

SINDH FOOD AUTHORITY REGULATIONS

2018

FOOD DEPARTMENT
Government of the Sindh

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(Any further addition/deletion could only be done by the approval of the Board)

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NOTIFICATION

No. _____.- In exercise of the powers conferred under section _____ of Sindh Food Authority Act 2016, the the Governor of the Sindh is pleased to make the following regulations:

1. Short title and commencement.—(1) These rules may be cited as the Sindh Food Regulations 2018.

(2) They shall come into force at once.

PART-I: Definitions

1.1 Definitions.—(1) In these rules:

- i. “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, the expression “advertise” shall be construed accordingly;
- ii. “and/or” means “and” where possible, otherwise it shall mean “or”;
- iii. “appliance” includes the whole or any part of any utensil, machinery, instrument, apparatus, or article used or intended to be used, in or for making, preparing, keeping, selling or supplying any food;
- iv. “approved” means as approved by the Government;
- v. “bakery” means any place wherein is carried the production or preparation, packing, storing, display or sale of cream, biscuits, cakes, or other bakery products or confectionery;
- vi. “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;
- vii. “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;
- viii. “commercial operation”, in relation to any food or contact material, means any of the following; namely –
 - a. selling, possessing for sale and offering, exposing or advertising for sale;
 - b. consigning, delivering or serving by way of sale;
 - c. preparing for sale or presenting, labelling or wrapping for purposes of sale;
 - d. storing or transporting for purposes of sale;

- e. importing and exporting.
- ix. "contact material" means any article or substance which is intended to come into contact with food;
 - x. "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 if offered to the consumer as such;
 - xi. "contravention", in relation to any provision, includes any failure to comply with the provision;
 - xii. "covering" includes any stopper, glass bottle, vessel, box, capsule, case, frame or wrapper;
 - xiii. "dairy" includes any farm, shed, milking-house, milk store, milk-shop, creamery or other premises from which milk is supplied for sale, or in which milk is kept or used for purposes of sale or 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;
 - xiv. "Food Authority" means responsible to carry out, within his jurisdiction, the execution and enforcement of the Ordinance and these rules;
 - xv. "food business" means any business in the course of which commercial operations with respect to food or food sources are carried out;
 - xvi. "food premises", means any premises used for the purpose of a food business;
 - xvii. "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;
 - xviii. "Food Testing Laboratory" means any place where the food is to be checked in accordance with the standards set forth by Sindh Food Authority; It is place established by Sindh Food Authority, notified, accredited or any lab handed over by government or any other private lab nominated by Sindh Food Authority or outsourced to any lab by Sindh Food Authority for the purpose of analysis.
 - xix. "Form" means a form appended to these rules;
 - xx. "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;
 - xxi. "Government" means Government of the Sindh;
 - xxii. "homogenized milk" means milk which has been treated in such manner as to ensure breakup 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;
 - xxiii. "human consumption" includes use in the preparation of food for human consumption;
 - xxiv. "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;

- xxv. “infant” means a person who is not more than twelve months of age;
- xxvi. “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;
- xxvii. “label” means a display of written, printed or graphic matter on the immediate container of any article and on the retail package of such article, unless it is easily legible through the outside container or wrapper;
- xxviii. “labelling” means all labels and other written, printed or graphic matter upon an article or any of its containers, wrappers, or accompanying such article;
- xxix. “lot” means a definitive quantity of a commodity produced essentially under the same conditions;
- xxx. “milk seller” means any person who offers for sale or sells to another any milk or milk products for human consumption;
- xxxi. “Act” means the Sindh Food Authority Act 2016;
- xxxii. “owner” includes consignor, consignee, indentor, importer, agent, broker, commission agent, manufacturer or seller’s agent and any other person in possession of the food;
- xxxiii. “person” means any individual, partnership, corporation, company, firm, trustee, or association by whatever name called;
- xxxiv. “premises” includes any place, vehicle, stall or movable structure used for such purposes as may be specified by a notification issued by the Government;
- xxxv. “preparation”, in relation to food, includes manufacture and any form of processing or treatment, “preparation for sale” includes packaging, and the expression “prepare for sale” shall be construed accordingly;
- xxxvi. “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 the expression “present” shall be construed accordingly;
- xxxvii. “processed”, in relation to any food, means having undergone any treatment resulting in a substantial change in the original state of the food, and shall include dividing, parting, severing, boning, mincing, skinning, paring, peeling, grinding, cutting, cleaning, trimming, deep-freezing, freezing, chilling, milling, husking, packing or unpacking, and the expression “unprocessed” shall be construed accordingly;
- xxxviii. “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;
- xxxix. “proprietor” includes the owner, occupier and any other person having the management or control of any eating house, hotel or restaurant;
- xl. “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;

- xli. "section means a section of the Ordinance;
- xlii. "substance" includes any natural or artificial substance or other matter, whether in solid or liquid form or in the form of a gas or vapour;
- xliii. "treatment", in relation to any food, includes subjecting it to heat or cold;
- xliv. "young children" means children aged between one and three year;
- xlv "Vendor" means any person, including an employee or agent of another, who sells or offers to sell, food, beverages, goods or merchandise on any public street or sidewalk from a stand, motor vehicle or from his or her person, or one who travels by foot, wagon, motor vehicle, pushcart or any other method of transportation from house to house or street selling or offering to sell food, beverages, goods or merchandise".

(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:

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

1.2 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: Duties & Powers

2. 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/food sciences 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/food sciences and has at least five 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.

2.1 Duties of Public Analyst.– (1) On receipt of a package containing a sample for analysis from an FSO/AFSO or any other person notified under rule 2.4, the Public Analyst or an officer authorized 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 analyzed such samples of articles of food as may be sent to him by an FSO/AFSO or by an officer authorized under the Ordinance or by any other person notified.

(3) After the analysis has been completed, the Public Analyst shall, within a period of twenty 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.

2.2 Powers and functions of the Food Authority.– (1) The Food Authority shall regulate and monitor the food business in order to ensure provision of safe food.

- (2) Without prejudice to the provisions of sub-section (1), the Food Authority may–
- a) formulate standards, procedures, processes and guidelines in relation to any aspect of food including food business, food labelling, food additive, and specify appropriate enforcement systems;
 - b) specify procedures and guidelines for setting up and accreditation of food laboratories;
 - c) formulate method of sampling, analysis of samples and reporting of results;
 - d) specify licensing, prohibition orders, recall procedures, improvement notices or prosecution;
 - e) determine terms and conditions of service of its employees;
 - f) provide scientific advice and technical support to the Government in matters relating to food;
 - g) collect and analyze relevant scientific and technical data relating to food;

- h) establish a system of network of food operators and consumers to facilitate food safety and quality control;
- i) organize training programmes in food safety and standards;
- j) promote general awareness as to food safety and standards;
- k) levy fee for registration, licensing and other services;
- l) certify food for export;
- m) perform any other prescribed function; and
- n) do any other thing which is necessary for the discharge of its functions under this Act.

(3) The Food Authority shall exercise its functions, as far as possible, in accordance with the well-established scientific principles and international best practices.

2.3 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 Safety Officer for every 500,000 population or part thereof and for his appointment;
- b) ensure that the Food Safety Officer collects a minimum of 100 samples a month, and an *ex-officio* Food Safety Officer, 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 Food Safety Officer and also to the person, if any, whose name, address and other particulars have been disclosed under rule 5.

(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.

2.4 Appointment of Food Safety Officer.—(1) No person shall be appointed as Food safety officer unless he possesses a Master's or Bachelor's degree in Science with Food Science, Food Technology, Food Science and Technology from a recognized University.

(2) On appointment, a Food Safety Officer 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 Safety officer made before the coming into force of these rules

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

2.5 Powers of Food Safety Officer.- (1) A Food Safety Officer may—

- a) take sample of any food or any substance, which appears to him to be intended for sale, or has been sold as food;
- b) seize/seal any food, apparatus or utensil which appears to the Food Safety Officer to be in contravention of this Act, the rules or the regulations;
- c) enter or seal any portion of the premises where he prove any food is prepared, preserved, packaged, stored, conveyed, distributed or sold, examine any such food and examine anything that he prove is used, or capable of being used for such preparation, preservation, packaging, storing, conveying, distribution or sale; impose fine on a food operator if the Authority has delegated such power to him;
- d) open and examine any package which, he believes, to contain any food;
- e) examine any book or documents with respect to any food and may request to produce the same within 7 working days of time;
- f) demand the production of the identity card, the business registration certificate, licence or any other relevant document from person incharge(PIC)/food operator;
- g) mark, seal or otherwise secure, weigh, count or measure any food or appliance; and
- h) search and seize sample from any vehicle carrying food.

(2) A Food Safety Officer shall prepare a statement describing the food, apparatus, utensil or vehicle seized and shall deliver a copy of the statement to the person from whom it is seized or, if such person is not present, send such copy to him by mail.

(3) A person claiming back anything seized under sub-section (1) may, within fourteen days of the seizure, apply to the Court and the Court may confirm such seizure, wholly or in part, or may order that it be restored to the claimant.

(4) If the Court confirms the seizure of the food, apparatus or utensil, it shall be forfeited to the Food Authority or the Court may direct that such food, apparatus, utensil may be destroyed at the cost of the owner or person in whose possession it was found.

(5) If an application is not made within fourteen days under sub-section (3), the food, apparatus or utensil seized, shall be forfeited to the Food Authority.

(6) Any person may make an application in writing to the Food Safety Officer asking him to purchase a sample of any food from a food operator and get it analyzed from the public analyst.

- 2.6 Duties of Food Safety Officer.**—(1) It shall be the duty of a Food Safety Officer:
- (a) to inspect, as 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 these 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 to send for analysis in prescribed storage conditions 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) 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 Safety Officer shall maintain the record of the court decisions of each case, 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 license has been granted or suspended, in any enquiry, trial or other proceedings under this Rule; and, shall send a copy of the court decision of each case under this Rule to the concerned Food Authority.

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

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

2.7 Fee 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	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 the Travelling Allowance and Daily Allowance prescribed under the relevant Travelling Allowance Rules.

(2) The prescribed fee 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 at the place where the Public Analyst is stationed.

(3) A 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) A person who, requires a Food Safety Officer to purchase a sample of food for purposes of analysis shall pay, in addition to the above mentioned fee, a sum of Rs. 50. Provided that the amount so paid shall, in no case, be refunded.

PART-III: Licensing & Registration

3. Licensing of food trades businesses and premises.– (1) every food operator shall, in relation to his food business premises, hold a valid license issued by the Authority.

(2) The food business premises for licensing purposes are categorized in accordance with their manufacture or production variations as specified in 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, catering, kitchen, event places, Hawkers, food paddlers whatever moveable or immovable units, hotels, eating houses and other small scale food manufacturing concerns;
- c) premises for the manufacture or preparation of:
 - i. pasteurized /sterilized /UHT milk, milk powder, condensed and evaporated milk, cheese and any other milk products;
 - ii. edible oils, margarine and Vanaspati;
 - iii. biscuits;
 - iv. canned food
 - v. non-alcoholic drinks and beverages;
 - vi. bottling factories;
 - vii. sugar factories;
 - viii. cereal products; and
 - ix. natural mineral water/bottled drinking water

(3) All food operators involved in food business categorized under sub-regulation (2) shall pay license fees specified in following Table-1 against each such category.

3.1 License Fee for Certain Categories of Food Businesses

Table-1: License Fee for certain categories of Food Businesses are given as below

Category	Premises Name	License Fee (Rs.)	GST (16 %)	Total license Fee (Rs.)
A	Premises carrying out business of margarine, banaspati, fat spreads, animal fat (Halal), ghee, fish oil, edible oil, spices including salt, cereal products, soft drinks, aerated water, fruits and vegetables, food additives & ingredients and cold storages etc.			
1	Mega Mart/ Whole sale dealer/ Ware houses/Distributor	10,000	1600	11600

2	Departmental store/ Large Kiryana Store	5,000	800	5800
3	Small <i>Kiryana</i> store, khokha	1,000	160	1160
4	Fruit and vegetable shops	500	80	580
B	Creameries, dairies, dairy farms, bakers, hotels, eating houses and other small scale food manufacturing Concerns.			
1	<ul style="list-style-type: none"> Hotels from 3 star and above located at prominent places including fine dining and ambiance Hotels and restaurants. 	20,000	3200	23200
2	<ul style="list-style-type: none"> Fast Food & Restaurant chains. Hotel less than 3 star marriage/banquet hall with or without kitchen and caterers, fish corner, canteens and mess, creameries, Confectionary (Sweets), & small scale manufacturing units.	10,000	1600	11600
3	1. Bakery outlets & Dairy shops and other food outlet movable and immovable above 150 sqft. 2. Bakery & Dairy Shop below 150sqft	5,000 1,000	800 160	5800 1160
4	Per Tandoor without Hotel (Large, Medium, Small)	500	80	580
5	Atta Grinding <i>Chakki</i>	1,000	160	1160
C	Food manufacturing units			
	below 5000 sqft	5000	800	5800
	5000-10000 sqft	10000	1600	11600
	Above 10000 sqft	25000	4000	29000
	Other			
1	Registration fee for selling of food products in Districts of Sindh	10,000	1600	11600
2.	Contract manufacturing	25000	4000	29000
3.	Manufacturing units of food grade Packaging, labeling and Utensils	50,000	8000	58000
4	Slaughter houses	20,000	3200	23200
5	Meat (poultry, beef, mutton and fish) shops, cart moveable/immovable. Provided on legal premises.	5,000	800	5800

(4) For purpose of categories (a) and (b) and (c) in sub-rule (1), on the advice inspection report of the Food safety officer the Licensing authority may issue License to food business operator including cantonment areas.

(5) Provided that the food operators/manufacturers already registered with PSQCA under the Pakistan standards certification may be deemed to qualify registration under these regulations as a consequent whereof the Authority may allow them the use of Sindh Food Authority logo as if their product stands registered subject to their registration under regulation 5.

3.2 Licenses.— Sindh Food Authority shall provide e-license to manufactures as per rules mentioned in this section. This License will be valid for 5 years and shall be renewed each year. The procedure for e-license will be as follows.

- a) Manufacture will download mobile application and apply online for licenses
- b) A message will be received by Food Safety officer, upon visiting the premises the food safety officer will apprise the applicant about license fee to be deposited in prescribed bank.
- c) Applicant is bound to maintain record such as copy of CNIC, site plan, medical certificates for employees.
- d) Upon completion of all formalities, smart cards will be issued and posted to the applicants.

(1) Any person who intends to use any place for the purpose for which a license is required, shall apply in writing / electronic application (e-licensing) 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 proposed to be used; and
- b) the location at which various operations connected therewith shall be carried on.
- c) Medical Certificate of the food handlers only.

(2) On receipt of an application and plans, the Government officer concerned, as the case may be, shall inspect the said place and may recommend the issue of the requisite license form, as the case may be, if the said place conforms to the requirements.

(3) A license 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 these rules.

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

(5) An application for the grant or renewal of a license shall be accompanied by a fee mentioned in sub-rule (1) of rule 3.0.

(6) Every license for purposes of the rules shall be displayed at a prominent place within the licensed premises and shall be open to inspection by licensing Authority/ Food Safety Officers/ Assistant Food Safety Officers or any person authorized by the Food Authority.\

(7) For purposes of these rules, any act or omission by an owner or occupier of a premises in respect of which a license 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 license has been rejected by a Food Authority may file an appeal to the appellate forum on payment rupees one thousand as fee.

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

(10) No application for the renewal of any license 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 record, containing the name, addresses and other relevant particulars of the licensees and applicants for licenses as well as of the concerned premises.

(12) Every license shall be renewed annually.

(13) The Sindh Food Authority shall contain particulars of the disposal of the applications, the grounds of rejection, if any, annual renewal, cancellation or suspension or imposition of a penalty.

(14) Each Food establishment shall provide the particulars regarding the name, address, the nature and the location of the business for which a license has been granted, cancelled or suspended to the Licensing Authority of the area in which the premises is situated.

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

(a) the application is accompanied by existing plan showing the building and medical fitness certificate for kitchen staff as prescribed under these rules; and

(b) the building for housing the plan followed as given in clause 8.5:

(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 licenses shall be issued in respect of each such premises not falling within the same local area:

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

(18) A license granted under these rules, unless suspended, withdrawn or cancelled earlier by the Licensing Authority, shall continue to be in force up to one year from the date of issuance and shall be renewable annually on application by the licensee to the Licensing Authority on payment of renewal fee same as licensing fee.

(19) If a licensee fails to apply for renewal of license within thirty days of the date of expiry of the said license, the license shall not be renewed unless the licensing Authority is satisfied that there was sufficient cause for delay.

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

- a) specify name and address of the applicant;
- b) indicate the location, full particulars and address of the premises for which the license is required; and

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

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

(22) An application for the renewal of a license shall be subject to the conditions for the grant of license under this rule, until the decision has been made on the renewal of license application, the existing license shall be deemed as valid and an endorsement of renewal of license shall be made on the original license.

(23) Before cancelling and/or suspending a food operator's license the Authority must:

- (i) inform the food operator of the Authority's intention to cancel/suspend the food operator's license;
- (ii) allow the food operator at least 14 days for an opportunity to explain why the license should not be cancelled/suspended;
- (iii) take into consideration the food operator's explanation before making the decision on cancelling/suspending the license;
- (iv) take into account the loss that the suspension/cancellation of the license the food operator and/or the provincial economy may suffer before cancelling/suspending the license;
- (v) Consider whether an alternate penal measures can achieve a better result than suspending/cancelling;
- (vi) not consider suspending/cancelling the license on the food operator's first three proven violations of any provisions of the Act, rules and regulations, unless the violation is so severe that the Authority can justify, after recording reasons in writing, that only suspension/cancellation of the license of the food operator, and no other penal measures, is appropriate.

(24) An itinerant vendor granted a license under these rules shall carry a identity card issued by food authority showing clearly the license number, the nature of articles for the sale of which the license 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. The smart card shall be renewed every year (valid for 5 years):

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 licenses if an identity card containing particulars of the valid license is carried by them.

3.2.1 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 *Karahi Gosht, Karahi 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 license granted under the rules and at the place specified in the license.

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

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

3.2.2 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 in the production premises.

(3) No essences or colouring matters likely to give resemblance of desi ghee, butter, creamery shall be kept on the production 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 stainless steel, approved 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 (as given in subsection 10).

(8) The utensils 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 shall be placed on a suitable shelf, pallet 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.

