it is intended.

v) The energy content, nutrient composition and all other standards for vitamin compounds and mineral salts, consistency and particle size, purity requirements, specific prohibitions, food additives, contaminants, hygiene, packaging, fill of container, labelling, list of ingredients, date marking and storage instructions, information for use of Formula for Special Medical Purposes intended for infants shall be based on the requirements as given in previous section 12.1.43 for Infant Formula except for the compositional provisions which must be modified to meet the

special nutritional requirements arising from the disease(s), disorder(s) or medical condition(s) for whose dietary management the product is specifically formulated, labelled and presented.

vi) In addition to the compositional requirements, other ingredients may be added in order to provide substances ordinarily found in human milk or required to ensure that the formulation is suitable as the sole source of nutrition for the infant and for the dietary management of his/her disease, disorder or medical condition.

vii) The suitability for the intended special medical purpose, the suitability for the particular nutritional use of infants and the safety of these substances shall be scientifically demonstrated. The formula shall contain sufficient amounts of these substances to achieve the intended effect.

viii) Only L(+)lactic acid producing cultures may be used in Formulas for Special Medical Purposes for Infants if shown to be safe and appropriate for use in these vulnerable populations.

12.1.45.2.- The Name of the Food

i) In addition to conformity requirements with standards laid down for infant formula the following standards will apply:

ii) The name of the product shall be "Formula for Special Medical Purposes Intended for Infants" or any other appropriate designation indicating the true nature of the product, in accordance with the usage.

iii) If milk is the only source of protein, the product may be labelled "Formula for Special Medical Purposes Intended for Infants Based on Milk".

12.1.45.3.- Declaration of Nutritive Value Formula for Special Medical Purposes Intended for Infants shall be labelled with complete nutrition labelling according to Section 4.2 of Codex Standard for the Labelling of and Claims for Foods for Special Medical Purposes (CODEX STAN 180-1991).

12.1.45.4.- Additional Labelling Requirements

i) In addition to conformity with standards laid down for infant formula the following standards will apply:

ii) Formula for Special Medical Purposes Intended for Infants shall be labelled with the additional information as specified in Sections 4.4.1, 4.4.3, 4.4.4, 4.5.1 and 4.5.5 of CODEX STAN 180-1991.

iii) A prominent statement indicating that the product is intended as the sole source of nutrition shall appear on the label.

iv) In addition, the information specified in Sections 4.5.2, 4.5.3 and 4.5.6 of CODEX STAN 180-1991 shall be included on the label or be provided separately from the package.

v) Labels and information provided separately from the package should not discourage breastfeeding, unless breastfeeding is contraindicated on medical grounds for the disease(s), disorder(s) or medical condition(s) for which the product is intended.

12.2 EDIBLE OILS, FATS (HALAL) AND ALLIED PRODUCTS.

12.2.1.-"Edible Oil and Fat" means any food composed of glycerides of fatty acids of vegetable or Halal animal origin except the milk fat. Fat of Halal animal origin shall be produced from Halal animal that is healthy at the time of slaughtering, slaughtered by Islamic Injunction and fit for human consumption.

Edible oil and edible fat shall be clear, free from rancidity, suspended or other foreign matter, separated water, unpleasant taste and smell, added colouring and flavouring substances, mineral oils, any non-food grade fat or oil and shall not contain more than 10 meq/Kg of peroxide, unless otherwise provided in these Rules.

12.2.2.- "Refined Blended Vegetable Oils/ refined cooking oils/frying oils" whatever name it is called, means blending of permissible refined vegetable oils for which standards have been laid down in these Rules. It shall be refined, bleeched and deodourized, and shall be free from rancidity, adulterants, sediments, suspended and other foreign matter, separated water, added colouring and flavouring matter and mineral oils. It shall have acceptable taste and odour. It shall contain not more than 20 percent Palmolein. It shall conform to the following standards:-

(a)	Moisture	Not more than 0.1 percent.
(b)	Free fatty acids (as oleic acid).	Not more than 0.20 mg KOH/g

(c)	Unasponifiable matter	Not more than 1.5 percent.
(d)	Peroxide Value.	Not more than 10 milliequivalents Peroxide oxygen / Kg oil.
(e)	Rancidity (Kries test) in one inch cell on Lovibond scale.	Below 1.5R
(f)	Cloud Point.	Below 10^0C
(g)	Vitamin A.	Not less than 33,000 I.U./Kg.
(h)	Iodine Value(Wijs).	Not less than 80.
(i)	Saponification Value.	185-196 mg KOH/gm
(j)	Flash point ^{0}C (pensky Marten closed method).	Not less than 250 ^{0}C
(k)	Colour Index in one inch cell.	R=5.0 Y=50.0

12.2.3.- "Cotton Seed Oil, Binola Ka Tel" means the oil obtained from clean, sound and decorticated cotton seeds of the cultivated species of *Gossypium*, refined and dehydrated. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oils. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.1 percent.
(b)	Refractive index (at 40^0 C).	1.4556 – 1.4660
(c)	Saponification value.	190 – 198 mg KOH /g
(d)	Iodine value(Wijs).	103 to 115
(e)	Acid value.	Not more than 0.5 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.5 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.
(i)	Halphen test.	Positive.
(j)	Bellier test (turbidity temperature acetic Acid method).	19.^{0}C - 21.0^{0}C

(k) GLC Ranges of fatty acid Composition (percent)

Fatty acids.	Range
C < 14	<0.1
C 14:0	0.4 –2.0
C 16:0	17 – 31
C 16:1	0.5 – 2.0
C 18:0	1.0 –4.0
C 18:1	13 –44
C 18:2	33 –59
C 18:3	0.1 –2.1
C 20:0	<0.7
C 20:1	<0.5
C 22:0	<0.5
C 22:1	<0.5
C 24:0	<0.5

(l) **Contaminants.**

(i)	Matter volatile at 105^{0}C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m
(iii)	Soap content.	Not more than 0.005 percent m/m
(iv)	Iron (Fe).	Not more than 1.5 percent mg/Kg.
(v)	Copper (Cu)	Not more than 0.1 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg

(vii) Arsenic (As) Not more than 0.1 mg/Kg.

12.2.4.- "Groundnut Oil, Mong Phali ka Tel" means the oil obtained from the seeds of peanut, groundnut (*Archis* hypogoea). It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oils. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.25 percent.
(b)	Refractive index (at 40^0 C).	1.460 – 1.465
(c)	Saponification value.	188 – 195 mg KOH /g
(d)	Iodine value(Wijs).	84 to 100
(e)	Acid value.	Not more than 6.0 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.0 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.
(i)	Bellier test (turbidity temperature acetic Acid method).	39 – 41^0C
(j)	Colour index in one inch cell on Lovibond Scale (Y + 10R)	Not deeper than 30

(k) GLC Ranges of fatty acid Composition (percent)

Fatty acids	Ranges
C<14	<0.4
C 14:0	<0.6
C 16:0	6.0 - 16
C 16:1	<1.0
C 17:0	<0.1
C 17.1	<0.1
C 18:0	1.3 - 6.5
C 18:1	35 -72
C 18:2	13 –45
C 18:3	<0.3
C 20:0	1.0 – 3.0
C 20:1	0.5 – 2.1
C 22:0	1.0 – 5.0
C 22:1	<0.3
C 24:0	0.5 – 3.0

(l) **Contaminants.**

(i) Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii) Insoluble impurities.	Not more than 0.05 percent m/m
(iii) Soap content.	Not more than 0.005 percent m/m
(iv) Iron (Fe). mg/Kg.	Not more than 1.5 percent
(v) Copper (Cu)	Not more than 0.1 mg /Kg
(vi) Lead (Pb).	Not more than 0.1 mg/Kg
(vii) Arsenic (As)	Not more than 0.1 mg/Kg

12.2.5.- **"Til Oil or Sesame Oil Olive Oil"** means the oil obtained from til seed (*sesamum* indicum) black, brown, white or mixed. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oils. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.25 percent.
(b)	Refractive index (at 40^0 C).	1.4646 – 1.4667
(c)	Saponification value.	188 – 193 mg KOH /g
(d)	Iodine value (Wijs).	105 to 115
(e)	Acid value.	Not more than 4.0 mg KOH /g.

(f) Unsaponifiable matter.	Not more than 1.5 percent.
(g) Baudouin's test	Positive.
(h) Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(i) Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.
(j) Bellier test(turbidity temperature acetic Acid method).	Not more than 22^0C

(k) GLC Ranges of fatty acid Composition (percent)

Fatty acids.	Range.
C<14	<0.1
C 14:0	<0.5
C 16:0	7.0 - 12
C 16:1	<0.5
C 18:0	3.5 - 6.0
C 18:1	35 - 50
C 18:2	35 – 50
C 18:3	<1.0
C 20:0	1.0
C 20:1	<0.5
C 22:0	<0.5

(l) **Contaminants.**

(i) Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii) Insoluble impurities.	Not more than 0.05 percent m/m
(iii) Soap content.	Not more than 0.005 percent m/m
(iv) Iron (Fe). mg/Kg.	Not more than 5.0 percent
(v) Copper (Cu)	Not more than 0.4 mg /Kg
(vi) Lead (Pb).	Not more than 0.1 mg/Kg
(vii) Arsenic (As)	Not more than 0.1 mg/Kg

12.2.6.- **"Olive Oil"** means the oil obtained from the ripe fruit of *Olea europa*,L. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oils. It shall conform to the following standards:-

(a) Moisture.	Not more than 0.1 percent.
(b) Refractive index (at 40^0 C).	1.4613 – 1.4633
(c) Saponification value.	185 – 196 mg KOH /g
(d) Iodine value (Wijs).	78 to 90
(e) Acid value.	Not more than 4.0 mg KOH /g.
(f) Unsaponifiable matter.	Not more than 1.5 percent
(g) Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h) Peroxide value	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.

(i) GLC Ranges of fatty acid Composition (percent)

	Fatty acids	Range.
Lauric acid	C 12:0	Traces
Myristic acid.	C 14:0	< 0.1
Palmitic acid	C 16:0	7.5 - 20
Palmitoleic acid	C 16:1	0.3 – 3.5
Heptadecenoic acid	C 17:0	< 0.5
Stearic acid	C 18:0	0.5 – 5.0
Oleic acid	C 18:1	55.0 – 83.0

Linoleic acid	C 18:2	3.5 – 21.0
Linolenic acid	C 18:3	< 1.5
Arachidic acid.	C 20:0	< 0.8
Behanic acid	C 22:0	< 0.3
Erucic acid	C 22:1	Traces
Lignoceric acid	C 24:0	<1.0

(j) **Contaminants.**

(i) Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii) Insoluble impurities.	Not more than 0.1 percent m/m
(iii) Soap content.	Negative.
(iv) Iron (Fe).	Not more than 5.0 mg/Kg.
(v) Copper (Cu)	Not more than 0.4 mg /Kg
(vi) Lead (Pb).	Not more than 0.1 mg/Kg
(vii) Arsenic (As)	Not more than 0.1 mg/Kg.

12.2.7.-**"Poppy Seed Oil"** means the oil obtained from the poppy Seed (*Papaver* somniferum). It shall be clear, free from rancidity suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oils. It shall conform to the following standards: -

(a) Moisture.	Not more than 0.1 percent.
(b) Refractive index (at 40^0 C).	1.4659 – 1.4685
(c) Saponification value.	189 – 196 mg KOH /g
(d) Iodine value (Wijs).	130 to 140
(e) Acid value.	Not more than 4.0 mg KOH /g.
(f) Unsaponifiable matter.	Not more than 1.0 percent.
(g) Baudouin's test.	Positive
(h) Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(i) Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.

12.2.8.-"Coconut Oil, Naryal Ka Tel" means the oil obtained from the nut kernel of Cocos nucifera. It shall be clear, free from rancidity suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oils. It shall conform to the following standards:-

(a) Moisture.	Not more than 0.1 percent.
(b) Refractive index (at 40^0 C).	1.4485 – 1.4492
(c) Saponification value.	248 to 265 mg KOH /g
(d) Iodine value(Wijs).	7.5 to 9.5
(e) Polenske value	13 to 18
(f) Acid value.	Not more than 0.5 mg KOH /g.
(g) Unsaponifiable matter.	Not more than 0.5 percent.
(h) Melting point	24^0 C to 27^0C
(i) Reichert value.	6 to 8.5
(j) Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(k) Peroxide value.	Not more than 5 milliequivalents Peroxide oxygen /Kg oil
(l) Specific Gravity at $30/30^0$C	0.915 – 0.920

(m) GLC Ranges of fatty acid Composition (percent)

Fatty acids	Range
C 6:0	0.4 – 0.6
C 8:0	5 – 10
C 10:0	4.5 – 8.0
C 12:0	43 - 51
C 14:0	16 -21

C 16:0	7.5 - 10
C 18:0	2.0 - 4.0
C 18:1	5.0 - 10
C 18:2	1.0 – 2.5
C 18:3	< 0.3
C 24:1	< 0.5

(n) **Contaminants.**

(i)	Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m
(iii)	Soap content.	Not more than 0.005 percent m/m
(iv)	Iron (Fe).	Not more than 5.0 percent mg/Kg.
(v)	Copper (Cu)	Not more than 0.4 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg
(vii)	Arsenic (As)	Not more than 0.1 mg/Kg.

12.2.9.- **"Sarson Ka tel, Toria Ka tel , Rapeseed Oil, Mustard Oil, Rai Ka tel"** means oil obtained by a process of expression or extraction of clean and sound seeds of Brassica juncea (Rai Ka tel)) or *Brasica Napus* (Toria ka tel), Brassica rapa (compestris) (Sarson ka tel) or mixture of these seeds. It shall be clear and free from rancidity adulterants, sediments, suspended and other foreign matter, separated water,added colouring, flavouring substances and mineral oils. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.25 percent.
(b)	Refractive index (at 25^0 C).	1.4648 – 1.4659
(c)	Saponification value.	169 to 176 mg KOH /g
(d)	Iodine value (Wijs).	94 to 106
(e)	Acid value.	Not more than 6.0 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.5 percent.
(g)	Natural essential oil, (as allyl isothio-cyanate)	0.25 to 0.60 percent
(h)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(i)	Peroxide value.	Not more than 10 milliequivalents oxygen /Kg oil. Peroxide
(j)	Bellier Test	23.0^0C – 27.5^0C
(k)	Specific Gravity at 15 / 15^0C	0.913 – 0.916

(l) GLC Ranges of fatty acid Composition (percent)

Fatty acids	Range
C <14	<0.5
C 14:0	<1.0
C 16:0	0.5 – 4.5
C 16:1	<0.5
C 18:0	0.5 - 2.0
C 18:1	8.0 - 23
C 18:2	10 – 24
C 18:3	6.0 – 18
C 20:0	<1.5
C 20.1	5.0 - 13
C 20:2	< 1.0
C 22:0	0.2 – 2.5
C 22:1	22 - 50
C 22:2	< 1.0
C 24:0	< 0.5
C 24:1	0.5 –2.5

(m) **Contaminants.**

(i)	Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m
(iii)	Soap content.	Not more than 0.005 percent m/m
(iv)	Iron (Fe). mg/Kg.	Not more than 1.5 percent
(v)	Copper (Cu)	Not more than 0.1 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg
(vii)	Arsenic (As)	Not more than 0.1 mg/Kg

12.2.10.-**"Refined Low Erucic Acid Rapeseed / Mustard Oil (Canola Oil)"** means the oil obtained from the Low erucic acid oil bearing seeds of varieties derived from *brassica* species of crucifierae family or from cake/ meal thereof by a process of expression (expelling) or by a process of solvent extraction. It shall be refined, bleached and deodourised. It shall be clear and free from rancidity, adulterants, sediments, and suspended and other foreign matter and added colouring and flavouring substances or mineral oils. The solid component of the seed shall contain not less than 40 micromoles of total glucosinolates per gram of air-dry oil free solids. It shall conform to the following standards: -

(a)	Moisture.	Not more than 0.1 percent.
(b)	Relative density (20^0C)	0.914 to 0.920
(c)	Refractive index (at 40^0 C).	1.4650– 1.4730
(d)	Saponification value.	182 to 193 mg KOH /g
(e)	Iodine value (Wijs).	110 to 126
(f)	Acid value.	Not more than 0.4 mg KOH /g.
(g)	Unsaponifiable matter.	Not more than 1.5 percent.
(h)	Crismer value.	67 to 70
(i)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(j)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.
(k)	Erucic acid percent of the component Fatty acids.	Not more than 5.0 percent
(l)	Smoke point ^{0} C (pensky Marten closed method).	Not less than 232
(m)	Sulfur	Not more than 10 mg / Kg.
(n)	Vitamin A	Not less than 33,000 I.U. /Kg.
(o)	Specific Gravity at 20 / 20^0C	0.914 – 0.920
(p)	Colour in one inch cell.(Y+10)	12 maximum

(q) GLC Ranges of fatty acid Composition (percent)

Fatty acids.	Range
C< 14:0	<0.2
C 16:0	2.5 – 6.0
C 16:1	<0.6
C 18:0	0.8 - 2.5
C 18:1	50 - 66
C 18:2	18 – 28
C 18:3	6.0 – 14
C 20:0	0.1 – 1.2
C 20.1	0.1 – 4.3
C 22:0	<0.6
C 22:1	<5.0
C 24:0	<0.2
C 24:1	0.2

(r) **Contaminants.**

(i)	Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m
(iii)	Soap content.	Not more than 0.005 percent m/m
(iv)	Iron (Fe).	Not more than 1.5 percent mg/Kg.
(v)	Copper (Cu)	Not more than 0.1 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg
(vii)	Arsenic (As)	Not more than 0.1 mg/Kg.

12.2.11.-**"Linseed oil, Alsi ka tel"** means the oil obtained from the seeds of Linum usitatissimum.It shall be clear and free from rancidity, suspended and other foreign matter, separated water, added colouring and flavouring substances, and mineral oils. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.25 percent.
(b)	Refractive index (at 40^0 C).	1.4720 – 1.4750
(c)	Sponification value.	188 to 196 mg KOH /g
(d)	Iodine value(Wijs).	170 to 204
(e)	Acid value.	Not more than 4.0 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.5 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.

12.2.12.- **"Sunflower Oil"** means the oil obtained from the seeds of Helianthus annum. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.1 percent.
(b)	Refractive index (at 40^0 C).	1.460 to 1.4690
(c)	Sponification value.	188 to 194 mg KOH /g
(d)	Iodine value(Wijs).	110 to 143
(e)	Acid value.	Not more than 4.0 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.5 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.

(i) GLC Ranges of fatty acid Composition (percent)

Fatty acids.	Range
C < 14	<0.4
C 14:0	<0.5
C 16:0	3.0 – 10.0
C 16:1	<1.0
C 18:0	1.0 - 10
C 18:1	14 - 35
C 18:2	55 – 75
C 18:3	<0.7
C 20:0	<1.5
C 20.1	<0.5
C 22:0	<1.0
C 22:1	<0.5
C 24:0	<0.5
C 24:1	<0.5

(j) **Contaminants.**

(i)	Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m

(iii)	Soap content. m/m	Not more than 0.005 percent
(iv)	Iron (Fe). mg/Kg.	Not more than 5.0 percent
(v)	Copper (Cu)	Not more than 0.4 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg
(vii)	Arsenic (As)	Not more than 0.1 mg/Kg.

12.2.13 -"Refined Sunflower oil" means the oil obtained from the seeds of Helianthus annum by chemical or physical refining, bleaching and deodouring. It shall be clear and free from rancidity, suspended and other foreign matter, separated water, added colouring and flavouring substances, and mineral oils It shall conform to the following standards: -

(a)	Moisture.	Not more than 0.1 percent.
(b)	Refractive index (at 40^0 C).	1.4670 to 1.4690
(c)	Saponification value.	188 to 194 mg KOH /g
(d)	Iodine value(Wijs).	110 to 143
(e)	Acid value.	Not more than 0.5 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.5 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil
(i)	Vitamin A.	Not less than 33,000 I.U./Kg.
(j)	Colour index in one inch cell On lovibond scale(Y + 10R)	Not more than 25.
(k)	Flash point (Pensky Marten. Closed method)	Not less than 250 ^{0}C

(l) GLC Ranges of fatty acid Composition (percent)

Fatty acid.	Range
C < 14	<0.4
C 14:0	<0.5
C 16:0	3.0 – 10
C 16:1	<1.0
C 18:0	1.0 - 10
C 18:1	14 - 65
C 18:2	25 – 75
C 18:3	<0.7
C 20:0	<1.5
C 20.1	<0.5
C 22:0	<1.0
C 22:1	<0.5
C 24:0	<0.5
C 24:1	<0.5

(m) **Contaminants.**

(i)	Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m
(iii)	Soap content.	Not more than 0.005 percent m/m
(iv)	Iron (Fe). mg/Kg.	Not more than 5.0 percent
(v)	Copper (Cu)	Not more than 0.4 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg

(vii)	Arsenic (As)	Not more than 0.1 mg/Kg.

12.2.14.- **"Taramira oil"** means the oil obtained from the seeds of Eruca sativa. It shall be clear, free from rancidity suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oils. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.25 percent.
(b)	Refractive index (at 40^0 C).	1.4646 to 1.4666
(c)	Saponification value.	170 to 180 mg KOH /g
(d)	Iodine value(Wijs).	93 to 105
(e)	Acid value.	Not more than 6.0 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.0 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil

12.2.15.-"Almond Oil or Badam Roghan" means the oil obtained from sweet almonds, *Prunus* amygdalus Batach, Var dulcis Koehne.It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. Taste shall be bland and nutty. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.25 percent.
(b)	Refractive index (at 40^0 C).	1.4590 to 1.4650
(c)	Saponification value.	188 to 196 mg KOH /g
(d)	Iodine value(Wijs).	95 to 102
(e)	Acid value.	Not more than 2.0 mg KOH /g.
(f)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(g)	Specific Gravity at 15.5 /15.5^0C	0.915 – 0.920
(h)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.
(i)	Specific tests for apricot kernel oil, Peach kernel oil, arachis oil, cotton Seed oil, sesame and groundnut oil.	Negative.
(j)	Oil should remain clear after keeping At minus 10 ^{0}C for 3 hours and should Not congeal until the temperature has Been reduced to (–18 ^{0}C)	

12.2.16.- **"Soyabean Oil"** means the oil obtained from clean and sound seeds of Glycine. Max (L) Merrill Syn. Glycine Soja Sieb and Zucc., family Leguminosae from which the major portion of the gums naturally present have been removed by hydration and mechanical or physical separation. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.25 percent.
(b)	Refractive index (at 40^0 C).	1.4646 to 1.4670
(c)	Saponification value.	189 to 195 mg KOH /g
(d)	Iodine value(Wijs).	125 to 140
(e)	Acid value.	Not more than 4.0 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.5 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.
(i)	GLC Ranges of fatty acid Composition (percent)	

Fatty acids	Range.
C < 14	<0.1
C 14:0	<0.5
C 16:0	7.0 – 14
C 16:1	<0.5
C 18:0	3.0 – 5.5
C 18:1	18 - 26
C 18:2	50 – 57
C 18:3	5.5 - 10
C 20:0	<0.6
C 20.1	<0.5
C 22:0	<0.5
C 24:0	<0.5

(j) **Contaminants.**

(i)	Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m
(iii)	Soap content.	Not more than 0.005 percent m/m
(iv)	Iron (Fe). mg/Kg.	Not more than 1.5 percent
(v)	Copper (Cu)	Not more than 0.1 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg
(vii)	Arsenic (As)	Not more than 0.1 mg/Kg

12.2.17.- "**Refined Soyabean Oil"** means the oil obtained from the seeds of Glycine. Max (L) Merrill Syn. Glycine Soja Sieb and Zucc., family Leguminosae by chemical or physical refining, bleaching, , deodourising. It shall be clear and free from rancidity, suspended and other foreign matter, separated water, added colouring and flavouring substances, and mineral oils. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.1 percent.
(b)	Refractive index (at 40^0 C).	1.4646 to 1.4670
(c)	Saponification value.	189 to 195 mg KOH /g
(d)	Iodine value(Wijs).	125 to 140
(e)	Acid value.	Not more than 0.5 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.0 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Flash point (Pensky Marten Closed method)	Not less than 300 ^{0}C
(i)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil.
(j)	Vitamin A	Not less than 33,000 I. U /Kg

(k) GLC Ranges of fatty acid Composition (percent)

Fatty acids.	Range
C < 14	<0.1
C 14:0	<0.5
C 16:0	7.0 – 14
C 16:1	<1.4
C 18:0	3.0 – 5.5
C 18:1	18 - 26
C 18:2	44 – 62
C 18:3	5.5 - 10
C 20:0	<0.6
C 20.1	<0.5
C 22:0	<0.5
C 24:0	<0.5

(l) **Contaminants.**

(i) Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii) Insoluble impurities.	Not more than 0.05 percent m/m
(iii) Soap content.	Not more than 0.005 percent m/m
(iv) Iron (Fe). mg/Kg.	Not more than 1.5 percent
(v) Copper (Cu)	Not more than 0.1 mg /Kg
(vi) Lead (Pb).	Not more than 0.1 mg/Kg
(vii) Arsenic (As)	Not more than 0.1 mg/Kg

12.2.18.-" Banaspati, Vanaspati" means the product obtained from any edible refined harmless vegetable oil or mixture of oils by the process of hydrogenation, and containing no colouring or flavouring or any matter deleterious to health. The product shall be prepared from properly refined bleached and deodourised vegetable oils in premises maintained under hygienic conditon when melted, the product shall be clear bright and free from sediments, suspended foreign matter, mineral oil,unpleasant taste and aroma. It shall conform to the following standards:-

(a) Moisture and Volatile Matter.	Not more than 0.1 percent.
(b) Refractive index (at 40^0 C).	Not less than 1.4580.
(c) Melting point by capillary tube method at complete fusion	34 ^{0}C to 38 ^{0}C
(d) Iodine value (Wijs).	Not less than 70
(e) Acid value.	Not more than 0.4 mg KOH /g.
(f) Unsaponifiable matter.	Not more than 1.5 percent.
(g) Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h) Peroxide value.	Not more than 5 milliequivalents Peroxide oxygen /Kg oil.
(i) Nickel.	Not more than 0.25 p.p.m
(j) Vitamin A.	Not less than 33,000 I. U /Kg
(k) Trans Fatty Acids contents (%).	Not more than 0.5percent

Provided that where Banaspati is prepared from coconut oil, the Butyro-refractive value shall be from 34 to 38 and the Reichert value shall be from 6 to 8 and saponification value shall be from 240 to 250.

12.2.19.- **"Refined Palm Oil"** means the oil obtained from fleshy mesocarp of fruits of the oil palm (*Elaeis* guineesis) tree by the process of expression or solvent extraction or both. It shall be clear, free from, suspended matter, added colouring matter or flavouring substances or mineral oil and other adulterants.It shall be refined, bleached and deodourised in a manner that the product so obtained shall be free from any foreign harmful matter. It shall conform to the following standards:-

(a) Moisture.	Not more than 0.1 percent.
(b) Refractive index (at 40^0 C).	1.4491 to 1.4552
(c) Saponification value.	195 to 205 mg KOH /g
(d) Iodine value(Wijs).	50 to 55
(e) Acid value.	Not more than 0.4 mg KOH /g.
(f) Unsaponifiable matter.	Not more than 1.2 percent.
(g) Rancidity (Kries test) in one inch cell On Lovibond scale	Below 3R. .
(h) Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil
(i) Melting point (Open capillary Slip method).	Not more than 37^0 C
(j) Vitamin A	Not less than 33,000 I.U./Kg.
(k) Colour index in one inch cell On lovibond scale(Y + 10R)	Not more than 50.