3.2.3 Special condition for banaspati, vegetable oil, margarine, charbi and animal fat (Halal).—

(1) No substance capable of being used for the adulteration of banaspati, vegetable oil, margarine, *charbi*, or animal fat (Halal) shall be kept in the production 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 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.

3.3 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.

Substances	Adulterants
Fresh 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	glacial acetic acid, all colouring matters excepts caramel, preservatives, any mineral acid
Fruit juice & Lime juice	Tartaric, phosphoric or other foreign acid other than citric 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

3.4 Form of register.–

(1) The register required to be kept and maintained in the form shown below:

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

(2) Subsequent pages

Disposal										
Sr. No	Quantity	Manufactured, Prepared,	Date of Manufacture, Preparation, Purchase or Receipt.	Nature of substance	Descriptive marks	Name and Address of Party to whom sold or to 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 or maintained record electronically that cannot be amended after a day. The said register shall be open to inspection by an officer or any Food Safety Officer 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: Sampling & Procedure of Seizure

4. Method of taking sample.–

(1) The Food Safety Officer 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 Sindh 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 Safety Officer, the name, address and other particulars of the person from whom he purchases the article of food.

(3) For specific products/food category, the sampling shall be performed as per following PSQCA standards by Food Safety Officer / Assistant Food Safety Officer.

Serial No.	Standard Title	Standard Number	Annexure No.
1	Methods of Sampling & Test for Vegetable Oil	PS: 56	Annexure-282
2	Method of Sampling & Test for Activated Carbon Used for Decolorizing Vegetable Oils and Sugar Solutions.	PS: 545	Annexure-283
3	Methods of Sampling & Test for Fruit & Vegetable Products	PS: 630	Annexure-284
4	Method of Sampling & Analysis for Milk Products.	PS: 968	Annexure-285
5	Methods for Sampling of Oilseeds.	PS: 970	Annexure-286
6	Method of Sampling for Cereal & Pulses.	PS: 1655	Annexure-287
7	Method of Sampling for Milled Cereal & Pulses Products.	PS: 1656	Annexure-288
8	Methods of Sampling for Meat & Meat Products. Methods of Sampling for Fortified Wheat Flour & Maida Methods of sampling for Edible Iodized salt	PS: 1686 PS: 4872-2017 (R) PS: 1669	Annexure-289 Annexure- Annexure-203
9	Method of Sampling & Test for Coal tar Food Colour.	PS: 2100	Annexure-290

4.1 Packing of samples of food for analysis.–

(1) A sample 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, 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 along with a letter 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 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 Safety Officer 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 Safety Officer shall indicate in the remarks column by inserting the word "New".

4.2 Quantity of sample.–

The quantity of a sample to be supplied for analysis to a Public Analyst shall not be less than specified below:

No.	Article of Food	Approximate Quantity To be Supplied.
1	Milk	250 mL
2	<i>Desi Ghee</i> , Butter,	150 mL / gm
3	<i>Khoa</i> , <i>Dahi</i>	250 gm
4	Edible oils & fats	150mL
5	Tea	125 gm
6	<i>Atta</i> , <i>maida</i> , <i>suji</i> , <i>basan</i> ,	200 gm
7	Sugar, honey, <i>gur</i> , <i>shaker</i> or other sweeteners.	250 gm
8	Prepared Food	500 gm
9	Aerated Carbonated water	500 mL
10	Banaspati / Vanaspati	500 gm
11	Spices including salt	200 gm

12	Cereal & Cereal Product (other than <i>atta</i>)	250 gm
13	Saffron	15 gm
14	Bakery Products	500 gm
15	Confectionary	300 gm
16	Ice Cream, cream, condensed milk cheese	250gm
17	Silver leaf	1 gm
18	Baby Foods	450 gm
19	Milk Powder	450 gm
20	Syrup, sherbets, Fruit and Vegetable concentrates	250 ml
21	Foods not specified	500gm/ml

5. Procedure for seizure of unsound food.–

(1) If in any market, go down, 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, Food Safety Officer 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, PIC 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 Safety Officer 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 the law 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 Safety Officer shall restore the food to the owner subject to previous permission of the officer authorized in this behalf by the Sindh Food Authority.

5.1 Order not to dispose of stock.–

The officer shall not seize the food or utensils which are in contravention with this Act, the rules or regulations unless the officer:

- i. Takes a sample of the food in question and send it to a certified food laboratory for testing purposes;

- ii. Receives back the results of such test, and the results hold that the food is not of the quality (i.e. adulterated, misbranded, not of the prescribed standards etc.) prescribed by this Act;
- iii. Gives a written warning to the food operator to take immediate steps to ensure the food is of the quality prescribed by this Act unless the food in question is obviously so unfit for human consumption that the officer is able to justify that the situation cannot be resolved by any other actions;
- iv. Imposes a fine on the food operator after making certain that the food operator has completely ignored the warning letter sent under step (iii) of section 17(1)(b) above unless the violation by the food operator is in so much contravention with this Act, the rules or regulations that the officer believes, after giving reasons in writing, that a higher fine is justified;
- v. Imposes a suitable fine at least three times;

The officer may skip the procedure mentioned above if the officer believes that the food in question is visibly so harmful for human lives that the officer can justify, after recording reasons in writing, that seizure of the food is the most appropriate action to take.

5.2 Receipt for food seized

The Food Safety Officer, while seizing and removing food articles under section 2.5, shall issue a receipt in Form or, as the case may be the person concerned for each such article of food.

5.3 Hours during which a Food Safety Officer may enter into and inspect places used for the sale of food.–

A Food Safety Officer may, at any reasonable time, exercise the powers conferred on him by section 2.5 for the inspection of any place ordinarily used for sale, preparation, manufacture, or storage of any food.

PART-V: Medical Fitness of Food Workers

6. Medical Fitness of Food Workers

Following test is required from any recognized laboratory and medical fitness of food handler will be issued from any medical practitioner registered by PMDC.

- 1) Urine DR
- 2) Stool DR
- 3) Tuberculosis (X ray Chest)
- 4) Blood CP-ESR
- 5) Hepatitis B & C
- 6) HIV

PART-VI: Prevention of Food Poisoning

7. 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 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 Food Safety Officer/ Assistant Food Safety Officers 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 an offence under the Ordinance.

(4) If as a result of investigation, Food Safety Officer/ Assistant Food Safety Officers 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 FSO/AFSO 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 FSO/AFSO Health Officer.

(6) The FSO/AFSO 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 FSO/AFSO of the Food Authority shall without undue loss of time collect samples of the 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 (as per international practice) until delivery to the Public Analyst or, as the case may be, to the Bacteriologist.

7.1 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 harboring the germs of any communicable disease, he may order him in writing to appear before the Medical Superintendent of the area for a medical fitness 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: Regulations for Food Establishment

8. Food Safety Regulation for Food Establishment

8.1 Introduction

Foodborne illness can be very serious and even life-threatening to some consumers, especially children, pregnant women, elderly, and those with impaired immune systems or allergies. Effective control of foodborne illness is vital, not only to avoid adverse effects on human health, but also to safeguard the food industry.

The key references for the Code are similar Codes issued in the United States, Canada, Australia, Ireland and Hong Kong. Current regulation for the establishment of food extracted from food code Dubai.

8.2 Purpose

The purpose of this directive is to provide a set of model requirements to help food establishments achieve a higher degree of compliance with the food regulations, and attain a higher standard of food safety through adoption of good practices.

The ultimate objective of the regulation is to provide high level of protection to human life and health and to protect the interests of the consumers by safeguarding them from fraudulent or deceptive practices, adulteration and any other practices that may cause illness or injury to the consumer.

8.3 Scope

The requirements apply to every food establishment which imports, sells, offers for sale or distributes free of charge, packages, prepares, displays, serves, manufactures, processes, or distributes food that applies on the following areas

- i. restaurants, hotels, cafeterias and cafés;
- ii. food service operations in institutions, including hospitals and schools;
- iii. bakeries;
- iv. butcheries;
- v. grocery store, supermarkets and departmental stores;
- vi. food catering units, canteens, hawkers,
- vii. food factories and warehouses;
- viii. temporary or permanent food events, Footpath food paddlers, mobile vending operations
- ix. food packing material manufacturers and suppliers.
- x. online food products

8.4 Definitions:

Audit: A systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.

Auditor: The person with necessary competency in food safety approved by Sindh Food Authority to conduct an audit.

Authorised Officer/Person: An Authorised person from the Sindh Food Authority who can conduct inspections or investigations in food establishments.

Cleaning: The process of removing soil, food residues, dirt, grease and other objectionable matter.

Codex: Codex Alimentarius Commission (CAC), a United Nations Organisation that supports FAO and WHO by developing food standards, guidelines and Codes of practice.

Concerned Department: Sindh Food Authority authorised to ensure compliance with relevant regulations.

Contamination: The introduction or occurrence of a contaminant in food or the food environment.

Control Measure: An action or activity that can be used to prevent, eliminate, or reduce a hazard to an acceptable level.

Corrective action: An Action to be taken when the results of monitoring at the CCP indicate a loss of control.

Disinfection: The reduction of microbial load, by means of hygienic chemical or physical agents, to a level that will not compromise food stability or lead to harmful contamination of food.

Equivalent: In respect to different systems, capable of meeting the same objectives.

Food: Any substance or product intended to be or reasonably expected to be ingested by people. This includes beverages and drinks (except alcohol), chewing gum and any substance including water.

Food Establishment/Food Business: Any place where food is manufactured, prepared, traded or sold directly or indirectly to the consumer. The term includes any such place regardless of whether consumption is on or off the premises. The term includes but is not limited to trading companies, manufacturing companies, hotels, restaurants, cafés, cafeterias, caterers in hospitals, private clubs, caterers or cafeterias in labour camps, public and private educational bodies, groceries, supermarkets, meat and fish shops, bakeries, mobile vendors, temporary kitchens and snack houses in petrol stations.

Food Establishment/Food Business Operators: A 'food business operator' means the person who is actively engaged in running the food establishment and is responsible for ensuring that the legal requirements are met.

Food Handler: Any person handling food directly in a food establishment (food preparation staff).

Food Hygiene: All conditions and measures necessary to control hazards and ensure the safety and suitability of food at all stages of the food chain.

Food Safety Course/Qualification: A course/qualification approved by the Department in accordance with the provisions of this Regulation.

Food Transportation Vehicle: Any mode of transport, designated for food, whether self-propelled or not and whether used on land, sea or in the air.

Food Service Establishments: Food establishments such as catering, restaurants, cafeteria, cafe and supermarkets etc. that sell portions of foods directly to the consumers for immediate consumption either on-site or off-site. The definition excludes business activities such as manufacturing, processing, trading, grocery stores etc.

Good Hygiene Practices: All practices regarding the conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain.

Hazard: A biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse effect.

Hazard analysis: The process of collecting and evaluating information on hazards and conditions leading to their presence to decide which are significant for food safety and therefore should be addressed in the HACCP plan.

High-Risk Foods: High-risk foods are foods which will support the growth of food poisoning bacteria or the formation of toxins AND which are ready to eat.

Foods such as:

- ready to eat foods such as sandwiches, pizzas, hot meals;
- cooked products containing meat, fish, cheese etc.;
- cooked products that are reheated and served – pies, ready made meals, etc.;
- smoked or cured meats and fish;
- dairy based desserts;
- ripened soft or moulded cheese.;
- prepared vegetable salads including those containing fruit;
- foods labelled/described as needing to be kept at a specific temperature;
- frozen food such as ice cream.

Packaging: Any operation consisting of placing the food in containers (i.e. primary packaging) or placing the food containers in further packaging material (i.e. secondary packaging).

Raw Animal Foods: Raw foods of animal origin such as meat, poultry products, fish, shellfish etc. that are likely to be contaminated with pathogenic or spoilage microorganisms. They are usually stored chilled or frozen to minimise spoilage.

Person in Charge: A person directly responsible for the food related operations in the food establishment and has direct authority, control or supervision over employees who engage in the storage, preparation, display, or service of foods.

Pests: The term pest in this document refers to any undesirable animal or insects including, but not limited to, birds, rodents, flies, larvae etc. that live in or on our food and are objectionable or a nuisance.

Potable Water: Drinking water that is pure and healthy at the point of usage, and meets the requirements of Standards.

Primary Product: Products of primary production including products of the soil, farming and fishing.

Processing: Action(s) that substantially alters the initial product, including heating, smoking, curing, maturing, drying, marinating, extraction, extrusion or a combination of those processes.

Raw Food: Food that is neither cooked nor heat processed.

Ready-to-Eat Foods: Any food for consumption without further treatment or processing. Examples of ready-to-eat food items may include: sliced cooked meats, cooked meat products and preparations, cooked/roast chickens, sandwiches and filled rolls, dairy products such as milk

and cheese, fruits, pre-washed/topped and tailed vegetables, prepared vegetable salads, whole salad items such as tomatoes or cucumbers, open and canned ready-to-eat fish and fish products such as salmon, tuna or sardines, shellfish, preserves and jams, condiments, bread, confectionery and biscuits.

Recall: A recall is an action taken to remove from distribution, sale and consumption, food which may pose a health risk to consumers.

Shelf- life: The period during which a food product maintains its microbiological safety and suitability at a specified storage temperature and where appropriate, specified storage and handling conditions.

Traceability: The ability to track any food, feed, food-producing animal or substance that will be used for consumption, through all stages of production, processing and distribution.

Validation: Obtaining evidence that a control measure or combination of control measures, if properly implemented, is capable of controlling the hazard to a specified outcome.

Verification: The application of methods, procedures, tests and other evaluations, in addition to monitoring, to determine whether a control measure is or has been operating as intended.

8.5 Construction, Design and Facilities

8.5.1 Construction Plans and Specifications

The layout of the food establishment for construction displayed on visible place. Particulars to be indicated on a layout plan include but are not limited to:

- i. area and space allocated to food handling and cooking, cleaning, food storage and seating;
- ii. sanitary fitments, open spaces, restrooms, storage areas;
- iii. all windows and mechanical ventilating systems;
- iv. layout of equipment;
- v. all means of exit and entry;
- vi. facilities to carry out pot and dish washing, hand washing etc.

8.5.2 Site and Location

- i. Sites for food establishments should be chosen such that they are free from conditions that might interfere with their sanitary operation. Food establishments should be set far enough apart from waste disposal facilities and incompatible processing facilities so there is no risk of contamination.
- ii. Generally a minimum distance of 30 meters is recommended from potential sources of contamination. However, a greater or lesser distance could be accepted depending on specific site conditions.
- iii. Streets, lanes and other public places or the common part of the building, which are within a minimum of 5 meters around the food establishment, should be kept clean and free of litter, garbage or waste that can attract pests.

8.5.3 General Requirements for Design and Construction

(1) The design and construction of food establishment should:

- i. provide adequate space for the activities to be conducted in the establishment and be suitable for the fixtures, fittings and equipment used for those activities;
- ii. permit the food premises to be effectively cleaned and disinfected.

(2) The design and construction should:

- i. help exclude dirt, dust, fumes, smoke and other contaminants;
- ii. not permit the entry of pests;
- iii. not provide harbourage for pests; and
- iv. provide a safe environment for workers and where applicable for customers.

(3) The layout of food establishment should be designed in such a manner that:

- i. food flow is in one direction; (i.e. from receiving → to storage → to preparation → to cooking → to packaging /serving despatch)
- ii. adequate spaces are provided for food preparation, cooking and cooling, food storage, storage of equipment / utensils, installation of sanitary fittings, and cleaning facilities;
- iii. food or clean eating utensils are not conveyed through an open space or open yard that would expose food to contaminants.

(4) Incompatible areas or processes, particularly toilets, clean-up and chemical storage areas, should be separated from food preparation/processing areas.

8.5.4 Floor, Walls and Ceilings

The requirements in this section apply to the floors, walls and ceilings of all areas used for food handling and associated activities such as storage and packaging.

(1) Floors: Floors should be designed and constructed in a way that is appropriate for the activities conducted in the food establishment.

a) Floors in Dry Areas

- i. In dry areas the floor should be durable, impervious, easily cleanable, and non-slip.
- ii. The floor to wall joints should be coved.

b) Floors in Wet Areas

In areas where the floor could be wet (such as food preparation or processing areas, walk-in coolers, washrooms), and areas subject to flushing or spray cleaning, the floor should be:

- i. light coloured;
- ii. durable, easily cleanable and non-slip;
- iii. constructed of a impervious material that is able to withstand regular wet washing, such as tile or resin;
- iv. coved at the wall to floor joints, and sealed;

- v. designed to prevent the pooling of liquids; and
- vi. Sufficiently sloped for liquids to drain to adequately sized and constructed floor drains.

Generally, a minimum slope of 2% is recommended.

(2) Walls and Ceiling

(a) Walls

- i. Walls should be designed and constructed in such a way that they can be kept clean.
- ii. In wet areas, walls should be constructed of an impervious material that is able to withstand regular washing.
- iii. In areas where open food is handled, internal surfaces of walls and partitions should be surfaced with smooth, preferably light coloured, durable, non-absorbent and easily cleanable materials (e.g. tiles or stainless steel) to a height of not less than 2 Metres. The rest may be painted in a light-colour. Junctions between walls, partitions and floors should be covered.

(b) Ceiling

- i. Ceiling should be of continuous construction so that there are no empty spaces or wide joints. Although ceilings are less likely to require frequent cleaning, the surfaces should allow ease of cleaning.
- ii. Ceiling in kitchens and food rooms should be of light colour and hazzards proof.

(3) Floor Drains

- i. Floor drains **must** be designed to:
 - (a) effectively remove waste water;
 - (b) be easily accessible for cleaning, and equipped with removable and cleanable covers.
- ii. Drain lines **must** be sloped, properly trapped, vented and connected to a proper drainage system.
- iii. The drainage system **must** be constructed such that there is no cross-connection between the drains or drain lines, and:
 - (a) the water supply; or
 - (b) the food product lines or equipment.

8.5.5 Equipment and Utensils

Food establishments shall use only safe and suitable equipment and utensils at all times. Equipment and utensils should be designed and constructed to be durable and to retain their characteristic qualities under normal use and conditions.

(1) Equipment Design and Layout

- a. Equipment and utensils should be made of safe and suitable material that will not affect the quality and safety of food.