(l) GLC Ranges of fatty acid Composition (percent)

Fatty acids.	Range.
C 12:0	<0.4
C 14:0	0.5 – 5.9
C 16:0	32 - 59
C 16:1	<0.6
C 18:0	1.5 – 8.0
C 18:1	27 - 49
C 18:2	5.0 – 14.0
C 18:3	<0.5
C 20:0	<1.0

(m)**Contaminants.**

(i) Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii) Insoluble impurities.	Not more than 0.05 percent m/m
(iii) Soap content.	Not more than 0.005 percent m/m
(iv) Iron (Fe).	Not more than 1.5 percent mg/Kg.
(v) Copper (Cu)	Not more than 0.1 mg /Kg
(vi) Lead (Pb).	Not more than 0.1 mg/Kg
(vii) Arsenic (As)	Not more than 0.1 mg/Kg.

12.2.20.-"Refined Palmolein" means the liquid fraction of crude/ refined palm oil obtained from the flashy of fruits of oil palm tree (Elaeis Guineensis) by the process of expression or solvent extraction or both. It shall be refined, deodourised in a manner that the product so obtained shall be free from any foreign harmful matter. It shall be clear, free from suspended foreign matter, added colouring or flavouring substances or mineral oil or other adulterant. It shall conform to the following standards: -

(a) Moisture.	Not more than 0.1 percent.
(b) Refractive index (at 40^0 C).	1.4550 to 1.4610
(c) Saponification value.	195 to 205 mg KOH /g
(d) Iodine value(Wijs).	54 to 62
(e) Acid value.	Not more than 0.5 mg KOH /g.
(f) Unsaponifiable matter.	Not more than 1.2 percent.
(g) Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h) Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil
(i) Melting point (Open capillary Slip method).	Not more than 23 ^{0}C
(j) Vitamin A	Not less than 33,000 I.U./Kg.
(k) Cloud point	Not more than 10 ^{0}C.
(l) Colour Index in one inch cell (Y + 10R)	50 max.

12.2.21.- "Niger Seed Oil, (Sagiya ka tel)" means the edible oil obtained by a process of expressing clean and sound seeds of Guizotia abyssinica. It shall be clear and free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring matter or mineral oil or other oil. It shall conform to the following standards:-

(a) Moisture.	Not more than 0.1 percent.
(b) Refractive index (at 40^0 C).	1.4666 to 1.4691
(c) Saponification value.	188 to 193 mg KOH /g
(d) Iodine value (Wijs).	110 to 135
(e) Acid value.	Not more than 6.0 mg KOH /g.
(f) Unsaponifiable matter.	Not more than 1.0 percent.
(g) Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h) Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen/Kg oil
(i) Specific gravity at 15^0C	0.924 – 0.927

12.2.22.- **"Safflower Seed Oil (barrey ka tel)"** means the oil expressed from the seeds of Carthamus tinctorius. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.25 percent.
(b)	Refractive index (at 40^0 C).	1.467 to 1.470
(c)	Saponification value.	186 to 196 mg KOH /g
(d)	Iodine value(Wijs).	135 to 148
(e)	Acid value.	Not more than 6.0 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.5 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil

(i) GLC Ranges of fatty acid Composition (percent)

Fatty acids.	Range.
C <14	<0.1
C 14:0	< 1.0
C 16:0	2.0 - 10
C 16:1	< 0.5
C 18:0	1.0 – 10
C 18:1	7.0 - 42
C 18:2	55 – 81
C 18:3	<1.0
C 20:0	<0.5
C 20.1	<0.5
C 22:0	<0.5

(j) **Contaminants.**

(i)	Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m
(iii)	Soap content. m/m	Not more than 0.005 percent
(iv)	Iron (Fe). mg/Kg.	Not more than 1.5 percent
(v)	Copper (Cu)	Not more than 0.1 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg
(vii)	Arsenic (As)	Not more than 0.1 mg/Kg.

12.2.23.- **"Maize Oil (Corn)"** means the oil extracted from the germ of clean and sound seeds of *Zea* mays Linn, refined. It shall be clear, free from rancidity, suspended or foreign matter, separated water, added colouring matter or flavouring substances or mineral oil. It shall conform to the following standards:-

(a)	Moisture.	Not more than 0.25 percent.
(b)	Refractive index (at 40^0 C).	1.4645 to 1.4675
(c)	Saponification value.	187 to 195 mg KOH /g
(d)	Iodine value (Wijs).	103 to 130
(e)	Acid value.	Not more than 2.0 mg KOH /g.
(f)	Unsaponifiable matter.	Not more than 1.5 percent.
(g)	Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h)	Peroxide value.	Not more than 10 mill equivalents Peroxide oxygen /Kg oil
(i)	Colour Index in one inch cell(Y + 10R)	35 max
(j)	GLC Ranges of fatty acid Composition (percent)	

Fatty acids.	Range.
C 12:0	< 0.3
C 14:0	< 0.3
C 16:0	9 - 14
C 16:1	< 0.5
C 18:0	0.5 – 4.0
C 18:1	24 - 42
C 18:2	34 – 62
C 18:3	<2.0
C 20:0	<1.0
C 20.1	<0.5
C 22:0	<0.5
C 24:0	<0.5

(k) **Contaminants.**

(i)	Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m
(iii)	Soap content.	Not more than 0.005 percent m/m
(iv)	Iron (Fe). mg/Kg.	Not more than 1.5 percent
(v)	Copper (Cu)	Not more than 0.1 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg
(vii)	Arsenic (As)	Not more than 0.1 mg/Kg.

12.2.24.- "Refined Maize (Corn) oil" means the oil extracted from the germ of clean and sound seeds of *Zeas* mays Linn. Family Graminiae by chemical or physical refining, bleaching and deodouring. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil and shall have acceptable taste and odour. It shall conform to the following standards:-

(a) Moisture.	Not more than 0.1 percent.
(b) Refractive index (at 40^0 C).	1.4645 to 1.4675
(c) Saponification value.	187 to 195 mg KOH /g
(d) Iodine value(Wijs).	103 to 130
(e) Acid value.	Not more than 0.5 mg KOH /g.
(f) Unsaponifiable matter.	Not more than 1.5 percent.
(g) Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h) Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oil
(i) Vitamin A	Not less than 33,000 I.U./Kg.
(j) Flash point pensky Martens Closed method.	Not less than 302 ^{0}C
(k) Colour Index in one inch cell on Lovibond scale express as (Y + 10R)	Not more than 35
(l) Specific gravity at 20 / 20^0C	0.915 -0.920

(m) GLC Ranges of fatty acid Composition (percent)

Fatty acids.	Range.
C 12:0	< 0.3
C 14:0	< 0.3
C 16:0	9 - 14
C 16:1	< 0.5
C 18:0	0.5 – 4.0
C 18:1	24 - 42

C 18:2	34 – 62
C 18:3	<2.0
C 20:0	<1.0
C 20.1	<0.5
C 22:0	<0.5
C 24:0	<0.5

(n) **Contaminants.**

(i)	Matter volatile at 105^0C	Not more than 0.2 percent m/m
(ii)	Insoluble impurities.	Not more than 0.05 percent m/m
(iii)	Soap content.	Not more than 0.005 percent m/m
(iv)	Iron (Fe). mg/Kg.	Not more than 1.5 percent
(v)	Copper (Cu)	Not more than 0.1 mg /Kg
(vi)	Lead (Pb).	Not more than 0.1 mg/Kg
(vii)	Arsenic (As)	Not more than 0.1 mg/Kg

12.2.25.- "Margarine, Margarine Spread & Spreads, Table Margarine"

12.2.25.1.- **Margarine:** Margarine is a plastic or fluid emulsion or refined deodourized, hydrogenated or un-hydrogented edible vegetable oils / fats in water with or without permitted food additives. The oils and the fats used in the production of Margarine must be only of vegetable origin with the exception of cows, buffalo's milk fat. No other animal oils and fats shall be used in Margarine.

12.2.25.2.- **Table Margarine:** Margarine is fluid emulsion of refined deodourized, hydrogenated or unhydrogenated / intensified edible vegetable oils /fats blend in water with minimum fat level of 80% and moisture 16% maximum and contains following ingredients:

- Salt: should be 2.5 % by weight-maximum.
- Slip melting point should be between 28-38.5 C
- Vitamin A should be minimum 33,000 IU/Kg.
- Peroxide value should be less than 10meq/Kg.
- Shelf life is maximum nine months.
- Unsponifiable matter is maximum 1.5% of extracted fat.
- Free Fatty acid is maximum 0.35 % by weight as oleic acid of extracted fat.
- Preservatives and antioxidants are to be used as per latest Codex Alimentarious list.

12.2.25.3.- "Margarine Spread"

Margarin spread is fluid emulsion of refined, deodorized, hydrogenated or unhydrogenated / Interesterified edible vegetable oils/ fat blend in water with minimum fat level of 60% and maximum moisture % is 39 and contains ingredients:

- Salt: should be 2.5 % by weight-maximum.
- Slip melting point should be between 28-38.5 C
- Vitamin A should be minimum 33,000 IU/Kg.
- Peroxide value should be less than 10meq/Kg.
- Shelf life is maximum nine months.
- Unsponifiable matter is maximum 1.5% of extracted fat.
- Free Fatty acid is maximum 0.35 % by weight as oleic acid of extracted fat.
- Preservatives and antioxidants are to be used as per latest Codex Alimentarious list.

12.2.25.4.- "Spread"

spread is a fluid emulsion of refined, deodorized, hydrogenated or unhydrogenated / Interesterified edible vegetable oils/ fat blend in water with minimum fat level of 40% and maximum moisture % is 59 and contains ingredients:

- Salt: should be 2.5 % by weight-maximum.
- Slip melting point should be between 28-38.5 C
- Vitamin A should be minimum 33,000 IU/Kg.
- Peroxide value should be less than 10meq/Kg.
- Shelf life is maximum nine months.

— Unsponifiable matter is maximum 1.5% of extracted fat.

— Free Fatty acid is maximum 0.35 % by weight as oleic acid of extracted fat.

— Preservatives and antioxidants are to be used as per latest Codex Alimentarious list.

12.2.25.5.- **"Animal Fat (Halal)"** *means the* edible fat rendered from fresh, clean, sound fatty tissues of halal animals(bovine, ovine, caprine) or a combination of these, that was healthy at the time of slaughtering and fit for human consumption. It shall conform to the following standards:-

(a) Specific gravity at 25^0C	0.903 – 0.907
(b) Refractive index (at 40^0 C).	1.448 to 1.460
(c) Saponification value.	192 to 200 mg KOH /g
(d) Iodine value (Wijs).	26 to 48
(e) Acid value.	Not more than 5.0 mg KOH /g.
(f) Unsaponifiable matter.	Not more than 2.0 percent.
(g) Rancidity (Kries test) in one inch cell On Lovibond scale.	Below 1.5R.
(h) Peroxide value.	Not more than 10 milliequivalents Peroxide oxygen /Kg oi

12.3 BEVERAGES

12.3.1.- "Tea" means the fermented, dried and sound processed leaves and buds of various species of tea belonging to genus Camellia and free from tea waste and any other foreign matter or impurities, free from any colouring matter, but may contain tea stalks to a maximum of 10 percent. It shall conform to the following standards (Calculated on sample dried at 100^oC).

(a)	Water Extract	33 per cent minimum.
(b)	Total Ash	5 to 8 percent
(c)	Ratio of Soluble to total Ash	45 per cent minimum
(d)	Alkalinity of Ash (as K_2O).	1.5 to 2.0 per cent
(e)	Ash insoluble in acid	0.8 per cent maximum
(f)	Crude fiber	1.5 per cent maximum
(g)	Caffeine	2.5 per cent minimum
(h)	Tannin.	10 per cent minimum
(i)	Moisture.	Not more than 8 per cent.

12.3.2.- "**Coffee"** means the seed of cultivated varieties of Coffee Arabica— Coffee liberica, Coffee robusla which must have the characteristics appearance under the microscope and shall be free from any artificial colouring matter and flavour, facing or glazing substance.

12.3.3.- "Green Coffee, raw Coffee, Unroasted Coffee", means coffee seed free from all but a small portion of its spermoderm and conforming in variety and in place of production to the name it bears, and which must have the characteristic appearance under the microscope.

12.3.4.- **"Roasted Coffee, Coffee",** means properly cleaned green coffee seed which by the action of heat (roasting) has become brown and has developed its characteristic aroma.

12.3.5.- **"Ground Coffee"** means the powdered product obtained from Roasted Coffee only, and shall be free from husk. Coffee, Green Coffee, Raw Coffee, unroasted Coffee, Roasted Coffee. Ground Coffee shall conform to the following standards: -

(a)	Nitrogen content	2 to 2.75 per cent
(b)	Total Ash, determined on samples dreied to constant weight at 100 ^{o}C, in appearance feathery white or bluish white, entirely soluble in dilute hydrochloric acid.	3.5 to 5.0 per cent.
(c)	Alkalinity of ash, per gram of dried	

	coffee.	3.4 to 4.4 ml of N/10 Acid
(d)	Caffeine Contents.	Not less than 1.2 per cent.
(e)	Aqueous extract determined by	
	(1)extraction of 2 grams of the sample	
	(2)dried to constant weight at 100^{o} C	
	(3)with 100ml of boiling distilled water for one hour under reflux.	15 to 32 per cent

12.3.6.- "**Coffee Chicory Mixture"**, means a mixture of coffee seed with chicory (Dried roasted root of Cichorium Intybus Linn) in equal proportion and shall be in sound dry and dust free condition with no rancid or obnoxious. It shall contain caffeine not less than 0.6 per cent.

12.3.7.-**"Liquid Coffee Essence"** shall contain not less than 0.5 per cent weight in volume of caffeine derived from coffee and free from extractives from any roasted vegetable matter other than coffee.

12.3.8.- "**Instant Coffee or Soluble Coffee"**, means the dried soluble solids obtained from water-extraction of freshly roasted, pure coffee beans. It shall be in the form of free flowing powder or granule having the colour, taste and flavour characteristic of coffee. It shall be free from impurities and shall not contain chicory or any other substance. It shall conform to the following standards: -

(a)	Moisture.	Not more than 3.5 per cent.
(b)	Total ash (on dry basis).	Not more than 12 per cent
(c)	Caffeine content (on dry basis).	Not less than 2.8 per cent
(d)	Solubility in boiling water.	Dissloves readily in 30 seconds With moderate stirring.
(e)	Solubility in cold water 16±2°C.	Soluble in 3 minutes with moderate stirring

12.3.9.- "**Instant Coffee Chicory Mixture"**, means the product manufactured from roasted and ground coffee and roasted and ground chicory. It shall be in the form of a free flowing powder having the colour, taste and flavour characteristics of coffee-chicory powder. It shall be free from any impurities and shall not contain any other added substance. It shall conform to the following standards: -

(a)	Moisture.	Not more than 5.0 per cent.
(b)	Total ash.	Not less than 7.0 per cent and not more10 per cent.
(c)	Caffeine content.	Not less than 1.4 per cent.

Any package containing instant coffee-chicory mixture shall have affixed to it a label upon which shall be printed the following declaration.

Instant Coffee- Chicory Mixture made from blends of
Coffee and chicory.

Coffee per cent.
Chicory per cent.

12.3.10.- "**Coffee Mixture"**, means ground coffee mixed with other ground food substances. Such mixtures shall contain not less than 50 per cent coffee and shall not contain any harmful substance.

A package which contains any mixture of coffee and substances other than chicory, a statement in which the words "Coffee Mixture" shall be printed in larger Letters than any other words on the label, immediately followed by a statement of the ingredients of the mixture and of the proportion in which the ingredients of the mixture are present, printed in the following form.

"Contains (here insert the number of parts per cent of coffee) parts per cent of coffee mixed with (here insert the number of parts per cent of other ingredients) parts per cent of (here insert the names of such other ingredients).

The word "Coffee" and expressions which include the word "Coffee" shall not be printed on any statement or label printed on or attached to any package which contains a mixture of coffee with substances other than chicory unless it be conjoined with the word "Mixture".

12.3.11.- "**Coffee and Chicory Essence"**, shall be free from extractives from any roasted vegetable matter other than coffee or chicory and shall contain not less than 0.5 percent weight in volume of caffeine derived from coffee.

There shall be written on the label of a package containing liquid coffee essence or coffee and chicory essence-In larger letter than those of any other words on the label, the words "Liquid Coffee Essence" or "Coffee and Chicory Essence", as the case may be.

The word "Coffee" shall not appear on the label of a package containing liquid coffee essence or coffee and chicory essence unless it is proceeded by the word "Liquid" in the case of liquid coffee essence, and is conjoined with the words "and chicory essence" in the case of coffee and chicory essence.

12.3.12.- "**Cocoa Bean"**, means the properly fermented, dried wholesome seed of the cocoa tree Theobroma Cacao L.

12.3.13.- "**Cocoa Nib Or Cracked Cocoa"**, means the roasted cocoa bean freed from its shell or husk, with or without the germ.

12.3.13.- "**Cocoa Paste, Cocoa Mass, Cocoa Slab Or Cocoa Liquor"**, means the solid or semi solid mass produced by grinding wholesome cocoa nibs. It shall contain not less than 48 per cent of cocoa fat. Cocoa paste, cocoa mass cocoa slab or cocoa liquor on water-free and fat free basis shall conform to the following standards: -

(a)	Starch (naturally present).	Not more than 19 per cent.
(b)	Crude fibre.	Not more than 7 per cent.
(c)	Total ash.	Not more than 8 per cent.
(d)	Ash insoluble in water.	Not more than 5.5 per cent.
(e)	Ferric oxide.	Not more than 0.4 per cent.

12.3.14.- **"Cocoa Butter"**, means the fat obtained by expression from the nibs of wholesome beans of Theobroma Cocoa L. It shall be free from other oils and fats, mineral oil and added colours. It shall conform to the following standards: -

(a)	Refractive index of extracted Fat at 40 ^{0}C.	1.456 to 1.459
(b)	Melting point	29^{0}C to 34^{0}C
(c)	Free fatty acids (as oleic acid).	Not more than 1.5 per cent.
(d)	Saponification Value.	188 - 200
(e)	Iodine value.	32 - 42

12.3.15.- "**Cocoa Or Cocoa Powder Or Soluble Cocoa"**, means the powder which is the partially defatted product derived from the cocoa bean, the seed of Theobroma Cocoa L. It may be subjected to treatments during manufacture with alkali and/or magnesium carbonate, bicarbonate, and with Tartaric, Citric or phosphoric acids. It shall be free from rancidity, dirt, filth, insects and insect fragments or fungus infestations. It shall conform to the following standards: -

(a)	Total ash (on moisture and fat free basis).	Not more than 12.5 per cent.
(b)	Ash insoluble in hydrochloric acid. (on moisture and fat free basis).	Not more than 1 per cent.
(c)	Alkalinity of ash (as K_2O) (on moisture and fat free basis).	Not more than 6 per cent.
(d)	Cocoa butter.	Not less than 20 per cent.

12.3.16.- "**Chocolate"** (Chocolate paste, confectioners' chocolate, chocolate coating or chocolate powder) shall be a preparation of cocoa paste or cocoa powder or cocoa, with or without the addition of cocoa fat, sugar, spices, milk solids, permitted emulsifier, and permitted flavouring agent. It shall not contain

any foreign fat or oil other than cocoa butter or milk fat. It shall conform to the following standards: -

(a)	Cocoa solids (fat free basis).	Not less than 14 per cent.
(b)	Total cocoa solids.	Not less than 35 per cent
(c)	Cocoa butter.	Not less than 18 per cent.

12.3.17.- "**Milk Chocolate"**, shall conform to the standards of milk chocolate prescribed by the Codex Alimentarious.

12.3.18.-"**Chocolate Confectionery"**, shall be any solid or semi-solid product complete in itself and suitable for direct consumption without further preparation or processing of, which the characteristic ingredient is chocolate or cocoa, with or without the addition of nuts or fruits and includes products made by encrusting sugar confectionery and other ingredients in chocolate but does not include chocolate, chocolate-coated filled or flavoured biscuits, and any type of ice cream.

The chocolate portion of any chocolate confectionery shall comply with the standards laid down for chocolate in these rules.

12.3.19.- "**Aerated water, or carbonated water"** other than soda water shall be potable water sweetened with sugar or with non-nutritive artificial sweetening agents, impregnated with carbon dioxide, or oxygen or with both, under pressure, with or without admixture of salts of sodium, potassium, lithium, magnesium or calcium, singly or in combination, with or without citric acid and of the permitted flavouring and permitted colouring substances, if any, and shall not contain tartaric acid except where grape juice has been used as an ingredient and more than 0.1 per cent of phosphoric acid and shall contain caffeine not less than 50 p.p.m. The Caloric Values in all such combinations shall be upto 30-70% Aerated water shall not contain any other poisonous metals, provided that Aerated water shall be deemed to be below the standard of purity if it is manufactured from water which is unfit for drinking purposes or if ice manufactured from such water is inserted in it. It shall also conform to the following requirements: -

(a)	Total plate count per ml.	Not more than 50.
(b)	Coliform count in 100ml	Nil.
(c)	Yeast and mould count per ml.	Not more than 2.

12.3.20.- **"Soda Water"** shall be potable water impregnated with carbon dioxide or oxygen, or with both, under pressure, with or without admixture of salts of sodium, potassium, lithium, magnesium or calcium, singly or in combination, and shall not contain any lead, or other poisonous metal or any other added substance. Soda water shall be deemed to be below the standard of purity if it is manufactured from water which is unfit for drinking purpose or if, ice manufactured from such water is inserted in it. It shall also conform to the following requirements:

(a)	Total plate count per ml.	Not more than 50.
(b)	Coliform count in 100ml	Nil.
(c)	Yeast and mould count per ml.	Not more than 2.

12.4 SWEETENING AGENTS

12.4.1.- "**Refined Sugar",** means the colourless odourless, crystalline or white powder product, obtained from the juice of the sugar cane or of the sugar beet. It shall contain not less than 99.8 per cent of sucrose, and not more than 0.1 per cent of sulphated ash and not more than 0.05 per cent of moisture.

12.4.2.- "**Desi Sugar"** means the crystallised sugar obtained from sugar-cane, beet root, and free from clods, bleaching agents or any objectionable flavour. It shall contain not more than 1.5 per cent of moisture not more than 0.7% of ash and not less than 96.5% of sucrose and sulphur dioxide not exceeding 70 mg/kg.

12.4.3.- "**Gur/Shakar"** means the product obtained by boiling or processing juice pressed out of sugar cane or sugar beet. It shall be free from substances deleterious to health and shall conform to the following standards on dry weight basis: -

(j)	Moisture.	Not more than 8.5 per cent.

(k)	Sucrose	Not less than 80 per cent.
(l)	Matters insoluble in water.	Not more than 2.0 per cent.
(m)	Total ash.	Not more than 5.0 per cent.
(n)	Ash insoluble in Hydrochloric acid.	Not more than 0.2 per cent.

12.4.4.- "Honey" means the nectar and saccharide exudation of plants gathered, modified and stored by the honey bee, and shall not contain added sugar or glucose or starch syrup or artificial sweetening substances or any other added substance. It shall conform to the following standards: -

(a)	Moisture.	Not more than 20 per cent.
(b)	Ash.	Not more than 0.5per cent
(c)	Sucrose.	Not more than 6 per cent.
(d)	Reducing sugars.	Not less than 65 per cent.
(e)	Fiehe's test.	Negative.
(f)	Acidity.	Not more than 40 milliequivalents acids per 1000 grams.

It shall not have any objectionable flavour, aroma or taint absorbed from foreign matter during the processing and storage. It shall not have begun to ferment or be effervescent and shall be

Laevorotatory.

Diastase activity & hydroxymethyl furfural content: -

Determined after processing and blending diastase figure on Gothe scale:	less than 8 DN UNITS
provided the hydroxymethyl furfural content is:	Not more than 40 mg/Kg.

Honey with low natural enzyme content: -

e.g. citrus, diastase content on Gothe scale:	not less than 3
provided the hydroxymethyl furfural content is:	not more than 15 mg/kg.

12.4.5.- **"Liquid Glucose/Corn Syrup/Glucose Syrup"** means a purified viscous syrup of nutritive saccharides obtained from the hydrolysis of starch. It shall be colourless odourless, and sweet in taste. It shall conform to the following standards: -

(a)	Refractive index at 20^0C	Not less than 1.490
(b)	Total solids content.	Not less than 70 per cent.
(c)	Reducing sugar content (Dextrose equivalent).	Not less than 20 per cent.
(d)	Sulphated ash.	Not more than 0.6 per cent.
(e)	Acidity on 5.0gm	Not more than 0.5 ml of Decinormal of alkali required.

12.4.6.- "**Cane Molasses"** means the mother liquor left over after the recovery of sugar in the crystallization process. It shall be dark colour, viscous syrupy liquid having a characteristic odour. It shall conform to the following standards: -

(f)	Density, in degrees Brix at 27.5^oC	Not less than 80
(g)	Ash, sulphated, per cent by mass (Calculated for 100^0 Brix).	Not more than 17.5
(h)	Total reducing matter as invert sugar per cent by mass	Not less than 40.

12.4.7.- "**Batasha/Makhana"** shall contain not more than 0.7 per cent of ash and shall have a clean appearance and free from added colouring matter.

12.4.8.- "**Misri"** means the product made in the form of candy obtained from any kind of sugar. It shall be free from dirt, filth, iron filings and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards: -

(a)	Total ash.	Not more than 0.4 per cent.
(b)	Sucrose.	Not less than 98.0 per cent.

12.4.8(a).- "**Dextrose Monohydrate"** is purified and crystallized D-Glucose containing one molecule of water of crystalization and it shall conform to the following standards: -

(c)	D- Glucose content. (On dry basis)	Not less than 99.5 per cent.

(d) Total solids contents.	Not less than 90.0 per cent.
(e) Sulphated ash (On dry basis)	Not more than 0.25 per cent.
(f) Sulphur dioxide.	Not more than 20 mg/Kg.

12.4.9.- "**Cube Sugar"** means the sugar in the form of cube or cuboids blocks manufactured from refined crystlised sugar. It shall be white in colour, free from dirt and other extraneous contamination. It shall conform to the following standards: -

(g) Moisture	Not less than 0.25 per cent.
(h) Sucrose.	Not more than 99.5 per cent.
(i) Total Sulphated ash.	Not more than 0.03 per cent.
(j) Sulphur dioxide.	Not more than 70 mg/Kg.

12.4.10.- "**Icing Sugar"** means the sugar manufactured by pulverizing refined sugar or vacuum pan sugar with or without edible starch. Edible starch if added shall be uniformly extended in the sugar. It shall be in the form of white powder free from dust, or any other extraneous matter. It shall conform to the following standards: -

(k) Moisture	Not less than 0.80 per cent.
(l) Starch.	Not more than 2.0 per cent.
(m) Total starch and Sucrose.	Not less than 99.0 per cent.
(n) Reducing sugar.	Not more than 0.06 per cent
(o) Sugar as sucrose.	Not less than 96 per cent.

12.4.11.-"**Dried Glucose Syrup,"** means the material in the form of coarse or fine, white to creamish white powder, sweet to taste, bland in flavour and somewhat hygroscopic. It shall be free from fermentation, evidence of mould growth, dirt or other extraneous matter or added sweetening or flavouring agent.It shall also not contain any added natural or synthetic food colour. It shall conform to the following standards: -

(p) Total solid content.	Not less than 93.0 per cent.
(q) Reducing sugar.	Not more than 20 per cent
(r) Total Sulphated ash.	Not more than 1.0 per cent
(s) Sulphur dioxide.	Range 30 to 40 ppm.

12.4.12.- "**Ice Confection"** means a frozen preparation of potable water with other food.It shall include ice lollipops, ice lollies, edible ices and similar products whatever the name it is called. It shall not contain any artificial sweetener.

12.4.13.-"**Ice Lollies or Edible Ices"** means the frozen ice produce which may contain sugar, syrup, fruit, fruit juices, cocoa, citric acid, permitted flavours and colours, permitted stabilizers and emulsifiers shall not exceed from maximum limits as given in Code (Codex STAN). It shall not contain any artificial sweetener.

12.4.14.- "**Ice Candy"** means the frozen ice produce which may contain fruit, fruit juices, cocoa, nuts, citric acid, permitted flavours and colours. It may also contain permitted stabilizers and emulsifiers shall not exceed from maximum limits as given in Code (Codex STAN). It shall not contain any artificial sweetener.

12.4.15.-"**Golden Syrup"** means the syrup obtained by inversion of sugar. It shall be golden yellow in colour, pleasant in taste and free from any crystallisation. It shall conform to the following standards: -

(t) Water	Not more than 25.0 per cent.
(u) Total ash.	Not more than 2.5per cent.
(v) Total sugar as invert sugar.	Not less than 72 per cent.

Sulphur dioxide content shall not exceed 70 mg/kg.

Sodium bicarbonate, if used, for clarification purposes, shall be of food grade quality.

12.4.16.-"**Fructose"** means the purified and crystallised D-fructose. It shall conform to the following standards: -

(w) D- Fructose.	Not more than 95 per cent.
(x) Specific rotation (α_D^{20})	-89^0 to -93.5^0
(y) Sulphated ash.	Not more than 0.1 per cent.
(z) Colour	Not more than 30 ICUMSA units.
(aa) pH of 10 per cent solution of fructose.	4.5 to 7.0

12.4.17.-“**High Fructose/ Glucose Syrup”** means the bright, clear viscous colourless syrup produced by controlled hydrolysis and isomarization of starch. It shall conform to the following standards: -

(bb)	Water	Range 20 to 25 per cent.
(cc)	Fructose. (on dry basis)	Not less than 40 per cent.
(dd)	Dextrose (anhydrous) (on dry basis)	Not less than 50 per cent.
(ee)	Oligosaccharides. (on dry basis)	Not less than 5.0 per cent.
(ff)	Sulphated ash.	Not more than 0.1 per cent.
(gg)	pH	4.5

SWEETS AND CONFECTIONERY:

12.4.18.- “**Sugar boiled confectionery”** whether sold as hard boiled sugar confectionery or pan goods confectionery or toffee or milk toffee, modified toffee or lacto-bon-bon or by any other name shall mean a processed composite food article made from sugar with or without doctoring agents such as cream of tartar, by process of boiling whether panned or not. It may contain centre filling, or otherwise, which may be in the form of liquid, semi-solid or solids with or without coating of sugar or chocolate or both.

It may also contain carbohydrated sugars, milk and milk products, malt extracts, edible starches.edible oils and fats, fruit and fruit products, nut and nut products, chocolate and cocoa, vitamins and minerals, common salt, spices and condiments and there extracts, sodium bicarbonate, edible food grains, edible seeds, baking powder, essential volatile oils, edible gums, permitted food additives. It shall not contain artificial sweeteners. It shall conform to the following standards.

Sulphated ash on salt free basis.	Not more than 1.5 per cent.

Provided that in case of sugar boiled confectionery where spices are used as centre filling, the sulphated ash shall not be more than 3 per cent by weight and ash insoluble in hydrochloric acid shall not be more than 0.2 percent.

Where the sugar boiled confectionery is sold under the name of milk toffee, and butter toffee, it shall conform to the following additional requirements as shown against each.

1) Milk Toffee--

i) Total protein (N x 6.25) shall not be less than 3 per cent by weight on dry basis.

ii) Milk Fat content shall not be less than 4 per cent by weight on dry basis.

2) Butter toffee—

Butter fat content shall not be less than 4 per cent by weight on dry basis.

It may contain sulphur dioxide in concentration not exceeding 350 parts per million.

12.4.19.-“**Lozenges”** means confections made mainly out of pulverised sugar, or icing sugar with binding materials such as edible gums, edible ***halal*** gelatine, liquid glucose or dextrin and generally made from cold mixing which does not require primary boiling or cooking of the ingredients. It may contain any of the following.

Carbohydrated sugars, milk and milk products, nuts and nuts products, malt syrup, edible starches, common salt, spices and condiments and their extracts, permitted food additives, lubricants (food grade). It shall not contain any artificial sweetener. It shall also conform to the following standards: -

(hh)	Sucrose content	Not less than 85.0 per cent.
(ii)	Ash sulphated (salt free basis)	Not more than 1.7 per cent.
(jj)	Ash insoluble in Hydrochloric acid.	Not more than 0.2 per cent.

12.4.20.-“**Chewing gum and bubble gums”** means a product prepared from chewing gum base, or bubble gum base, (natural or synthetic, non toxic), cane sugar and liquid glucose (corn syrup). The following source of gum base may be used.

Babul, kikar (gum Arabic), chiker (sapota), natural rubber latex, synthetic rubber latex, synthetic resin, glycerol ester of partially hydrogenated gum or wood resin, natural resin, polyvinyl acetate, gelatine, food grade (fish or from halal animals), calcium carbonate, magnesium carbonate, waxes (food grade), glycerol monostearate, sorbitol monostearate, permitted

antioxidants, permitted food colours, sorbitol, agar agar(food grade), glycerine, phosphated starch, talc powder(food grade) chewing gum. It may also contain the following ingredients: -

Malt, milk powder, chocolate, coffee, vitamins, minerals, proteins etc.

It shall be free from dirt, adulterants and harmful ingredients. It shall also conform to the following standards: -

	Ingredients.	Chewing Gum	**Bubble Gum.**
a.	Moisture	Not more than 3.5 percent	Not more than 3.5 per cent.
b.	Gum	Not less than 12.5 percent.	Not less than 14 per cent.
c.	Sulphated ash	Not more than 9.5 percent.	Not more than 11.5 per cent.
d.	Acid Insoluble ash.	Not more than 2 percent.	Not more than 3.5 per cent.
e.	Reducing sugar Calculated as dextrose.	Not less than 4.5 percent.	Not less than 5.5 per cent.
f.	Sucrose	Not more than 70 percent.	Not more than 60 percent.

12.4.21.- "**Dextrose Anhydrous"** means the purified and crystallised D-glucose without water of crystallisation. It shall conform to the following standards: -

(kk) D - glucose content (on dry basis). Not less than 99.0 per cent.

(ll) Total solids content. Not less than 98 per cent.

(mm) Sulphated ash (on dry basis). Not more than 0.25 per cent.

12.422.- "Lactose" means the carbohydrate normally obtained from whey. It may be anhydrous or contain one molecule of water of crystallisation or be a mixture of both forms. It shall conform to the following standards: -

(i) Anhydrous lactose content (on dry basis). Not less than 99.0 pr cent.

(j) Sulphated ash (on dry basis). Not more than 0.3 per cent

(k) Loss on drying (16 hours at 120^0C). Not more than 6.0 per cent.

(l) pH (solution 10 percent) 4.5 – 7.0

12.4.22.- "**Dextrose Powder (Icing Dextrose)"**, means finely pulverized dextrose anhydrous or dextrose monohydrate or mixtures thereof, with or without the addition of an anti-caking agent. It shall conform to the following standards: -

Total Solids Content

i..	Powdered dextrose made from dextrose anhydrous.	Not less than 98 percent.
ii.	Powdered dextrose made from dextrose monohydrate.	Not less than 90 percent.
iii.	Reducing sugar content (dextrose equivalent) (On dry basis)	Not less than 99.5 percent
iv.	Sulphated ash. (on dry basis)	Not more than 0.25 percent
v.	Powdered dextrose made from dextrose anhydrous or dextrose monohydrate or mixtures thereof the total solids content shall be proportional to the characteristics of the mixture.	

12.5 FOOD GRAINS, CEREALS AND CEREAL PRODUCTS.

12.5.1.- Food grains shall include wheat, rice, barley, oats, maize, jawar, bajara, gram and pulses. Food grains for human consumption shall be clean, dry and free

from moulds and insect damage, abnormal smell, discoloration and admixture with deleterious and toxic material. Food grains shall conform to the following standards: -

a) Colour ___ the grain as far as possible, shall have its normal colour but mere discolouration shall not make it unfit if repellent smell or taste have not developed.

b) Smell ____ Persistent bad smell in food grains shall be indicative of unhealthy deterioration of grain and it shall be considered to be injurious to health.

c) Taste ____ any taste other than the characteristic taste of food grains shall be deemed to render the food grains injurious to health.

d) Foreign matter ___ Not more than 3 percent out of which inorganic matter and poisonous seed shall not exceed 1 percent and 0.5 percent respectively. Out of the total limit of poisonous seeds, dhatura and akra (vicia species) shall not exceed 0.025 per cent and 0.2 per cent respectively.

e) Foreign food grains ___ Grains, other than the one which is being sold, shall be deemed to be foreign food grains, so far as that particular food grains is concerned, and shall not exceed 5 percent by weight.

f) Damaged grains ___ Grains which are damaged, touched or mouldy, or shrivelled shall not exceed a total of 5 percent of which mouldy grains, after superficial cleaning, shall not be more than 1.5 percent.

g) Insect damaged grains ___ Shall not exceed the limit of 5 percent.

h) Sound grains ____ Notwithstanding the permissible limit stated in foreign matter the percentage of normal and sound grains shall in no case be lower than 85 percent of the total grain inclusive of the percentage under “Foreign Food grains”.

i) Moisture Content ___ The moisture content at any time irrespective of climate or season, shall not exceed 12 percent.

j) Uric acid. Not more than 100 mg/kg.

k) Mycotoxin including aflatoxin. Not more than 20 μg/Kg.

Explanation: -

a) “Foreign matter”, means any extraneous matter other food grains comprising of—

   (a) Inorganic matter consisting of metallic pieces, sand gravel, dirt, pebbles, stones, lumps of earth, clay and mud, animal filth and in the case of rice, kernels or pieces of kernels, if any, having mud sticking on the surface of the rice and

   (b) Organic matter consisting of husk, straws, seeds and other inedible grains and also paddy in the case of rice.

b) Poisonous, toxic and / or harmful seeds means any seeds which if present in quantities above permissible limit may have damaging or dangerous effect on health, organoleptic properties or technological performances such as dhatura (D fastuosa linn and D. Stramonium linn). Corncokle (Agrostemma githagol, Machai Lalilium remulenum) Akra (Vicia species).

c) “Damaged grains” means kernels or pieces of kernels that are sprouted or internally damaged as result of heat, microbe, moisture or weather, Viz. ergot ***affected*** grain and kernel bunt grains.

d) “Insect damaged grains” means food grains that are partially or wholly bored by insects.

e) “Foreign food grains” means any edible grains (including oil seeds) other than the one, which is under consideration.

12.5.2.- “Wheat” means the dried mature grains of *Triticum* aestivum Linn. It shall be sweet, clean and wholesome. It shall conform to the standards of Food grains including the following standards: -

(a) Insect damaged grains __ shall not exceed the limit of 1.5 per cent.

(b) Sound grains __ the percentage of normal and sound grains shall in no case be lower than 95 per cent of the total food grains inclusive of the percentage under “Foreign food grains”.

12.5.3.- "Maize" means the dried mature grains of *Zea* mays Linn, shall be sound, dry sweet, hard, clean and wholesome. It shall conform to the standard of Food Grains including the following standards: -

(a) **Foreign matter**. …Not more than 4.0 percent and shall not contain any poisonous seeds.

(b) **Foreign food grains**. ….Not more than 3.0 percent.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 9.0 percent by weight.

12.5.4.- "Jawar(Sorghum) and Bajra(millets)", Jawar and Bajra shall be the dried mature grains of *Sorghum Vulgare* also called Sorghum bicolor and Pennisetum typhoides respectively. The grains shall be sweet, hard, clean and wholesome. It shall conform to the standard of Food Grains including the following standards:-

(a) **Foreign matter**. …Not more than 4.0 percent and shall not contain any Poisonous seeds.

(b) **Foreign food grains**. …Not more than 3.0 percent

(c) **Damaged grains**. ….Not more than 5.0 percent out of which Ergot affected Grains shall

not exceed 0.05 percent.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 8.0 percent by weight.

12.5.5.- "Rice" means the mature kernels or pieces of kernels of *Oryza sativa* Linn obtained from paddy as raw or parboiled. It shall be dry, sweet, clean, wholesome and free from poisonous substance. It shall conform to the standard of Food Grains including the following standards: -

(a) **Foreign matter**. ……. Not more than 3.0 percent by weight out Of which inorganic

matter shall not Exceed 1.0 percent by weight.

(b) **Weevilled grains**. ……..Not more than 1.5 percent

Provided that the total of foreign matter, other food grains and damaged grains shall not exceed 6 percent by weight.

12.5.6.-" Masur Whole" Masur whole shall consist of lentil (Lens culinaris Medik or Ervem lens esculents Moench). It shall be clean, dry, sound, wholesome and sweet. It shall conform to the standard of Food Grains including the following standards:-

(a) **Foreign matter**. ……Not more than 3.0 percent out of which Inorganic and poisonous

seeds shall not Exceed 1.0 per cent by weight.

(b) **Foreign food grains**. …Not more than 3.0 percent

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 9 percent.

12.5.7.- "Mash whole"Mash whole consists of seeds of pulses (Phaeseolous radiatus Linn). It shall be clean, dry, wholesome and sweet. It shall conform to the standard of Food Grains including the following standards:-

(a) **Foreign matter.** ……..Not more than 3.0 percent out of which Inorganic and poisonous

seeds shall not Exceed 1.0 per cent by weight.

(b) **Foreign food grains**. …. Not more than 3.0 percent

(c) **Weevilled grains**. ……..Not more than 6.0 percent.

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 9 percent.

12.5.8.- "Moong Whole" shall consist of seeds of green gram (*Phaseolous aurues Roxb*. *Phaseolous radiatus Roxb*). It shall be clean, dry, sound, wholesome and sweet, and free from admixture of unwholesome substances. It shall conform to the standard of Food Grains including the following standards: -

(a) **Foreign matter**. ……...Not more than 3.0 percent out of which Inorganic and poisonous

seeds shall not Exceed 1.0 per cent by weight.

(b) **Foreign food grains**. ……Not more than 3.0 percent

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 9.0 percent.

12.5.9.- "Chana Whole" shall be the dried grains of gram (*Circer aietinum Linn*). It shall be clean, dry, sound, wholesome, sweet, and free from unwholesome, substances. It shall conform to the standard of Food Grains including the following standards: -

(a) **Foreign matter**. …….Not more than 3.0 percent out of which Inorganic matter shall not

Exceed 1.0 per cent by weight.

(b) **Foreign food grains**. ……Not more than 3.0 percent

(c) **Insect damaged grains**……Not more than 4.0 percent

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 7.0 percent.

12.5.10.- "Split Pulse (Dal) Arhar" Dal Arhar shall consist of dehusked and split seeds of red gram(Cajanus cajan (L) Millsp). It shall be clean, dry, sound, wholesome, sweet, and free from admixture of unwholesome substances. It shall conform to the standard of Food Grains including the following standards: -

(a) **Foreign matter**. ……Not more than 2.0 percent out of which Inorganic matter shall

not Exceed 1.0 per cent

(b) **Foreign food grains**. …….Not more than 0.5 percent

(c) **Insect damaged grains**. …..Not more than 2.0 percent

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 5.0 percent.

12.5.11.- "Split Pulse (Dal) Moong" Dal Moong shall consist split seeds of green grams (*Phaseolus aureus Roxb. Phaseolus radiatus Roxb*). It shall be clean, dry, sound, wholesome, sweet, and free from admixture of unwholesome substances. It shall conform to the standard of Food Grains including the following standards: -

(a) **Foreign matter**. ……Not more than 2.0 percent out of which Inorganic matter shall

not Exceed 1.0 percent by weight.

(b) **Foreign food grains**. ……..Not more than 4 percent

(c) **Insect damaged grains**. ……..Not more than 3 percent.

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 8 percent.

12.5.12.- "Dal Chana" Dal chana shall consist of split, dehusked seeds of green gram (*Cicer arietinum Linn*.).It shall be clean, dry, sound, wholesome, sweet, and free from admixture of unwholesome substances. It shall conform to the standard of Food Grains including the following standards: -

(a) **Foreign matter**. …….Not more than 2.0 percent out of which Inorganic matter shall

not Exceed 1.0 per cent**.**

(b) **Foreign food grains**. ……Not more than 2 percent

(c) **Insect damaged grains**. …….Not more than 2 percent

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 7 percent.

12.5.13.- "Split Pulse (Dal) Masur" Dal Masur shall consist of dehusked whole and split seed of the lentil (*Lens esculenta Monech or Lens culinaris Medik or Erven lens Linn*). It shall be clean, dry, sound, wholesome, sweet, and free from admixture of unwholesome substances. It shall conform to the standard of Food Grains including the following standards: -

(a) **Foreign matter**. ……...Not more than 2.0 percent out of which Inorganic matter shall

not Exceed 1.0 per cent.

(b) **Foreign food grains**. …….Not more than 2.0 percent

(c) **Insect damaged grains**. …….Not more than 3.0 percent.

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 7 percent.

12.5.14.- "Atta" means the coarse product obtained by milling or grinding sound and clean wheat and sieving it. It shall be free from grit. It shall contain not more than 1.5 percent of ash and not less than 8 percent of gluten (dry) and not more than 0.115 percent of acidity expressed as sulphuric acid and determined by the alcoholic extraction process. It shall contain moisture not more than 13 percent, acid insoluble ash in hydrochloric acid not more than 0.1 percent. Crude fibre from 2.1 to 2.5 percent, Dietary fibre not less than 7.5 percent.

12.5.15.- "Fortified Atta" means the product obtained by adding one or more of the following materials to atta, namely: -

(a) Calcium carbonate
(b) Iron.
(c) Thiamine.
(d) Riboflavin and
(e) Niacin.

The calcium carbonate powder, if added for fortification shall be in such amount that 100 parts by weight of fortified atta shall contain not less than 0.30 and not more than 0.35 parts by weight of calcium carbonate.

12.5.16.- "Maida" means the fine product made by milling or grinding cleaned wheat and bolting or dressing the resulting wheat meal. It shall contain not more than 0.5 percent of ash and 0.05 percent of acid insoluble ash and not less than 8 percent of dry gluten, and not more than 0.115 percent of acidity expressed as sulphuric acid and determined by the alcoholic extraction process. It shall contain moisture not more than 13 percent.

12.5.17.- "Fortified Maida" means the product obtained by adding one or more of the following materials to maida, namely:-

(a) Calcium carbonate.
(b) Iron.
(c) Thiamine.
(d) Riboflavin, and
(e) Niacin.

The Calcium carbonate powder, if added for fortification, shall be in such amount that 100 parts by weight of fortified maida shall contain not less than 0.30 and not more than 0.35 parts by weight of calcium carbonate.

12.5.18.- "Suji, Semolina" means the food prepared by grinding and bolting cleaned wheat to such fineness that it passes through a NO.20 sieve but not more than 3 percent passes through a NO.100 sieve. It shall be free from grit and insect infestation, musty smell and off odour. It shall contain not more than 1 percent of total ash and not more than 12 percent of moisture and not less than 8 percent of dry gluten. It shall contain not more than 0.115 percent of acidity expressed as sulphuric acid and determined by the alcoholic extraction process.

12.5.19.- "Besan, Vesan, Gram Flour" means the product obtained by milling or grinding cleaned, dried dehusked desi chana (Cicer arietinum) and sieving it. It shall contain not more than 3 percent of ash and not more than 0.45 percent of acidity expressed as lactic acid and not more than 12 percent of moisture. It must have the characteristic appearance under the microscope. It shall contain protein on dry basis (N X 6.25) not less than 21 percent.

12.5.20.- "Prepacked Cereal Food" means the product obtained from a combination of any cereals that are un-cooked partially cooked or cooked with any other food.

12.5.21.- "Bread" bread, white bread, brown bread, whole wheat bread, milk bread, rolls, white rolls, bun, white bun and sheer mall are foods obtained by baking yeast leavened dough prepared from flour (maida), water, salt and leavening agent.

Types of Bread.

(a) The word "Bread" when used in the name of food shall mean the unit weight 180 grams or more after cooling.

(b) The words “roll”, “bun”, and “sheer mall” when used in the name of food shall mean the unit weight not less than 180 grams after cooling.

To make the products more palatable and with longer shelf life any of the ingredients listed below may be used singly or in combination at permissible limit by these rules. The finished foods shall contain not less than 62 percent total solids. All ingredients listed below shall be hygienically clean and suitable for human consumption.

Optional Ingredients:

1) Shortening: Edible oils and fats, margarine, ghee, butter or their blends.
2) Milk or other dairy products in such quantity as not to meet the requirements of milk bread.
3) Sugars and other nutritive carbohydrate sweeteners.
4) Enzyme active preparation: malt extract, malt flour,amylases, proteinases
5) Non wheat flour or non wheat starches which may be wholly or partly dextrinized or dextrinized wheat flour or any combination. The quantity not to exceed 2 parts flour each 100 parts of wheat flour.
6) Soya Flour: not more than 0.5 percent.
7) Wheat gluten and wheat germ.
8) Sesame seeds, caraway seeds, cracked wheat, cracked or kibbled malted wheat.
9) Yeast stimulating products and calcium salts, if the quantity of such ingredients (with the exception of monocalcium phosphate and calcium propionate) is not more than 0.25 parts for each 100 parts of wheat flour.
10) Acetic acid, vinegar, monocalcium phosphoric acid, sodium pyrophosphate, lactic acid, potassium acid tartrate and sodium diacetate.
11) Lecithin.
12) Ascorbic acid, potassium bromate, azodicarbonamide (maximum 45ppm on flour weight basis), L-cysteine HCL(max.. 75ppm on flour weight basis), Ammonium persulphate, potassium persulphate, monoclacium phosphate, chlorine dioxide, benzoyl peroxide (max. of 50 ppm on flour weight basis.)
13) Propionic acid or its calcium or potassium salts (upto 3000ppm on flour weight basis expressed as propionic acid.)
14) Mono and di-glycerides of fatty acids, lactic acid esters and citric acid esters of mono and diglycerides of fatty acids, mono and diacetyle tartaric acid esters of mono and di-glycerides of fatty acids, stearyl tartarate, sodium and calcium stearoyl- 2- lactylates

    (upto 5000 ppm on bread weight basis)

Bread; Rolls, buns and sheer mall as defined and described by these rules shall not contain any artificial colour of any type. Artificial colouring shall not be used as such or as part of any ingredient added to these products (e.g. candied fruits used in buns shall not contain any artificial colouring matter).

Brown Bread, Bran Bread: - The composition of brown bread/ bran bread requires minimum fiber content calculated by weight on the dry matter of the bread shall not be less than 0.6 percent. Brown bread / bran bread may contain all or any of the permitted ingredients set out in case if in the bread except that Soya flour if present may not be more than five parts per hundred parts of flour.

The composition of whole wheat bread requires it to be made from whole wheat flour which is the whole of the product derived from the milling of cleaned wheat, without the addition of any other flour, with yeast and water, and any of the following limited list of permitted ingredients:

salt, sugar, edible oils and fats, enzyme active preparations, caraway seeds, cracked wheat and cracked or kibbled malted wheat; yeast stimulating preparation: acetic acid, vinegar, monoclacium phosphate, acid sodium pyrophosphate, lactic acid, potassium acid tartrate, and sodium

diacetate: lecithin, any substance used as an excipient or diluent of these ingredients.

Milk Bread:- The composition of milk bread is that of white bread plus not less than six percent of whole milk solids calculated by weight on the dry matter of the bread.

Skimmed Milk Bread:- The composition of skimmed milk bread is that of milk bread but with the substitution of skimmed milk solids for whole milk solids.

Enriched / Fortified bread, rolls and buns.

Each of the foods enriched bread, enriched rolls and enriched buns conforms to the definition and standard of identity and is subject to the requirements for label statement of ingredients prescribed for bread, rolls or buns except that:

1) Each such food contains in each pound 1.8 milligrams of thiamine, 1.1 milligrams of riboflavin, 15 milligrams of niacin, and 12.5 milligrams of iron.
2) Each such food may contain added calcium in such quantity that the total calcium content is 600 milligrams per pound. If insufficient calcium is added to meet the 600-milligram level per pound of the finished food, no claim shall be made on the label for calcium as a nutrient except as a part of nutrition labelling.
3) The requirements of paragraphs (1) and (2) of this clause will be deemed to have been met if reasonable overages of the vitamins and minerals, within the limits of good manufacturing practice, are present to ensure that the required levels of the vitamins and minerals are maintained throughout the expected shelf life of the food under customary conditions of distribution and storage.

12.5.22.- "Biscuits" shall conform to the following standards:

(a)	Moisture	Not more than 5 percent.
(b)	Ash insoluble in Hydrochloric (on dry basis)	Not more than 0.05 percent.
(c)	Fat	Not less than 5 percent
(d)	Acidity of ether extracted Fat (as Oleic acid)	Not more than 1 percent.
(e)	Rancidity (Kries test) of ether Extracted fat (in one inch cell).	Below 3R.

Where any of the following names or abbreviation of names as is used to describe biscuit it shall contain not less than the quantity shown below in the ingredient.

Arrow root	5.0 per cent of the cereal present to be arrowroot
Barley	5.0 percent of the cereal present to be Barley.
Butter or butter fat or Ghee	100 percent of the fat present to be butter fat or ghee (milk fat)
Corn flour	5.0 per cent of the cereal present to be corn flour.
Chocolate	10 percent of the total shall be cocoa (defatted)
Coconut or coconut fat	50.0 per cent of the fat present to be coconut fat.
Glucose.	10 per cent of dextrose in finished product. Either added as such or derived from glucose.
Honey.	7.0 per cent of invert sugar derived from honey in finished product.
Milk.	Doughed wholly with skim milk or containing equivalent of skim milk powder, the resultant biscuit to contain 1.5 per cent lactose equivalent to 3.0 percent separated milk solids.
Rice.	5.0 percent of cereal present to be rice.
Soya.	15.0 per cent of Soya in the finished product.
Tapioca.	5.0 per cent of the cereal present to be tapioca.

The biscuits shall be fresh, crisp, appropriately baked of satisfactory texture and consistency, pleasant in taste, free from weevils, mould and other deleterious substances.

No biscuit shall be labelled with the word “egg” or any word of similar meanings unless that biscuit contains not less than 10 per cent egg solids calculated on dry basis.

Sandwich biscuit means a biscuit sandwiched with an emulsion of fat and sugar with or without permitted colours and permitted flavours; and fat used in emulsion preparation shall be construed in accordance with the claim.