- b. Materials used for making the equipment and utensil should be resistant to denting, pitting, chipping and cracking. Food contact surfaces should be smooth so as to enable them to be kept clean, and where necessary disinfected.
- c. Materials used in the construction and repair of equipment and utensils are to be non-toxic, not affected by foods, cleaning compounds, non-absorbent and durable under normal use. They are not to impart odour, colour or taste nor contribute to the contamination of food, and are to maintain their original properties under repeated use. Painted food-contact surfaces with direct contact of food avoided.
- d. Equipment and utensils are to be free from difficult-to-clean internal corners and crevices. Food-contact surfaces are to be readily accessible for cleaning. Where necessary, equipment should be movable or capable of being disassembled to allow for maintenance, cleaning and disinfection.
- e. Equipment should function in accordance with its intended use.
- f. Equipment used to cook, heat treat, cool, store or freeze food should be designed to achieve the required temperatures as rapidly as necessary to ensure food safety.
- g. Equipment containing bearings and gears requiring lubricants is to be designed and constructed so that the lubricant cannot leak, drip or be forced into the food or onto food-contact surfaces. Food-grade lubricants are to be used on or within food-contact surfaces.

(2) Location of Equipment

- a. Equipment used in a food establishment should be suitably located or positioned so that it:
 - i is not exposed to any sources of contamination;
 - ii can be maintained, cleaned and disinfected;
 - iii can be inspected easily;
 - iv may be properly vented when required; and
 - v is installed in such a manner as to allow adequate cleaning of the equipment and the surrounding area.
- b. Equipment and utensils used in processing, handling and storage of foods (including single-service and single-use articles) **shall not** be located in staff locker rooms, toilet rooms, garbage storage rooms, mechanical rooms, under sewer or water lines not shielded to intercept leakage/condensate, under open stairwells, or any area where the equipment may become contaminated.
- c. Unobstructed aisles, walkways and working spaces are to be provided of sufficient width to permit employees to perform their duties readily without contamination of food or food-contact surfaces by clothing or personal contact.

(3) Fixed Equipment

- a. Equipment that is fixed (i.e., not easily moved) should be either:
 - i sealed to adjoining walls, floors and equipment; or
 - ii spaced in such a manner to comfortably allow cleaning under and around the equipment.

b. Equipment that is intended to be “Clean in Place (CIP)” should be designed and constructed so that:

- i cleaning and disinfection solutions circulate through a fixed system and contact all interior food contact surfaces;
- ii the system is self-draining or capable of being completely drained of cleaning and disinfectant solutions;
- iii there are inspection access points to ensure all interior food contact surfaces throughout the fixed system are being effectively cleaned.

(4) Calibration and Standardization

Equipment or instruments used for measuring or monitoring products or processes that could have an impact on product safety or legality shall be calibrated or standardized to a standard recognized by the Food Control Department. The calibration or standardization shall be done internally or externally after each year to ensure proper functioning of the equipment.

8.5.6 Lighting

(1) Lighting and lighting fixtures should be designed to prevent accumulation of dirt and be easily cleanable.

(2) Food establishment should be supplied with sufficient natural or artificial light to ensure the safe and sanitary production of food, and facilitate cleaning of the premises. Unless otherwise specified, the minimum lighting intensities should be:

- i 110 lux (at a distance of 89 cm (3 ft.) above the floor) in walk-in coolers, dry food storage areas, and in all other areas and rooms during periods of cleaning;
- ii 220 lux (at a distance of 89 cm (3 ft.) above the floor) in areas where fresh produce or packaged foods are sold or offered for consumption; areas used for hand washing, ware-washing, and equipment and utensil storage; and in toilet rooms; and
- iii 500 lux at the surface where a food handler is working with unpackaged high risk foods or with food utensils and equipment such as knives, slicers, grinders or saws where employee/worker safety is a factor.

8.5.7 Ventilation

(1) Food establishment should be provided with adequate mechanical or mixed mode ventilation to ensure good indoor air quality.

(2) Ventilation systems should be designed and installed such that:

- i they are sufficient in number and capacity to prevent grease or condensation from collecting on the walls and ceiling;
- ii the filters or other grease extracting equipment are easily removable for cleaning and replacement if not designed to be cleaned in place;
- iii the exhaust ventilation hood systems include components such as hoods, fans, guards, and ducting which will prevent grease or condensation from draining or dripping onto food, food contact equipment or surfaces, utensils or single-service and single-use articles; and

(3) Mechanical ventilation systems should be installed in such a manner that airflow is directed from the clean area to the contaminated area.

8.5.8 Storage Areas

(1) Food establishments require adequate storage facilities for all items required for operation, including food, food ingredients, equipment, and non-food materials such as utensils, single-service and single-use articles, packaging, and chemical agents. During storage, food items **shall** be protected from contamination such as water leakage, pest infestation or any other insanitary condition.

(2) The following criteria should be applied to all storage areas:

i adequate shelving should be supplied in order that all materials may be stored off the floor. All food and food items and equipment should be stored at a minimum of 15 cm (6 in.) off the floor on racks, shelves or pallets. Shelving which is not sealed to the floor should have a clear vertical space of at least 20 cm between the bottom shelf and the floor to facilitate cleaning. Wide shelving units should be at least 20 cm or more away from the walls to allow for access for cleaning, and permit easier visual inspection;

ii shelves should be constructed of materials which are durable and easily cleaned.

(3) The facilities used for the storage of food, food ingredients, equipment and packaging should be designed and constructed so that they:

- i are cleanable;
- ii are located in a clean and dry location;
- iii restrict pest access and harbourage;
- iv protect food from contamination during storage.

(4) The facilities used for the storage of food, food ingredients, equipment and packaging materials should not be located:

- i in areas used for the storage of soiled or contaminated objects and materials;
- ii in locker rooms, toilets, garbage or mechanical rooms;
- iii under sewer lines that are not shielded to intercept potential drips; or
- iv in the same room/vicinity as chemicals/pesticides.

(5) Non-food agents such as disinfectants, detergents, pesticides and other similar products **shall** be stored separately in a lockable area that prevents the potential for contamination of food, food ingredients, food contact surfaces and non-food materials such as utensils, single-service and single-use utensils, and packaging materials.

(6) Personal belongings and uniforms of employees should be stored separately from food storage and food preparation areas.

8.5.9 Water Supply

(1) An adequate supply of water should be provided for all cleaning activities conducted on the food premises. The water supplied should be of sufficient temperature to achieve effective cleaning;

(2) Water storage tanks for drinking water should be in a manner that prevents contamination. To prevent the access of animals, birds and other extraneous matters, water storage tanks and over flow tanks should be provided with appropriate covers.

(3) Ice which comes into contact with food has to be made from drinking water. Ice should be made, handled and stored under conditions that protect it from contamination.

(4) Steam used directly in contact with food shall not contain any substance that presents a hazard to health or is likely to contaminate the food.

(5) Water storage tanks shall be maintained clean. Cleaning and disinfection of tanks should be carried out at least twice per year, but more frequently if necessary.

(6) When a storage tank is shared by several food establishments (such as in a mall), the food establishment should be able to show documented evidence that the water tank is cleaned as required.

(7) Drinking water coolers and dispensers shall be regularly cleaned and disinfected so as to keep it free of dirt and microbial contamination.

8.5.10 Sewage and Solid Waste Disposal

(1) Disposal of sewage and solid waste **shall** be done in a hygienic manner which does not expose the food premises or food products to potential contamination.

(2) Solid waste containers within the food establishment should:

- i be sufficient in number and accessible;
- ii be designed to minimise both the attraction of pests, and the potential for airborne contamination;
- iii be identified as to their contents;
- iv have functional foot operated lids, if closed containers are used.

(3) Garbage storage rooms and containers should be emptied, cleaned and disinfected as often as necessary.

8.5.11 Plumbing System

(1) Where water conditioning devices such as water filters or screens are installed on water lines, they should be of a type that permits easy disassembly, to facilitate periodic servicing and cleaning

(2) In order to prevent backflow through cross connections, back-flow prevention devices (e.g. air gaps, vacuum breakers) should be installed wherever required.

8.5.12 Overhead Utility Lines

(1) Utility lines such as gas, electrical, sewage and water lines, as well as cooling ducts, should be suspended away from work areas or areas of open food to minimise the potential for contamination.

(2) They should exhibit no sign of flaking rust or paint.

(3) Lines carrying contaminated or hazardous materials, such as sewer or floor drain lines, **shall** be located sufficiently distant from any product or product contact surfaces to prevent any risk of contamination.

(4) Lines should be:

- i insulated, where appropriate, to prevent condensation
- ii constructed and covered with a suitable material to minimise the build-up of soil
- iii easily cleanable; and
- iv labelled or colour-coded.

8.5.13 Hand wash Stations

(1) At least one hand wash station shall be provided in each food preparation area. Additional hand wash stations may be required depending on the type and extent of activity.

(2) Hand wash facilities shall:

- i be located to allow convenient access and use by food handlers and other workers;
- ii be equipped with single-use liquid soap dispensers and towel;
- iii provide an adequate flow of water at a suitable temperature
- iv be easily cleanable, and maintained in a clean and sanitary condition;
- v be with clear signboards and not be used for purposes other than hand washing.

8.5.14 Toilet Facilities and Dressing Areas

(1) Adequate, suitable and conveniently located toilets should be provided for food handlers. The following criteria should be considered :

- i toilets should be conveniently located and accessible to workers during all hours of operation;
- ii toilets should be completely enclosed and provided with a tight-fitting and self-closing door;
- iii toilets should be equipped with a handwash station; including a liquid soap and paper towel dispenser; have handwashing sign prominently displayed;
- iv toilets should be easily cleanable, well ventilated, and well lit; and
- v toilets should not open directly into a food area where food or packaging material is stored, handled or packed;
- vi when adjacent to a food area, the toilet should be separated with a double door and ventilated space.

(2) Toilet rooms for the public, if provided, should be completely enclosed and separated from the food preparation and storage areas.

(3) Dressing and changing areas should be provided if workers routinely change their clothes in the food premises. Dressing and changing areas should be:

- i easily cleanable;
- ii well ventilated and well lit;
- iii provided with lockers or other suitable facilities for the storage of workers' possessions and uniforms;
- iv separate for male and female employees.

8.5.15 Cleaning Facilities

- (1) To meet the cleaning requirements of the operation, every food establishment should have sufficient and suitable cleaning materials, equipment and facilities.
- (2) The service sink or curbed cleaning facility, equipped with a floor drain, should be conveniently located for the cleaning of mops or similar wet floor cleaning tools, and for the disposal of mop water and similar liquid waste. Such facilities should be located away from food handling areas.
- (3) Adequate storage facilities should be provided as necessary stored away from food handling areas to store brooms, mops, pails, and cleaning compounds when not in use. Toilets should not be used for storing cleaning materials or equipment.

8.5.16 Mobile Vendors, Stalls, Catering Trucks , Dinner Events

This requirement covers food establishments including mobile food vans or other similar temporary mobile food businesses, mobile vending operations, and establishments that supply food to events and other external events that are permanent or temporary in nature.

Food establishment should follow relevant temperature requirements and other handling and storage recommendations of this regulation. When the food is supplied to a third party such as an event organiser, the food establishment that supplies the food should ensure that handling requirements of food are clearly communicated in writing to the person in charge of the event.

8.6 Control of Hazards in Food

This part of the food regulation is based upon the principle that food safety is best ensured through the identification and control of hazards in the production and handling of food as described in the in the joint WHO/FAO Codex Alimentarius Commission, rather than relying on end product standards alone. The Sindh Food Authority requires all food establishments to implement a risk based food safety programme.

8.6.1 Management of Food Safety

8.6.1.1 Management – Person in Charge

- (1) All food establishments **shall** employ at least one (1) full time, on-site Person in Charge (PIC) which may be manager of the food establishment having minimum 24 hour training certificate in food safety.
- (2) All food service establishments where high-risk, ready to eat or raw foods are prepared **shall** have at least one PIC present in the establishment during all shifts (duration) of food establishment operation. The PIC should be responsible for and should actively oversee all food establishment operations that could have an impact on the safety of the food.
- (3) PIC **shall** possess knowledge of food safety principles and.

(4) The name of the PIC should be displayed behind the cash counter or in a place that is clearly visible to customers.

(5) Once the employment of a PIC is terminated, establishments can take up-to thirty (30) days to designate a new PIC.

3.1.2 Roles and Responsibilities of Person in Charge

a. The PIC should have appropriate knowledge on food safety risks associated with the type of business.

b. The PIC should provide effective supervision in implementing safe food practices, conduct regular inspection of the food premises, address potential food risks, and, where necessary, take appropriate corrective action.

c. The PIC should maintain measures of accountability for meeting food safety responsibilities, including ensuring that

i all employees are aware before they start of work; and

ii trained employees are competent and are carrying out responsibilities as required.

8.6.1.2 Food Safety Programmes

All food establishments should implement and maintain a Sindh Food Authority approved food safety programme that is documented and that identifies and controls food safety hazards.

(1) General Requirements for Food Safety Programmes

A food establishment should:

a. Systematically examine all of its food handling operations in order to identify the potential hazards that may reasonably be expected to occur.

b. Develop and implement a food safety programme to control the hazard or hazards if one or more hazards are identified in accordance with paragraph (a).

c. Set out the food safety programme in a written document and retain that document at the food establishment.

d. Comply with the food safety programme; and conduct a review of the food safety programme at least annually to ensure its adequacy.

e. Review the system and make necessary changes to it when any significant modification is made to the product, process, or any step, or in the event of a justified food complaint or food related incident.

(2) Auditing of Food Safety Programme

All food establishments should

a. Ensure that the food safety programme is audited by Sindh food authority once annually.

b. Food Safety programme of any food establishment audited planned/unplanned by food safety officer or that is prescheduled and notified before fifteen days. Maximum four members conduct audit (visit) including one member from respective food association or chamber of commerce.

- b. Make the written document that sets out the food safety programme, and the appropriate records available to any food safety auditor who has been requested to conduct an audit of the food safety programme; and
- c. Retain copies of all written reports of the results of all audits of the food safety programme conducted by a food safety auditor within the last four years, for inspection upon request by a food safety auditor who audits the food safety programme or an Authorised Officer from Sindh Food Authority.

(3) Content of Food Safety Programmes

A food safety programme should

- a. Include in its scope all foods that are prepared, sold, distributed or displayed in the food establishment.
- b. Systematically identify the potential hazards that may be reasonably expected to occur in all food handling operations of the food establishment.
- c. Identify where, in a food handling operation, each hazard identified under paragraph (b) can be controlled and the means of control.
- d. Provide for the systematic monitoring of those controls.
- e. Provide for appropriate corrective action when that hazard, or each of those hazards, is found not to be under control.
- f. Provide for the regular review of the programme by the food establishment to ensure its adequacy; and
- g. Provide for appropriate records to be made and kept by the food establishment demonstrating action taken in relation to, or in compliance with, the food safety programme.

8.7 Food Handling and Processing

8.7.1 General requirements for processing food

- a. Food establishments **must** take all practicable measures to process only safe and suitable food.
- b. Food establishments when processing food should;
 - i take all necessary steps to prevent the likelihood of food being contaminated; and
 - ii where a process step is needed to reduce to safe levels any pathogens that may be present in the food, use a process step that is reasonably known to achieve the microbiological safety of food.
- c. A food establishment, when handling and processing high risk food that will not undergo a pathogen reduction step, ensure that the time the food remains at temperatures that permit the growth of infectious or toxigenic bacteria in the food is minimised.

8.7.2 Food Source

A food establishment **shall** take all practicable measures to ensure it only accepts food that is not contaminated. The PIC should provide information, i.e. a specification, to suppliers for each ingredient, where necessary, to ensure the desired safety and quality of those foods and ingredients on delivery.

8.7.2.1 Approved Sources

Food and food ingredients received at a food establishment **shall** be obtained from sources that are approved by Authorities.

a. Food establishments should provide, to the reasonable satisfaction of an authorized officer upon request, the following information relating to food, the name and business address of the supplier, vendor, manufacturer or packer or, the importer.

8.7.2.2 Unapproved Sources

Food prepared in a private home, unlicensed establishments or any other place, which is not approved by the Sindh Food Authority, **shall not** be commercially offered for human consumption.

8.7.3 Food Additives

a. Food additives that are banned by the Sindh Food Authority **shall not** be used.

b. All additives **shall** be used at a concentration recommended in the relevant product standard. In the absence of a standard, scientific validation is necessary.

c. Manufacturers and suppliers of food additives should provide information on safe usage of additives to the end user.

8.7.4 Handling Raw Food

a. Raw and ready-to-eat foods should be kept separate at all times.

b. Fruits and vegetables that are consumed raw should be cleaned and disinfected using a chemical disinfectant or any other process.

8.7.5 Thawing

Frozen foods should be thawed quickly in a manner that will prevent the rapid growth of pathogenic and spoilage bacteria

a. When thawing high risk frozen foods, the warmest portion of the food **shall** not rise above 5°C and the food should be used within 48 hours from the time of start of thawing.

b. Frozen raw meat, poultry and fish may be thawed under refrigeration at air temperature of 10°C or less, or under cold running water, as long as the product temperature does not exceed 5°C. If the raw food is not to be cooked/prepared immediately after thawing, it should be stored below 5°C. Such foods should be cooked within 72 hours from the time of the start of thawing.

c. Frozen raw meat, poultry and fish when cooked immediately after thawing, can be thawed using methods where the thawed portions of the foods are above 5°C. The time period above 5°C, including the time for preparation prior to cooking does not exceed 4 hours.

d. Raw meat, fish or poultry thawed at a temperature that does not exceed 5°C can be refrozen for specific processes.

8.7.6 Cooking Raw Foods of Animal Origin

a. The time and temperature of cooking raw foods of animal origin and food mixtures containing raw foods of animal origin should be sufficient to reduce any food borne pathogen that may be present in the food to an acceptable level.

b. Raw foods of animal origin and food mixtures containing raw foods of animal origin **shall** be cooked until core temperature is at least 75°C or to a time and temperature that would give an equivalent pathogen reduction. The nature of the product **must** be taken into consideration when defining the equivalent time and temperature requirements

c. Cooking temperature should be checked regularly by inserting a calibrated thermometer into the slowest heating point, normally the core of a product, and the temperature readings recorded.

8.7.7 Hot Holding

a. Cooked foods to be served hot, **shall** be held at a temperature of at least 60°C.

b. Appropriate hot holding devices should be used to maintain high risk foods at the correct temperature.

8.7.8 Cooling after Cooking

a. Cooked high risk foods intended to be kept under refrigerated storage prior to serving, are to be cooled from 60°C to 20°C or less within two hours and then from 19°C to 5°C or less within 4 hours (total 6 hours).

b. Foods that are cooled this way and stored chilled should be used within 72 hours from the time of preparation.