In the case of flavoured biscuits, there shall be written on the package the world “ flavoured biscuits” or the name of the flavour immediately and conspicuously conjoined with the words “flavoured biscuits” without intervening, written, printed, graphic matter, or any other device.

12.5.23.- “Prepared Cake Mixes” means a mixture of flour, sugar, fat, egg, leavening agent with or without permitted food colours and flavours. It shall be free from infestation, rancidity, pathogenic microoganism, bitterness and mustiness. It shall contain moisture not more than 13.5 per cent. Direction for the preparation shall be declared / written on the label of the package.

12.5.24.- “Pasta Products” (Macaroni, Spaghetti, Vermicelli, noodles, and similar products whatever the name it is called), means the products obtained from wheat flour, with or without milk powder, various kinds of starch, edible fats and oils, eggs, common salt, or any other food stuffs, permitted flavouring agents and permitted colouring matters, vitamins and minerals. It shall conform to the following standards:-

(a)	Moisture.	Not more than 10 percent
(b)	Total ash.	Not more than 1 percent
(c)	Ash insoluble in Hydrochloric Acid (on dry basis)	Not more than 0.05 percent.
(d)	Nitrogen (on dry basis).	Not less than 1.7 percent.

No pasta shall be labelled with the word “egg” or any word of similar meaning unless that pasta contains not less than 4 per cent egg solids calculated on a dry basis.

12.5.25.- “Baking Powder” means a combination, capable under conditions of baking, of yielding carbon dioxide, and consists of sodium bicarbonate and acid reacting material, starch or other neutral material: -

The acid reacting material of baking powder shall be, tartaric acid or its salts or both, acid salts of phosphoric acid, acid compounds of aluminum, or any combination of the foregoing. It shall conform to the following standards:-

(a)	Available carbon dioxide	Not less than 8.0 percent
(b)	Residual carbon dioxide.	Not more than 1.5 percent.

(i) There shall be written in the label on a package containing baking powder, the

chemical names and proportions of the ingredients.

(ii) Every package of baking powder for use in food shall be labeled with a direction or its use.

12.5.26.- “Malt” means the grains of barley, or of any other cereal that has germinated and has been subsequently dried. The interior of the malt grains shall be white in colour and shall show no evidence of caramelisation. The grain shall fracture readily between the teeth and sweet characteristics malty flavour shall be quickly developed. The malt shall be free from mouldy, broken and damaged grains

and in all respect fit for human consumption. It shall conform to the following standards: -

(a)	Moisture.	Not more than 5 per cent
(b)	Cold water extract.	Not more than 15 per cent
(c)	Diastatic power	Not less than 32 degrees Lintner.

12.5.27.- "Malt Extract" means the substance obtained by evaporating an aqueous extract of malt at a temperature not exceeding 55^0C.It shall contain not less than 70 per cent of total solids derived wholly from malt. The diastatic power of malt extract shall be such as to ensure that 10 g of the extract in 30 minutes at a temperature of 40^0C convert 25 g of pure anhydrous potato starch into an equivalent amount of maltose.

12.5.28.- "Bakers' malt extract, commercial malt extract or Bakers' maltose" shall contain not less than 70 percent of solids derived wholly from malt. It shall possess the diastatic power prescribed for malt.

There shall be written on the label of a package containing bakers' malt extract that is devoid of enzymic activity the word "non – diastatic".

12.5.29.- "Malted Milk Food" means the product obtained by mixing whole milk, partly skimmed milk or milk powder with the wort separated from a mash of ground barley malt, any other malted cereal grain and wheat flour or any other cereal flour or malt extract with or without addition of flavouring agents and spices emulsifying agents, eggs, protein isolates, edible common salt, sodium or potassium bicarbonate, minerals and vitamins and without added sugar in such a manner as to secure complete hydrolysis of starchy material and prepared in a powder or granule or flake form by roller drying, spray drying, vacuum drying or by any other process. It may contain cocoa powder. It shall be free from dirt and other extraneous matter. It shall not contain any added starch (except starch natural to cocoa powder) and added non- milk fat. It shall not contain any preservative or added colour. Malted milk food containing cocoa powder may contain added sugar.It shall conform to the following standards:-

		Malted milk food without cocoa powder.	**Malted milk food with Cocoa powder**
a	Moisture percent	Not more than 5 percent.	Not more than 5.0
b	Total protein (N X 6.25) Percent (on dry basis)	Not less than 12.5 percent	Not less than 11.25
c	Total fat. percent.	Not less than 7.5 percent.	Not less than 6.0
d	Total ash (on dry basis) percent.	Not more than 5.0 percent.	Not more than 5
e	Ash insoluble in Hydro-chloric acid(on dry basis)	Not more than 0.1 percent	Not more than
f	Solubility. percent	Not less than 85.0 percent	Not less than 85.0
g	Cocoa powder percent.	----------	Not less than 5.0
h	Test for starch	Negative.	Negative.
i	Bacterial Count. per gram	Not more than 50,000 per gram	Not more than 50,000

STARCHY FOODS

12.5.30.- "Arrowroot Starch" means the separated and purified starch from the rhizomes of the plant known as *Maranta arundinacea*. It shall have the characteristic

appearance under microscope. It shall be white and finely powdered and free from rancidity, adulterants, insect infestation, and rodent contamination and from fermented musty or any other objectionable odour. It shall not contain added sweetening agent, flavouring substance and colouring matter or any other foreign matter. It shall be free from dirt and other suspended and extraneous matter. It shall conform to the following standards:-

(a)	Moisture	Not more than 12.0 percent.
(b)	Total ash (on dry basis)	Not more than 0.2 percent.
(c)	Alcoholic acidity as H_2SO_4 dried (With 90 percent alcohol).	Not more than 2.0 ml N/10 NaoH per 100g of starch.

12.5.31.- "Sago, Sagudana, Sabudana" means the starch obtained from the pith of sago palm-*Sagus rumphi or Metroxylon sago*. It shall be free from rancidity, adulterants, insect infestation, and rodent contamination and from fermented, musty or any other objectionable odour. It shall not contain added sweetening flavouring or colouring agent or any foreign matter. It shall have the characteristic appearance under the microscope. It shall conform to the following standards: -

(a)	Moisture	Not more than 12.0 percent.
(b)	Total ash (on dry basis)	Not more than 0.2 percent.
(c)	Total protein.	Not more than 0.2 percent.
(d)	Fat.	Not more than 0.2 percent.
(e)	Crude fibre.	Not more than 0.2 percent
(f)	Carbohydrates.	Not less than 87 percent.

12.5.32.- "Corn flour" means the starchy food prepared by grinding and bolting cleaned maize and partial removal of the proteins and fats.It shall contain no added colour, flavours or other chemicals.It shall be of such fineness that not less than 98 percent passes through a NO.50 sieve and not less than 50 percent passed through a NO.70 sieve wire cloth. It shall conform to the following standards: -

(a)	Moisture	Not more than 12.0 percent.
(b)	Total ash (on dry basis).	Not more than 0.5 percent.
(c)	Ash insoluble in dilute Hydrochloric acid	Not more than 0.1 percent
(d)	Alcoholic acidity as H_2SO_4	Not more than 0.115 percent (With 90 percent alcohol)

12.5.33.- "Corn flakes" means the product obtained from scoured, degermed, dehulled and polished corn, which is cooked corn after mixing with malt, sugar, salt and then flaked, partially dried and roasted. It shall be free from dirt, insects, larvae, impurities, and any other extraneous matter. It shall conform to the following standards: -

(a)	Moisture	Not more than 5.0 percent.
(b)	Total ash excluding salt. (On dry basis)	Not more than 1.0 percent.
(c)	Ash insoluble in dilute Hydrochloric acid (on dry basis)	Not more than 0.05 percent
(d)	Alcoholic acidity as H_2SO_4 (With 90 percent alcohol)	Not more than 0.1 percent.
(e)	Crude fibre (on dry basis)	Not more than 0.75 percent.

12.5.34.- "Rice flour or ground flour" shall be the product obtained by grinding, sound, cleaned, milled rice. It shall conform to the following standards: -

(a)	Moisture	Not more than 12.0 percent.
(b)	Total ash (on dry basis).	Not more than 0.4 percent.

12.5.35.- "Pearl Barley" means the product obtained from sound and clean barley (*Hordeum vulgare or Hordeum distichon*) It shall be whitish in colour and shall be free from fermented, musty or other objectionable taste or odour, adulterants and insect and fungus infestation and rodent contamination. It shall not contain other food grains more than 1 percent by weight.

Barley powder shall be the product obtained by grinding clean and sound dehusked barley (*Hordeum vulgare or Hordeum*

distichon) grains.Barley starches shall not be less than 98.0 percent by mass. Barley powder shall also conform to the following standards:-

(a)	Moisture	Not more than 12.5 percent.
(b)	Total ash (on dry basis).	Not more than 1.0 percent.
(c)	Ash insoluble in dilute Hydrochloric acid	Not more than 0.10 percent
(d)	Alcoholic acidity as H_2SO_4	Not more than 0.10 percent (with 90 percent alcohol)
(e)	Protein (N X 6.25) (on dry basis).	Not less than 7.0 percent.

12.5.36.- "Whole meal barley powder" means the product obtained by grinding clean and sound dehusked barley (*Hordeum vulgare or Hordeum distichon*) grains. It shall conform to the following standards: -

(a)	Moisture	Not more than 12.5 percent.
(b)	Total ash (on dry basis)	Not more than 3.0 percent.
(c)	Ash insoluble in dilute Hydrochloric acid	Not more than 0.50 percent
(d)	Alcoholic acidity as H_2SO_4	Not more than 0.17 percent (with 90 percent alcohol) (On dry basis)

12.5.37.- "Custard powder" means the product obtained from maize (*Zea mays* L.). It shall be with or without the addition of edible common salt, milk and albuminous matter. It may contain permitted colours and flavours. It shall be free from any other foreign matter. It shall be in the form of fine powder, free from rancidity, fermented and musty odour. It shall conform to the following standards:-

(a)	Moisture	Not more than 12.0 percent.
(b)	Total ash excluding added Common salt (on dry basis)	Not more than 0.5 percent.
(c)	Ash insoluble in dilute Hydrochloric acid	Not more than 0.10 percent
(d)	Alcoholic acidity as H_2SO_4	Not more than 0.115 percent (with 90 percent alcohol)(on dry basis)

12.5.38 "Processed Cereal-Based Foods for Infants" means those foods intended for feeding as complementary foods generally from the age of 6 months onwards, taking into account infants' individual nutritional requirements, and for feeding young children as part of a progressively diversified diet, in accordance with the Global Strategy for Infant and Young Child Feeding and World Health Assembly Resolution WHA54.2 (2001)

i) Processed cereal-based foods are prepared primarily from one or more milled cereals, which should constitute at least 25% of the final mixture on a dry weight basis.

ii) Whereas, the term infant means a person not more than 12 months of age and the term young children means persons from the age of more than 12 months up to the age of three years (36 months).

12.5.38.1.- Product Categories Four categories are distinguished:

Category 1: Products consisting of cereals which are or have to be prepared for consumption with milk or other appropriate nutritious liquids;

Category 2: Cereals with an added high protein food which are or have to be prepared for consumption with water or other appropriate protein-free liquid;

Category 3: Pasta which are to be used after cooking in boiling water or other appropriate liquids;

Category 4: Rusks and biscuits which are to be used either directly or, after pulverization, with the addition of water, milk or other suitable liquids.

12.5.38.2.- Essential Composition

i) The above mentioned four product categories listed are prepared primarily from one or more milled cereal products, such as wheat, rice, barley, oats, rye, maize, millet, sorghum and buckwheat.

ii) They may also contain legumes (pulses), starchy roots or starchy stems or oil seeds in smaller proportions.

iii) The requirements concerning energy and nutrients refer to the product ready for use as marketed or prepared according to the instructions of the manufacturer, unless otherwise specified.

iv) The energy density of cereal-based foods should not be less than 3.3 kJ/g (0.8 kcal/g).

Protein

i) The chemical index of the added protein shall be equal to at least 80% that of the reference casein protein as well as the protein efficiency ratio (PER) of the protein in the mixture shall be equal to at least 80% of that of the reference casein protein.

ii) In all cases, the addition of amino acids is permitted solely for the purpose of improving the nutritional value of the protein mixture, and only in the proportions necessary for that purpose. Only natural forms of L-amino acids should be used.

iii) For products mentioned in category 2 and 4, the protein content shall not exceed 1.3 g/100 kJ (5.5 g/100 kcal).

iv) For products mentioned in category 2 the added protein content shall not be less than 0.48 g/100 kJ (2 g/100 kcal).

v) For biscuits mentioned in category 4 made with the addition of a high protein food, and presented as such, the added protein shall not be less than 0.36 g/100 kJ (1.5 g/ 100 kcal).

Carbohydrates

i) If sucrose, fructose, glucose, glucose syrup or honey are added to products mentioned in points category 1 and 4:

   1) the amount of added carbohydrates from these sources shall not exceed 1.8 g/100 kJ (7.5 g/100 kcal);
   2) the amount of added fructose shall not exceed 0.9 g/100 kJ (3.75 g/100 kcal).

ii) If sucrose, fructose, glucose, glucose syrup or honey are added to products mentioned in category 2:

   1) the amount of added carbohydrates from these sources shall not exceed 1.2 g/100 kJ (5 g/100 kcal);
   2) the amount of added fructose shall not exceed 0.6 g/100 kJ (2.5 g/100 kcal).

Lipids

i) For products mentioned in category 2, the lipid content shall not exceed 1.1g/100 kJ (4.5 g/100 kcal). If the lipid content exceeds 0.8 g/100kJ (3 .3 g/100kcal):

   1) the amount of linoleic acid (in the form of triglycerides=linoleates) shall not be less than 71 mg/100 kJ (300 mg/100 kcal) and shall not exceed 285 mg/100 kJ (1200 mg/100 kcal);
   2) the amount of lauric acid shall not exceed 15% of the total lipid content;
   3) the amount of myristic acid shall not exceed 15% of the total lipid content.

ii) Lipid content in product categories 1 and 4 shall not exceed a maximum of 0.8 g /100 kJ (3.3 g/100 kcal).

Minerals

i) The sodium content of the products described in category 1 to 4 of this Standard shall not exceed 24 mg/100 kJ (100 mg/100 kcal) of the ready-to-eat product.

ii) The calcium content shall not be less than 19 mg/100 kJ (80 mg/100 kcal) for products mentioned in category 2.

iii) The calcium content shall not be less than 12 mg/100 kJ (50 mg/100 kcal) for products mentioned in category 4 manufactured with the addition of milk and presented as such.

Vitamins

i) The amount of vitamin B1 (thiamin) shall not be less than 12.5µg/100 kJ (50µg/100 kcal).

ii) For products mentioned in category 2, the amount of vitamin A and vitamin D shall be within the following limits:

	µg/100kJ	**µg/100kcal**
vitamin A (µg retinol equivalents)	14-43	60 – 180
vitamin D	0.25-0.75	1 – 3

iii) These limits are also applicable to other processed cereal-based foods when vitamin A or D is/are added.

iv) Vitamins and/or minerals added should be selected from the Advisory Lists of Mineral Salts and Vitamin Compounds for Use in Foods for Infants and Children (CAC/GL 10-1979).

Optional Ingredients

i) In addition to the ingredients listed above, other ingredients suitable for infants who are more than six months of age and for young children can be used.

ii) Products containing honey or maple syrup should be processed in such a way as to destroy spores of *Clostridium botulinum,* if present.

iii) Only L(+) lactic acid producing cultures may be used.

a)Flavours

i) The following flavours may be used:

1) Natural fruit extracts and vanilla extract: GMP
2) Ethyl vanillin and vanillin: 7 mg/100 g RTU

12.5.38.3.- Quality Factors

i) All ingredients, including optional ingredients, shall be clean, safe, suitable and of good quality.

ii) All processing and drying should be carried out in a manner that minimizes loss of nutritive value, particularly protein quality.

iii) The moisture content of the products shall be governed by good manufacturing practice for the individual product categories and shall be at such a level that there is a minimum loss of nutritive value and at which microorganisms cannot multiply.

12.5.38.4.- Consistency and Particle Size

i) When prepared according to the label directions for use, processed cereal-based foods should have a texture appropriate for the spoon feeding of infants or young children of the age for which the product is intended.

ii) Rusks and biscuits may be used in the dry form so as to permit and encourage chewing or they may be used in a liquid form, by mixing with water or other suitable liquid that would be similar in consistency to dry cereals.

12.5.38.5.- Specific Prohibition The product and its components shall not have been treated by ionizing radiation. The use of partially hydrogenated fats for these products is prohibited.

12.5.38.6.- Food Additives

i) Only the food additives listed in this Section or in the Codex Advisory List of Vitamin Compounds for Use in Foods for Infants and Children (CAC/GL 10-1979) may be present in the foods covered under this Standard, as a result of carry-over from a raw material or other ingredient (including food additive) used to produce the food, subject to the following conditions:

a) The amount of the food additive in the raw materials or other ingredients (including food additives) does not exceed the maximum level specified; and

b) The food into which the food additive is carried over does not contain the food additive in greater quantity than would be introduced by the use of the raw materials or ingredients under good manufacturing practice, consistent with the provisions on carry-over in the Preamble of the General Standard for Food Additives (CODEX/STAN 192-1995).

ii) The following additives are permitted in the preparation of processed cereal-based foods for infants and young children, (in 100 g of product, ready for consumption prepared following manufacturer's instructions unless otherwise indicated).

INS no.		Maximum level
Emulsifiers		
322	Lecithins	1500 mg
471	Mono- and diglycerides	500 mg singly or in combination
472a	Acetic and fatty acid esters of Glycerol	
472b	Lactic and fatty acid esters of Glycerol	
472c	Citric and fatty acid esters of Glycerol	
Acidity Regulators		
500 ii	Sodium hydrogen carbonate	GMP
501 ii	Potassium hydrogen carbonate	GMP
170 i	Calcium carbonate	GMP
270	L(+) Lactic acid	GMP
330	Citric acid	GMP
260	Acetic acid	
261	Potassium acetates	
262 i	Sodium acetate	
263	Calcium acetate	
296	Malic acid (DL) – L(+)-form only	
325	Sodium lactate (solution) – L(+)form only	
326	Potassium lactate (solution) – L(+)form only	
327	Calcium lactate – L(+)-form only	
331 i	Monosodium citrate	GMP
331 ii	Trisodium citrate	
332 i	Monopotassium citrate	
332 ii	Tripotassium citrate	
333	Calcium citrate	
507	Hydrochloric acid	
524	Sodium hydroxide	
525	Potassium hydroxide	
526	Calcium hydroxide	
575	Glucono delta-lactone	GMP
334	L(+)-Tartaric acid – L(+)form only	500 mg singly or in combination
335 i	Monosodiumtartrate	Tartrates as residue in biscuits and rusks
335 ii	Disodium tartrate	
336 i	Monopotassium tartrate –L(+)form Only	
336 ii	Dipotassium tartrate – L(+)form Only	
337	Potassium sodium L(+)tartrate L(+)form only	
338	Orthophosphoric acid	Only for pH adjustment 440 mg
339 i	Monosodium orthophosphate	Singly or in combination as phosphorous
339 ii	Disodium orthophosphate	
339 iii	Trisodium orthophosphate	

340 i	Monopotassium orthophosphate	
340 ii	Dipotassium orthophosphate	
340 iii	Tripotassium orthophosphate	
341 i	Monocalcium orthophosphate	
341 ii	Dicalcium orthophosphate	
341 iii	Tricalcium orthophosphate	
Antioxidants		
306	Mixed tocopherols concentrate	300 mg/kg fat or oil basis, singly or in combination
307	Alpha-tocopherol	
304	L-Ascorbyl palmitate	200 mg/kg fat
300	L-Ascorbic acid	50 mg, expressed as ascorbic acid
301	Sodium ascorbate	
303	Potassium ascorbate	
302	Calcium ascorbate	20 mg, expressed as ascorbic acid
Raising Agents		
503 i	Ammonium carbonate	Limited by GMP
503 ii	Ammonium hydrogen carbonate	
500 i	Sodium carbonate	
500 ii	Sodium hydrogen carbonate	
Thickeners		
410	Carob bean gum	1000 mg singly or in combination 2000 mg in gluten-free cereal-based foods
412	Guar gum	
414	Gum Arabic	
415	Xanthan gum	
440	Pectins (Amidated and NonAmidated)	

12.5.38.7.- Contaminants

i) The product shall be prepared with special care under good manufacturing practices, so that residues of those pesticides which may be required in the production, storage or processing of the raw materials or the finished food ingredient do not remain, or, if technically unavoidable, are reduced to the maximum extent possible.

ii) These measures shall take into account the specific nature of the products concerned and the specific population group for which they are intended.

iii) The product shall be free from residues of hormones, antibiotics as determined by means of agreed methods of analysis and practically free from other contaminants, especially pharmacologically active substances.

12.5.38.8.- Hygiene

i) It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principle of Hygiene (CAC/RCP 1 1969), Code of Hygienic Practice for Powdered Formulae for Infants and Young Children (CAC/RCP 66 - 2008) and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

ii) The product should comply with any microbiological criteria established in accordance with the Principles for the Establishment and application of microbiological Criteria for Foods (CAC/GL 21-1997).

12.5.38.9.- Packaging

i) The product shall be packed in containers which will safeguard the hygienic and other qualities of the food.

ii) The containers, including packaging material, shall be made only of substances which are safe and suitable for their intended use. Where the Codex Alimentarius Commission has established a standard for any such substance used as packaging material, that standard shall apply.

12.5.38.10.- Labelling

i) The requirements of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985), the Codex Guidelines on Nutrition Labelling (CAC/GL 2-1985) and the Guidelines for Use of Nutrition and Health Claims (CAC/GL 23-1997) apply to this standard. With specific reference to section 7 of the Codex General Standard for the Labelling of Prepackaged Foods, the use of pictorial devices are further restricted.

ii) Taking into account paragraph 1.4 of the Guidelines for Use of Nutrition and Health Claims, nutrition claims are not permitted except that the foods have been demonstrated in rigorous studies with adequate scientific standards.

iii) Any indication required in the labelling should be made in the Urdu or Urdu and English both.

a) The Name of the Food shall be "Dry Cereal for Infants (and/or Young Children)", "Rusks for Infants (and/or Young Children)" or "Biscuits (or "Milk Biscuits") for Infants (and/or Young Children)" or "Pasta for Infants (and/or Young Children)", or any appropriate designation indicating the true nature of the food, in accordance with national legislation.

b) List of Ingredients

i) A complete list of ingredients shall be declared on the label in descending order of proportion except that in the case of added vitamins and minerals, these may be arranged as separate groups for vitamins and minerals, respectively, and within these groups the vitamins and minerals need not be listed in descending order of proportion.

ii) The specific name shall be declared for ingredients and food additives. In addition, appropriate class names for these ingredients and additives may be included on the label.

c) Declaration of Nutritive Value

i) The declaration of nutrition information shall contain the following information which should be in the following order:

(a) The energy value, expressed in kilocalories (kcal) and kilojoules (kJ), and the amount of protein, carbohydrate and fat expressed in grams (g) per 100g or 100ml of the food as sold, and where appropriate, as per specified quantity of the food as suggested for consumption;

(b) The average amount of each vitamin and mineral for which specific levels are defined expressed in numerical form per 100g or 100ml of the food as sold and, where appropriate, as per specified quantity of the food as suggested for consumption;

(c) Any other nutritional information required by in the legislation.

ii) The labelling may bear the average amount of the vitamins and minerals when their declaration is not covered by the provisions expressed in numerical form per 100g or 100ml of the product as sold and, where appropriate, per specified quantity of the food as suggested for consumption.

c) Date Marking and Storage Instructions

i) The date of minimum durability (preceded by the words "best before") shall be declared by the day, month and year in uncoded numerical sequence except that for products with a shelf-life of more than three months, the month and year will suffice. The month may be indicated by letters in those countries where such use will not confuse the consumer.

ii) In addition to the date, any special conditions for the storage of the food shall be indicated if the validity of the date depends thereon.

iii) Where practicable, storage instructions shall be in close proximity to the date marking.

d) Information for Utilization

i) Directions as to the preparation and use of the food, and its storage and keeping before and after the container has been opened, shall appear on the label and may also appear on the accompanying leaflet.

ii) For products covered category 1, directions on the label shall state

"Milk or formula but no water shall be used for dilution or mixing" or an equivalent statement.

iii) When the product is composed of gluten-free ingredients and food additives, the label may show the statement "gluten-free".

iv) The label shall indicate clearly from which age the product is recommended for use. This age shall not be less than six months for any product. In addition, the label shall include a statement indicating that the decision when precisely to begin complementary feeding, including any exception to six months of age, should be made in consultation with a medical practitioner/nutritionist, based on the individual infant's specific growth and development needs. Additional requirements in this respect may be made in accordance with the legislation of the country in which the product is sold.

12.5.38.11.- Additional Requirements

The products covered by this standard are not breast-milk substitutes and shall not be presented as such.

12.6 SPICES

12.6.1.- "Spice" means any aromatic vegetable substance in the whole, broken or ground form, except for those substances which have been traditionally regarded as food, such as onions; whose significant function in food is seasoning rather than nutritional. Spice shall be the sound leaves, flowers, buds, fruits, seeds, barks or rhizomes of plants, that are suitable for use as condiments for imparting any flavour or aroma to food and from which the oil or other flavouring constituent naturally present has not been removed and includes the food for which a standard is prescribed in these rules. The spices shall be free from living insects, insect fragments and rodent contamination visible to the eyes. Spice may be whole or ground.

12.6.2.- "Haldi or turmeric (whole)" means the dried rhizome or bulbous roots of the plant of genus *Curcuma longa* L and includes turmeric in whatsoever form. It shall be free from damage by insects, pests, lead chromate. It shall be free from any added colouring matters. It shall conform to the following standards: -

(a)	Moisture.	Not more than 10.0 percent.
(b)	Total ash.	Not more than 9.0 percent.
(c)	Ash insoluble in hydrochloric acid.	Not more than 1.5 percent.
(d)	Lead.	Not more than the permitted tolerance level.

12.6.3.- "Haldi or turmeric (powder)" means the powder obtained by griding the dried rhizomes or bulbous roots of the plant of genus *Curcuma longa* L. It shall be free from lead chromate. It shall be free from any added colouring matter.

It shall conform to the following standards: -

(a)	Moisture.	Not more than 9.0 percent.
(b)	Total ash.	Not more than 9.0 percent.
(c)	Ash insoluble in hydrochloric acid.	Not more than 1.5 percent.
(d)	Lead.	Not more than the permitted tolerance level.

12.6.4.- "Zeera Siah, Cumin (whole)" means the dried sound fruit of *Cumin cyminum*. It shall have the characteristic colour and aroma; and shall not have any exhausted seed. It shall be free from any added colouring matter. It shall conform to the following standards: -

(a)	Moisture.	Not more than10.0percent.
(b)	Total ash.	Not more than9.0 percent.
(c)	Ash insoluble in hydrochloric acid.	Not more than 1.5 percent.
(d)	Volatile essential oil.	Not less than 3 percent.

12.6.5.- "Zeera Siah Cumin (powder)" means the powder obtained from the dried seeds of the *Cumin cyminum*. It shall have the characteristic aroma. It shall be free from any added colouring matter. It shall conform to the following standards: -

(e)Moisture. Not more than 9.0 percent.