8.7.9 Cooling from Room Temperature

When high risk foods are prepared at room temperature and kept under refrigerated storage prior to serving, they should be cooled from room temperature to 5°C or less within 4 hours. This includes those foods whose ingredients were canned or made from reconstituted foods.

8.7.10 Reheating Cooked Foods for Hot Holding

a. Cooked foods that are cooled and stored at 5°C and are intended to be held and served hot should be reheated until it reaches an internal temperature exceeding 75°C in a manner that they will pass through the danger zone (5°C to 60°C) as quickly as possible. Reheating time should not exceed 1 hour.

8.7.11 Reheating Cooked Food for Immediate Service

a. Cooked foods that are cooled and stored at 5°C, can be reheated once only and served, if for immediate consumption, at any temperature, provided the time the food spent between 5°C and 60°C does not exceed 2 hours.

8.7.12 Use of Microwave for Cooking or Reheating

Cooked and cooled food reheated in microwave, should be rotated or stirred throughout or midway during cooking to compensate for uneven distribution of heat, and allowed to stand covered for a minimum of 2 minutes after cooking to obtain temperature equilibrium.

8.7.13 Canning

Low-acid canned foods should be cooked to a temperature of 121°C for a minimum of 3 minutes or subject cans to an equivalent process that would ensure the destruction of spores of *Clostridium Botulinum*.

8.7.14 Use of Non-thermal Processes for Pathogen Reduction

Non-thermal processes can be used in specific applications intended to minimise organoleptic changes that are caused by thermal processes.

8.7.15 Controlling Growth of Pathogens with Water Activity and Acid Ingredients

- a. Foods that have a water activity of 0.91 or less can be stored without temperature control.
- b. Foods that have a pH of less than 4.0 can be stored safely without temperature control.
- c. Such processes when used **shall** be validated and the control measures verified frequently.

8.8 Time as a Safety Control

High risk foods should be stored under temperature control at all times. However, time can be used as a safety measure during exceptional situations where temperature control is not possible. However, food service establishments that routinely hold food before service **must** use temperature control for safety.

- a. High risk hot foods that are intended for immediate consumption **shall** not be stored, displayed or held for service at temperatures between 5°C and 60°C for a period of more than 2 hours. The food product **shall** be discarded after that time.
- b. High risk cold foods that are intended for immediate consumption **shall** not be stored, displayed or held for service or display at temperatures between 5°C and 60°C for a period of more than 4 hours including the time of preparation. The food item should be discarded after that time. After preparation, the food should be quickly chilled to 5°C before it is displayed.
- c. Foods stored without temperature control under section (a) and (b) above should be clearly labelled with the time of expiration to indicate the time when the food has to be discarded.

8.9 Preventing Food and Ingredient Contamination

8.9.1 Preventing Microbial Contamination

- a. Access to food preparation areas should be restricted, as much as practically possible, to designated people.
- b. For visitors including management and maintenance staff, all practicable measures should be taken to ensure that they will not contaminate food when visiting food preparation areas.
- c. Where the public has access to food other than raw, unprocessed fruit and vegetables, or food specifically served to a customer by a worker of the food premises, the food should be protected

from public handling and contamination by the use of packaging, display cases, or salad bar sneeze guards (food guards), and be provided with suitable utensils or effective dispensing methods.

d. Food handlers should avoid contact with exposed areas of ready-to-eat foods with their bare hands and use, as much as practically possible, disposable gloves and clean and disinfected utensils such as tongs, spatulas, or other food dispensing apparatus.

e. Raw or unprocessed food should be kept separate from ready-to-eat foods.

f. Ready-to eat foods should not be stored below raw animal products or vegetables.

g. During thawing, drips from thawing food should be prevented from contaminating other foods.

h. Raw fruits and vegetables should be, thoroughly washed in potable water to remove soil and other contaminants, disinfected when necessary, before being cut combined with other ingredients, cooked, served, or offered for human consumption in ready-to-eat form. This does not apply to whole raw fruits and vegetables that are intended for washing by the consumer following point of sale.

i. Foods that have been previously purchased and returned to the retailer or food service operation may not be re-offered for sale to another consumer.

l. Separately marked or colour Coded cutting boards should be used for the preparation of :

i ready to eat foods

ii raw, ready to eat animal and sea food (e.g.. Fish for Sushi);

ii. raw vegetable foods intended to be cooked;

iii. raw animal foods intended for cooking.

j. Separate, freshly cleaned and disinfected food contact surfaces (including preparation tables, cutting boards and knives) should be used for ready-to-eat foods.

k. Equipment with any raw food contamination should never be used for ready to eat food without being cleaned and disinfected.

l. Food transported in conveyors, elevators or similar means should be protected from contamination.

8.9.2 Physical and Chemical Contamination

a. The operator of a food premise should ensure that food is stored, displayed, prepared and served in a manner that prevents the food from becoming contaminated.

b. Non-food items such as chemicals, pesticides or any other substance that can harm consumers **must** be stored in designated areas away from any food, food equipment or food contact surfaces.

c. Foods may not contain unapproved food additives or food additives in excess of the amounts stipulated under relevant food standards.

8.10 Packaging

Food packaging should be of suitable design to provide the necessary protection to the product during its shelf life.

8.10.1 General Requirements for Packaging Materials

a. Packaging materials should be appropriate for the food to be packed and sufficiently durable to withstand the conditions of processing, storage and transportation.

- b. Packaging materials should not pose a threat to the safety of the food to be packed.
- c. Packaging materials and design should provide adequate protection for the food to be packed to minimise contamination and prevent damage.
- d. Packaging of food should be carried out under hygienic conditions to protect the food from risks of contamination.
- e. Packaging and wrapping of food should be carried out by staff with appropriate training in food safety.
- f. Packaging materials should be stored and handled under hygienic conditions to minimise the risks of contamination and deterioration.

8.10.2 Protection of Food Content

Food packages should be in good condition and protect the integrity of the contents so that the food within is not exposed to adulteration, damage or potentially harmful contaminants.

8.10.3 Reduced Oxygen Packing

- a. Food establishments that package high risk foods using a reduced oxygen packaging method **shall** have measures in place to control the growth and toxin formation of *Clostridium Botulinum* and the growth of *Listeria Monocytogenes*.
- b. Packaging materials or atmospheric packaging gases, where used:
 - i should not cause harm to people exposed to them;
 - ii should not pose a threat to the safety and suitability of food under the specified conditions of storage and use.

8.10.4 Food Containers

- a. The operator of a food establishment should ensure that only food grade containers are used.
- b. High-acid foods (pH below 4.6) should not be stored or cooked in containers coated with, made of, or containing:
 - i lead or lead-based products, including lead-glazed ceramics;
 - ii zinc, such as galvanised containers;
 - iii enamelware, which may chip and expose the underlying metal;
 - iv copper and copper alloys such as brass; and
 - v cast iron;
 - vi aluminum.
- c. Cast iron may be used only under the following conditions:
 - i as a surface for cooking;
 - ii in utensils for serving food, if the utensils are used only as part of an uninterrupted process from cooking through service.

8.10.5 Reusable Packaging

Reusable packaging materials should be durable, clean, and be able to withstand disinfection process.

8.10.6 Storage of Packaging Supplies

Packaging supplies should be stored in a way that they are protected from any form of contamination.

8.10.7 Returnables, Cleaning-for-Refilling

- a. Except as specified in (b), returned empty containers intended for cleaning and refilling with food, should be cleaned, disinfected and refilled only in a regulated food processing plant.
- b. Food specific containers for beverages only may be refilled in a food establishment, if:
 - i the beverage is not a high risk food;
 - ii the design of the container, the rinsing described in (iii), and the nature of the beverage, when considered together, allow for effective cleaning at home or in the food premises;
 - iii facilities for rinsing the containers with potable hot water under pressure are part of the dispensing system.

8.11 Storage, Transportation and Distribution of Food Products

To ensure continuation of food safety storage and transport facilities need to be designed and managed to protect food products from potential contamination and damage, and to prevent the growth of pathogens.

8.11.1 Food Transportation, Storage and Distribution Units

- a. Food transportation, storage and distribution units should be designed, constructed, maintained and used in a manner that permit effective segregation of different foods and protects food products from being contaminated.
- b. Where both food and non-food products are transported, stored and distributed together, procedures should be in place to ensure that food products are not exposed to potential contamination from non-food products.
- c. Food transportation equipment that is intended to be in direct contact with food products **shall** be constructed with non-toxic materials, which are easy to maintain and clean. Examples include stainless steel and food-grade plastic containers.
- d. When necessary, cleaning and disinfection should be done between loading food stuff. e. where appropriate, cargo containers should be marked for, and used for 'food use only.'
- f. Food transportation and storage units/equipment **must** be of suitable capacity and should be maintained at temperatures that are consistent with requirements of this regulation.
- g. In transportation, storage and distribution units, foods should be stored off the floor and away from walls.

8.11.2 Temperature Control during Storage and Transportation

- a. All high risk and perishable foods requiring temperature controlled environments to extend their shelf life or limit microbial growth **shall** be transported, stored or distributed in equipment that consistently maintains those temperature controls.
 - i at or below 5°C if cold or at or above 60°C if hot ;
 - ii frozen at -18°C if they are intended to be stored frozen;
- b. Areas used for the storage of dry food commodities need to be cool, well ventilated with a relative humidity of 60-65%, to ensure that product quality and safety is not compromised.

Temperature of storage should meet the requirements of the manufacturer when specified on the product label (for e.g.. Infant formula should be stored below 25°C).

8.11.3 Handling and Transfer of Foods

- a. Food establishment should take necessary steps to inspect foods at the time of receiving to detect and avoid foods that are unacceptable.
- b. Receipt of high risk foods should be monitored to ensure that proper temperatures are maintained during their transportation, storage and distribution. Products and records should be checked at the time of receiving and nonconforming products should not be accepted.
- c. Food should not be handled or transferred in any way that may cause damage, contamination or adulteration of the food. Food handlers responsible for loading foods into vehicles, and filling display chillers and freezers should be familiar with capacity levels and restrictions to loading such units, volume limits, air flow, temperature range variances, etc., in order to maintain the minimum/ maximum temperature needs of the products being placed therein.
- d. While transferring chilled foods, foods should be quickly moved into temperature controlled storage, to minimise the time in which they are in the danger zone, between 5°C and 60°C. A deviation of not more than 5°C is allowed for not more than 20 minutes during the transfer of chilled foods.
- e. While receiving and transferring raw frozen foods, the temperature of the food **shall** not exceed -10°C.
- f. Contaminated or adulterated foods and foods that have been subject to temperature abuse **shall** be discarded or disposed off.
- g. Damaged food container systems **must** be thoroughly examined and if the food is contaminated or adulterated, it **shall** be discarded or effectively segregated until returned to the supplier or otherwise disposed off.

8.11.4 Storage Procedures

- a. Rotation of food stocks in storage areas should occur frequently to ensure that the “first-in-first-out” rule is followed. Food products removed from storage should always be the oldest food stocks present.
- b. Food should be stored in suitable and safe containers and stored covered. If packaged, suitability of packaging should be ensured.

8.11.5 Disposal of Food

Food that has been found or suspected to be unsafe or unsuitable (e.g. food that is subject to recall or has been returned, temperature abused, contaminated or damaged) **shall** be rejected or identified (e.g. marked, labelled, kept in a separated container or isolated area), kept separately and disposed off as quickly as possible. It **shall** never be used for human consumption. Details of rejected items **shall** be documented.

8.12 Cleaning and Maintenance

Establishment cleaning and maintenance includes the elements of cleaning and disinfection, pest management, waste management, building and equipment maintenance and the need to monitor the effectiveness of these elements. Food establishments should ensure that food premises, fixtures, equipment and utensils are maintained to an acceptable standard of cleanliness, and in a good state of repair.

8.12.1 General Requirements Pertaining to Maintenance

a. All parts of the premises, fixtures, fittings and equipment should be maintained at all times in a state of good repair and working condition to:

- i prevent contamination of food by plaster, paint, broken glass or leaking pipes, etc.
- ii enable effective cleaning and, if necessary, disinfection;
- iii ensure pests cannot gain access to the premises from hollow spaces in ceilings, walls, etc.
- iv ensure that the equipment works as intended.

b. Floor surfaces should be maintained in good condition, free of cracks, crevices or other defects. There should be no dips or hollows. Floors should be free from accumulation of food waste, dirt, grease or other visible obnoxious matter. They should be washed with detergents at least once daily. Hot water or steam may be used for better removal of grease. Coving between floor and wall junctions should be kept clean, in good repair and be bonded firmly to their positions.

c. Walls of food rooms should be cleaned frequently, daily or more if necessary. Wall surfaces or ceilings should be clear of unnecessary fittings or decorations such as unnecessary posters or pictures as far as possible.

d. Junctions between walls, and between walls and ceilings, should be tightly sealed and maintained in good condition, and free from cracks, crevices, holes or gaps or flaking materials. Any holes or gaps that may allow access of pests to wall and ceiling cavities should be sealed up. False ceilings should be cleaned to remove accumulation of dust, particles or debris that may fall on to foods as to cause contamination.

e. Any furniture or equipment, which cannot be moved by one man, should not be placed too near to any wall inside kitchens or food preparation rooms as to avoid obstruction to the access to such places for cleaning. Alternatively, heavy equipment can be installed with wheels to facilitate easy removal for cleaning.

f. Food contact surfaces of equipment and utensils, such as crockery, cutlery and tableware, should be maintained in a good state of repair and working condition. They should be smooth, free of cracks and crevices, and be kept clean and free from noxious matter.

g. Cutting surfaces such as chopping blocks and cutting boards which are subject to scratching and scoring should be resurfaced if they become too difficult to be effectively cleaned and disinfected, and should be discarded if resurfacing is impossible.

h. Non-food contact surfaces of equipment such as cupboards, refrigerators, wet refrigerators, racks, stoves, cooking ranges and food lifts should be kept clean and in good state of repair and working condition. They should be free of unnecessary ledges, projections and crevices; and designed and constructed to allow easy cleaning and to facilitate maintenance.

8.12.2 Cleaning and Disinfection

8.12.2.1 *General Requirements Pertaining to Cleaning*

- a. Food contact surfaces of equipment and utensils should be kept clean and free from noxious matters by regular cleaning and disinfection at a frequency that prevents accumulation of grease deposits, dirt and other residues, having regard to their use.
- b. A food contact surface such as a cutting board used for raw food and ready-to-eat food should be cleaned and disinfected between use. If an equipment or an utensil is used continuously at room temperature for handling high risk foods (e.g. meat slicers), it should be cleaned and disinfected at least once every 4 hours.
- c. Any part of a thermometer, especially the temperature probe that will be inserted into the food for temperature measurement, should be cleaned and disinfected after use.
- d. Non-food contact surfaces should be cleaned at a frequency that prevents accumulation of dirt, grease and other residues, preferably once a week or more as required.
- e. Cleaning has to be carried out in a systematic manner, for example, in sequence from walls, non-food contact surfaces of equipment such as cupboards, refrigerators, cooking ranges and then the floors.

8.12.2.2 *Cleaning Facilities*

Food establishments should have adequate facilities to enable effective cleaning activities. There should be separate cleaning rooms with proper segregation between cleaned and unclean equipment such that cross-contamination is prevented.

8.12.2.3 *Cleaning and Disinfection Process*

- a. Cleaning and disinfection of equipment and utensils should be done as separate processes. A food contact surface needs to be thoroughly cleaned before it is disinfected
- b. After cleaning, food contact surfaces of equipment and utensils **shall** be:
 - i disinfected to a temperature of 82°C or equivalent in a dish washing machine;
 - ii disinfected by immersing in a non-toxic solution containing a disinfecting agent; or
 - iii disinfected using any other method that can reduce the microorganisms to a level which is neither harmful to health nor the quality and safety of foods.
- c. All cleaned and disinfected equipment and utensils should be thoroughly rinsed and dried by evaporation (air dry);
- d. Cleaned and disinfected equipment should be stored in a place and manner that prevents contamination;
- e. Adequate care **must** be taken to ensure that water, debris and other materials are not spread to clean areas when high pressure jets are used;
- f. In retail food service establishments:
 - i separate sinks should be provided for food preparation and equipment washing depending on the size and extent of activities;
 - ii all dish-washing activities should be done in sinks within the food premises;

iii wash-up sinks should be cleaned at a frequency that prevents accumulation of grease deposits and other residues;

iv sinks used for the purpose of washing ready-to-eat foods should be cleaned and disinfected before use;

v wash-up sinks should not be used for miscellaneous articles;

vi hand washing should not be carried out in sinks that are used for other purposes. Sinks should be identified in some ways that they are used for such purpose only, e.g. by putting up a notice such as “For washing food or utensils only” or “Not to be used for hand washing” etc.

8.12.2.4 *Cleaning Chemicals*

a. Chemicals used for cleaning and disinfection/sanitizing **must** be suitable for use in food establishments. The establishment should determine the appropriate cleaning method in consultation with the supplier of chemical service provider.

b. Detergents used for cleaning food contact surfaces should be appropriate for the task, and be able to effectively remove food residues on equipment and utensils.

c. The documents should include validation data with the following details:

i evidence that the chemicals are suitable for the tasks being carried out;

ii evidence that the chemicals will be effective against pathogens of concern;

iii evidence that the chemical is suitable for use in food establishments.

d. Effectiveness of the cleaning method should be evaluated by the food establishment and appropriate data should be gathered to validate the method selected and to make adjustments as needed.

e. All chemicals should be labelled properly and never decanted into food containers

f. Chemicals should be stored securely and in accordance with the manufacturer's recommendation.

g. The concerned person in the establishment should:

i be trained on the use of the disinfectant;

ii keep records of disinfectant concentrations.

8.12.2.5 *Cleaning Tools and Equipment*

The design of the cleaning tools and their handling and storage are also important to ensure effective cleaning.

a. The design of the cleaning tools **must** be suitable for effective cleaning with no hiding places for food residues or bacteria to accumulate.

b. Materials should be suitable to withstand the effect of cleaning chemicals.

c. Brushes made of wood and natural bristles **must** be avoided.

d. Mops with detachable heads that can be washed should be used for cleaning the floor.

- e. Cleaning tools should be stored clean and dry after use in designated areas that facilitates drying.
- g. Equipment and mechanical aids such as floor scrubbers and rotating washers should be carefully chosen so that it is suitable for the use intended.

8.12.2.6 *Cleaning and Disinfection Programme*

- a. To achieve the appropriate standard of cleanliness, all food establishments should develop a cleaning / disinfection programme that encompasses all equipment and facilities as well as general environmental cleaning. Cleaning methods need to be developed that are suitable for the item/ equipment/surface to be cleaned and should describe both the method and frequency of cleaning specific areas.
- b. Food establishments should conduct an evaluation for each area to decide the cleaning method. Consideration should be given to potential microbiological risks, i.e. pathogenic and spoilage microorganisms, and potential chemical and allergen risks.
- c. Cleaning programme should be maintained with the due consideration to the following details:
 - i the size, type and temperature of area to be cleaned, the structure of the building and the wall, floor and ceiling finishes and the type of material it is constructed of;
 - ii the type of soiling and water hardness, water pressure and drainage system;
 - iii if cleaning is necessary during food preparation, adequate measures to remove or protect food;
 - iv measures to reduce the risk of spreading contamination, especially when using high pressure jets;
- d. Food establishments should maintain a written cleaning programme that specifies:
 - i what is to be cleaned;
 - ii chemicals, materials and equipment to be used for cleaning;
 - iii dilution and contact time of the chemical;
 - iv method of cleaning (how);
 - v frequency of cleaning (when and how often);
 - vi time necessary to clean it;
 - vii who has to clean it (name of the person);
 - viii safety precaution to be taken- protective clothing to be worn;
 - ix who is responsible for monitoring and recording what has been cleaned.

8.13 Pest Control

- a. Food premises should be kept free of pests like rodents, insects, birds and animals.
- b. Food premises and surrounding areas should be inspected regularly to look for signs of pest infestation.
- c. Whenever pests are detected, control actions should be taken promptly to rectify the situation.

d. Pest control activities **shall** be done by specialist pest control agencies that can carry out pest inspection and subsequent control work. They **must** only use approved chemicals and methods.

8.13.1 Prevention and Control of Pest Infestation

To avoid pest infestation in the premises, it is necessary to maintain food establishment at high standards of hygiene and immediately fix any structural defects. Proofing measures should be adopted to block the entry of pests. Foods should be properly protected and waste disposed of to remove their food source.

a. Prevention of Entry of Pests

Particular attention should be given to the following in the prevention and control of pests in food premises:

- i Any holes or crevices in ceilings, walls and floors should be sealed by cement or metal plates ;
- ii Windows, ventilation openings and doors should be installed with mesh screens. Doors / screen doors should be self-closing and kept closed at all times;
- iii Any missing or damaged gratings of drains should be installed or replaced immediately.

b. Elimination of harbourage for pests

- i False ceilings should be avoided in food preparation or storage areas as far as possible;
- ii Any defects on walls, floors, ceilings, woodwork and all other parts of the structure of food premises should be promptly repaired;
- iii Disused articles or equipment should be stored in food premises. If accumulation of articles is unavoidable, they should be moved regularly to eliminate harbourage of pests.

c. Elimination of food sources to pests

- i All foods as well as condiments should be covered and stored properly in sealed containers;
- ii Floors of food premises should be kept clean and free from food remnants, especially overnight. Preparing food or cleaning utensils is strictly prohibited in the yard or the rear / side lanes;
- iii Refuse should be stored in refuse containers with well-fitting covers. Refuse bags should be tied up before disposal to prevent spilling and attraction of pests. They should be cleared at least once a day, preferably every night to avoid leaving refuse overnight.

d. Eradication of pests

- i Places, clothing and equipment contaminated by pests should be cleaned and disinfected as soon as possible;
- ii Pest control devices should be designed and located to effectively control the presence of pests in a food premises. Insect control devices designed to trap insects by adhesive or devices that may expel the insects or insect fragments should be installed so that the dead insects or insect fragments cannot fall onto exposed food or equipment. To be effective, insect traps (sticky pads or similar devices) should be changed regularly or when loaded with insects;
- iii Electric Fly Killers (EFKs) equipped with catch trays can be used to eliminate flying insects in food premises. The EFK should be placed at least 1.5m (preferably 4.5 – 6 M) away from a food handling area. Only low wall or ceiling mounted type EFKs should be used, and EFKs should not be directly above food preparation or storage areas;
- iv Pest control activities **shall** be done by specialist pest control agencies.

v Rodenticides and insecticides should be applied in such a manner as not to contaminate foods – they should not be applied while food production / preparation is taking place, and all open foods should be well covered and protected. Where, due to the nature of the food operation (e.g., 24-hour restaurants) this cannot be adhered to, reliance on physical control methods are preferred to the use of chemicals – especially sprays. Open food should be protected from contamination;

vi In the event of pest infestation, any contaminated equipment, utensils and food contact surfaces should be thoroughly cleaned and disinfected. Any food that has been contaminated by pests or pest control chemicals should be disposed off.

e. Keeping of Records

i Management of food establishment should keep proper records of pest control inspections, surveys, maintenance and service, etc. in respect of their establishment. Owners/operators should take note of information the pest control technician may need for follow-up.

ii Documentation should include:

- copy of the contract with the pest control agency
- the name of the pest control technician responsible
- the chemicals used for pest control (with the concentrations applied),
- the procedures and methods used
- the frequency of application; and
- records of inspection and monitoring.

8.14 Personal Hygiene

8.14.1 Personal Health and Illnesses

a. High standards of personal hygiene should be maintained in all food establishments to ensure that those who come into contact with food are not likely to contaminate food by:

- maintaining an appropriate degree of personal cleanliness;
- behaving and operating in an appropriate manner.

b. All food handlers should be in good health, have good eyesight and be able to read, especially if they are responsible for checking thermometers, instructions on labels, date coding etc.

c. Food handlers should undergo medical fitness tests conducted by the concerned authority and retain relevant occupational health cards indicating such.

d. All staff engaged in food handling **must**:

i be free from any symptoms of illnesses or communicable diseases such as diarrhoea, vomiting, fever, abdominal pain and jaundice;

ii not be carriers of food-borne diseases e.g. typhoid/paratyphoid, cholera, TB, hepatitis type A, B, C; and

iii not be suffering from discharging wounds or sores on any exposed part of their bodies; or from discharge from their ears, eyes or nose.

e. If a food handler is suffering from an illness or communicable disease, the Person in Charge is responsible for ensuring appropriate action is taken. This may include excluding the individual

from activities that involve the handling of food or food contact surfaces, food utensils and equipment, or authorising the individual's absence from the work place.

f. When returning to work after medical leave or illness, food handlers should have written clearance from the treating physician, particularly in the case of diagnosed, reportable communicable diseases.

8.14.2 Personal Hygiene Practices

a. Food handlers should maintain high levels of personal hygiene at all times.

b. In the course of handling food and for any person entering a food preparation or storage area, hair should be covered with a clean hat or hair net. Where required, beards should be completely covered with beard nets.

c. While in food handling area, food handlers should not wear watches, or jewellery.

d. Only clean outer clothing or protective overalls should be worn by food handlers. If they become soiled during food preparation, they should be changed or cleaned as necessary.

e. Hand hygiene is an important step to prevent spread of foodborne illnesses.

i Hands of food handlers should be kept clean at all times. Nails should be kept short and free of nail varnish

ii Food handlers **shall** wash their hands-

- before commencing work
- before handling food
- after visiting the toilet
- after putting on or changing a wound dressing
- after dealing with an ill colleague or customer
- after coming into contact with pests or their faeces
- after handling contaminated raw foods of animal or plant origin
- after handling soiled equipment or utensils
- after coughing, sneezing, smoking, eating, drinking or blowing nose
- after handling animals or waste
- after engaging in any activities that may contaminate hands (e.g. handling money, carrying out cleaning duties, etc.); or
- after returning from a break.

iii hand washing **must** be frequent, thorough and performed in wash hand basins;

iv wearing gloves should not be an alternative to proper handwashing.

8.14.3 Personal Habits

a. Inside food preparation areas, food handlers should refrain from performing the following behaviours/habits which may result in contamination of food:

i smoking or using tobacco and spitting;

- ii chewing, eating, sneezing or coughing over unprotected food or food contact surfaces;
- iii touching ready-to-eat food with bare hands;
- iv sitting, lying or standing on any surface liable to come into contact with food;
- v tasting food with fingers; and;
- vi touching hair or other parts of bodies such as noses, eyes or ears
- vii dining inside food preparation area.

8.14.4 Visitors

Any visitor to a food preparation area should be appropriately dressed and should observe the same hygiene as food handlers, including hand washing and hair restraint policies. They should refrain from coming into proximity or contact with food and food equipment, and from any activities that could contaminate food.

8.15 Training of Food Handlers

8.15.1 Role of the Person in Charge

The Person in Charge in a food establishment should ensure that all food handlers are trained to a level of food hygiene training appropriate to the type of work they undertake. After successful completion of the formal training programme, the food handlers should be competent and capable of demonstrating the skills at work.

8.15.2 Training programme

Food establishments should maintain a documented training plan for all employees based on their training needs. Training programme should be based on the level of food safety risk in the food premises, as listed below.

- a. All food handlers **must** be formally trained on food safety. Where necessary, staff who are not directly involved in food preparation, but are involved in managing food related services (such as a person handling the buffet counter, food delivery etc.), should also be formally trained.
- b. Food handlers should be trained in food safety to a level appropriate to the job they perform. Such trainings should also be based on the level of food safety risk in the food establishment. Factors for assessing the level of food safety risk include:
 - i the nature of food produced or manufactured in the establishment;
 - ii the manner in which food is handled or served;
 - iii the type of menu items or the complexity of the processes used (i.e., prepared-from-scratch menu items versus preparation or reheating of pre-packaged, ready-to-eat foods; and
 - iv the number of meals served daily, the size of establishment, and the type of customers the food is catered to (i.e., higher risk populations).
- c. Formal food safety training should be obtained from a trainer.
- d. The management of food establishment should promote food safety training to employers/ food handlers by conducting on-going in-house courses for them or arranging them to participate in courses.
- e. Periodic assessment of the effectiveness of training and instruction programme should be made by the PIC.

f. The PIC must maintain records indicating those employees who have been trained and their relevant particulars.

8.15.3 Continuing Educational Training

a. Every food establishment should promote food safety education through ongoing training, which may include additional classroom instruction, on-the-job training, food safety certification from a recognised programme of instruction, seminars, and employee meetings.

b. Food handlers should participate in a refresher or updating course after three year of training or, **shall** be retrained if deterioration in food handling practices is noticed.

c. The PIC **shall** provide evidence of continuous learning and refresher training appropriate to the level of food safety risk in the business.

8.0 Annex**A. Documents and Records for Food Establishments**

The following documents **shall** be maintained in all food establishments if relevant to their activity. Records should be kept in a special folder and should be made available to the Food Inspection Officer or any Authorised Official from the Sindh Food Authority upon request.

1. Food Inspection book
2. Good Receiving Note (GRN) of Materials
3. Copy of the trade license
4. Layout of the food establishment
5. Certification of successful completion of food safety training
6. Certificate of Person in Charge
7. Original contract with a pest control company and record of visits
8. Cleaning Programme
9. Supplier/Source details
10. Sick food handler reports and employee sick leave records
11. Evidence of water tank cleaning (contract/ pictures in case of self cleaning)
12. Complaint record
13. Recall form

PART-VIII

CHAPTER-1

1 Dairy products and analogues

Includes all types of dairy products that are derived from the milk of any milking animal (e.g. cow, sheep, goat, and buffalo). In this category, with the exception of food category 1.1.4, a “plain” product is one that is not flavored, nor contains fruit, vegetables or other non-dairy ingredients, nor is mixed with other non-dairy ingredients, unless permitted by relevant standards. Analogues are products in which milk fat has been partially or wholly replaced by vegetable fats or oils.

Dairy products and analogues as defined and described in PS: 4873 -2008. This Standard applies to milk and its products for production, storage, transportation, analysis, processing and handling of milk and milk products by farmers, *dhodhies*, middlemen, milk processors, distributors and retailers where applicable.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.0	Dairy Safety and standards for milk and milk products.	PS: 4873	Annexure-1

1.1 Fluid milk and milk products

Includes all plain and flavoured fluid milks based on skim, part-skim, low-fat and whole milk, excluding plain fermented products and plain renneted milk products of food category 1.2. Fluid milks are 'milk products' as defined and described in PS: 4873-2008, that are obtained by the processing of milk, and may contain food additives and other ingredients functionally necessary for processing. Raw milk (“milk” as defined and described in PS: 4873 -2008) shall not contain any food additives.

1.1.1 Fluid milk (plain)

Plain fluid milk obtained from milking animals (e.g., cows, sheep, goats, and buffalo) that has been processed. Includes pasteurized, ultra-high temperature (UHT) treated, sterilized¹, homogenized, or fat adjusted milk. Includes, but is not limited to, skim, part-skim, low-fat and whole milk.

Fluid milk (plain) as defined and described in following PSQCA Standards. Standard for “Packaged Liquid Milk (PS: 5344)” shall apply to the liquid milk to be offered for direct consumption.

¹ Food Chemistry, H.-D. Belitz & W. Grosch, Springer-Verlag, Heidelberg, 1987, p. 389.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.1.1	Packaged Liquid Milk	PS:5344	Annexure-2
1.1.1	Raw and Processed Milk.	PS:2027	Annexure-3
1.1.1	Pasteurized Milk.	PS:4561	Annexure-4

1.1.2 Other fluid milks (plain)

Includes all plain fluid milk, excluding products of food categories 1.1.1 Fluid milk (plain), 1.1.3 Fluid buttermilk (plain), and 1.2 Fermented and renneted milk products (plain). Includes, but is not limited to, plain recombined fluid milks, plain reconstituted fluid milks, plain composite milks, non-flavoured vitamin and mineral fortified fluid milks, protein adjusted milks, lactose reduced milk, and plain milk-based beverages. In this food category, plain products contain no added flavouring nor other ingredients that intentionally impart flavour, but may contain other non-dairy ingredients.

Other fluid milk (plain) as described in PSQCA Standards Dairy Safety and standards for milk and milk products (PS: 4873 -2008) under clause 4.23.1 as “Diary Drinks”.

The Dairy Drink shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.0	Dairy Safety and standards for milk and milk products.	PS: 4873	Annexure-1

Dairy Drinks means milk/milk based product which has been reduced to the prescribed level of milk fat and Milk SNF. It shall contain not less than 7 percent of milk solids other than milk fat and it shall contain not less than 10 percent of milk solids including 3 percent of milk fat provided that source of preparation is from *Halaal Milch* Animals. It shall be homogenized, pasteurized, sterilized / UHT. The dairy drink shall be free from any added non-dairy ingredients except the permitted food additives and nutrient supplements.

There shall be written in the label on a package containing dairy drink, the word "Dairy Drink". These words shall from the first line of the label in Bold form than the brand name and no other words shall appear in the same line.

1.1.3 Fluid buttermilk (plain)

Fluid buttermilk is the nearly milkfat-free fluid remaining from the butter-making process (i.e. churning fermented or non-fermented milk and cream). Fluid buttermilk is also produced by fermentation of fluid skim milk, either by spontaneous souring by the action of lactic acid-forming

or aroma-forming bacteria, or by inoculation of heated milk with pure bacterial cultures (cultured buttermilk).² Fluid buttermilk may be pasteurized or sterilized.

1.1.4 Flavoured fluid milk drinks

Includes all mixes and ready-to-drink fermented or not fermented milk-based drinks with flavourings and/or food ingredients that intentionally impart flavour, excluding mixes for cocoa (cocoa-sugar mixtures, category 5.1.1). Examples, include but are not limited to, chocolate milk, chocolate malt drinks, strawberry-flavoured yoghurt drink, lactic acid bacteria drinks, whey-based drinks, and *lassi* (liquid obtained by whipping curd from the lactic acid fermentation of milk, and mixing with sugar or intense sweetener).

Flavoured fluid milk drinks shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.1.4	Milk added Drinks / Milk Based Drinks Milk added Energy Drinks / Milk Based Energy Drinks Milk Based Juice Drinks	PS: 5242	Annexure-5
1.1.4	Flavoured Milk	PS:3189	Annexure-6

1.2 Fermented and renneted milk products (plain)

Includes all plain fermented or renneted products based on skim, part-skim, low-fat and whole milk, excluding food category 1.1.4. Flavoured products are included in 1.1.4 (beverages) and 1.7 (desserts).

1.2.1 Fermented milks (plain)

Includes all plain products, including fluid fermented milk, acidified milk and cultured milk. Plain yoghurt and plain drinks based on fermented milk, which do not contain flavouring or colours, may be found in one of the sub-categories of 1.2.1 depending on whether it is heat-treated after fermentation or not.

1.2.1.1 *Fermented milks (plain), not heat treated after fermentation*

Includes fluid and non-fluid plain products, such as yoghurt and plain drinks based on fermented milk.

In addition to PS: 4873-2008, fermented milks (plain) as defined and described in following PSQCA Standards. Other than Yoghurt & *Dahi* (Crud), remaining products shall confirm to Codex Standard (CS: 243-2003).

² *Food Chemistry*, H.-D. Belitz & W. Grosch, Springer-Verlag, Heidelberg, 1987, p. 392

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.2.1.1	Yoghurt	PS:3109	Annexure-7
1.2.1.1	<i>Dahi</i> (Crud)	PS: 4727	Annexure-8
1.2.1.1	Fermented Milks (drinks based on fermented milk (plain, heat treated))	CS: 243	Annexure-9

1.2.1.2 *Fermented milks (plain), heat-treated after fermentation*

Products similar to that in 1.2.1.1, except that they have been heat-treated (e.g. sterilized or pasteurized) after fermentation are described in CS: 243:2003.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.2.1.2	Fermented Milks (drinks based on fermented milk (plain, heat treated))	CS: 243	Annexure-9

1.2.2 Renneted milk (plain)

Plain, coagulated milk produced by the action of milk coagulating enzymes. Includes curdled milk. Flavoured renneted milk products are found in category 01.7.

1.3 Condensed milk and analogues (plain)

Includes plain and sweetened types of condensed milk, evaporated milk, and their analogues (including beverage whiteners). Includes products based on skim, part-skim, low-fat and whole milk, blends of evaporated skimmed milk and vegetable fat, and blends of sweetened condensed skimmed milk and vegetable fat.

1.3.1 Condensed milk (plain)

Condensed milk is obtained by partial removal of water from milk to which sugar may have been added. For evaporated milk, the water removal may be accomplished by heating. Includes partially dehydrated milk, evaporated milk, sweetened condensed milk and *khoa* (cow or buffalo milk concentrated by boiling).

In addition to PS: 4873-2008, condensed milk (plain) as described in following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.3.1	Condensed Milk	PS: 364	Annexure-10

As per PS: 4873-2008, some dairy-based desserts are defined and described as below:

KHOYA: A product derived from halal milch animals by evaporation of a part of the water from the milk by a process of indirect continuous stirred heating and it shall conform the following.