(f)Total ash. Not more than 9.0 percent.

(g) Ash insoluble in hydrochloric acid. Not more than 1.5 percent.

(h) Volatile essential oil. Not less than 3 percent.

12.6.6.- "Zeera Sufaid (whole)" means the dried sound fruit of C*arum carvi* L. It shall have the characteristic colour and aroma; and shall not have any exhausted seeds. It shall be free from any added colouring matter. It shall conform to the following standards: -

(i) Moisture. Not more than 10 percent

(j) Total ash. Not more than 8.0 percent.

(k) Ash insoluble in hydrochloric acid. Not more than 1.5 percent.

(l) Volatile essential oil. Not less than 1.5 percent

12.6.7.- "Zeera Sufaid (powder)" means the powder obtained from the dried sound fruit of *Carum carvi* (L). It shall have the characteristic aroma. It shall be free from any added colouring matter. It shall conform to the following standards: -

(m) Moisture. Not more than 9.0 percent.

(n) Total ash. Not more than 9.5 percent.

(o) Ash insoluble in hydrochloric acid. Not more than 1.5 percent.

(p) Volatile essential oil. Not less than 1.5 percent.

12.6.8.- "**Dhania or Coriander (whole)"** means the dried sound fruit of *Coriandrum sativum* and having the characteristic colour and aroma. It shall contain moisture not more than 10 percent.

12.6.9.- "**Dhania or Coriander (powder)"** means the powder obtained by grinding clean, dried fruits of C*oriandrum sativum* (L) and having the characteristic aroma. It shall be free from added colouring matter. It shall conform to the following standards: -

(q)Moisture. Not more than 10 percent.

(r)Total ash. Not more than 9 percent.

(s)Ash insoluble in hydrochloric acid. Not more than 1.5 percent.

12.6.10.- "**Ajwain"** means the dried sound fruit of *Carum copticum*. It shall have the characteristic colour and aroma; and shall not have any exhausted seeds. The seeds shall be free from living insects, insect fragments and rodent contamination visible to the eyes. It shall conform to the following standards:

(t) Moisture. Not more than 10 percent.

(u) Total ash. Not more than 9.0 percent.

(v) Ash insoluble in hydrochloric acid. Not more than 1.5 percent.

12.6.11.- "**Mirch or Lal Mirch or Chilies (whole)",** mean**s** the dried ripe sound fruit of the various species of *Capsicum*. (*Capsicum annum* and C*apsicum frutescens*). It shall be free from added colouring matter, foreign oil, sand, grit or dirt or other foreign substances or substitutes, harmful substances, mould growth and insect infestation. It shall contain moisture not more than 12 per cent and non-volatile ether extract not less than 12 percent.

12.6.12.- "**Mirch or Lal Mirch or Chillies (powder)"** means the powder obtained by grinding clean dried sound chilli pods of various species of *Capsicum*. The chilli powder shall be dry, free from dirt, mould growth, insect infestation, extraneous matter, added colouring matter and flavouring matter, foreign oil, sand and grit. It shall conform to the following standards: -

(w)Moisture. Not more than 10 percent.

(x) Total ash. Not more than 8.0 percent.

(y) Ash insoluble in hydrochloric acid. Not more than 1.5 percent.

(z)Non-volatile ether extract. Not less than 12 percent.

(aa) Butyro Refractive value at 40^0C of the ether extract. Not less than 69.0

12.6.13.- "**Kali Mirch or Gol Mirch, Papper or Black Pepper (whole)"** means the berries of *Piper nigrum* L. brown to black in colour with wrinkled surface, having the characteristic flavour, pungent taste and free from foreign starch and other extraneous matter, with or without the husk. It shall contain moisture not more than 10 percent.

12.6.14.- "**Kali Mirch or Gol Mirch, Peper or Black pepper (powder)"** means the powder obtained by grinding the dried sound berries of *Piper nigrum* L. and shall be

free from extraneous matter and foreign starch. It shall be free from added colouring matter. It shall conform to the following standards: -

(bb) Moisture.	Not more than 10 percent.
(cc) Total ash.	Not more than 6.0 percent.
(dd) Ash insoluble in hydrochloric acid.	Not more than 1.0 percent.
(ee) Non-volatile ether extract.	Not less than 7.0 percent.
(ff) Volatile oil.	Not less than 0.6 percent.
(gg) Total starch on dry basis	Not less than 30 percent.

12.6.15.- "**White pepper (Whole)"** shall be the dried, mature ripe sound fruit of the plant *Piper nigrum*, from which the outer coating of the fruit has been removed shall be free from extraneous matter and foreign starch. It shall be free from any added colouring matter. It shall conform to the following standards: -

(hh)Moisture.	Not more than 12 percent.
(ii)Total ash.	Not more than 3.5 percent.
(jj) Ash insoluble in hydrochloric acid.	Not more than 0.3 percent.
(kk)Non-volatile ether extract.	Not less than 5.5 percent.

12.6.16.- "**White pepper (powder)"** shall be the dried, mature sound ripe fruit of the plant *Piper nigrum*, from which the outer coating of the fruit has been removed. It shall be free from added colouring matter. It shall conform to the following standards: -

(ll)Moisture.	Not more than 10 percent.
(mm)Total ash.	Not more than 3.5 percent.
(nn)Ash insoluble in hydrochloric acid.	Not more than 0.3 percent.
(oo)Non-volatile ether extract.	Not less than 5.5 percent.

12.6.17.- "**Saunf or Fennel Fruit (whole)"** means the dried ripe fruit of cultivated plants of *Foeniculum vulgare*.The fruit shall be sound and free from sand, grit, and other dirt. It shall be free from any added colouring matter. It shall contain moisture not more than 12 percent and volatile oil not less than 4 percent.

12.6.18.- "**Saunf or Fennel Fruit (powder)"** means the powder obtained by grinding the dried sound, ripe fruit of cultivated plants of *Foeniculum vulgare* and shall conform to the following standards: -

(pp)Moisture.	Not more than 10 percent.
(qq)Total ash.	Not more than 9.0 percent.
(rr)Ash insoluble in hydrochloric acid.	Not more than 2 percent.
(ss)Volatile oil.	Not less than 4.0 percent.

12.6.19.- "**Methi or Fenugreek (whole)"** means the dried sound ripe seeds of *Trigonella foenum-graecum*. It shall free from dust, dirt, off odours, insects, etc. It shall contain moisture not more than 10 percent. It shall be free from added colouring matter.

12.6.20.- "**Methi or Fenugreek (powder)"** means the powder obtained by grinding the dried ripe seeds of *Trigotnella foenumgraecum*. It shall be free from added colouring matter. It shall conform to the following standards: -

(tt)Moisture.	Not more than 9 percent.
(uu)Total ash.	Not more than 7 percent.
(vv)Ash insoluble in hydrochloric acid.	Not more than 2 percent.
(ww)Water soluble extract.	Not less than 30 percent.

12.6.21.- "**Jaifal or Nutmeg (whole)"** means the dried seed of the fruit of *Myristica fragrans*. It shall be sound, free from infestation and free from added colouring matter. It shall contain non-volatile ether extract not less than 25 percent. It shall contain not more than 8 per cent moisture.

12.6.22.- "Jaifal or Nutmeg (powder)" means the powder obtained by grinding the dried seed (kemel) of the fruit of *Myristica fragrans*. It shall be sound and free from infestation, added colouring matter. It shall conform to the following standards: -

(xx)Moisture.	Not more than 8.0 percent.
(yy)Total ash.	Not more than 5.0 percent.
(zz)Ash insoluble in hydrochloric acid.	Not more than 0.5 percent.
(aaa)Non-volatile ether extract.	Not less than 25.0percent.
(bbb)Essential volatile oil	Not less than 7 percent.

12.6.23.- "**Javitri or Mace (whole)"** means the dried outer coat of arillus of the fruit of *Myristica fragrans*. It shall not contain the arilus of any other variety of *Myristica nalabarica* or *Fatua* (Bombay mace) and *Myristica argentea* (Wild mace). It shall be sound and free from infestation.

It shall be free from added coluring matter. It shall contain moisture not more than 7.0 per cent,crude fibre not less than 10 percent and volatile essential oil not less than 7 percent.

12.6.24.- **"Javitri or Mace (powder)"** means the powder obtained by grinding the dried outer coat of arillus of the fruit of *Myristica fragrans*. It shall not contain the arilus of any other variety of *Myristica nalabarica* or *Fatua* (Bombay mace) and *Myristica argentea* (Wild mace). It shall conform to the following standards: -

(ccc)Moisture.	Not more than 8.0 percent.
(ddd)Total ash.	Not more than 3.0 percent.
(eee)Ash insoluble in hydrochloric acid.	Not more than 1.0 percent.
(fff)Non-volatile ether extract.	Not less than 30.0percent.

12.6.25.- "**Dar Chini or Cinnamon (whole)"** means the dried inner bark of *Cinnamomum zeylanicum*. It shall neither contain any cassia nor any foreign vegetable substance and colouring matter. It shall be free from insect damaged matter. It shall contain essential volatile oil not less than 0.5 per cent and moisture not more than 12 per cent.

12.6.26.- "**Dar Chini or Cinnamon (powder)"** means the powder obtained by grinding the dried inner bark of *Cinnamomum zeylanicum*. It shall neither contain any cassia nor any foreign vegetable substance and colouring matter. It shall conform to the following standards: -

(ggg)Moisture.	Not more than 10 percent.
(hhh)Total ash.	Not more than 8.0 percent.
(iii)Ash insoluble in hydrochloric acid.	Not more than 2.0 percent.
(jjj) Volatile oil.	Not less than 0.5 percent.

12.6.27.- "**Laung or Cloves (whole)**" means the dried, unopened flower buds of *Eugenia Cartophylata*, and free from exhausted cloves, foreign vegetable or mineral substances. The cloves (on dry basis) shall contain not less than 15.0 per cent of volatile oil. It shall be free from added colouring matter. It shall contain moisture not more than 12 per cent.

12.6.28.- "Laung or Cloves (powder)" mean the powder obtained by grinding the dried unopened flower, buds, of *Eugenia Cartophylata*. The cloves powder shall conform to the following standards:

(kkk) Moisture.	Not more than 10 percent.
(lll)Total ash.	Not more than 7.0 percent.
(mmm)Ash insoluble in hydrochloric acid.	Not more than 1.0 percent.
(nnn) Volatile oil.	Not less than 15.0 percent.

12.6.29.- "Ginger (sonth, adrak) (whole)" means the washed and dried or the decorticated and dried rhizome of *Zingiberis officinale* and free from damaged, insects, pests. It shall contain, on dry basis, not less than 1.0 per cent of volatile oil and shall contain moisture not more than 13 per cent. It shall be free from added colouring matter

12.6.30.- "Ginger (Sonth, Adrak) (powder)" means the powder obtained by grinding ginger (*Zingiberis officinal*) whole. The powder shall conform to the following standards: -

(ooo)Moisture.	Not more than 10 percent.
(ppp)Total ash.	Not more than 7.0 percent.
(qqq)Water soluble ash	Not less than 1.7 percent
(rrr)Ash insoluble in hydrochloric acid.	Not more than 1.0 percent.
(sss)Cold water soluble extract.	Not less than 10 percent.
(ttt)Alcohol (90 per cent) soluble extract.	Not less than 4.5 per cent.
(uuu)Volatile oil.	Not less than 1.0 per cent.

12.6.31.- "Ilaichi, Chhoti Ilaichi, Cardamom or lesser Cardamom (whole) means the dried sound, nearly ripe fruit of *Electria cardamomum* (L), free from sand, earth, dirt, grit and admixture by substituted seeds.The cardomom seeds obtained from the

capsules shall contain not less than 3 per cent of volatile oil and shall contain moisture not more than 12 per cent It shall be free from added colouring matter.

12.6.32.- "Ilaichi, Chhoti Ilaichi, Cardamom or Lesser cardamom (powder), means the powder obtained from the seeds separated from the capsules of *Electria cardamomum* (L). It may be in the form of small pieces of the seeds or in finely ground form. It shall be free from added colouring matter. It shall conform to the following standards: -

(a)	Moisture.	Not more than 10 percent.
(b)	Total ash.	Not more than 6.0 percent.
(c)	Ash insoluble in hydrochloric acid.	Not more than 3.0 percent.
(d)	Volatile oil.	Not less than 3.0 percent.

12.6.33.- "Ilaichi, Chhoti Ilaichi, Cardamom or Lesse Cardamom (seeds) means the seed obtained by separating the seeds from the capsules of *Elettaria cardamomum* (L). The seeds shall contain not less then 3.0 percent of volatile oil. It shall be free from added colouring matter.

12.6.34.- "Bari Ilaichi Greater cardamom (whole) means the dried sound nearly ripe fruit of various species of genus *Amomum sublulatum Roxb*. It shall be free from added colouring matter. It shall contain moisture not more than 12percent and volatile essential oil not less than 1 percent.

12.6.35.- "Bari Ilaich Greater Cardamom (powder) means the powder obtained from the seeds separated from the capsules of genus *Amomum sublulatum Roxb*. It may be in the form of small pieces of the seeds or in finely ground form. It shall be free from added colouring matter. It shall conform to the following standards:-

(a)	Moisture.	Not more than 10 percent.
(b)	Total ash.	Not more than 8.0 percent.
(c)	Ash insoluble in hydrochloric acid.	Not more than 3.0 percent.
(d)	Volatile oil.	Not less than 1.0 percent.

12.6.36.- "Bari Ilaichi Greater Caardamom (seeds)" means the seeds obtained by separating the seeds from the cardamom *Amomum* capsules of genus *Amomum sublulatum Roxb.* The seeds shall contain not less than 1.0 percent of volatile oil. It shall contain moisture not more than 10 percent and shall be free from insect damaged seeds.

12.6.37.- "**Sowa or Aniseed (whole)** means the dried sound, ripe fruit of *Pimpinella Anisum*, having the characteristic appearance and free from sand, earth, dirt, grit and admixture by substituted seeds. It shall be free from added colouring matter. It shall contain volatile oil not less than 2 percent and moisture not more than 12 percent.

12.6.38.- "Zafran or kesar or saffron means the dried sound stigmata and tops of style of *Crocus sativus* (L), and free from foreign colouring matter or any other foreign matter, organic or inorganic. It shall not lose more than 12 percent of its weight when dried at 100 ^{0}C to a constant weight. The petroleum extract shall not be less than 5 percent. It shall conform to the following standards:

(a)	Moisture.	Not more than 10 percent.
(b)	Volatile oil.	Not less than 14.0 percent
(c)	Total ash on dry basis.	Not more than 7.5 percent.
(d)	Ash insoluble in hydrochloric acid.	Not more than 1.0 percent.
(e)	Aqueous extract.	Not less than 55.0 percent.
(f)	Total Nitrogen.	Not less than 2.0 percent.
(g)	Floral waste defined as yellow filaments. Pollen, stamens parts of ovary and other parts of flowers of Crocus sativus (Linn).	Not more than 10.0 percent.

12.6.39.- "Khash-khash or Poppy seed means the dried ripe sound seed from the fruit of the Opium Poppy, *Papaver somniferum*. The seeds may be white or greyish in colour. It shall conform to the following standards: -

(a)	Total ash.	Not more than 8.0 percent.
(b)	Oil.	Not less than 40.0 percent.
(c)	Harmless foreign matter dust, seeds etc.	Not more than 5.0 percent.

12.6.40.- "Mustard (rai, sarson) whole means the dried sound seeds of various species of genus *Brassica*. It shall be free from seeds of Argemone maxicana Linn. The seeds shall be free from damaged and colouring matter.

12.6.41.- "Mustard or compound mustard or mustard condiment or mustard powder means the powder obtained by grinding the dried seeds of various species of genus *Brassica* with or without amylaceous matter and with or without spices; provided that the proportion of amylaceous matter and spices, if any, shall not together exceed 20 percent. It shall yield not less than 0.35 per cent of allylisothiocyanate after maceration with water for two hours at 37°C. The test for argemone oil shall be negative. It shall be free from added colouring matter. It shall conform to the following standards.

(a)	Moisture.	Not more than 7.0 percent.
(b)	Total ash.	Not more than 8.0 percent.
(c)	Ash insoluble in dilute hydrochloric acid.	Not more than 2.0 percent.
(d)	Starch.	Not more than 15.0 percent.
(e)	Volatile oil.	Not less than 0.25 percent.
(f)	Non-volatile ether extracts	Not less than 22.0 percent.

12.6.42.- "**Curry powder"** means the powder obtained from grinding clean, dried and sound spices belonging to the group of aromatic herbs and seeds such as black pepper, cinnamon, cloves, coriander, ginger, cardamom, chillies, mace, nutmeg, curry leaves, white pepper, saffron and aniseeds. It shall contain not less than 85 per cent of condiments and spices and shall not contain more than 10 per cent of farinaceous matter and salt. It shall be free from added starch and colouring matter. The aromatic seeds and herbs enumerated constitute the proper ingredients and not more than two or all of these may be used at the discretion of the manufacturer in the preparation of the curry powder: provided that the addition of any substances other than the aromatic seeds and herbs enumerated shall be made in lieu of, or partial of replacement of farinaceous material and/or salt. The percentage of ingredients of curry powder shall be specified on the label in the descending order. It shall conform to the following standards: -

(a)	Moisture.	Not more than 10 percent.
(b)	Ash insoluble in dilute hydrochloric acid. On salt free basis.	Not more than 1.0 percent.
(c)	Edible Common Salt.	Not more than 5 percent.
(d)	Volatile oil.	Not less than 0.25 percent.
(e)	Non-volatile ether extracts.	Not less than 7.5 percent.

12.6.43.- "Garam Masalla, (whole)" means a mixture in any proportion of two or more a mixture of aromatic herbs, spices and condiments and free from salt, turmeric, coriander, ajwain, fenugreek, chillies, farinaceous matter, sand, grit, dirt and dust. It shall also not contain dried vegetable and/or fruits, oil seeds, garlic, ginger, poppy seeds, and curry leaves. The percentage of ingredients used shall be specified on the label in the descending order of the weights used. It shall be free from added colouring matter, mould growth and insect infestation. It shall contain volatile oil not less than 0.75 percent and moisture not more than 12 percent.

12.6.44.- "Garam Masalla,(powder)" means the powder obtained by grinding a mixture of two or more a mixture of aromatic herbs, spices and condiments, and free from starch, salt, turmeric, chillies, farinaceous matter, sand, grit, dirt and dust, dried vegetable and/or fruits, oil seeds, garlic, ginger, poppy seeds, and curry leaves, any colouring matter, mould growth and insect infestation. It shall conform to the following standards: -

(a)	Moisture.	Not more than 10 percent.
(b)	Total ash.	Not more than 9 percent.
(c)	Ash insoluble in dilute hydrochloric acid.	Not more than 1.5 percent.
(d)	Volatile oil.	Not less than 0.75 percent.

12.6.45.- "Pimento" means the dried sound, ripe fruit of the plant *Pimento officialis*. It shall conform to the following standards: -

(a)	Moisture.	Not more than 10 percent.
(b)	Total ash.	Not more than 7.0 percent.
(c)	Volatile essential oil.	Not less than 2.4 percent.

12.6.46.- "Dill seed" means the dried sound fruit of the plant *Anethum graveolens*. It shall conform to the following standards: -

(a)	Total ash.	Not more than 10.0 percent.
(b)	Ash Insoluble in Hydrochloric acid.	Not more than 3.0 percent.
(c)	Volatile essential oil.	Not less than 2.5 percent.

12.6.47.- "Asafoetida (Hing or Hingra) means the oleo-gum-resin obtained from the rhizome and roots of *Ferula alliaces*, *Ferula rubricaulis* and other species of *Ferula.* It shall not contain any colophony resin, galbonum resin, ammoniaccum resin or any other foreign resin. It shall be free from added colouring matter. It shall conform to the following standards.

(a)	Total ash.	Not more than 15 percent.
(b)	Ash Insoluble in Hydrochloric acid.	Not more than 2.5 percent.
(c)	The alcoholic extract (With 90 per cent alcohol)	Not less than 12 percent.
(d)	Starch.	Not more than 1 percent.

12.6.48.- "Dried Mango Slices," means the dried wholesome, edible part of raw mango fruit with or without the outer skin. It shall be free from fungus, moulds and insect infestation, rodent contamination, added colouring and flavouring matter. It shall also be free from deleterious substances injurious to health. It shall not contain any preservative except edible common salt, which may be added to the extent of 5 per cent on dry basis. It shall have characteristic taste and flavour. It shall conform to the following standards:-

(a)	Moisture	Not more than 12 percent.
(b)	Damaged Slices	Not more than 5 percent.
(c)	Seed Coatings.	Not more than 6 percent.

Explanation:-

i) Seed coatings shall be exterior covering of the seed.

ii) Damaged slices means the slices that are eaten by weevils or other insects and includes slices internally damaged by fungus, moisture or heating.

12.6.49.- "Dried Mango Powder (Amchur)" means the powder obtained by grinding clean and dried mango Slices having characteristic taste and flavour. It shall be free from musty, odour and objectionable flavour, rodent contamination, mould, fungus and insect infestation, extraneous matter and added colouring and flavouring matter. It shall also be free from deleterious substances injurious to health. It shall not contain any preservative except edible common salt, which may be added to the extent of 5 percent on dry basis. It shall also conform to the following standards: -

(a)	Moisture.	Not more than 10 percent.
(b)	Total ash (salt-free-basis).	Not more than 6 percent.
(c)	Ash insoluble (in dilute HCl) on salt free basis.	Not more than 1.5 percent.
(d)	Acidity as anhydrous tartaric acid.	Not less than 12 percent and Not more than 26.0 percent.

12.6.50.- "Kalonji whole" means the sound seeds of *Nigella sative* L. It shall be free from added colouring matter and shall contain moisture not more than 12 percent, and volatile oil not less than 0.5percent.

12.6.51.- "Kalonji powder" means the powder obtained by grinding the dried sound seeds of *Nigella sativa* L. It shall be free from added colouring matter. It shall conform to the following standards: -

(a)	Moisture.	Not more than 10 percent.
(b)	Total ash.	Not more than 7 percent.
(c)	Ash insoluble in dilute hydrochloric acid.	Not more than 1.5 percent.
(d)	Volatile oil.	Not less than 0.5 percent.

12.7 FRUIT, VEGETABLE, AND THEIR PRODUCTS

Fruit and Fruit Products

12.7.1.- "Raw Fruit or Fresh Fruit" shall be the fruit that is not dried, pulped, dehydrated, frozen, canned, candied or pickled. It shall not be withered, shriveled, discoloured or bruised.

12.7.2.- "Dried Fruit" shall be the clean, sound, wholesome of any suitable variety fully ripe and free from insect or fungal attack or any other blemish affecting the quality of the dried product. The dried product shall be derived from such fruits as apples, apricots, peaches, pears, resins, sultans, figs, currants, dates, plum and others. It shall be free from added ingredients and colouring matter. It shall conform to the following standards: -

(a) For all fruits except dried dates.

Moisture.	Not more than 14 percent.
Damaged fruits.	Not more than 5 percent.

(a) For dried dates.

Moisture.	Not more than 12 percent.
Shrivelled fruits.	Not more than 15 percent
Damaged fruits.	Nil.

12.7.3.- "Mixed Dried Fruit" shall be the product prepared by mixing dried fruits and shall conform to the standards of dried fruit. It shall contain not less than 70% of dried fruit and may contain not more than 15% of citrus peel. There shall be written on the label of a package containing mixed dried fruit the word "mixed dried fruit" (state the name of the fruit), as the case may be.

12.7.4.- "Fruit Products" means any food prepared from clean, sound, wholesome fruit.

12.7.5.- "Dried Salted Fruit" shall be the product by treating fruit with salt, with or without sugar, and dried under natural or artificially induced condition.

12.7.6.- "**Canned Fruit**", means the food prepared from clean, fresh fruit, approaching maturity and not over ripe. It shall be free from blemishes, stalks, leaves and other extraneous matter and shall be the sound, wholesome fruit of one type, packed in clean containers that are hermetically sealed processed by heat. Canned fruit may contain sugar and potable water. The fruit so contained shall be of similar varietal characteristics and of reasonably uniform size. When the fruit is required to be cut, it shall be cut in halves, quarters, or cubes reasonablly uniform in size. It shall be free from added colouring matter. It shall conform to the following standards:

(a)	Drained weight. contents	Not less than 40 per cent of the net weight of
(b)	Concentration of packing syrup.	Not more than 17.5 degrees Brix.
(c)	Fill of Container inside	Head space not more than 10 per cent of the height of the can or bottle.

12.7.7.- "**Canned Fruit Cocktail"**, shall be a mixture of two or more types of sound, wholesome fruits packed in clean containers that are hermetically sealed and processed by heat. Canned fruit cocktail may contain sugar and potable water. It shall be free from added colouring matter and may contain permitted food conditioner.

12.7.8.- "Fruit Juice" (1) shall be unfermented and unconcentrated liquids expressed from sound, ripe and fresh of one or more species of fruits of best quality. It shall be attractive in appearance, free from objectionable flavours and any kind of deterioration. It shall be free from artificial colouring matter, flavouring agents, mineral acids, adulterant and preservatives other than permitted preservatives.

(a) The acidity of fruit juice, calculated as anhydrous citric acid, unless otherwise prescribed for a particular type of fruit juice, shall contain not more than 3.5 per cent m/v.

(b) The total soluble solids of fruit juice, unless otherwise prescribed for a particular type of fruit, shall not be less than 8 g in 100 ml measured at 20°C.

(c) Concentrated fruit juice or fruit juice concentrate shall be the expressed juice of one or more species of fruit, concentrated to the extent that the product has a soluble solid content of not less than double the content of the original juice and may be filtered or unfiltered.

12.7.9.- "Apple Juice" shall be the fruit juice of mature apple of the species *Pyrus* malus. It shall conform to the following standards: -

(d) Soluble solids. Not less than 11.5 g in 100ml at 20^0C

(e) Acidity calculated as malic acid. in Not less than 0.3 g and Not more than 0.8 g

100 ml at 20^0C

(f) Volatile acid. Not less than 0.04ml in 100ml at 20^0C

Mineral impurities Insoluble in

in per cent Hydrochloric acid. Not more than 20mg/Kg.

12.7.10.- "Grape Fruit Juice" shall be the fruit juice of mature grape fruit of the species citrus paradise or of hybrids of that species or of hybrids of the species *Citrus* macfayden. It shall conform to the following standards: -

(g) Soluble solids. Not less than 9.0g in 100ml at 20^0C

(h) Acidity calculated As

Anhydrous citric acid. Not less than 1g and not more than 2g in 100ml at 20^0C.

(i) Essential oil Not more than 0.03ml in 100ml at 20^0C

(j) Sugar (added) Not more than 5 percent.

12.7.11.- "Lemon Juice", shall be the fruit juice of mature lemon of the species *Citrus* lemon or of hybrids of that species. It shall conform to the following standards: -

(k) Soluble solids. Not less than 8.0g in 100ml at 20^0C

(l) Acidity calculated As

anhydrous citric acid. Not less than 4.5g in 100ml at 20^0C

(m) Essential oil Not more than 0.05ml in 100ml at 200^0C

12.7.12.- "Lime Juice" shall be the fruit juice of mature lime of the species *Citrus* aurantifolia or of hybrids of that species. It shall conform to the following standards: -

(n) Soluble solids. Not less than 8.0g in 100ml at 20^0C

(o) Acidity calculated

As anhydrous citric acid. Not less than 5g in100ml at 20^0C

12.7.13.- "Orange Juice" shall be the fruit juice of mature orange of the species Citrus sinensis or citrus reticulate or hybrids of these species. It shall conform to the following standards: -

(p) Soluble solids. Not less than 10.0g in 100ml at 20^0C

(q) Acidity calculated as

anhydrous citric acid. Not less than 0.50g in100 ml at 20^0C.