- | | |
|-------------|---------------------|
| a) Milk fat | not less than 20.0% |
| b) Moisture | not more than 33.0% |

1.3.2 Beverage whiteners

Milk or cream substitute consisting of a vegetable fat-water emulsion in water with milk protein and lactose or vegetable proteins for use in beverages such as coffee and tea. Also includes the same type of products in powdered form. Includes condensed milk analogues, blends of evaporated skimmed milk and vegetable fat and blends of sweetened condensed skimmed milk and vegetable fat.

Tea-Whiteners (Liquid and Powdered) are defined and described in PSQCA Standards PS: 4873 - 2008 under clause 4.20 and 4.21.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.0	Dairy Safety and standards for milk and milk products.	PS: 4873	Annexure-1

LIQUID TEA WHITENER: Means with Min 6.5% milk fat or vegetable fat, Min 3% Milk solids (SNF), and other Permissible Food Additives.

POWDER TEA WHITENER: Means with Min. 15% milk fat or vegetable fat, Min 30% Milk solids (SNF), and other permitted additives.

1.4 Cream (plain) and the like:

Cream is a fluid dairy product, relatively high in fat content in comparison to milk. Includes all plain fluid, semi-fluid and semi-solid cream and cream analogue products. Flavoured cream products are found in 1.1.4 (beverages) and 1.7 (desserts).

1.4.1 Pasteurized cream (plain)

Cream subjected to pasteurization by appropriate heat treatment or made from pasteurized milk. Includes milk cream and "half-and-half."

Pasteurized cream (plain) are defined and described in PSQCA Standards PS: 5345-2016 under clause 2.4.9.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
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1.4	Cream and Prepared Creams	PS:5345	Annexure-11
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1.4.2 Sterilized and UHT creams, whipping and whipped creams, and reduced fat creams (plain)

Includes every cream, regardless of fat content, which has undergone a higher heat-treatment than pasteurization. Also includes pasteurized creams with a reduced fat content, as well as every cream intended for whipping or being whipped. Sterilized cream is subjected to appropriate heat-treatment in the container in which it is presented to the consumer. Ultra-heat treated (UHT) or ultra-pasteurized cream is subjected to the appropriate heat treatment (UHT or ultra-pasteurization) in a continuous flow process and aseptically packaged. Cream may also be packaged under pressure (whipped cream). Includes whipping cream, heavy cream, whipped pasteurized cream, and whipped cream-type dairy toppings and fillings. Creams or toppings with partial or total replacement of milkfat by other fats are included in sub-category 1.4.4 (cream analogues).

Sterilized and UHT creams, whipping and whipped creams, and reduced fat creams (plain) are defined and described in PSQCA Standards (PS: 5345) under clauses 2.4.11, 2.4.2, 2.4.4 respectively and shall confirm to this.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.4	Cream and Prepared Creams	PS:5345	Annexure-11

1.4.3 Clotted cream (plain)

Thickened, viscous cream formed from the action of milk coagulating enzymes. Includes sour cream (cream subjected to lactic acid fermentation achieved as described for buttermilk (1.1.3)). Clotted cream (plain) is defined and described in PSQCA Standards PS: 5345 under clauses 2.4.7. This shall confirm to the following standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.4	Cream and Prepared Creams	PS:5345	Annexure-11

1.4.4 Cream analogues

Cream substitute consisting of a vegetable fat-water emulsion in liquid or powdered form for use other than as a beverage whitener (1.3.2). Includes instant whipped cream toppings and sour cream substitutes. Cream analogues are defined and described in PSQCA Standards PS: 5345 under clauses 2.4.8. This shall confirm to PS: 5345 Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.4	Cream and Prepared Creams	PS:5345	Annexure-11

1.5 [Milk powder and cream powder and powder analogues \(plain\):](#)

Includes plain milk powders, cream powders, or combination of the two, and their analogues. Includes products based on skim, part-skim, low-fat and whole milk.

1.5.1 Milk powder and cream powder (plain)

Milk products obtained by partial removal of water from milk or cream and produced in a powdered form. Includes casein and caseinates.

Milk powder and cream powder (plain) shall confirm to following PSQCA Standard/s.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.5.1	Cream Powder, Half Cream Powder and High Fat Milk Powder	PS: 2984	Annexure-12
1.5.1	Milk Powder (Whole & Skim)	PS: 363	Annexure-13
1.5.1	Casein (Edible)	PS: 758	Annexure-14

1.5.2 Milk and cream powder analogues:

Products based on a fat-water emulsion and dried for use other than as a beverage whitener (1.3.2). Examples include imitation dry cream mix and blends of skimmed milk and vegetable fat in powdered form. Milk and cream powder analogues are defined and described in CS: 251-2006 and this shall confirm to it.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.5.2	Blend of Skimmed Milk and Vegetable Fat in Powdered Form	CS: 251	Annexure-15

1.6 [Cheese and analogues](#)

Cheese and cheese analogues are products that have water and fat included within a coagulated milk-protein structure. Products such as cheese sauce (12.6.2), cheese-flavoured snacks (15.1), and composite prepared foods containing cheese as an ingredient (e.g. macaroni and cheese; 16.0) are categorized elsewhere.

In addition to PS: 4873-2008 under clause 4.28 & 4.29, cheese and analogues as defined and described and this shall confirm to following PSQCA Standard/s.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.6	Cheese & Spread.	PS: 526	Annexure-16

CHEESE: Cheese is the ripened or un-ripened soft or semi-hard, hard and extra hard product, which may be coated, and in which the whey protein / casein ratio does not exceed that of milk, obtained by:

- a) Milk fat not less than 40.0 % by weight of dried cheese.
- b) Coagulating wholly or partly the following raw material :
- c) Milk and /or products obtained from milk, through the action of rennet or other suitable coagulating agents, and by partially draining the whey resulting from such coagulation, and / or
- d) Processing techniques involving coagulation of milk and / or products obtained from milk which give an end-product with similar physical, chemical and organoleptic characteristics as the product defined under (a).

COTTAGE CHEESE: A soft /granular cheese prepared from the curd obtained by adding coagulating agent under the influence of the harmless bacterial culture to pasteurized skim milk. It shall contain not more than 80% moisture.

1.6.1 Unripened cheese

Unripened cheese, including fresh cheese, is ready for consumption soon after manufacture. Examples include cottage cheese (a soft, unripened, coagulated curd cheese), creamed cottage cheese (cottage cheese covered with a creaming mixture), cream cheese (*rahmfrischkase*, an uncured, soft spreadable cheese), mozzarella and *scamorza* cheeses and *paneer* (milk protein coagulated by the addition of citric acid from lemon or lime juice or of lactic acid from whey, that is strained into a solid mass, and is used in vegetarian versions). Includes the whole unripened cheese and unripened cheese rind (for those unripened cheeses with a “skin” such as mozzarella). Most products are plain, however, some, such as cottage cheese and cream cheese, may be flavoured or contain ingredients such as fruit, vegetables or meat. Excludes ripened cream cheese, where cream is a qualifier for a high fat content.

1.6.2 Ripened cheese

Ripened cheese is not ready for consumption soon after manufacture, but is held under such time and temperature conditions so as to allow the necessary biochemical and physical changes that characterize the specific cheese. For mould-ripened cheese, the ripening is accomplished primarily by the development of characteristic mould growth throughout the interior and/or on the surface of the cheese. Ripened cheese may be soft (e.g. *camembert*), firm (e.g. *edam*, *gouda*), hard (e.g. *cheddar*), or extra-hard. Includes cheese in brine, which is a ripened semi-hard to soft cheese, white to yellowish in colour with a compact texture, and without actual rind that has been preserved in brine until presented to the consumer.

1.6.2.1 Ripened cheese, includes rind

Refers to ripened (including mould-ripened) cheese, including rind, or any part thereof, such as cut, shredded, grated or sliced cheese. Examples of ripened cheese include: blue cheese, brie, *gouda*, *havarti*, hard grating cheese, and Swiss cheese.

1.6.2.2 Rind of ripened cheese

Refers to the rind only of the cheese. The rind of the cheese is the exterior portion of the cheese mass that initially has the same composition as the interior portion of the cheese, but which may dry after brining and ripening.

1.6.2.3 Cheese powder (for reconstitution; e.g. for cheese sauces)

Dehydrated product prepared from a variety or processed cheese. Does not include grated or shredded cheese (1.6.2.1 for variety cheese; 1.6.4 for processed cheese). Product is intended either to be reconstituted with milk or water to prepare a sauce, or used as-is as an ingredient (e.g. with cooked macaroni, milk and butter to prepare a macaroni and cheese casserole). Includes spray-dried cheese.

1.6.3 Whey cheese

A solid or semi- solid product obtained by concentration of whey with or without the addition of milk, cream or other materials of milk origin, and moulding of the concentrated product. Includes the whole cheese and the rind of the cheese. Different from whey protein cheese (1.6.6).

1.6.4 Processed cheese

Product with a very long shelf life obtained by melting and emulsifying cheese. Includes products manufactured by heating and emulsifying mixtures of cheese, milkfat, milk protein, milk powder, and water in different amounts. Products may contain other added ingredients, such as aromas, seasonings and fruit, vegetables and/or meat. Product may be spreadable or cut into slices and pieces. The term “processed” does not mean cutting, grating, shredding, etc. of cheese. Cheese treated by these mechanical processes are included under food category 1.6.2 (Ripened cheese).

1.6.4.1 Plain processed cheese

Processed cheese product that does not contain added flavours, seasonings, fruit, vegetables and/or meat. Examples include: American cheese, *requeson*.

1.6.4.2 Flavoured processed cheese, including containing fruit, vegetables, meat, etc.

Processed cheese product that contains added flavours, seasonings, fruit, vegetables and/or meat. Examples include: *Neufchatel* cheese spread with vegetables, pepper jack cheese, cheddar cheese spread with wine, and cheese balls (formed processed cheese coated in nuts, herbs or spices).

1.6.5 Cheese analogues

Products that look like cheese, but in which milkfat has been partly or completely replaced by other fats. Includes imitation cheese, imitation cheese mixes, and imitation cheese powders.

1.6.6 Whey protein cheese

Product containing the protein extracted from the whey component of milk. These products are principally made by coagulation of whey proteins. Example: *ricotta* cheese. Different from whey cheese (1.6.3).

1.7 Dairy-based desserts (e.g. pudding, fruit or flavoured yoghurt)

Includes ready-to-eat flavoured dairy dessert products and dessert mixes. Includes frozen dairy confections and novelties, and dairy-based fillings. Includes flavoured yoghurt (a milk product obtained by fermentation of milk and milk products to which flavours and ingredients (e.g. fruit, cocoa, coffee) have been added) that may or may not be heat-treated after fermentation. Other examples include: ice cream (*frozen dessert that may contain whole milk, skim milk products, cream or butter, sugar, vegetable oil, egg products, and fruit, cocoa, or coffee*), ice milk (*product similar to ice cream with reduced whole or skim milk content, or made with nonfat milk*), jellied milk, frozen flavoured yoghurt, junket (*sweet custard-like dessert made from flavoured milk set with rennet*), *dulce de leche* (cooked milk with sugar and added ingredients such as coconut or chocolate), butterscotch pudding and chocolate mousse. Includes traditional milk-based sweets prepared from milk concentrated partially, from *khoa* (cow or buffalo milk concentrated by boiling), or *chhena* (cow or buffalo milk, heat coagulated aided by acids like citric acid, lactic acid, malic acid, etc), sugar or synthetic sweetener, and other ingredients (e.g. *maida* (refined wheat flour), flavours and colours (e.g. (*peda/pera, burfee/barfi, milk cake, gulab jamun, rasgulla, rasmalai, basundi, kalakand*)). These products are different from those in food category 3.0 (edible ices, including sherbet and sorbet) in that the foods in category 1.7 are dairy-based, while those in 3.0 are water-based and contain no dairy ingredients.

In addition to PS: 4873-2008, dairy-based desserts shall confirm to following PSQCA Standard/s.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.7	Ice Cream	PS: 969	Annexure-17

As per PS: 4873-2008, some dairy-based desserts are defined and described as below and shall confirm to following PSQCA Standard/s.

1.8 ICE CREAM, FRUIT ICE CREAM, MALAI-KI-BARFI, KHOYA-KI-BARFI, MALAI KI KULFI, KHOYA-KI-KULFI, KULFA, CONE ICE CREAM

The pure clean frozen product made from a combination of milk or cream or other milk products, with or without eggs, but with water, sugar and permissible food additives, and with or without added stabilizer, and with or without fruit, fruit juices, nuts, cocoa, coffee or chocolate, syrup, cake of confections, ice cream by whatever name it is called, shall contain not less than 10%, by weight of milk fat, not less than 36% of total solids and not more than 0.5% of stabilizer & fulfill the following:

- a. Provided that when the ice cream contains fruits or nuts or both, the contents of milk fat may be reduced proportionately but not less than 8.0% of milk fat,
- b. Provided further that ice cream shall not weigh less than 2 kg /4.5 liter.

1.9 BARFI, PERA, KALAKAND

A sweet prepared from khoya and sugar with or without other ingredients except starch. It shall confirm the following

- | | |
|-------------|---------------------|
| a) Milk fat | not less than 10.0% |
| b) Moisture | not more than 18.0% |

1.10 FROZEN DESSERTS

In accordance with PS:969-2010, 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 oils or fats and milk protein or/ and vegetable protein products, with or without eggs, but with potable water, nutritive sweetening agents like sugar, dextrose, fructose, liquid glucose, dried liquid glucose, malt dextrin, high maltose corn syrup, invert sugar, artificial sweeteners, honey and harmless flavoring and coloring agents, and with or without added stabilizer and emulsifier, and with or without fruit and fruit products, juices, nuts, coffee, cocoa or chocolate, syrup, cakes and bakery products and /or confections.

Frozen Dessert by whatever name it is called further classified as:-

- (i) **“High Fat”** shall contain not less than 36 percent of total solids and not less than 10 percent edible vegetable fat or oil
- (ii) **“Medium Fat”** shall contain not less than 30 percent of total solids and not less than 5 percent edible vegetable fat or oil
- (iii) **“Low Fat”** shall contain not less than 26 percent of total solids and not less than 2.5 percent edible vegetable fat or oil

1.11 Whey and whey products, excluding whey cheeses:

Includes a variety of whey-based products in liquid and powdered forms.

1.11.1 Liquid whey and whey products, excluding whey cheeses:

Whey is the fluid separated from the curd after coagulation of milk, cream, skimmed milk or buttermilk with milk coagulating enzymes during the manufacture of cheese, casein or similar products. Acid whey is obtained after the coagulation of milk, cream, skimmed milk or buttermilk, mainly with acids of the type used for the manufacture of fresh cheese.

1.11.2 Dried whey and whey products, excluding whey cheeses:

Whey powders are prepared by spray- or roller-drying whey or acid whey from which the major portion of the milkfat has been removed.

Dried whey and whey products, excluding whey cheeses shall conform to following Codex Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
1.8.2	Whey powders	289	Annexure-18

CHAPTER-2

2 Fats and Oils, and Fat Emulsions

Includes all fat-based products that are derived from vegetable, animal or marine sources, or their mixtures.

2.1 Fats and oils essentially free from water:

Edible fats and oils are foods composed mainly of triglycerides of fatty acids from vegetable, animal or marine sources.

2.1.1 Butter oil, anhydrous milkfat, ghee

The milkfat products anhydrous milkfat, anhydrous butter oil and butter oil are products derived exclusively from milk and/or products obtained from milk by a process that almost completely removes water and non-fat solids. Ghee is a product obtained exclusively from milk, cream or butter by a process that almost completely removes water and non-fat solids; it has a specially developed flavour and physical structure.

In addition to PS: 4873-2008, butter oil, anhydrous milkfat, ghee shall conform to following PSQCA Standard/s.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
2.1.1	Butter Oil Anhydrous Butter Oil & Anhydrous Milk Fat.	PS:2856	Annexure-19

2.1.2 Vegetable oils and fats

Edible fats and oils obtained from edible plant sources. Products may be from a single plant source or marketed and used as blended oils that are generally designated as edible, cooking, frying, table or salad oils.³ Virgin oils are obtained by mechanical means (e.g. pressing or expelling), with application of heat only so as not to alter the natural composition of the oil. Virgin oils are suitable for consumption in the natural state. Cold pressed oils are obtained by mechanical means without application of heat. Examples include: virgin olive oil, cottonseed oil, peanut oil, and Vanaspati.

Fortification of Oil/ghee with vitamin A&D is mandatory as per Pakistan Standards at the following levels:

Vitamin-A 33000 I.U. to 45000 I.U. per kg of the finished product.

Vitamin-D3 3000 I.U. to 4500 I.U. per kg of the finished product.

“General Standard for Edible Fats and Oils Not Covered by Individual Standards (CODEX STAN 19-1981)”, and “Standard for Named Vegetable Oils (CODEX STAN 210-1999)” apply to oils and fats and mixtures thereof in a state for human consumption. It includes oils and fats that have been subjected to processes of modification (such as trans-esterification or hydrogenation) or

³ *Food Chemistry*, H.-D. Belitz & W. Grosch, Springer-Verlag, Heidelberg, 1987, pp. 472-476.