(r) Essential oil. Not more than 0.04ml in 100 ml at 20^0C

(d) Sugar (added). Not more than 5 percent.

12.7.14.- "Pineapple Juice" shall be the fruit juice of mature pineapple of the species *Ananas* comosus.It shall conform to the following standards:-

(a) Soluble solids. Not less than 10.0g in 100ml at 20^0C

(s) Sugar (added). Not more than 2.5 percent.

(t) It shall be free from citric acid and malic acid when the juice has been sweetened with sugar.

Explanations:

(i) The juices made from the concentrates, shall conform to the standards laid down in these Rules.

(ii) In the case of orange juice and pineapple juice made from their concentrates shall contain soluble solids (exclusive added sugar) not less than 11g in 100ml at 20^0C for orange juice and not less than 13.5g in 100ml at 20^0C for pineapple.

12.7.15.- Particular labelling requirement of fruit juice: (1) There shall be written on the label of a package containing fruit juice or concentrated fruit juice.

(a) The name of the fruit from which the juice has been prepared, and

(b) Where the product is composed of the juice of more than one type of fruit the words "mixed fruit juice" and the name of the fruit juice present in descending order of the proportion present along with their percentage.

(2) Where sugar has been added to fruit juice or concentrated fruit juice, there shall be written on the label of a package containing such juice, the words “contains added sugar” or any other word or words having the same or similar effect.

(3) There shall be written on the label of a package containing concentrated fruit juice a statement giving direction for dilution to produce a juice of approximately the same standard as prescribed for fruit juice in these rules.

(4) The word “concentrate” or “concentrated” shall not appear on a package containing concentrated fruit juice unless it is conjoined in uniform lettering of not less than 10 point with the words “fruit juice”.

(5) There shall be written on the label of a package containing such juice prepared from concentrate, the words “(A) juice made from concentrate”, “Reconstituted (A) juice”, or “(A) juice made from concentrated (A) juice” as the case may be, without intervening written, printed, graphic matter and any other device in equal lettering.

12.7.16 “Fruit Syrup” means sweetened fruit juice containing sugar, dextrose, invert sugar or liquid glucose, high fructose syrup, either singly or in combination, with or without potable water, peel oil, fruit essences (derived from fruits) natural flavours, common salt, citric acid, ascorbic acid, permitted preservatives and permitted colour. It shall contain not less than 65 per cent of total soluble solids and not less than 25 per cent of fruit juice in the final product**.** The percentage of fruit juice it contains shall be clearly indicated on the label.

12.7.17.- “Fruit Squash” means the expressed juice of the sound ripe fruit with the pulp containing sugar, dextrose, invert sugar or liquid glucose, high fructose glucose either singly or in combination with or without potable water, peel oil, fruit essences (derived from fruits) or natural flavours**,** common salt, citric acid, ascorbic acid, permitted preservatives and permitted colours. It shall contain not less than 40 per cent of total soluble solids and not less than 25 per cent of fruit juice in the final product. The percentage of fruit juice it contains shall be clearly indicated on the label. The acidity of the finished product shall conform to the standards prescribed for fruit juice.

12.7.18.- “Flavoured syrup or Flavoured Cordial” means the soft drink composed of syrup and natural flavouring substances with or without edible portions or extracts of one or more types of fruit or other plant substance. It may contain permitted preservative, permitted colouring substance and permitted food conditioner.

12.7.19.- “Fruit Nectar” means unfermented but fermentable products obtained by adding water with or without the addition of sugars or syrups and /or natural sweeteners to fruit juice, concentrated fruit juice, water extracted fruit juice, fruit puree and concentrated fruit puree or to a mixture of these products. Aromatic substances, volatile flavour components, pulp cells, all of which must be the recovered from same kind of fruit and the obtained by suitable physical means, may be added. Moreover, the sugars, syrups, minimum brix level for reconstituted fruit juice and minimum brix level for reconstituted puree intended to be used in nectars and minimum juice and /or puree content in the final product should also conform to Codex General Standards for Fruit Juices and Nectars (CODEX STAN 247-2005). The percentage of fruit juice it contains shall be clearly indicated on the label.

There shall be written on the label of a package containing fruit Nectar. Where the product is composed of the juice and other edible portions of only one type of fruit, the name of the fruit from which it has been prepared.

12.7.20.- “Fruit Beverage or Fruit Drink” any beverage or drink which is purported to be prepared from fruit juice and potable water or carbonated water, by whatever name it is called, and containing sugar, dextrose, invert sugar, or liquid glucose, either singly or in combination and with or without peel oil, fruit essences (derived from fruit) or natural flavours, citric acid, ascorbic acid, permitted preservatives and permitted colours. It shall contain total soluble solids not less than 10 per cent and not less than 5 per cent of fruit juice in the final product. The percentage of fruit juice it contains shall be clearly indicated on the label.

There shall be written on the label of a package containing fruit beverage, fruit drink, fruit crush:

(a) Where the product is composed of the juice and other edible portions of only one type of fruit, the name of the fruit from which it has been prepared; and

(b) Where the product is composed of the juice and other edible portions or more than one type of fruit, the words “mixed fruit drink”, “mixed fruit beverage”, “mixed fruit crush” as the case may be.

12.7.21.- "Flavoured Drink"

12.7.22.- "Flavoured Syrup, Synthetic Syrup", means the product composed of potable water and permitted flavouring substance with sugar, dextrose, invert sugar, liquid glucose either singly or in combination.

It shall be clear, transparent, free from scum, residue or suspended particles, extraneous matter, objectionable taste, artificial sweetening agent and crystallization. It may contain permitted colouring matter and permitted preservatives. It shall conform to the following standards: -

Total soluble solids	Not less than 65 per cent.

(1) There shall be written on the label of a package containing flavoured syrup, synthetic syrup, flavoured/synthetic sharbat the words "flavoured syrup" or "synthetic syrup" or "flavoured/synthetic sharbat" or the name of such flavour in uniform lettering conjoined with the words "flavoured syrup" or "synthetic syrup" or "flavoured/synthetic sharbat" as the case may be.

(2) The label of a package of flavoured, synthetic syrup or flavoured/synthetic sharbat shall not include: -

(a) Any expression, pictorial or design that indicates or suggests or implies that the syrup consists wholly or partly of extracts of fruit or other plant substance; or

(b) A pictorial representation or design of fruit or a floral design that indicates or suggests or implies the presence of fruit or extract of fruit or other plant substance in the syrup.

12.7.23.- "Jam", means the product obtained by processing single or mixed fresh fruit, fruit pulp, canned fruit or dried fruit with potable water, sugar, dextrose, invert sugar or liquid glucose, either singly or in combination by boiling to a suitable consistency and with or without citric, malic, ascorbic acids, permitted preservatives and permitted colours and pectin in the form of fruit juice or pulp or powder. It shall conform to the following standards: -

(a)	Soluble solids m/m.	Not less than 68.5 percent.
(b)	Fruit content, except in the case of strawberry and Raspberry jams.	Not less than 49 percent.
(c)	Fruit content in the case of strawberry/ raspberry jams.	Not less than 25 percent.

12.7.24.- "Fruit Jelly", means the product of gelatinous consistency prepared by boiling strained fruit juice with sugar, and having the flavour of the named fruit. It shall be free from burnt or other objectionable flavours, crystallisation, fermentation and mould growth. Jelly marmalade shall be clear jelly in which are suspended slices of peel or fruit. It shall conform to the standards shown in 12.7.229 (jam).

12.7.25.- "Marmalade", means the product made from any combination of peel, pulp, and juice of the named citrus fruit by boiling with water, sugar, dextrose, invert sugar or liquid glucose, high fructose glucose, either singly or in combination, to a suitable consistency and with or without an acid ingredient in an amount that reasonably compensates for any deficiency in the natural acidity of the fruit used in its preparation, consisting of citric, malic, tartaric or ascorbic acid, lemon or lime juice and cider vinegar. It shall conform to the following standards: -

(a)	Soluble solids m/m	Not less than 65 percent.
(b)	Fruit content of the named fruit.	Not less than 45 percent.
(c)	Preservative as sulphurdioxide.	Not more than 40 parts per million in the case of marmalade packed in glass or china ware containers only

12.7.26.- "Fruit Chutney" means a product prepared from clean, sound, wholesome fruit or vegetable either singly or in combination, with spices, salt, sugar, onion, garlic and vinegar with or without nuts. It may contain caramel as colouring substance. It shall not contain any synthetic colouring matter**.** It shall conform to the following standards: -

(a)	Total Soluble solids m/m	Not less than 50 percent.
(b)	Acidity calculated as acetic acid.	Not less than 0.75cent and Not more than 2.0 percent.
(c)	Total ash.	Not more than 5.0 percent.

The minimum percentage of fruit in the final product shall not be less than 40.

There shall be written on the label of a package containing chutney the word “chutney” and this word may be preceded in uniform lettering with the name of the fruit or vegetable, provided that the fruit or vegetable so named is present in the chutney in any proportion of not less than 50 per cent of the total fruit or vegetable so present.

VEGETABLE AND VEGETABLE PRODUCTS

12.7.27.- “Vegetable” shall be the clean, wholesome, sound edible part of plant commonly used for food.

12.7.28.- “Fresh Vegetable” shall be vegetable that is not dehydrated, dried, canned or frozen and shall be without shrivelled or discoloured.

12.7.29.- “Dried or Dehydrated Vegetable” shall be the raw edible part of vegetable, dehydrated under natural or artificially induced condition. It shall not contain more than 8 per cent of water and may contain permitted preservative.

12.7.30.- “Frozen Vegetable” shall be the fresh vegetable that is maintained in a frozen wholesome condition for one continuous period at a temperature below minus 18°C and has not been thawed before sale.

12.7.31.- Vegetable Product means any food prepared from vegetable and includes food for which a standard is prescribed but does not include edible vegetable oil and edible vegetable fat.

12.7.32.- Tomato Paste or Tomato Puree means the product made by evaporating a portion of the water from clean, sound, ripe tomatoes. It shall be packed in hermetically sealed packages and processed by heat to prevent spoilage. It shall be free from seeds, skin and other coarse or hard substances and other foreign substances, added colouring matter. It may contain salt, spices and condiments, citric acid, malic acid, tartaric acid and L-ascorbic acid, vinegar, and permitted preservatives.

The product shall show no sign of fermentation when incubated at 37°C for seven days.

Tomato puree shall contain not less than 9 per cent of soluble salt free solids

whereas Tomato

paste shall contain not less than 25 per cent of soluble salt free solids.

12.7.33.- “Vegetable Juice” means the liquid product of one or more kinds of vegetables and shall not include fruit juices.

(a) Where vegetable juice contains sugar or salt, there shall be written on the label of a package containing such food, in not less than 4 point lettering, the words “contains (state the percentage) % added sugar, or “contains (state the percentage) % added salt”, as the case may be.

(b) Every package of concentrated vegetable juice or vegetable juice concentrate shall be labelled with a direction for its use.

The word “concentrate” or “concentrated” shall not appear on a package containing concentrated vegetable juice unless it is conjoined in uniform lettering of not less than 10 point with the words “vegetable juice”.

12.7.34.- “**Tomato Juice”** means the product obtained by squeezing the wholesome tomatoes (Licopersicon esculentum) with or without the addition (of 0.5 per cent) salt and with or without the addition of water, and with or without homogenisation prior to its canning or bottling and sterilisation. The juice shall be obtained from whole ripe tomatoes from which all stems and objectionable portions have been removed. It shall be free from added colouring matter**.** It shall contain not less than 5 per cent of soluble salt free solids. It shall conform to the following standards: -

(a)	Mold count.	Not more than 50 percent of the field examined.
(b)	Yeast and Spores.	Not more than 125 per 1/60 cubic millimeter.
(c)	Bacteria.	Not more than 100 million/ c.c

12.7.35.- “**Bottled or Canned Vegetables”** means the food prepared from clean, wholesome, fresh vegetables of good characteristic colour and flavour, free from pods, stalks, detached skin, blemishes and extraneous matter, woody fibre, roots, with or without spices and condiments. It shall not contain any preservatives or colours except in the case of peas, beans and spinach. It shall be free from all kinds of spoilage and shall be in hermetically sealed containers. It shall conform to the following standards: -

	Drained weight of vegetable.	Not less than 50 percent of the net weight.
(d)	Strength of packing brine.	Not less than 1.25 percent and not more than 2.5 percent.
(e)	Fill of containers.	Head space not more than 10 percent of the inside height of the can or bottle.

(i) Where canned vegetable contains at least 50 per cent of vegetable mixed with other food, there shall be written on the label of a package containing such food the words “vegetable with (state the name of the other food)” or “(state the name of the vegetable) with (state the name of the other food)”.

(ii) Where canned vegetable contains two or more kinds of vegetables, there shall be written on the label of a package containing such food, not less than 10 point lettering, the words “mixed vegetable”, immediately followed, in not less than 4 point lettering, by the names of vegetables, or the word “mixed (state the names of the vegetables)”, as the case may be.

12.7.36.- “Soup” shall be the liquid product composed of halal healthy animal meat, fish, vegetable, cereal or any combination of these and may contain salt or any other food. It shall contain not less than 6 per cent of meat or fish, where soup has been prepared from meat or fish as the case may be. It shall be free from added colouring matter and artificial flavour.It shall conform to the following standards:

Protein (In the case of meat or fish soup) Not les than 1.3 percent

12.7.37.- “**Soup Stock”** shall be composed of any of the ingredients of soup in liquid, dry or compacted form. It may contain permitted flavouring substance, permitted flavour enhancer and permitted food conditioner. It shall be free from added colouring matter. Every package containing soup stock shall be labelled with a direction for its use.

12.7.38.- “Salad Dressing” means the emulsified semi-solid food prepared from edible vegetable oil, whole egg, egg yolk, vinegar or citric fruit juice or both, any spice (except saffron or turmeric) or natural flavouring, provided it does not impart to the salad dressing a colouring simulating the colour imparted by egg yolk. It shall conform to the following standards: -

(a)	Edible vegetable oil	Not less than 30 per cent
(b)	Egg yolk solids.	Not less than 1.35 per cent.
(c)	Acidity (as acetic acid/citric acid)	Not less than 2.5 per cent.
(d)	pH	Not more than 3.8
	In the case of French Dressing:	
	Edible vegetable oil.	Not less than 35 per cent.

12.7.39.- “**Mayonnaise”** means the emulsified semi-solid food prepared from edible vegetable oil, egg yolk, acidifying ingredients or citrus fruit juice or both, any spice (except saffron or turmeric) or natural flavouring, provided it does not impart to the mayonnaise a colour simulating the colour imparted by egg yolk. It shall conform to the following standards: -

(a)	Edible vegetable oil.	Not less than 25 percent
(b)	Egg yolk solids.	Not less than 1.35 percent.
(c)	Acidity (as acetic acid/citric acid)	Not less than 2.5 percent.
(d)	pH	Not more than 3.8

12.7.40.- “Nut” means the clean and sound, edible seeds, kernels and other similar parts of plants that are not classified as cereals, vegetables, fruits or spices and shall include coconut. Nut may have their outer integument. Nut may contain added salt, edible fat or edible oil and may be roasted. It shall be free from moulds and insect infestation.

12.7.41.- “Desiccated Coconut” means the dried and shredded kernel of the fruit of Cocos nucifera. It shall contain not less than 50 per cent of coconut oil and not more than 3 per cent of water.

12.7.42. “**Peanut Butter”** means the product obtained by grinding clean, sound, wholesome, roasted peanut kernels that have been decorticated. It may contain sugar, dextrose, invert sugar or liquid glucose, either singly or in combination. It shall contain not less than 85 per cent of peanut and not less than 20 per cent of protein. It shall contain not more than 55 per cent of edible fat and edible oil and not more than 3 per cent of water. It shall comply with the microbiological standard prescribed in these rules.

12.7.43.- "Fruit and Vegetable Preserve (Morabba)". The preserve shall be prepared from single or mixed fruits or vegetables. The fruit or vegetable used shall be mature, fresh, sound and clean. The product shall contain no artificial sweetening agent, colouring or flavouring matters, and no preservatives except benzoic acid or sorbic acid to the extent of 40 p.p.m. The fruit shall retain its form and shall be impregnated with syrup without shrinkage of the individual pieces. It shall have flavour of the original fruit or vegetable and shall be free from burnt or other objectionable flavours, crystallization and mould growth. The total soluble solids in the covering syrup shall be not less than 65 per cent and the fruit or vegetable in the final product shall be not less than 50 per cent.

12.7.44.- "Vinegar or Sirka" means a liquid derived from alcoholic and acetous fermentation of any suitable medium such as fruits, malt, molasses, sugarcane juice, etc. It shall be pleasant in taste and flavour and shall not contain.

(i) Any mineral acid

(ii) Lead, copper or arsenic in excess of the permitted tolerance.

(iii) Any foreign substances or colouring matters except those permitted.

(iv) Any added acetic acid.

It shall conform to the following standards: --

(a)	Acetic acid per 100 ml	Not less than 3.75 grams
(b)	Total solids per 100 ml	Not less than 2 grams.
(c)	Ash per 100 ml	Not less than 0.1 grams

Vinegar, prepared from malt, shall contain in addition to the above constituents, not less than

0.05 grams of phosphorus pentaoxide and 0.04 grams of nitrogen per 100ml.

12.7.45.- "Synthetic Vinegar" means the product prepared from acetic acid. It shall contain not less than 3.75 grams of acetic acid per 100 ml. It shall not contain Lead, Copper, arsenic in excess of permitted tolerance. It shall not contain any added colouring matter, any mineral acid and shall be colourless. It shall be distinctly labelled as "synthetic" in letters not smaller than the brand or trade name or designation and shall state on the label "prepared from acetic acid".

12.7.46.- "Pickle" means the preparation made from sound, wholesome, clean, raw or sufficiently mature fruits or vegetables or a combination of both, free from insect damage or fungus attack, preserved in salt, acid, sugar or any combination of these three. The pickle may contain onion, garlic, sugar, jaggery, edible oils, spices, spice extract or oil or turmeric, pepper, chillies, fenugreek, mustard seed or powder, vegetable ingredients, asafoetida, bengal gram, lime juice, lemon juice, green chillies, vinegar or acetic acid, citric acid, dry fruit including resins and fruit nuts.

Combination on pickles may be:

(ii) **"Pickles in citrus juice or brine"** The percentage of salt in covering liquid shall not be less than 10 per cent when salt is used as major preserving agent. When packed in cirtrus juice, acidity of the covering liquid shall be not less than 1.2 per cent calculated as citric acid. Soluble calcium salt and permitted preservatives may be used in such type of pickles. Pickles shall be free from added salts of copper, alum and mineral acids.

(iii) **"Pickles in oil"** The fruit or vegetable in the final product shall be not less than 70 per cent. The pickle shall be dipped with oil. The oil used shall be clear, clean and free from rancidity and not less than 15per cent. It shall be free from copper, alum, mineral acid or preservative. The acidity expressed as acetic acid shall not be more than 2.0 per cent. It may contain rapeseed (rai), ajwain, saunf, and black pepper and like spices, etc.

(iv) **Pickles in vinegar**: Pickles in vinegar mean the preparation from sound, wholesome clean, raw or sufficiently matured fruits or vegetables, free from insect damage or fungus attack, which have been cured in brine or dry salt or salted and dried stack with or without natural fermentation. It shall contain vinegar or acetic acid and the percentage of acid in the fluid portion shall not be less than 2 per cent calculated as acetic acid. It may contain sugar, whole or ground or semi-ground spices, dried fruits, green and red chillies, ginger etc. Dry fruit, citric acid may also be added in such type of pickles. The drained weight of the product shall not be less than 70 per cent. The pickles shall be free from copper, mineral acid, alum, added colouring matter or

preservative and shall show no sign of fermentation. The product shall be reasonably free from sediments.

12.7.47.- "Sauce" shall be the product derived from any suitable kind and variety of fruit and vegetable which are wholesome and shall be practically free from insect or fungal attack or blemish affecting the quality of the fruit or vegetable. The only substances that may be added are fruit, vegetable, their pulp, juice, dried fruit, sugar, spices, salt, vingar, acetic acid, citric acid, malic acid, onion, garlic, flavouring material and permitted preservatives. It shall be free from colouring matter and edible starches.

12.7.48.- "Soyabean Sauce" shall be the product derived from any suitable variety of sound and wholesome soyabean free from insect or fungal or any other blemish affecting the quality of soyabean. The only substance that may be added are spices, salt, sugar, vinegar, acetic acid, onion, garlic, wheat molasses and permitted preservatives. It shall not contain any other fruit or vegetable substance. It shall show no sign of fermentation when incubated at 28-30°C and 37°C for three days. It shall be free from starch and any added colouring matter except caramel.

(a)	Total soluble solids.	Not less than 25 per cent
(b)	Acidity (as acetic acid)	Not less than 0.6 per cent.
(c)	Mould count.	Not more than 40 per cent Of the fields examined
(d)	Yeast spores.	Not more than 125 per 1/60 cm m
(e)	Bacterial count.	Not more than 100 million Per c.c.

12.7.49.- "Spices Based Sauce" like chillies sauce shall be the product derived from any suitable variety of spices or condiments, singly or in combination. Such spices shall be wholesome and practically free from fungal or insect attack. The only substance that may be added are, spices-fresh or dried, vinegar, acetic acid, citric acid, fumaric acid, onion, garlic, flavouring agents, permitted preservatives, permitted stabilizers and emulsifiers. It shall be free from edible starches and added colouring matter except caramel. It may also contain small quantities of vegetable, fruit pulp or juice. It shall conform to the following standards.

(a)	Total soluble solids.	Not less than 15 per cent.
(b)	Acidity (as acetic acid)	Not less than 1 per cent.

12.7.50.- "Tomato Sauce" or Tomato Ketchup or Tomato Catsup or Tomato Relish or any other expression conveying the meaning that the product so designated is a form of a tomato sauce, means the product derived from sound, fresh and fully ripe and red tomatoes free from insect or fungal attack, with or without sugar, salt vinegar, acetic acid, onions, spices or condiments, citric acid, ascorbic acid and permitted preservatives and shall also be free from added colouring matter, edible starches, skins, seeds, stems**.** The product shall show no sign of fermentation when incubated at 37°C for seven days and the Howard mould count shall not exceed 50 per cent of the total field examined. It shall conform to the following standard: -

(a)	Total soluble solids.	Not less than 25 percent.
(b)	Acidity (as acetic acid)	Not less than 1.2 percent.
(c)	It shall be free from fruit or vegetables other than tomatoes and shall contain not less than 8 percent of tomato solids derived from tomatoes.	

12.8 MEAT AND MEAT PRODUCT

12.8.1- "Meat or fresh meat", means the edible part of the skeletal muscle of a Halal animal, other than fish, that is normally used for human consumption and that was healthy at the time of slaughter and shall be slaughtered in accordance with Islamic injunction. It may contain accompanying and overlying fat together with portions of bone, skin, sinew, nerve and blood vessels that normally accompany the muscle tissue and are not separated from it in the process of dressing. For the purposes of these rules, lean meat shall be meat from which the overlying fat has been removed. It shall not contain more than 10 per cent of total fat and 75 percent water.

12.8.2.- Chilled meat means the meat that has been maintained in a wholesome condition at a temperature between minus 1°C to 10°C and includes frozen meat that has been thawed at a temperature of not more than 5 °C.

12.8.3.- Frozen meat, means meat that for one continuous period from the time of preparation for sale has been maintained at a temperature below minus 18°C and shall

not have been thawed before sale. The temperature of frozen meat at any time does not exceed minus 12^0 C.

12.8.4- Minced meat or ground meat, means the fresh, chilled, or frozen meat that has been disintegrated by mincing or chopping. It shall not contain meat of different animal origin and fat not more than 10 percent.

12.8.5.- Meat Product, means the product prepared from meat

12.8.6- Meat or meat product shall not contain estrogen residue (growth hormones). No meat or meat product shall contain residue of the following compounds.

(a) Diethylstilbestrol [3,4-bis (p-hydroxyphen)-3-hexene];

(b) Hexoestrol [3, 4-bis (p-hydroxyphenyl)-n-hexane];

(c) Dienoestrol [3, 4-bis (p-hydroxyphenyl)-2, 4-hexadiene]

12.8.7.- "Meat paste", means paste, which includes meat spread, prepared from Halal meat, cooked or uncooked, with or without other food. It shall be readily spreadable product with a meat content of not less than 70 per cent in the form of finely divided meat and not less than 60 per cent of the meat content shall be lean meat. It shall be free from every particle of bone, gristle, grittiness, objectionable flavour, pathogenic microorganism or bacterial toxins or any harmful substance and shall be pleasant in taste and smell. It shall conform to the following standards.

(a)	Protein	Not less than 18 per cent
(b)	Fat	Not more than 12.5 per cent
(c)	Ash	Not more than 2.5 per cent

12.8.8- Sausages mean the products, which are cooked ground, chopped or comminuted meat with seasoning or cured and formed. Meat shall be fresh and obtained from healthy Halal animals. It shall be free from clots, bone, skin, gristle, serous membranes, coarse connective tissue, pathogenic organisms, bacterial toxins and any harmful substance. It shall be stuffed in natural / artificial casing. It shall contain not less than 60 per cent of meat content to be lean meat and shall also conform to the following standards: -

(d)	Moisture	Not more than 4 times the percentage of protein
(e)	Protein	Not less than 18 per cent
(f)	Fat	Not more than 12.0 per cent
(g)	Ash	Not more than 2.5 per cent

12.8.9.- "Meat with other food" means the product prepared from meat with other food with or without vegetables, cereals, edible fat/oils, seasoning, spices, salt etc. Without soup it shall conform to the following standards: -

(e) Meat	Not less than 35 per cent
(f) Fat	Not more than 12.5 per cent

12.8.10.- "Shami Kabab" means a product prepared from meat with gram flour and with or without seasoning, spices, salt and coated with egg paste and fried with edible fat/oil. It shall contain not less than 50 per cent of meat.

12.8.11.- Kabab, Seekh Kabab, Qeema Tikki, Qeema Ki Tikki means a product prepared from meat with seasoning, spices, salt, edible fats/oil. The meat used shall be free from gristle, bone, skin, clots, and serous membrane, coarse, connective tissue. It shall contain not less than 70 per cent in the form of finely divided meat and not less than 60 per cent of the meat content shall be lean meat. It shall conform to the following standards: -

(h)	Protein	Not less than 18 per cent
(i)	Fat	Not more than 12.5 per cent

12.8.12.- "Burger, chicken Burger, Mutton Burger, Beef Burger, fish Burger" means the minced meat product comprising a minimum of 80 per cent meat with or without the addition of cereal, spices, salt, herbs, sugar, vinegar, sodium caseinate or other foodstuffs made into a flat shape, fried and sandwiched with bread roll. The weight of bread shall not be more than the weight of burger. Burger shall contain not less than 18 per cent protein.

12.8.13.- Meat extracts, meat essences and meat juices means the product obtained by extracting fresh meat with boiling water and concentrating the liquid by evaporation after removal of the fat. It shall conform to the following standards: -

(j)	Total solid matter.	Not less than 75 per cent

(k)	Sodium chloride.	Not more than 12 per cent.
(l)	Fat	Not less than 0.6 per cent
(m)	Nitrogen.	Not less than 8 per cent.
(n)	Nitrogenous compounds.	Not less than 40 per cent.

12.8.14.- "Hunter Beef" means a product prepared from a clean, wholesome beef meat obtained from a healthy animal free from disease and sickness. It shall be properly cured with sodium chloride, vinegar or lime/lemon juice and with or without curing mixture (sodium nitrite, sodium nitrate) and baked to give it an acceptable texture. It shall be free from pathogenic organisms, bacterial toxins and any deleterious substance. It shall conform to the following standards: -

(o)	Moisture.	Not more than 15 per cent
(p)	Protein.	Not less than 35 per cent
(q)	Fat.	Not more than 10 per cent.
(r)	Sodium chloride.	Not more than 5 per cent
(s)	Lead.	Not more than 2 mg/ Kg.

12.8.15.- Meat cubes (Chicken, Mutton, beef) means a product prepared from hydrolysed protein, meat stock, flour, yeast extract, caramel, salt, meat extract, meat fat, desiccated meat, spices and seasoning and other flavouring .It shall conform to the following standards: -

(t)	Moisture.	Not more than 5.0 per cent
(u)	Nitrogen	Not less than 5.0 per cent
(v)	Ash.	Not more than 32 per cent.
(w)	Salt	Not more than 27 per cent
(x)	Fat.	3 –6 per cent

12.8.16.- Canned meat shall be prepared from the meat of Halal healthy animals free from disease and sickness, slaughtered in accordance with the Islamic Injunction. The canned meat shall consist of meat, with its accompanying and portions of its overlying fat, in moderately sized pieces free from portions of head, neck, skin, shin, hock, blood bone, skirt, sinew, hard gristle, glands and viscera etc. It shall be packed in clean containers that are processed and hermetically sealed by heat to ensure preservation. It may contain water, salts, condiments, spices and permitted preservatives, flavouring substances. A can shall contain lean meat of one kind of animal only and not less than 90 per cent meat.

12.8.17.- Meat canned with other food" means the meat product prepared from meat of Halal healthy animals free from disease and sickness, slaughtered in accordance with the Islamic Injunctions, with other food, and processed. The meat used shall consist of fresh skeletal muscle of animals with its accompanying and portions of its overlying fat, in moderately sized pieces free from portions of head, neck, skin, shin, hock, blood, bone skirt, sinew, hard gristle, glands and viscera etc. It shall be packed in clean containers that are hermetically sealed and processed by heat to ensure preservation. It may contain permitted preservatives and flavouring substances. It shall contain lean meat of one kind animal only and not less than 40 per cent of meat.

There shall be written on the label of a package containing canned meat with other food the words "meat with (state the name of other food)" or any other word or words having the same or a similar effect.

12.8.18.- Particular labelling requirements of meat and meat products. There shall be written on the label of a package containing meat and meat product, in not less than 10 point lettering—

"The common name of the kind of meat from which its content has been prepared"

12.8.19.- Fish shall be any edible and wholesome part of any marine or fresh water Halal animal other than a mammal that is commonly used for human consumption.

12.8.20.- Chilled fish shall be fish, which has been maintained in a wholesome condition at a temperature between minus 1°C to 10°C and includes frozen fish that has been thawed at a temperature of not more than 5°C.

12.8.21- Frozen fish shall be the fish that for one continuous period has been maintained in a wholesome condition at a temperature below minus 18°C and that has not been thawed before use.

12.8.22.- **Fish product** shall be any product prepared from fish and includes the food for which a standard is prescribed in these rules.

12.8.23.- **Cured, pickled fish** shall be fish product prepared from cooked or uncooked fish that has been treated with salt, sugar, vinegar or spices. It may contain permitted flavour enhancer and ascorbic acid, sodium ascorbate, isoascorbate, isoascorbic acid or sodium isoascorbate as permitted food conditioner.

12.8.24.- **Smoked fish** shall be fish product that is prepared from cured, pickled or salted fish that has been maintained in a wholesome condition, with or without the addition of salt and subjected to the action of smoke derived from wood that is free from paint or timber preservative and / or treated with permitted synthetic smoke preparations.

12.8.25.- **Fish, Dried, Unsalted or Salted**; the following requirements shall be fulfilled: -

(i) The fish shall be supplied in such species, forms, types and varieties which are Halal and fit for human consumption.

(ii) The fish shall be supplied, filleted, split, chunked or in such other form as may be required by the purchaser.

(iii) All fish in these standards shall be cured, dried, handled and delivered under sanitary conditions, in accordance with good commercial practice.

(iv) All fish in these standards shall be sound, wholesome and in every way fit for human consumption.

(v) All fish in these standards shall be properly processed and thoroughly washed before curing.

(vi) Unless otherwise specified by the purchaser the dried fish shall be good quality.

(vii) No colouring matter shall be used and no method of presentation and publicity concerning the material shall be made in a manner likely to mislead the purchaser or consumer as to the true nature of composition of the material as a whole.

(viii) Salt used for salting purposes shall conform to the standard of common salt prescribed in these rules.

(ix) The product shall conform to the following specifications:-

(a) Moisture and volatile matter. Not more than 5 percent

(b) Acid insolable ash Not more than 2.5 percent

(c) Salt (as NaCI) in case of salted product not more than 15 percent

12.8.26.- **Prepared fish** shall be fish product prepared from fish or cured, pickled, salted or smoked fish, whether whole or comminuted, cooked or uncooked and may be canned. Prepared fish also includes dried prepared fish.

Prepared fish may contain flavour enhancer and permitted food conditioner.

12.8.27.- **"Dried prepared fish"** shall be fish product prepared by drying fish that has been treated with or without addition of other foods. It shall be dried under natural / artificially induced conditions.

12.8.28.- **Canned fish** shall be fish or prepared fish packed in clean containers that are hermetically sealed and processed by heat to ensure preservation. It may contain condiments, water, brine, sauce and edible oils.

Canned fish shall contain not less than 55 per cent of fish.

12.8.29.- **Fish paste** shall be a paste prepared from one or more kinds of fish, with or without other wholesome foodstuffs and condiments. It shall be clean, wholesome and free from extraneous matter. It shall contain not less than 70 per cent of fish

12.8.30.- **Fried Fish/Fried fish coated with gram flour,** means the fish free from fins, head, neck, viscera, extraneous matter and fried in edible frying vegetable oil except palm oil, palmolein. In the case of coated with gram flour paste (basin) the fish shall be not less than 85 per cent.

12.8.31.- **Fish sauce** shall be the fish product in the form of liquid prepared from fresh fish, other than shell-fish, with salt fermentation.

(a) It shall contain not less than

(i) 15 per cent of salt; and

(ii) Not less than 5 per cent of protein;

(b) May contain other food; and

(c) Shall be clean and wholesome and shall not contain other extraneous matter.

Fish sauce may contain permitted preservative, caramel as a colouring substance and permitted flavour enhancer.

12.9 WATER

12.9.1.- "Use of Water, Ice, Steam" (1) Water shall be clean and free from contamination, objectionable taste and odour, sediments, and shall conform to the maximum permissible limits for drinking water prescribed by PSQCA Drinking Water Standard and Codex Alimentarious.

(2) In these rules any reference to potable water shall be taken to be a reference to "water as specified in sub-rule (1).

(3) Ice and steam shall be the product derived from water that conforms to the standard for water prescribed in sub-rule (1).

12.9.2.- "Bottled Water or Packaged Drinking Water": - Bottled water, packaged drinking water shall be potable water or treated potable water, other than natural mineral water that is hermetically sealed in bottles or other containers with no added ingredients and is intended for human consumption. It shall conform to the following standards:-

Standard for Water, Bottled Water and Packaged Drinking Water

1 Physical Standard:

Physical properties	**Maximum permitted proportion**
Colour.	5 NTU
Turbidity (Nephelometric turbidity unit)	0.5
Odour	Unobjectionable
Taste	Unobjectionable

2 Chemical Standard:

(a) pH — 6.5 to 8.5

(b) Chemicals

Chemicals	**Maximum permitted proportion in milligram per litre (mg / L)**
Total dissolved solids (TDS)	500
Aluminium (as Al)	0.2
Ammonia (as NH_3)	0.5
Antimony	0.005
Arsenic (as As)	0.01
Barium	0.7
Cadmium (as Cd)	0.003
Chloride (as Cl)	250
Chromium (as Cr)	0.05
Copper (as Cu)	1.0
Cyanide (as CN)	0.07
Fluoride (as F)	0.7
Iron (as Fe)	0.3
Lead (as Pb)	0.01
Calcium	100
Magnesium	50
Manganese (as Mn)	0.05
Mercury (as Hg)	0.001
Nitrate (as NO_3)	10
Potassium	10
Residual chlorine (Free)	0.1
Selenium (Se)	0.01

Silver (as Ag)	0.1
Sodium (as Na)	50
Sulphate (as SO_4)	250
Zinc (as Zn)	3.0

(c) Pesticides.

Pesticides	Maximum permitted proportion in milligram per litre (mg / L)
Aldrin / Dieldrin	0.002
Chlordane	0.002
2,4-Dichlorophenoxy acetic acid	0.07
Heptachlor and	0.0004
Heptachlor Epoxide Heptachlorobenzene	0.0002
Lindane	0.0002
Methoxychlor	0.04
Carbon tetrachloride	0.002
Dichloromethane	0.003
P-dichlorobenzene	0.02
1,2 dichloroethene	0.02
Cis1,2 dichloroethlene	0.07
Trans-1,2 dichloroeathylene	0.1
1,2-dichloropropane	0.005
Ethylbenze	0.3
Monochlorobenze	0.05
Styrene	0.1
Tetrachloroethylene	0.001
Trichloroethylene	0.001
Toluene	1.0
1,1-1trichloroethane	0.03
1,1-2.2 Tetrachloroethane	0.04
Vinyl chloride	0.002
Xylenes	1.0
Alachlor	0.002
Aldicarb	0.003
Atrazin	0.003
Carbofuran	0.04
1,2 dibromo-3 chloropropane	0.001
2,4-dichlorophenoxy acetic acid	0.07
Pentachlorophenol	0.001
Simazine	0.004
2,4,5-TP	0.01
Di (2-ethryloxy) adipate	0.08
Di (2-ethylexy) Phthalate	0.006
Total Trichlorobenzenes	0.009
Hexa Chlorobenzenes	0.001
Diquat	0.02

(d) Bacteriological Standard:

Coliform Organism	Shall be zero per 250ml
Escherichia coli	Shall be zero per 250ml.
Faecal Streptococci.	Shall be zero in 250ml
Pseudomonas	Shall be zero in 250ml

aeruginosa.

Note: The sample collected after 12 hours of bottling will not be applicable for total plate count analysis (TPC)

(e) Radioactivity.

Gross α	0.1Bq/L
Gross β	1Bq/L

There shall be written on the label of a package containing drinking water__

(a) The words “Bottled Drinking Water” or “Bottled Water” and

(b) The name of water that, after treatment and possible replacement of carbon dioxide.

12.9.3.- “Natural Mineral Water” shall be ground water which is obtained for human consumption from subterrean water bearing strata through spring, well, bore or other exit, with or without the addition of carbon dioxide.

(1). Natural mineral water shall be---

(a) Obtained directly from the point of natural emergence or artificial abstraction of the water and collected under conditions which guarantee its original bacteriological purity and

(b) Packaged or container as close as may practicable to the point of emergence of the source in accordance with good hygienic practice.

(c) No person shall transport any natural mineral water in bulk for the purpose of processing or packaging.

(2). (a) Natural mineral water may only be subjected to one or more of the following treatments;

i) Separation from unstable constituents by decantation or filtration or by both decantation and filteration;

ii) Chlorination followed by dechlorination;

iii) Aeration;

iv) Deaeration;

v) Carbonation;

vi) Decarbonation;

vii) Ultraviolet sterilization;

viii) Ozone treatment;

ix) Pasteurization.

(b) Natural mineral water shall not contain any of the following contaminants;

(i). Phenolic compounds;

(ii). Surface active agents;

(iii). Pesticides and polychlorinated biphenyls;

(iv). Mineral oil;

(v). Polynuclear aromatic hydrocarbons.

(c) No natural mineral water shall be fortified or enriched.

3. It shall conform to the following standards:-

a. Chemical Standard:

Chemicals	**Maximum permitted proportion in milligram per litre (mg/L)**
Arsenic	0.01
Antimony (Sb)	0.005
Barium	1.0
Borate (calculated as H_3BO_3)	1
Cadmium	0.003
Copper	1.0
Chromium (Cr)	0.05
Cyanide (calculated as CN^-)	0.070
Fluoride (calculated as F^-)	1.5
Lead	0.010

Manganese	0.500
Mercury	0.001
Nitrate (calculated as NO_3^-)	10.0
Nitrites (calculated as NO_2^-)	0.020
Selenium	0.010
Sulphate	100

b. Bacteriological Standard:

Coliform Organism	Shall be zero per 250 ml
Escherichia Coli.	Shall be zero per 250 ml

(c) Radioactivity.

Gross α	0.1 Bq/l
Gross β	1Bq/l

(4). There shall be written on the label of a package containing natural mineral water—

(i). The words “natural mineral water” or where the product contains added carbon dioxide the words “carbonated natural mineral water”

(ii). If the total dissolved solids content of mineral water is below 500 mg/L or if it is greater than 1,500 mg / L, the statement “Low mineral content” or “High mineral content” immediately and conspicuously preceded or followed by the words “Natural Mineral Water” or “Carbonated Natural Mineral Water” as the case may be, without intervening written, printed, graphic matter, or any other device.

(iii). The amount of total dissolved solids present in mg/L

(iv). The name of the mineral contents present and the amount in mg/L in which each is present

(v). The pH value of the natural mineral water; and

(vi). The location of the source and the nature of the source.

12.10 MISCELLANEOUS ARTICLES

12.10.1.- “Salt, Common Salt, Edible Common Salt, Namak”, means a crystallized solid, white or pale, pink in colour free from visible contamination with clay, grit and other extraneous impurities. It shall conform to the following standards: -

(a) Matter insoluble in water w/w.	Not more than 0.5 percent
(b) Matter soluble in water other than sodium Chloride w/w	Not more other than 3.0 percent.
(c) Sodium Chloride w/w	Not less than 98 percent.

12.10.2.- “Iodised Salt” means a crystallized solid, white in colour free from visible contamination with clay, grit and other extraneous impurities. The following requirements shall be fulfilled: -

(a) 95 percent shall pass a 36-mesh sieve and 90 percent shall be retained on a 60-mesh sieve.

(b) The salt shall be white and 10 grams of salt in 100ml of water shall give a colourless solution, having a neutral reaction.

(c) For iodization of salt potassium iodide, potassium iodate and Calcium iodate shall be added and shall contain a stabilizer consisting of 0.1 percent sodium thiosulphate ($Na_2S_2O_3$) or other stabilizing agents, which are equally affective on preventing the loss of iodine.

(d) The table salt iodized or otherwise shall comply with the following chemical analysis

(i) Moisture	Not more than 0.2 percent
(ii) Chloride as (NaCl)	Not less than 98.0 percent
(iii) Matter insoluble in water	Not more than 0.25 percent
(iv) Iodine content at:	
(a) Manufactures’level (on dry weight basis)	Not more than 30 p.p.m
(b) Distribution channel	

including retail level.	Not less than 15 p.p.m
(v) Calcium (as ca)	Not more than 0.15 percent
(vi) Magnesium (as Mg)	Not more than 1.0 percent
(vii) Sulphate (as SO_4)	Not more than 1.0 percent
(viii) Carbonate (as CO_3)	Not more than 0.20 percent
(ix) Nitrate	Absent
(x) Other water soluble salts.	Not more than 1.0 percent
(xi) Copper	Not more than 1.5 p.p.m
(xii) Lead.	Not more than 1.5 p.p.m
(xiii) Arsenic (as As_2O_3)	Not more than 0.5 p.p.m

(e) The label on the package shall specify the license number of the manufacturer, date of manufacture and the caution to store the salt in covered container in a cool dry place after opening the package.

12.10.3.- "**Meetha Soda or Soda Bicarb**" means the white or crystalline powder free from visible contamination with clay, grit and other extraneous impurities and having a saline taste. It shall conform to the following standards:-

(a)	Sodium bicarbonate ($NaHCO_3$)	99 to 101 percent
(b)	Ash insoluble in Hydrochloric acid.	Not more than 0.5 percent
(c)	Water insoluble residue (Dried at 100^0C)	Not more than 25 percent

12.10.4.- "**Katha or Catechu (edible), Catechu nigrum**" means the dried aqueous extract prepared from the heartwood of *Acacia Catechu*, free from infestation, sand, earth or other dirt, and shall conform to the following standards**: -**

(a)	Test for identity	To 5 ml of a 1 percent solution in water add 1 ml of a 0.1 percent solution of ferric ammonium sulphate in water a dark green colour is produced. Make slightly alkaline with sodium hydroxide solution, the colour changes to purple.
(b)	Alcohol (90 Percent) Soluble extract.	Not less than 60 percent.
(c)	Ash	Not more than 6.0 percent
(d)	Loss on drying at 100^0C.	Not more than 15 percent.
(e)	Ash insoluble in HCl	Not more than 0.5 percent;
(f)	Water insoluble residue (dried at 100^0C)	Not more than 25 percent
(g)	Alcohol insoluble residue (dried at 100^0C)	Not more than 30 percent by weight.

12.10.5.- "**Edible Gelatine**"means the clean, wholesome protein obtained by extraction from collagenous material (skin, ligaments and bones) of healthy slaughtered halal animals. It shall be colourless, transparent, free from objectionable taste, and offensive odour, when dissolved in a warm 5 percent aqueous solution. It shall conform to the following standards: -

(a)	Moisture	Not more than 15 percent
(b)	Ash, in the air dried Product	Not more than 3.25 percent
(c)	Arsenic, lead, copper, zinc	Not more than the permitted tolerances.
(d)	Sulphur dioxide.	Not more than 1000 ppm

Gelatine meant for human consumption shall be labeled as "Gelatine Food Grade"

12.10.6.- **"Silver leaf (Chandi Ka Worq)**" shall be in the form of sheets, free from creases and folds and shall contain not less than 99.9 percent of silver.

12.10.7.- "**Groundnut Kernel (deshelled)"**for direct human consumption commonly known as moongphali are obtained from the plant *Arachis Hypogols*. It shall be free from extraneous matter such as stones, dirt, clay etc. It shall conform to the following standards:-

(a)	Moisture.	Not more than 7.0 percent
(b)	Damaged Kernel including Slightly damaged kernel	Not more than 5.0 percent
(c)	Aflatoxin content	Not more than 30 parts per billion.

12.10.8.- **"Ispaghul Husk"** means the epidermis and the collaspid adjacent layers removed from the dried ripe seeds of *plantago Orata*. It shall be free from dust, dirt, and any other extraneous matter including starch. It shall conform to the following standards: -

(a) Moisture — Not more than 12percent

(b) Ash. — Not more than 4.5 percent.

12.10.9.- **"Pan Masala**" means the food generally taken as such or in conjunction with pan. It may contain 'Betelnut, lime, coconut, catechu, saffron, cardamom, dry fruits, mulethi and other aromatic herbs and spices, sugar, glycerine, glucose, permitted natural colour, menthol and non prohibited flavours. It shall be free from added synthetic colour, artificial sweetener and any other ingredients injurious to health. It shall conform to the following standards:-

(a) Total ash (on dry basis) — Not more than 8.0 percent

(b) Ash insoluble in dilute HCl. — Not more than 0.5 percent.

12.10.10.- "**Artificial Sweetening agent**:

(a) Saccharin, (2 –Sulphobenzoic Imide)

It shall contain not less than 99 percent saccharin on a water free basis.

(b) Sodium saccharin (sodium salt of 2-sulphobenzoic Imide)

It shall contain not less than 99 percent and not more than 101 percent of anhydrous sodium saccharin on a water free basis.

Saccharin and sodium salt of saccharin shall be soluble at 20 ^{0}C in 1.5 parts water and 50 percent of alcohol (95 percent) and shall contain not more than 0.1 ppm of Arsenic and 0.5 ppm of lead. The melting point of saccharin shall be between 226^{0}C to 230^{0}C. The loss on dry at 105^{0}C shall not be less than 12.0 percent and not more than 16 percent.

The material shall satisfy the tests of identification and shall conform to the limit tests free from acids or alkali, ammonium compounds and parasulpa moylbenzoate.

(c) Aspertame (Aspartyl Phenyl Alamine Methyl Ester C_{12} H_{18} N_2 O_5) shall be material, which is slightly soluble in water and methanol. It shall contain not less than 98 percent and not more than 102 percent of Aspertame on dried basis. It shall contain not more than 0.1 ppm of Arsenic and 0.5ppm of lead. The loss on dry of the material at 105^{0}C for 4 hours shall not be more than 4.3 percent. The sulphated ash shall not be more than 0.2 percent. It shall contain more than 1 percent of diketo peperzine.

(d) Acesulfame Potassium: It shall contain not less than 99 percent and not more than 101 percent of acesulfame potassium on water free basis. Maximum permitted portion of Acesulfame Potassium to low energy soft drink shall be not more than 600 mg /Kg.

12.10.11.- **"Flavouring Essences or Extracts"**

(a) Almond essence, almond extract or almond flavour shall contain not less than 1percent by volume the hydrocyanic acid free volatile oil obtained from the kernels of the bitter almond.

(b) Ginger essence, ginger extract or ginger flavour shall contain in 100ml the alcohol-soluble matter from not less than 20g of ginger.

(c) Lemon essence, lemon extract or lemon flavour shall be prepared from natural or terpeneless oil of lemon or from lemon peel and shall contain not less than 0.2percent citral derived from oil of lemon.

(d) Lemon oil or oil of lemon shall be the volatile oil obtained from the fresh peel of the lemon (*Citrus limonum*, L.) and shall have—

(a) A specific gravity at 15.5 ^{0}C of not less than 0.854 and not more than 0.862;

(b)An optical rotation at 20 ^{0}C of not less than +56 degrees and not more than +65

degrees;

(c)A refractive index at 25 ^{0}C of not less than 1.470 and not more than 1.480; and

(d)Not less than 3.5 percent of aldehydes calculated as citral.

(d) Orange essence, orange extract or orange flavour shall be prepared from sweet orange peel, oil of sweet orange or terpeneless oil of sweet orange and shall correspond in flavouring strength to an alcoholic solution containing 5 percent by volume of oil of sweet orange, the volatile oil obtained from the fresh peel of *Citrus aurantium* L. that shall have an optical rotation, at 25 ^{0}C, of not less than +95 degrees using a tube 100mm in length.

(e) Peppermint essence, peppermint extract or peppermint flavour shall be prepared from peppermint or oil of peppermint obtained from the leaves and flowering tops of *Mentha piperita* L. or of *Mentha arvensis* De. C. , var. piperascens Holmes, and shall correspond in flavouring strength to an alcoholic solution of not less than 3 percent by volume of oil of peppermint, containing not less than 50percent free and combined menthol.

(f) Rose essence, rose extract or rose flavour shall contain not less than 0.4 percent by volume attar of rose, the volatile oil obtained from the petals of *Rosa damascena* Mill, *R. centifolia* L. or *R. moschata* Herrm.

(g) Vanilla essence, vanilla extract or vanilla flavour shall be prepared from the vanilla bean, the dried, cured fruit of *Vanilla planifolia*, Andrews. It shall yield a lead number of not less than 0.55 as determined by Wichman's method and shall contain not less than 0.1 percent vanillin. It shall not contain any foreign substance except sugar and shall not contain less than 2.1g total solids other than sugar in 100ml.

(h) Flavouring essence shall comply with rule 7.

12.10.12.- **"Canned food for infants and Children"** (1) Canned food for infants and children shall be any wholesome food or mixtures of wholesome food that is sold as suitable for feeding to infants or specifically suitable for feeding to children.

(2) For the purposes of these rules, canned food for infants and children does not include cereal-based food for infants and children or infant formula.

(3) Canned food for infants and children in ready-to-eat form—

(a) Shall be processed by heat before or after being packed in a hermetically sealed can, jar or other container so as to prevent spoilage;

(b) Shall be homogenous or comminuted in the following forms:

(i) Strained food of a fairly uniform, small particle size which does not require chewing before being swallowed; or

(ii) Non-strained food that ordinarily contain particles of a size to encourage chewing by infants and children; and

(c) May contain sodium and the total sodium content of the product shall not exceed 1g/Kg calculated on the ready-to-eat basis in accordance with the direction for use.

(4) Canned food for infants and children dry or concentrated form—

(a) Shall be processed by physical means and packed in a hermetically sealed can, jar or other container so as to prevent spoilage;

(b) Shall, after preparation in accordance with the direction on the label, have the consistency of strained or non-strained food as specified in paragraph (B) of (3); and

(c) May contain sodium and the total sodium content of the product shall not exceed 1g/Kg calculated on the ready-to-eat basis in accordance with the direction for use.

(5) Notwithstanding paragraph (c) of (3) and paragraph (c) of (4), the addition of salt to fruit product and dessert product based on fruit shall be prohibited.

(6) Canned food for infants and children shall contain the nutrient specified in column (1) of Table I given below in amounts of not less than the amount specified in column

(2) and not more than the amount, where prescribed, specified in column (3) of that Table opposite and in relation to that food.

(7) Canned food for infants and children may contain the food additives specified in column (1) of the Table II given below in proportions not greater than the maximum permitted proportion specified opposite thereto in column (2) of the said Table.

(8) Canned food for infants and children or the ingredients used in making the product shall not have been treated by ionizing radiation.

(9) Where canned food is claimed to be canned food for infants and children, there shall be written on the label of a package of such food, in not less than 10 point lettering, the word "STRAINED" or "NON-STRAINED", as the case may be, immediately

followed by the name of the food. No other word or words shall appear on the same line.

(10) There shall be written on the label of a package containing canned food for infants and children—

(a) In not less than 10 point lettering, the words “NOT TO BE GIVEN TO INFANTS BELOW 4 MONTH OF AGE”;

(b) In not less than 4 point lettering—

The amount of energy, express in kilocalorie (Kcal) or Kilojoule (Kj) or both and the amount of protein, carbohydrate, fat, vitamin and mineral content per 100gram of the food as sold and as specified quantity of the food as suggested for consumption;

(c) The direction for the preparation and use of the food and instruction on its storage before and after the package has been opened; and

(d) A statement that canned food for infants and children shall not be fed through bottle or any other word of similar meaning.

(11) The particulars that are required by paragraph (c) of (10) may be written in the accompanying leaflet.

TABLE I

NUTRIENT LEVELS FOR CANNED FOOD FOR INFANTS AND CHILDREN

1	2	3
Nutrient.	**Not less than amount.**	**Not more than amount.**
Vitamin A (expressed as retinal)	255 I.U	500 I.U.
Vitamin D	40 I.U	80 I.U.
Vitamin B_1 (Thiamine)	25 µg	Not prescribed
Vitamin B_2 (Riboflavin)	60 µg	Not prescribed
Vitamin B_6	35 µg	Not prescribed
Vitamin B_{12}	0.15 µg	Not prescribed.
Vitamin C (Ascorbic acid)	8 mg	Not prescribed.
Vitamin E	0.3 I.U.	Not prescribed.
Folic acid	4 µg	Not prescribed.
Nicotinamide	0.8 µg	Not prescribed.
Pantothenic acid	300 µg	Not prescribed.
Calcium (Ca)	50 mg	Not prescribed.
Phosphorus (P)	25 mg	Not prescribed.
Iron (Fe)	1 µg	Not prescribed.
Iodine	5 µg	Not prescribed.