Part-VIII: Chapter-2 Fats and Oils, and Fat Emulsions *fractionation. This Standard shall not apply to any oil or fat which is covered by one of the following PSQCA Standards*

Food Cat. No.	Standard Title	Standard No.	Annexure No.
2.1.2	<i>Banaspati (amended 2017)</i>	PS: 221	Annexure-20
2.1.2	Cooking Oil (Blended) (Amended 2017)	PS: 2858	Annexure-21
2.1.2	Crude Maize Oil	PS: 491	Annexure-22
2.1.2	Edible Safflower Seed Oil	PS: 4723	Annexure-23
2.1.2	Edible Sesame Seed Oil	PS: 98	Annexure-24
2.1.2	Olive, virgin & refined and for refined olive pomace oil	PS: 5159	Annexure-25
2.1.2	Palm Oil Edible Grade (for Cooking Purpose) Amended 2017	PS: 1561	Annexure-26
2.1.2	Refined Coconut Oil (Amended 2017)	PS: 99	Annexure-27
2.1.2	Refined Low <i>Erucic</i> Acid Rapeseed/Mustard Canola Oil	PS: 2983	Annexure-28
2.1.2	Refined Maize (Corn) Oil (Amended 2017)	PS:1562	Annexure-29
2.1.2	Refined Mustard Oil (Amended 2017)	PS: 25	Annexure-30
2.1.2	Refined Palm <i>Kernal</i> Oil	PS: 3404	Annexure-31
2.1.2	Refined Palmolein (Amended 2017)	PS: 1600	Annexure-32
2.1.2	Refined Soyabean Oil (Amended 2017)	PS: 1563	Annexure-33
2.1.2	Refined Sunflower Oil (Amended 2017)	PS: 1564	Annexure-34
2.1.2	Refined Cotton Seed Oil (Amended 2017)	PS: 21	Annexure-
2.1.2	Rice Bran Oil (<i>for Industrial used</i>)	PS: 1683	Annexure-35
2.1.2	Ground Nut Oil (<i>Expelled</i>)	PS: 100	Annexure-36

2.1.3 Tallow, fish oil, and other animal fats

All animal fats and oils should be derived from *Halaal* animals that are in good health at the time of slaughter and intended for human consumption. Edible beef fat is obtained from fresh bovine fatty tissue covering the abdominal cavity and surrounding the kidney and heart, and from other compact, undamaged fat tissues. Such fresh fat obtained at the time of slaughter is the “killing fat.” Prime beef fat (premiere jus or oleo stock) is obtained by low-heat rendering (50- 55 °C) of killing fat and selected fat trimmings (cutting fat). *Secunda* beef fat is a product with typical beef fat odour and taste obtained by rendering (60-65 °C) and purifying beef fat. Edible tallow (dripping) is produced by the rendering of fatty tissue (excluding trimmings and cutting fat), attached muscles and bones of bovine animals or sheep. Fish oils are derived from suitable sources such

as herring, sardines, sprat, and anchovies. Other examples include: tallow and partially defatted beef (*Halaal*) fatty tissue. The following PSQCA standard shall confirm to named fish oil.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
2.1.3	Shark Liver Oil	PS: 492	Annexure-37

2.2 [Fat emulsions mainly of type water-in-oil](#)

Include all emulsified products excluding fat-based counterparts of dairy products and dairy desserts.

2.2.1 Butter

Butter is a fatty product consisting of a primarily water-in-oil emulsion derived exclusively from milk and/or products obtained from milk. Butter as defined and described in following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
2.2.1	Butter	PS:1831	Annexure-38

2.2.2 Fat spreads, dairy fat spreads and blended spreads:

Includes fat spreads (emulsions principally of the type water and edible fats and oils), dairy fat spreads (emulsions principally of the type water-in-milkfat), and blended spreads (fat spreads blended with higher amounts of milkfat). Examples include margarine (a spreadable or fluid water-in-oil emulsion produced mainly from edible fats and oils); products derived from butter (e.g. "butterine," a spreadable butter blend with vegetable oils) blends of butter and margarine; and minarine (a spreadable water-in-oil emulsion produced principally from water and edible fats and oils that are not solely derived from milk). Also includes reduced fat-based products derived from milkfat or from animal or vegetable fats, including reduced-fat counterparts of butter, margarine, and their mixtures (e.g. three-quarter fat butter, three-quarter fat margarine, or three-quarter fat butter-margarine blends).

Codex Standards (CS: 253-2006 and CS: 256-2007) shall not apply to any oil or fat which is covered by following PSQCA Standard (PS: 1653)

Food Cat. No.	Standard Title	Standard No.	Annexure No.
2.2.2	Margarine (Amended 2017)	PS:1653	Annexure-39

2.2.2	Standard for Dairy Fat Spreads	CS: 253-2006	Annexure-40
2.2.2	Standard for Fat Spreads and Blended Spreads	CS: 256-2007	Annexure-41

2.3 [Fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions](#)

Includes fat-based counterparts of dairy-based foods excluding dessert products. The fat portion of these products are derived from sources other than milkfat (e.g. vegetable fats and oils). Examples include: imitation milk (a fat-substituted milk produced from non-fat milk solids by addition of vegetable fats (coconut, safflower or corn oil)), non-dairy whipped cream; non-dairy toppings; and vegetable cream. Mayonnaise is included in food category 12.6.1. Emulsified Vegetable Oil as defined and described in following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
2.3	Emulsified Vegetable Oil	PS: 4722	Annexure-42

2.4 [Fat-based desserts](#)

Includes fat-based counterparts of dairy-based desserts, which are found in category 1.7. Includes ready-to-eat products and their mixes. Also includes non-dairy fillings for desserts.

CHAPTER-3

3 Edible Ices (including Sherbet and Sorbet)

This category includes water- based frozen desserts, confections and novelties, such as fruit sorbet, “Italian”-style ice, and flavoured ice. Frozen desserts containing primarily dairy ingredients are included in food category 1.7.

A. 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.

B. 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 Codex standards. It shall not contain any artificial sweetener.

C. Ice candy

Means the frozen ice produce which may contain fruit, fruit juices, cocoa, nuts, citric acid, permitted flavours and colours. It shall not contain any artificial sweetener. It may also contain permitted stabilizers and emulsifiers shall not exceed from maximum limits as given in PSQCA standards (Codex Alimentarius Standards for additive shall apply where food category *not covered by PSQCA Standards*).

Sherbets and sorbets shall confirm to PSQCA Standards (PS: 3114-2014).

Food Cat. No.	Standard Title	Standard No.	Annexure No.
3.0	<i>Sherbats</i> or Syrups	PS:3114	Annexure-43

CHAPTER-4

4 Fruits and vegetables (including mushrooms & fungi, roots & tubers, pulses & legumes, and aloe-vera), seaweeds and nuts & seeds

This major category is divided into two categories: 4.1 (Fruit) and 4.2 (Vegetables including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds). Each of these categories is further divided into sub-categories for fresh and processed products.

The prepacking guidelines for Fruit & Vegetables are defined and described in following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.0	Guide to the Prepacking of Fruit & Vegetables	PS: 2836	Annexure-44
4.0	Guide to the Prepacking of Fruits & Vegetables	PS: 3188	Annexure-45

4.1 Fruit

Includes all fresh (4.1.1) and processed (4.1.2) products.

4.1.1 Fresh fruit

Fresh fruit is generally free of additives. However, fresh fruit that is coated or cut or peeled for presentation to the consumer may contain additives.

4.1.1.1 *Untreated fresh fruit*

Raw fruit presented fresh from harvest.

4.1.1.2 *Surface-treated fresh fruit*

The surfaces of certain fresh fruit are coated with glazes or waxes or are treated with other food additives that act as protective coatings and/or help to preserve the freshness and quality of the fruit. Examples include apples, oranges, dates, and longans. Only the below listed food additives, in accordance with Codex General Standard for Food Additives (CS: 192-1995) shall be acceptable for use in surface-treated fresh fruits.

Additive	INS	Max Level
BEESWAX	901	GMP
CANDELILLA WAX	902	GMP

Additive	INS	Max Level
CARMINES	120	500 mg/kg
CARNAUBA WAX	903	400 mg/kg
GLYCEROL ESTER OF WOOD ROSIN	445(iii)	110 mg/kg
IRON OXIDES	172(i)-(iii)	1000 mg/kg
MICROCRYSTALLINE WAX	905c(i)	50 mg/kg
ORTHO-PHENYLPHENOLS	231, 232	12 mg/kg
POLYETHYLENE GLYCOL	1521	GMP
POLYVINYLPIRROLIDONE	1201	GMP
RIBOFLAVINS	101(i),(ii), (iii)	300 mg/kg
SHELLAC, BLEACHED	904	GMP
SUCROGLYCERIDES	474	GMP
SULFITES	220-225, 539	30 mg/kg

4.1.1.3 Peeled or cut fresh fruit

Fresh fruit that is cut or peeled and presented to the consumer, e.g. in a fruit salad. Includes fresh shredded or flaked coconut. Only the below listed food additives, in accordance with Codex General Standard for Food Additives (CS: 192-1995) shall be acceptable for use in peeled or cut fresh fruits.

Additive	INS	Max Level
CALCIUM ASCORBATE	302	GMP
CARBON DIOXIDE	290	GMP
NITROGEN	941	GMP
NITROUS OXIDE	942	GMP
SODIUM ASCORBATE	301	GMP

Moreover, the following guidelines shall be followed for storage of named fruits

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.1.1.1	Apples – Guide to Cold Storage	PS: 3599	Annexure-46
4.1.1.1	Melon – Guidelines for Cold Storage and Refrigerated Transport	PS: 3417	Annexure-47
4.1.1.1	Storage and Transport of Green Bananas	PS: 3416	Annexure-48
4.1.1.1	Green Bananas Ripening Conditions	PS: 3414	Annexure-49
4.1.1.1	Citrus Fruits – Guide to Storage	PS: 3413	Annexure-50
4.1.1.1	Mangoes – Guide to Storage	PS: 3116	Annexure-51

4.1.2 Processed fruit

Includes all forms of processing other than peeling, cutting and surface treating fresh fruit. The below listed food additives, in accordance with Codex General Standard for Food Additives (CS: 192-1995) shall be acceptable in all fruits.

Additive	INS	Max Level
CARNAUBA WAX	903	400 mg/kg

Some of Standards for processed fruits are defined and described in PSQCA and shall be acceptable in following named fruits.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.1.2	Crystallized & Glazed Fruit & Vegetable	PS: 524	Annexure-52
4.1.2	Gulqand (Flower Preserve)	PS: 525	Annexure-53
4.1.2	Processed Dates & Dates Products	PS: 1689	Annexure-54

4.1.2.1 Frozen fruit

Fruit that may or may not be blanched prior to freezing. The product may be frozen in a juice or sugar syrup. Examples include frozen fruit salad and frozen strawberries. Only the below listed food additives, in accordance with Codex General Standard for Food Additives (CS: 192-1995) shall be acceptable in frozen fruits.

Additive	INS	Max Level
ACESULFAME POTASSIUM	950	500 mg/kg
ASPARTAME	951	2000 mg/kg
NEOTAME	961	100 mg/kg
SUCRALOSE (TRICHLOROGALACTOSUCROSE)	955	400 mg/kg
SULFITES	220-225, 539	500 mg/kg

4.1.2.2 Dried fruit

Fruit from which water is removed to prevent microbial growth. Includes dried fruit leathers (fruit rolls) prepared by drying fruit purees. Examples include dried apple slices, raisins, dried shredded

or flaked coconut, and prunes. Dried and dehydrated fruits shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.1.2.2	Dried & Dehydrated Fruits	PS: 510	Annexure-55
4.1.2.2	Raisins	PS:1796	Annexure-56
4.1.2.2	Dried Mulberries	PS:1824	Annexure-57 (A)
4.1.2.2	Desiccated Coconut	PS:3744	Annexure-57 (B)

4.1.2.3 Fruit in vinegar, oil, or brine

Includes pickled products such as pickled plums, mango pickles, lime pickles, pickled gooseberries, and pickled watermelon rind. Oriental pickled (“cured” or “preserved”) fruit products are sometimes referred to as “candied” fruit. These are not the candied fruit products of category 4.1.2.7 (i.e. dried, sugar coated fruit).

Fruit in Vinegar (*Sirka*) shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.1.2.3	Fruit & Vinegar (<i>Sirka</i>)	PS: 523	Annexure-58

4.1.2.4 Canned or bottled (pasteurized) fruit

Fully preserved product in which fresh fruit is cleaned and placed in cans or jars with natural juice or sugar syrup (including artificially sweetened syrup) and heat-sterilized or pasteurized. Includes products processed in retort pouches. Examples include: canned fruit salad, and applesauce in jars.

Canned or bottled (pasteurized) fruit shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.1.2.4	Canned, Bottle and Pouched Packed Fruits	PS: 503	Annexure-59
4.1.2.4	Canned Mangoes	PS: 4838	Annexure-60
4.1.2.4	Canned Fruit Cocktail	PS: 504	Annexure-61
4.1.2.4	Canned Peaches	PS: 1568	Annexure-62
4.1.2.4	Canned Pears	PS: 1682	Annexure-63

4.1.2.5 Jams, jellies, marmalades

Jams, preserves and conserves are thick, spreadable products prepared by boiling whole fruit or pieces of fruit, fruit pulp or puree, with or without fruit juice or concentrated fruit juice, and sugar to thicken, and to which pectin and fruit pieces may be added. Jelly is a clear spreadable product prepared similarly to jam, except that it has a smoother consistency and does not contain fruit pieces. Marmalade is a thick spreadable fruit slurry prepared from whole fruit, fruit pulp or puree (usually citrus), and boiled with sugar to thicken, to which pectin and fruit pieces and fruit peel pieces may be added. Includes dietetic counterparts made with non-nutritive high-intensity sweeteners. Examples include: orange marmalade, grape jelly, and strawberry jam. Jams, jellies, marmalades shall conform to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.1.2.5	Jams (Fruit Preserves) & Jellies	PS:2096	Annexure-64
4.1.2.5	Marmalade	PS: 514	Annexure-65

4.1.2.6 Fruit-based spreads (e.g. chutney)

Includes all other fruit-based spreads excluding products of food category 4.1.2.5, such as apple butter and lemon curd. Also includes condiment-type fruit products such as mango chutney and raisin chutney. *Chutnies* shall conform to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.1.2.6	<i>Chutnies</i>	PS: 521	Annexure-66

4.1.2.7 Candied fruit

Includes glazed fruits (fruit treated with a sugar solution and dried), candied fruit (dried glazed fruit immersed in a sugar solution and dried so that the fruit is covered by a candy-like sugar shell), and crystallized fruit is prepared (dried glazed fruit rolled in icing or granulated sugar and dried). Examples include: cocktail cherries, candied citrus peel, candied citrons (e.g. used in holiday fruitcakes), and *mostarda di frutta*.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.1.2.7	Fruit & Vegetable Preserves (<i>Morraba</i>)	PS: 522	Annexure-67

4.1.2.8 *Fruit preparations, including pulp, purees, fruit toppings and coconut milk*

Fruit pulp is not usually intended for direct consumption. It is a slurry of lightly steamed and strained fresh fruit, with or without added preservatives. Fruit puree (e.g. mango puree, prune puree) is produced in the same way, but has a smoother, finer texture, and may be used as fillings for pastries, but is not limited to this use. Fruit sauce (e.g. pineapple sauce or strawberry sauce) is made from boiled fruit pulp with or without added sweeteners and may contain fruit pieces. Fruit sauce may be used as toppings for fine bakery wares and ice cream sundaes. Fruit syrup (e.g. blueberry syrup) is a more liquid form of fruit sauce that may be used as a topping e.g. for pancakes. Non-fruit toppings are included in category 5.4 (sugar- and chocolate-based toppings) and sugar syrups (e.g. maple syrup) are included in category 11.4. Coconut milk and coconut cream are products prepared using a significant amount of separated, whole, disintegrated macerated or comminuted fresh endosperm (*kernel*) of coconut palm and expelled, where most filterable fibers and residues are excluded, with or without coconut water, and/or with additional water. Coconut milk and coconut cream are treated by heat pasteurization, sterilization or ultrahigh temperature (UHT) processes. Coconut milk and coconut cream may also be produced in concentrated or skim (or “light”) forms. Examples of traditional foods in this sub-category are: tamarind concentrate (clean extract of tamarind fruit with not less than 65% total soluble solids), tamarind powder (tamarind paste mixed with tapioca starch), tamarind toffee (mixture of tamarind pulp, sugar, milk solids, antioxidants, flavours, stabilizers and preservatives), and fruit bars (a mixture of fruit (mango, pineapple, or guava) pulp mixed with sugar, flavours and preservatives, dried into a sheet).

Fruit preparations of named products shall confirm to following PSQCA and Codex Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.1.2.8	Canned Mango Pulp.	PS: 2026	Annexure-68
04.1.2.8	Aqueous Coconut Products (coconut milk and coconut cream)	CS: 240	Annexure-69
04.1.2.8	Date Paste (Regional Standard)	CS: 314R	Annexure-70

4.1.2.9 *Fruit-based desserts, incl. fruit-flavoured water-based desserts*

Includes the ready-to-eat products and mixes. Includes fruit-flavoured gelatin, gelatine-like dessert of agar jelly, fruit pieces and syrup. This category does not include fine bakery wares containing fruit (categories 7.2.1 and 7.2.2), fruit-flavoured edible ices (category 3.0), or fruit-containing frozen dairy desserts (category 1.7).

4.1.2.10 *Fermented fruit products*

Type of pickled product produced by preservation in salt by lactic acid fermentation. Examples include: fermented plums.

Fermented fruit of named products shall confirm to following Codex Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
04.1.2.10	Pickled Fruits and Vegetables (fermented fruits)	CS: 260-2007	Annexure-71

4.1.2.11 *Fruit fillings for pastries*

Includes the ready-to-eat products and mixes. Includes all type of fillings excluding purees (category 4.1.2.8). These fillings usually include whole fruit or fruit pieces. Examples include: cherry pie filling and raisin filling for oatmeal cookies.

4.1.2.12 *Cooked fruit*

Fruit that is steamed, boiled, baked, or fried, with or without a coating, for presentation to the consumer. Examples include: baked apples, fried apple rings, and peach dumplings (baked peaches with a sweet dough covering).

Only the below listed food additives, in accordance with Codex General Standard for Food Additives (CS: 192-1995) shall be acceptable in cooked fruits.

Additive	INS	Max Level
ACESULFAME POTASSIUM	950	500 mg/kg
ASPARTAME	951	1000 mg/kg
BENZOATES	210-213	1000 mg/kg
CHLOROPHYLLS AND	141(i),(ii)	100 mg/kg
CHLOROPHYLLINS, COPPER		
COMPLEXES		
NEOTAME	961	65 mg/kg
SORBATES	200-203	1200 mg/kg
STEVIOL GLYCOSIDES	960	40 mg/kg
SUCRALOSE	955	150 mg/kg
(TRICHLOROGALACTOSUCROSE)		

4.2 Vegetables, Seaweeds, and Nuts & Seeds

Includes all fresh (4.2.1) and processed (4.2.2) products including mushrooms & fungi, roots & tubers, pulses & legumes, and aloe vera.

4.2.1 *Fresh Vegetables, Seaweeds, and Nuts & Seeds*

Fresh vegetables (including mushrooms & fungi, roots & tubers, pulses & legumes, and aloe vera), seaweeds, and nuts & seeds are generally free of additives. However, fresh vegetables that are coated or cut or peeled for presentation to the consumer may contain additives.