NOTE:

(i) Where the maximum amount of the nutrient is not prescribed, the total daily intake of the nutrient arising from its uses in accordance with good manufacturing practice, does not present a hazard to health.

(ii) The Ca:P ratio shall be not less than 1.2 and not more than 2.0.

Table II

Food additive.	Maximum level in 100g of **The ready – to- eat product.**
1. Emulsifiers.	
Lecithin	0.5g
Mono and diglycerides of edible fat and edible oil	0.15g
2. Thickners:	
Locust bean gum.	0.2g

Distarch phosphate acetylated distarch phosphate}

Phosphated distarch phosphate. 0.6g singly or in combinaton

3. Acidulants, Alkalis And Buffers:

Sodium hydrogen carbonate	Limited by good manufacturing Practice
Sodium carbonate	within the limit of Na Specified in (3) of 12.10.302
Potassium hydrogen carbonate.	Limited by goodmanufacturing Practice
Calcium carbonate.	
Lactic acid.	0.2g
Citric acid and Na salt	0.5g and within the limit for Na specified in (3) of 12.10.302.
Acetic acid.	0.5g.

4. Antioxidants:

Tocopherol.	0.03 g/100g fat, singly or incombination.
L-Ascorbyl palmitate.	0.02g/100g fat.
L-Ascorbic acid and its Ascorbic acid	0.05g/100g fat, expresse asNa and K salts within the Limit of Na specified in (3) of 12.10.302

5. Flavouring Substances

Vanillin extract.	Limited by good manufacturing practice.
Ethyl vanillin	7mg.
Vanillin.	7mg

12.10.13.- "Low Energy Food/ Low Calorie Food" shall be special purpose food that is particularly suitable for persons adopting a restricted energy diet.

(a) Where any specified food is prepared in the form of Low energy food, the low energy food so prepared shall comply with the standard for that specified food as prescribed in these rules, except that such low energy food shall not have a total energy value exceeding those prescribed in the Table and may contain permitted non-nutritive sweetening substance and aspartame.

(b) The low energy food of the type specified in column (1) of the Table shall not have a total energy value exceeding those specified in relation thereto in column (2) of the said Table.

(c) There shall be written on the label of a package containing low energy food—

(i) In not less than 10 point lettering, the words "low energy food"; and

(ii) In not less than 4 point lettering—

(a) The total weights and the separate percentages of carbohydrate, protein and fat in the package;

(b) The total energy value in the package or the total energy in each 100ml or 100gram, as the case may be.

(c) On the label of any food to which this rule applies, there shall be an indication that a diet of low energy food requires the supervision of a physician.

TABLE	
MAXIMUM TOTAL ENERGY VALUE OF LOW ENERGY FOOD.	
1	**2**
Type of Food.	**Maximum Total Energy Value.**

Beverage (ready for consumption)	33Kj (8Kcal) per 100ml
Marmalade, Jam, bread spread	418Kj (100Kcal) per 100g.
Table confection (ready for consumption)	58Kj (14Kcal) per 100g
All other food.	209Kj (50Kcal) per 100g.

12.10.14.- "Formula Dietary Food" shall be food that is described on the label of a package containing that food as being suitable as a complete diet when consumed in accordance with the directions contained in the label. It shall contain, in quantity stated on the label as the quantity to be consumed in one day, not more than the amount of nutrient supplements specified Table given below.

(a) Formula dietary food may contain permitted nutrient supplement and permitted food conditioner.

(b) There shall be written on the label of a package containing formula dietary food—

(i) In not less than 10 point lettering, the words "formula dietary food; and

(ii) A statement of the energy yield, expressed in Kilocalorie (Kcal) or Kilojoule (Kj) or both of that quantity of the food; and

(iii) The proportion of protein, fat and carbohydrate in the food.

TABLE

For preparation containing nutrient supplement to be sold as food, such preparation shall not contain any of the nutrient supplement specified in column (1) of the Table given below in excess of the amount specified opposite thereto in column (2) of the said Table.

TABLE.

1	2
Nutrient Supplement	**Maximum Amount Permitted Daily.**
Vitamin A	5,000 I.U.
Vitamin D	800I.U.
Vitamin C (Ascorbic acid)	100mg.
Vitamin B_1 (Thiamine)	2.2mg.
Vitamin B_2 (Riboflavin)	3.2mg
Vitamin B_{12}	3µg.
Folic acid.	400µg.
Pyridoxine.	4mg.
Biotin.	400µg.
Niacin	14mg.
Calcium	1.4grams
Iodine	200µg.
Iron	2.0mg.
Phosphorus.	1.4 grams.

12.10.15.- "Meal replacement for weight Control, food/diet for weight Control (slimming or weight reducing and similar products)

(a) Formula foods for use in weight control diets are foods which, when presented as "ready to serve" or when prepared in conformity with the directions for use, are presented as a replacement for all or part of the total daily diet. It shall be prepared from protein constituents of halal healthy animals and / or plants proved suitable for human consumption and from other suitable ingredients to achieve the essential composition of food. This formula does not apply to prepacked meals controlled in energy and presented in the form of conventional foods. The product shall be free from pathogenic microorganisms, bacterial toxins, deleterious substances, pesticide residues, antibiotic residues and residues of hormones (estrogen).

(b) The formula shall provide not less than 800Kcal (3350Kj) and not more than 1200 Kcal (5020Kj) as a replacement for all meals of daily diet; and shall provide not less than 200 Kcal(835Kj) and not more than 400Kcal(1670Kj) per meal if formula presented as a replacement for one or more meals of the daily diet.

(c) The total amount of protein shall not exceed 125g per day. A minimum of 25 percent and a maximum of 50 percent of the energy available from the food when ready to serve, shall be derived from its protein contents. The protein added shall be of egg or milk protein. L-forms of amino acids may be added to improve protein quality.

(d) Energy available from the fat shall be less than 30 percent including not less than 3 percent of the energy available from linoleic acid.

The product shall contain not less than the amount of vitamins and minerals in the daily intake as given below.

Vitamin A.	…….600µg retinal equivalents.
Vitamin B1(Thiamine)	…….0.8mg
Vitamin B2.(Riboflavin)	…….1.2mg
Vitamin B6	……..2mg.
Vitamin B12	……..1 µg
Vitamin C	…….30mg.
Vitamin D	…….2.5 µg.
Vitamin E	…….10mg.
Niacin.	…….11mg.
Folate.	…….200 µg
Calcium.	…….500mg.
Phosphorus.	…….500mg.
Iron.	…….16mg.
Iodine.	……..140 µg
Magnesium.	…….350mg
Copper.	…….1.5mg.
Zinc.	……. 6mg.
Potassium.	……. 1.6grams
Sodium.	…….1.0gram.

(e) For a formula food represented as a replacement for a single meal, the amount of vitamins and minerals shall be reduced below the amounts given above to provide a minimum of 33 percent or 25 percent of these amounts, depending on whether the recommended number of serving per day is 3 or 4 respectively.

(f) The nutritive value shall be declared on the labels per 100grams or 100ml of food as sold and where appropriate, per specified quantity of the food as suggested for consumption. The information regarding per serving only as quantified on the label or per portion may also be given on the label provided that the number of servings or portions contained in the package is stated.

(i) If the direction for use indicates that the food should be combined with other ingredient(s), the nutritive value of the final combination may be provided on the label in addition to the declaration already given.

(ii) Any special condition for the storage of food shall be declared on the label if the validity of the day depends thereon. Storage instructions of the opened packages of the food shall be included on the label to ensure that the opened food maintained its wholesomeness and nutritive value. A warning should be included on the label if the food is not capable of being stored after opening or is not capable of being stored in the container after opening.

(iii) The label or labeling shall carry a statement to the effect that the food may be useful in weight control only as part of an energy controlled diet. In the case of

products represented as replacements of the total daily diet, the label shall contain a prominent statement recommending that, if the food is used for more than six weeks, medical advice should be sought.

(iv) The label shall carry statement to the effect that the food may be useful in weight control only as part of energy controlled diet.

12.10.16.- " Package For Food" Except as otherwise provided in these rules, no person shall import, manufacture, advertise for sale or sell or use or cause or permit to be used in the preparation packaging, storage, delivery or exposure of food for sale, any package, appliance container or vessel which yields or could yield to its contents any toxic injurious or tainting substance or which contributes to the deterioration of the food.

(i) No person shall import, manufacture, advertise for sale or sell any package, appliance, container or vessel made of enamel or glazed earthenware that is intended for use in the preparation, packaging, storage, delivery or exposure of food for sale and is either capable of imparting lead, antimony, arsenic, cadmium or any other toxic substance to any food prepared, packed, stored, delivered or exposed in it or is not resistant to acid unless the package, appliance, container or vessel satisfies the test described below:-

(a) **Test for packages, appliances, containers and vessels used for storage of food.**

Preparation: The surface of the ware to be tested shall be washed in water containing detergent and rinsed with clean water. The surface to be tested shall not be handled thereafter.

All remnants of water shall be removed from the washed ware by rinsing it with leaching solution that comprised. 4 percent of acetic acid in water v/v.

Test: The ware shall then be filled with the leaching solution at room temperature to the maximum capacity of the ware.

The ware shall be covered to minimize contamination and shall be left at room temperature for 24 hours.

After the period of 24 hours, the leaching solution shall be thoroughly stirred and a portion shall be removed for analysis.

The leachate shall not contain antimony, arsenic, cadmium or lead above the following limits, expressed in ppm.

Sb.	As	Cd	Pb
0.2	0.2	0.2	2.0

(b) **Test for packages, appliances, containers and vessels used for cooking.**

(1) **Preparation.**

As in (a) above.

(2) **Test:** The ware shall be heated to 120 ^{0}C and filled to two thirds of its effective volume with boiling leaching solution (4 percent of acetic acid in water v/v). The vessels shall be covered, by its own lid, if any and the leaching solution shall be kept boiling gently for 2 hours. leaching solution shall be added periodically to ensure that the area of contact is not diminished. The vessel shall then be left at room temperature for 22 hours.

After 22 hours, the volume of the leaching solution shall be restored to two-third of the effective volume of the vessel. After thorough stirring, a portion of the leaching solution shall be removed for analysis.

The leachate shall not contain antimony, arsenic, cadmium or lead above the following limits, expressed in ppm

Sb	As	Cd	Pb
0.7	0.7	0.7	7.0

12.10.17.- "Food not elsewhere standardized"

(1) Food not elsewhere standardized shall be food for which a standard has not been otherwise expressly prescribed by these rules.

(2) Food not elsewhere standardized may contain permitted nutrient supplement, permitted food additives.

(3) Food not elsewhere standardized shall not contain permitted non-nutritive sweetening substance.

(4) There shall not be written on the label of a package containing food not elsewhere standardized or in an advertisement relating to that food any word or expression that compares a nutritional property or the ingredients of a food not elsewhere standardized with those of another food.

(5) Food not elsewhere standardized shall not be described or presented in such manner or by such name or pictorial or other representation or device as is suggestive of another article of food which it is intended to be an imitation or substitute or which it resembles.

(6) The word “food not elsewhere standardized” shall not appear on the label of any package containing food not elsewhere standardized.

12.10.18.- “Prohibition of sale of fake / spurious food products”

No one shall manufacture, sell, stock, distribute or exhibit for sale any package of food that:

a) Contain the brand name of any other manufactured wholly or partly.

b) Which has resemblance of emblem / monogram to any other manufacturer wholly or partly.

c) Whose product name resemble to that of any other manufacturer wholly or partly.

d) Whose package design and background color (if registered) resembles to that of any other manufacturer fully or partly.

12.10.19

FORMS:

FORM –1

(See rule 43)

(b.)TO _____

_____

Where (name of article of food)

_____

intended for food which is in your possession appears to me to be unsound.Now, therefore, under section 17(a) of the Punjab Pure Food Ordinance, 1960, I hereby direct you to keep in your safe custody the said sealed stock subject to such orders as may be issued subsequently in relation thereto.

INSPECTOR

Area. _____

Place_____

Date _____

Signature of addressee in token of having received the above notice_____

FORM 2

(See Rule 44)

The stock of articles of food detailed below has this day been seized by me under the provisions of section 17(3) of the Punjab Pure Food Ordinance, 1960, from the premises of _____ situated at _____

Place_____
Date _____

INSPECTOR

Area _____

FORM –3
(See rule 44)

(c)TO _____

_____

I have this day taken from the premises of _____ situated at _____sample of the food specified below

To have the same analysed by the Public Analyst

Details of food.

Place_____
Date _____

INSPECTOR
Area. _____

FORM 4

(See rule 3)

FORM OF WARRANTY

Invoice No._____ Place _____

From _____

Date_____

To,_____

Date of	Name of qualify of article	Quantity	Price

I / we hereby certify that food / foods mentioned in this invoice is / are warranted to be the same in nature, substance and quality as that demanded by the vendor.

Signature of trader / traders.

FORM 5

[See rule 47(2)]

To

The Public Analyst _____ Place _____

NO. _____

Date. _____

Sir,

I herewith submit the following sealed samples for analysis and report under section 18 of the Punjab Pure Food Ordinance, 1960.

Serial No.	Article asked (for name)	Price paid.	Date	Time	Vendor's name and address	Place of collection	Licence No warranty, NID Card.No	Nature of Preservative if any added to sample	REMARKS
1	2	3	4	5	6	7	8	9	10

Sender _____

Name._____

Address _____

_____

Specimen of seal used. _____

FORM 5

(Reverse)

OFFICE OF THE GOVERNMENT PUBLIC ANALYST_____

By post

Samples received by rail

Personally

Date of Receipt _____
Time of Receipt _____
Number of seals on each sample _____
Condition of sample _____
_____
_____
Received and opened by _____
And reported _____
Remarks _____

Government Public Analyst.

FORM 6
[See rule 33(2)]
FORM OF NOTICE UNDER SECTION 13 OF THE PUNJAB PURE FOOD ORDINANCE, 1960

Food Authority of _____
From (a) (b)

Health Officer

To _____

_____

Subject: ___**SUSPECTED FOOD POISONING / COMMUNICABLE DISEASE**.

Take notice that I, _____ Health Officer of _____ being satisfied that the food / person detailed below is likely to cause food poisoning / communicable disease, hereby prohibit the use of the said food for human consumption and prohibit the supply of milk from the dairy / source / person detailed below, until this notice withdrawn and prohibit the removal of the said food from the premises known as _____
_____

1. Details of food.
2. Details of person / source.

Date this _____day of _____200
Signed (a) Health Office.
(b) Food Authority

FORM 7

[See rule 24(3)]

FORM OF LICENCE FOR THE LOOSE SALE OF BANASPATI

THIS LICENCE NOT TRANSFERABLE

Fee is not refundable

Licence No. _____ of 200…….

The person named below is permitted to sell banaspati loose or from an open package subject to the conditions shown below. This licence expires on the 31st December, 200….

Dated _____

Signed
For and on behalf of
Food Authority.

Name of Licensee _____

Premises where business is carried on

_____

CONDITIONS OF THE LICENCE

The licensee shall _____

Display a signboard on a prominent place on his premises bearing the following inscription in red letters on a white background.

LICNESED DEALER
FOR
RETAIL & LOOSE SALE
OF
BANASPATI
Shopkeeper's Name._____
Licence No. _____
Licence expires on _____

FORM 8

FORM OF LICENCE UNDER SECTION 11

Photo

THIS LICENCE IS NOT TRANSFERABLE

Fee is not refundable.

No. _____ of 200…

Licence for using for carrying on the business of _____ pursuant to the provisions of section 11 of the Punjab Pure Food Ordinance, 1960, Mr/Ms _____

Is hereby licensed for the period from _____to 31st December, 200_____

To use a place for the purpose of _____being the room or shop or place measuring _____square feet being part of the premises No._____

Subject to the restrictions laid down in the rules and the conditions stated below.-

(1) This licence is valid only for the premises above specified that is for the number of rooms, godowns or space mentioned therein and as shown in the block plan attached with the

licence,and if the licnesee at any time during the period of this licence desires to use any additional room or godown or space for the purpose aforesaid, he must obtain previous sanction from the Food Authority for doing so.

(2) If the licensee vacates or gives up the possession of the premises during the period of this licence, he shall forthwith inform, in writing, the licensing Authority that he is about to do so.

(3) The licensee shall cause the built up portion of premises to have the following:-

(a) Floors constructed of concrete or other impervious material, smooth properly drained and drains provided with traps clean and in good repairs.

(b) Walls and ceilings having smooth, washable light coloured surface, clean and in good repair.

(c) Doors and windows provided with effective means to prevent the access of flies and to screen the outer air, the doors shall be self-closing.

(d) Lighting on all working surfaces shall be adequate.

(e) Ventilation sufficient to avoid smoke, off odours accumulating in structures and on equipment.

(f) Effective means for protection and contamination from insects and rodents.

(g) Toiled rooms wherever provided shall bear a sign and self-closing doors not opening into any room used for handling or storing of food.

(h) Water supply which is easily accessible, adequate and of a safe sanitary quality.

(i) Convenient hand washing facilities with water, soap and clean towels.

(4) The licensee shall cause the open and unbuild portion of the premises and their surroundings to be kept at all times in a clean and sanitary condition and shall not permit construction of any latrine, cesspool, cow shed, stable, manure heap or other insanitary heap or other insanitary place within the premises which in the opinion of the Food Authority renders it undesirable, that the premises should be used for the business aforesaid.

(5) The licensee shall not use or permit to be used any portion of the premises for dwelling or cooking purposes.

(6) The licensee shall keep and maintain a Register required by section 12 of the Ordinance in the form prescribed in rule 32 and shall keep it at all times for inspection of the officers authorized.

(7) The licensee shall at all times adopt and cause to be maintained in good order and efficient action upon the said premises all such appliances or means as theFood authority may from time to time require for the purpose of minimizing danger to life and property or preventing, abating or minimizing any nuisance annoyance or inconvenience to the neighbourhood or to the public from the use of which the premises are put.

(8) The licnesee shall provide on the premise and maintain in good repair and use metal sanitary dust bins of approved pattern and size for the deposit of all trade refuse and sweepings and make proper arrangements for the disposal of their contents daily.

FORM 9

FORM OF DECLARATION

(Admissible as evidence under section 25)

1. Name of the person-giving sample.
2. Name of the owner.
3. Place where sample is taken.
4. Number assigned to the sample.
5. Application nature and description of the food.
6. Quantity taken for sample.
7. Amount of money paid for sample.
8. Food purchased / imported from.
9. Brief description of advertisement, if any, on container / packages.
10. Quantity in hand.
11. Description of specimen of the seal applied.
12. If divided into three parts and if one received.
13. Remarks.

Copy received.

Signature and address of the person giving the Sample and making declaration.

Place.

Date and time.

Signature of the Officer taking sample.

FORM 10

Photo

FORM OF LICENCE UNDER SECTION 11
(COOKED MEAT)
THIS LICENCE IS NOT TRANSFERABLE
Fee is not refundable.

No. _____ of 200…

Licence for using for carrying on the business of _____ pursuant to the provisions of section 11 of the Punjab Pure Food Ordinance, 1960, Mr/Ms. _____

Is hereby licensed for the period from _____to 31st December, 200_____

To use a place for the purpose of _____being the room or shop or place measuring _____square feet being part of the premises No._____

Subject to the restrictions laid down in the rules and the conditions stated below.-

(1) This licence is valid only for the premises above specified that is for the number of rooms, godowns or space mentioned therein and as shown in the block plan attached with the licence,and if the licnesee at any time during the period of this licence desires to use any additional room or godown or space for the purpose aforesaid, he must obtain previous sanction from the Food Authority for doing so.

(2) If the licensee vacates or gives up the possession of the premises during the period of this licence, he shall forthwith inform, in writing, the licensing Authority that he is about to do so.

(3) The licensee shall cause the built up portion of premises to have the following:-

(a) Floors constructed of concrete or other impervious material, smooth properly drained and drains provided with traps clean and in good repairs.

(b) Walls and ceilings having smooth, washable light coloured surface, clean and in good repair.

(c) Doors and windows provided with effective means to prevent the access of flies and to screen the outer air, the doors shall be self-closing.

(d) Lighting on all working surfaces shall be adequate.

(e) Ventilation sufficient to avoid smoke, off odours accumulating in structures and on equipment.

(f) Effective means for protection and contamination from insects and rodents.

(g) Toiled rooms wherever provided shall bear a sign and self-closing doors not opening into any room used for handling or storing of food.

(h) Water supply which is easily accessible, adequate and of a safe sanitary quality.

(i) Convenient hand washing facilities with water, soap and clean towels.

(4) The licensee shall cause the open and unbuild portion of the premises and their surroundings to be kept at all times in a clean and sanitary condition and shall not permit construction of any latrine, cesspool, cow shed, stable, manure heap or other insanitary heap or other insanitary place within the premises which in the opinion of the Food Authority renders it undesirable, that the premises should be used for the business aforesaid.

(5) The licensee shall not use or permit to be used any portion of the premises for any other business except specified in the licence.

(6) The licnesee shall provide on the premise and maintain in good repair and use metal sanitary dust bins of approved pattern and size for the deposit of all trade refuse and sweepings and make proper arrangements for the disposal of their contents daily.

(7) The licensee shall keep and maintain a Register required by section 12 of the Ordinance in the form prescribed in rule 32 and shall keep it at all times for inspection of the officers authorized.

(8) The licnesee shall maintain a register showing the daily consumption of meat in terms of weight and the price charged for its sale. A copy of extract from daily account of the register shall b e submitted to the licensing authority before the expiry of each month.

(9) The licensee shall issue to the customer a receipt or invoice giving his own name, address of licenced premises, licence No, the name and address of the customer, the date of the issue of receipt, the quantity of meat sold, the rate at which the meat was sold and the total amount realized from the customer and shall keep a duplicate of the same to be made available at the time of inspection by the inspector.

(10)The licensee shall prominently display at the licensed premises the price fixed as prescribed.

(11)The licensee shall comply with any direction that may be issued by the Government or by the Licencing Authority regulating the preparation, storage and sale of meat at licensee's premises.

(12)If the licensee contravenes the instructions stated in this licence shall be deemed to be contravention within the meaning of Section 11 of the Ordinance.

FORM 11

(See rule 26)

Nomination of Persons by a Company.

*Notice is hereby given that Mr/Miss/Mrs.*_____ NID NO. _____, Director/Manager of the _____

(Name of the Company) has been nominated by the company by a Resolution passed at their meeting held on _____ at _____ to be incharge of and responsible to the said company for the conduct of the business of the said company or _____ establishment/branch/unit thereof and authorized to exercise all such powers and take all such steps as may necessary or expedient to prevent the commission by the said company of any offence under the Ordinance, 1960.

A certified copy of the said Resolution is enclosed.

Place. _____. Manager/ Director/Secretary of

Date. _____ (Name of the Company)

Note: - Score out the portion, which is not applicable.

I accept above nomination in pursuance of Rule 26 of the Revised The Punjab Pure Food Rules, 2007.

Place._____.

Date. _____. Signature of Director /Manager.

I hareby acknowledge receipt of the above nomination.

Place. _____.

Date. _____. Signature of Food Authority.

12.11.- SAMPLE OF MILK BY MEANS OF THE TURBIDITY TESTS
12.11.1.- Ammonium Sulphate,analytical reagent grade,shall be used.
12.11.2.- Apparatus_____

The following apparatus shall be provided
(y) A supply of concial flask, 50ml. Capacity.
(z) A supply of graduated cylinders, 25ml. Capacity.
(aa) A spply of test tubes, hard glass.
(bb) A supply of filter funnels, 6cm. diameter.
(cc) Two breakers, 400ml. Capacity.
(dd) A supply of Whatman filter papers, 12.5cm. No.12. Or similar

12.11.3.- Method of carrying out the tset ___

(g) Weight 0.1 of ammonium sulphate A.R. into a 50 ml. conical flask. Measure out of 20±0.5ml of the milk sample, and pour into the conical flask. Ensuer that the ammonimum sulphate is dissolved by shaking for three minutes. Leave for not less than five minutes and then flter through a folded paper (whatman 12.5 cm. NO.12) into a test tube. When not less than 5 ml of a clear filtrate have collected place the tubes in a beaker of water, which is kept boiling and keept it therein for five minutes. Transfer the test tube to a beaker of cold water.

(h) When the tube is cool, examine the contents for tubidity by moving the tube in front of an electric light shaded from the eyes of the observer, and comparing each tube with a control tube prepared as directed in succeeding paragraph.

12.11.4.- Control Tubes- A sample of laboratory sterilized milk shall be prepared by heating milk for at least twenty minutes after it has reached boiling point in a vessel placed in a boiling water bath. Control tubes shall be prepared by taking a sample of laboratory sterilizled milk and subjecting it to the procedure detailed in sub-paraagraph (a) of the last foregoing paragraph

12.11.5.- interpretation- Milk which shows no singns of turbidity, shall be deemed to satisfy the test.

SECRETARY
TO GOVERNMENT OF THE PUNJAB
HEALTH DEPARTMENT

LOCAL GOVERNMENT & COMMUNITY DEVELOPMENT

DEPARTMENT

DATED LAHORE, THE 14TH SEPTEMBER, 2011.

NOTIFICATION:

No.SOR(LG)5-26/2001. The Governmenet of the Punjab has proposed the following amendment int the Punjab Local Council Servants (Service) Rules, 1977, therefore, the same is hereby published in the official gazette, **for inviting public sugestions/ objections**, within a period of fortnight of the publication as required under section 191(3) of the Punjab Local Government Ordinance, 2001 (XIII of 2001):-

PROPOSED AMENDMENT

In the said rules, in the end of the schedule, following provisio shall be inerted:

"Provided that in case of absence of elected Zila Nazim, in pursuance of section 179-A of the Punjab Local Government Ordinance, 2001, the appellate authority shall be the respective Divisional Commissioner."

Dated Lahore, the 30th September, 2011.

NOTIFICATION

No.SOR(LG)5-54/2003. The Governmenet of the Punjab has proposed the following amendment int the Punjab Local Government (property) Rules, 2003, therefore, the same is hereby published in the official gazette, **for inviting public sugestions/ objections**, within a period of fortnight of the publication as required under section 191(3) of the Punjab Local Government Ordinance, 2001 (XIII of 2001):-

PROPOSED AMENDMENT

In the said rules, in rule 9, in sub-rule (2), clause (i) shall be substituted by the following:-

"(i) The earnest money deposited shall be refunded forthwith to the person depositing it, if the Goernment does not accept the bid. Where the bid is accepted the deposit shall be adjusted against the bid price of the property. In case of successful bid, the bidder shall deposit the 25% of the bid price, including enarnet money, within thirty days of the auction. The remaining 75% of the bid price shall be deposited by the bidder within ninety days of the auction. Provided that if the successful bidder fails to make the payment within the stipulated period, the earnest money shall stand forfeited and fresh auction shall take place."

SECRETARY
GOVERNMENT OF THE PUNJAB
LG&CD DEPARTMENT