4.2.1.1 *Untreated fresh vegetables, seaweeds, and nuts & seeds*

Raw vegetables (including mushrooms & fungi, roots & tubers, pulses & legumes (including soybeans), and aloe vera), seaweeds, and nuts & seeds presented fresh from harvest. Only the below listed food additives, in accordance with Codex General Standard for Food Additives (CS: 192-1995) shall be acceptable in untreated fresh vegetables.

Additive	INS	Max Level
ACETIC ACID, GLACIAL	260	GMP
ASCORBIC ACID, L-	300	500 mg/kg
CITRIC ACID	330	GMP
LACTIC ACID, L-, D- and DL-	270	GMP
SODIUM DIHYDROGEN CITRATE	331(i)	GMP
TRISODIUM CITRATE	331(iii)	GMP

Vegetables & nuts (named) shall conform to following PSQCA and Codex Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.2.1.1	Peanuts	PS: 3601	Annexure-72
4.2.1.1	Shelled Pine Nuts	PS: 3957	Annexure-73
4.2.1.1	Cultivated Mushrooms – Guide to Cold Storage and Refrigerated Transport	PS: 3600	Annexure-74
4.2.1.1	Onion – Guide to Storage	PS: 3115	Annexure-75

4.2.1.2 *Surface-treated fresh vegetables, seaweeds, and nuts & seeds*

The surfaces of certain fresh vegetables (including mushrooms & fungi, roots & tubers, pulses & legumes, and aloe vera) are coated with glazes or waxes or are treated with other food additives that act as protective coatings and/or help to preserve the freshness and quality of the vegetable. Examples include: avocados, cucumbers, green peppers and *pistachio* nuts.

Only the below listed food additives, in accordance with Codex General Standard for Food Additives (Codex Stan: 192-1995) shall be acceptable in surface-treated fresh vegetables, seaweeds, and nuts & seeds.

Additive	INS	Max Level
BEESWAX	901	GMP
CANDELILLA WAX	902	GMP
CARMINES	120	500 mg/kg
CARNAUBA WAX	903	400 mg/kg
CAROTENOIDS	160a(i),a(iii),e,f	500 mg/kg
GLYCEROL ESTER OF WOOD ROSIN	445(iii)	110 mg/kg
LAURIC ARGINATE ETHYL ESTER	243	200 mg/kg
MICROCRYSTALLINE WAX	905c(i)	50 mg/kg
PHOSPHATES	338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i)-(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii), (ix);451(i),(ii); 452(i)-(v); 542	1760 mg/kg
RIBOFLAVINS	101(i),(ii), (iii)	300 mg/kg
SHELLAC, BLEACHED	904	GMP
SUNSET YELLOW FCF	110	300 mg/kg

4.2.1.3 Peeled, cut or shredded fresh vegetables, seaweeds, and nuts & seeds

Fresh vegetables (including mushrooms & fungi, roots & tubers, pulses & legumes, and aloe vera) seaweeds, and nuts & seeds, e.g. peeled raw potatoes that are presented to the consumer to be cooked at home (e.g. in the preparation of hash brown potatoes).

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.2.1.3	Ginger Whole in Pieces or Ground	PS: 1923	Annexure-76
4.2.1.3	Unshelled Pine Nuts	PS: 3956	Annexure-77
4.2.1.3	Un-salted Grounded Nut	PS: 4724	Annexure-78

4.2.2 Processed vegetables, seaweeds, and nuts & seeds

Includes all forms of processing other than peeling, cutting and surface treating fresh vegetables (including mushrooms & fungi, roots & tubers, pulses & legumes, and aloe vera), seaweeds, and nuts & seeds.

4.2.2.1 Frozen vegetables

Fresh vegetables (including mushrooms & fungi, roots & tubers, pulses & legumes, and aloe vera), seaweeds, and nuts & seeds are usually blanched and frozen. Examples include: quick-frozen corn, quick-frozen French-fried potatoes, quick frozen peas, and quick frozen whole processed tomatoes.

Frozen Vegetables (named) shall conform to following Codex Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
04.2.2.1	Edible Fungi and Fungi Products (quick frozen)	CS: 38-1981	Annexure-79
04.2.2.1	Quick Frozen Peas	CS: 41-1981	Annexure-80
04.2.2.1	Edible Fungi and Fungi Products (quick frozen)	CS: 38-1981	Annexure-81
04.2.2.1	Quick Frozen Peas	CS: 41-1981	Annexure-82
04.2.2.1	Quick Frozen Vegetables	CS: 320-2015	Annexure-83

4.2.2.2 Dried vegetables

Products (including mushrooms & fungi, roots & tubers, pulses & legumes, and aloe vera), seaweeds, and nuts & seeds in which the natural water content has been reduced below that critical for growth for microorganisms without affecting the important nutrients. The product may or may not be intended for rehydration prior to consumption. Includes vegetable powders that are obtained from drying the juice, such as tomato powder and beet powder. Examples include: dried potato flakes and dried lentil. Examples of Oriental dried products include: dried sea tangle, dried sea tangle with seasoning, dried seaweed, dried gourd strips, dried laver, and dried laminariales.

Dried Vegetables (named) shall conform to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.2.2.2	Dried Vegetables	PS: 511	Annexure-84
4.2.2.2	Dried Sesame seeds (Dehulled)	PS:4842	Annexure-85

4.2.2.2	Dried Mint	PS: 3605	Annexure-86
4.2.2.2	Dehydrated Garlic	PS: 1924	Annexure-87
4.2.2.2	Dehydrated Peas	PS: 2019	Annexure-88
4.2.2.2	Dehydrated Potatoes	PS: 2024	Annexure-89

4.2.2.3 Vegetables and seaweeds in vinegar, oil, brine, or soybean sauce

Products (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds prepared by treating raw vegetables with salt solution excluding fermented soybean products. Fermented vegetables, which are a type of pickled product, are classified in 4.2.2.7. Fermented soybean products are classified in 6.8.6, 6.8.7, 12.9.1, 12.9.2.1 and 12.9.2.3. Examples include: pickled cabbage, pickled cucumber, olives, pickled onions, and mushrooms in oil, marinated artichoke hearts, *achar*, and piccalilli. Examples of Oriental-style pickled vegetables include: rice bran pickled vegetables, *koji*-pickled vegetables, sake lees-pickled vegetables, *miso*-pickled vegetables, soybean sauce-pickled vegetables, vinegar-pickled vegetables and brine-pickled vegetables. Other examples include: pickled ginger, pickled garlic, and *chilli* pickles.

Vegetables and seaweeds in vinegar, oil, brine, or soybean sauce (named) shall confirm to following Codex Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
04.2.2.3	Edible Fungi and Fungi Products (salted, pickled or in vegetable oil)	CS: 038-1981	Annexure-90
04.2.2.3	Edible Fungi and Fungi Products (salted, pickled or in vegetable oil)	CS: 038-1981	Annexure-91
04.2.2.3	Table Olives	CS: 66-1981	Annexure-92
04.2.2.3	Pickled Fruits and Vegetables (pickled vegetables)	CS: 260-2007	Annexure-93

4.2.2.4 Canned or bottled (pasteurized) or retort pouch vegetables and seaweeds

Fully preserved product in which fresh vegetables are cleaned, blanched, and placed in cans or jars in liquid (e.g. brine, water, oil or sauce), and heat-sterilized or pasteurized. Examples include: canned chestnuts, canned chestnut puree, asparagus packed in glass jars, canned and cooked pink beans, canned tomato paste (low acid), and canned tomatoes (pieces, wedges or whole).

This category of vegetable (named) shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.2.2.4	Canned, Bottle and Pouched Packed Vegetable	PS: 505	Annexure-94
4.2.2.4	Canned Mushrooms	PS:4564	Annexure-95
4.2.2.4	Canned Green Peas	PS:4252	Annexure-96

4.2.2.5 *Vegetable, seaweed, and nut and seed purees and spreads (e.g. peanut butter)*

Vegetable purees are finely dispersed slurries prepared from the concentration of vegetables, which may have been previously heat -treated (e.g. steamed). The slurries may be filtered prior to packaging. Purees contain lower amounts of solids than pastes (found in category 4.2.2.6). Examples include: tomato puree, peanut butter (a spreadable paste made from roasted and ground peanuts by the addition of peanut oil), other nut butters (e.g. cashew butter), and pumpkin butter. This category of vegetable (named) shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.2.2.5	Tomato Puree & Pulp	PS: 518	Annexure-97

4.2.2.6 *Vegetable, seaweed, and nut and seed pulps and preparations (e.g. vegetable desserts and sauces, candied vegetables)*

Vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) pastes and pulps other than food category 4.2.2.5, are prepared as described for vegetable purees (category 4.2.2.5). However, pastes and pulps have a higher amount of solids, and are usually used as components of other foods (e.g. sauces). Examples include: potato pulp, horseradish pulp, aloe extract, salsa (e.g. chopped tomato, onion, peppers, spices and herbs), sweet red bean paste, sweet coffee bean paste, tomato paste, tomato pulp, tomato sauce, crystallized ginger, and bean-based vegetable dessert. This category of vegetable (named) shall confirm to following PSQCA and Codex Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.2.2.6	Tomato Paste	PS: 517	Annexure-98
04.2.2.6	<i>Tehena</i> (Regional Standard)	CS: 259R-2007	Annexure-99
04.2.2.6	<i>Harissa</i> (Regional Standard)	CS: 308R-2011	Annexure-100
04.2.2.6	<i>Ginseng</i> Products (<i>Ginseng</i> Extract, Steamed <i>Ginseng</i> Extract)	CS: 321-2015	Annexure-101

4.2.2.7 Fermented vegetable and seaweed products

Fermented vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweed products, excluding fermented soybean products of food category 6.8.6, 6.8.7, 12.9.1, 12.9.2.1 and 12.9.2.3, are a type of pickled product, formed by the action of lactic acid bacteria, usually in the presence of salt. Traditional Oriental fermented vegetable products are prepared by air-drying vegetables and exposing them to ambient temperatures so as to allow the microorganisms to flourish; the vegetables are then sealed in an anaerobic environment and salt (to generate lactic acid), spices and seasonings are added. Examples include: red pepper paste, fermented vegetable products (other than category 4.2.2.3), *kimchi* (fermented Chinese cabbage and vegetable preparation), and sauerkraut (fermented cabbage). Excludes fermented soybean products that are found in food categories 6.8.6 (fermented soybeans), 6.8.7 (fermented soybean curd), 12.9.1 (fermented soybean paste e.g. *miso*), 12.9.2.1 (fermented soybean sauce), and 12.9.2.3 (other soybean sauce). Some of fermented vegetable (names listed below) shall confirm to following Codex Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
04.2.2.7	Edible Fungi and Fungi Products (fermented)	CS: 38-1981	Annexure-102
04.2.2.7	Kimchi	CS: 223-2001	Annexure-103
04.2.2.7	Pickled Fruits and Vegetables (fermented vegetables)	CS: 260-2007	Annexure-104

4.2.2.8 Cooked or fried vegetables and seaweeds

Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds that are steamed, boiled, baked, or fried, with or without a coating, for presentation to the consumer. Examples include: simmered beans, pre-fried potatoes, fried okra, and vegetables boiled down in soy sauce (*tsukudani*). The potato chips shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.2.2.8	Potato Chips	PS:3415	Annexure-105

CHAPTER-5

5 Confectionery

Includes all cocoa and chocolate products (5.1), other confectionery products that may or may not contain cocoa (5.2), chewing gum (5.3), and decorations and icings (5.4), or foods produced solely with any combination of foods conforming to these sub-categories.

5.1 Cocoa products and chocolate products including imitations and chocolate substitutes

This category is divided to reflect the variety of standardized and non-standardized cocoa- and chocolate-based products.

5.1.1 Cocoa mixes (powders) and cocoa mass/cake

Includes a variety of products that are used in the manufacture of other chocolate products or in the preparation of cocoa-based beverages. Most cocoa products have their origin in the cocoa nib, which is obtained from cocoa beans that have been cleaned and freed from the shells. Cocoa mass is obtained from the mechanical disintegration of the nib. Depending on the desired finished chocolate product, the cocoa nib or mass may be treated by an alkalization process that mellows the flavour. Cocoa dust is the fraction of the cocoa bean produced as a product during winnowing and degerming. Cocoa powder is produced by reducing the fat content of cocoa mass or liquor by pressing (including expeller pressing) and molding into a cocoa press cake. The cocoa press cake is disintegrated and ground to cocoa powder. Cocoa liquor is a homogeneous flowing paste produced from the cocoa nib, which has been roasted, dried, disintegrated and milled. Cocoa-sugar mixtures contain only cocoa powder and sugar. Chocolate powder for beverages is made from cocoa liquor or cocoa powder and sugar to which flavouring (e.g. vanillin) may be added. Examples include: drinking chocolate powder; breakfast cocoa; cocoa dust (fines), nibs, mass, press cake; chocolate liquor; cocoa mixes (powders for preparing the hot beverage); cocoa-sugar mixture; and dry mixes for sugar- cocoa confectionery. Finished cocoa beverages and chocolate milk are included in category 1.1.4, and most finished chocolate products are included in category 5.1.4.

The cocoa mixes (powders) shall conform to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
5.1.1	Cocoa Powders (Cocoas) and Dry Cocoa Sugar Mixtures	PS:4435	Annexure-106
5.1.1	Cocoa (Cacao) Nib Cocoa (Cacao) Mass, Cocoa, Press Cake and Cocoa Dust, (Cocoa, fines) for use in the manufacture of Cocoa and Chocolate Products	PS:4436	Annexure-107

5.1.2 Cocoa mixes (syrups)

Products that may be produced by adding a bacterial amylase to cocoa liquor. The enzyme prevents the syrup from thickening or setting by solubilizing and dextrinizing cocoa starch. Includes products such as chocolate syrup used to prepare chocolate milk or hot chocolate. Chocolate syrup differs from fudge sauce (e.g. for ice cream sundaes), which is found in category 5.4. Only the below listed food additives, in accordance with Codex General Standard for Food Additives (CS: 192-1995) shall be acceptable in cocoa mixes (syrups).

Additive	INS	Max Level
ACESULFAME POTASSIUM	950	350 mg/kg
ALITAME	956	300 mg/kg
ASPARTAME	951	1000 mg/kg
CARAMEL III - AMMONIA CARAMEL	150c	50000 mg/kg
CARAMEL IV - SULFITE AMMONIA CARAMEL	150d	50000 mg/kg
CARMINES	120	300 mg/kg
CHLOROPHYLLS AND CHLOROPHYLLINS, COPPER COMPLEXES	141(i),(ii)	6.4 mg/kg
CYCLAMATES	952(i), (ii), (iv)	250 mg/kg
NEOTAME	961	33 mg/kg
POLYSORBATES	432-436	500 mg/kg
SACCHARINS	954(i)-(iv)	80 mg/kg
SORBATES	200-203	1000 mg/kg
SUCRALOSE (TRICHLOROGALACTOSUCROSE)	955	400 mg/kg
TARTRATES	334, 335(ii), 337	2000 mg/kg
TOCOPHEROLS	307a, b, c	500 mg/kg

5.1.3 Cocoa-based spreads

Products in which cocoa is mixed with other ingredients (usually fat-based) to prepare a spreadable paste that is used as a spread for bread or as a filling for fine bakery wares. Examples include: cocoa butter, fillings for bonbons and chocolates, chocolate pie filling, and nut-chocolate based spreads for bread (*Nutella*-type product). Only the below listed food additives, in accordance with Codex General Standard for Food Additives (CS: 192-1995) shall be acceptable in cocoa-based spreads.

Additive	INS	Max Level
CAROTENES, BETA-, VEGETABLE	160a(ii)	100 mg/kg
CAROTENOIDS	160a(i),a(iii),e,f	100 mg/kg
CHLOROPHYLLS AND CHLOROPHYLLINS, COPPER COMPLEXES	141(i),(ii)	6.4 mg/kg
CYCLAMATES	952(i), (ii), (iv)	500 mg/kg
ETHYLENE DIAMINE TETRA	385, 386	50 mg/kg
GRAPE SKIN EXTRACT	163(ii)	200 mg/kg
HYDROXYBENZOATES, PARA-	214, 218	300 mg/kg
LAURIC ARGINATE ETHYL ESTER	243	200 mg/kg
NEOTAME	961	100 mg/kg
PHOSPHATES	338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i)-(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii), (ix);451(i),(ii); 452(i)-(v);542	880 mg/kg
POLYSORBATES	432-436	1000 mg/kg
SACCHARINS	954(i)-(iv)	200 mg/kg
SORBATES	200-203	1000 mg/kg
SUCRALOSE (TRICHLOROGALACTOSUCROSE)	955	400 mg/kg

5.1.4 Cocoa and chocolate products

Chocolate is produced from cocoa nibs, mass, press cake, powder, or liquor with or without addition of sugar, cocoa butter, aroma or flavouring substances, and optional ingredients (e.g. nuts). This category is for chocolate as defined in the *Standard for Chocolate & Chocolate Products – Halaal* (Pakistan Stan: 5243-2013), and for confectionery that uses chocolate that meets the standard and may contain other ingredients, for example chocolate-covered nuts and fruit (e.g. raisins). This category includes only the chocolate portion of any confectionery within the scope of food category 5.2. Examples include: bonbons, cocoa butter confectionery (composed of cocoa butter, milk solids and sugar), white chocolate, chocolate chips (e.g. for baking), milk chocolate, cream chocolate, sweet chocolate, bitter chocolate, enrobing chocolate, chocolate covered in a sugar-based “shell” or with coloured decorations, filled chocolate (*chocolate with a texturally distinct center and external coating, excluding flour confectionery and*

pastry products of categories 7.2.1 and 7.2.2) and chocolate with added edible ingredients. This category does not include yoghurt-, cereal-, and honey-covered nuts (category 15.2). The cocoa and chocolate products shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
5.1.4	Chocolate & Chocolate Products (<i>Halaal</i>)	PS: 5243	Annexure-108
5.1.4	Composite and Filled Chocolate	PS:4557	Annexure-109

5.1.5 Imitation chocolate, chocolate substitute products:

Includes chocolate-like products that may or may not be cocoa-based, but have similar organoleptic properties as chocolate, such as carob chips, and cocoa-based products that contain greater than 5% vegetable fat (other than cocoa butter) that are excluded from the scope of the *Standard for Chocolate & Chocolate Products – Halaal* (Pakistan Stan: 5243-2013). These chocolate-like products may contain additional optional ingredients and may include filled confectionery. Examples include: compound chocolate, flavoured and coloured compound chocolate, compound chocolate coatings, and imitation chocolate covered nuts and fruit (e.g. raisins). This category includes only the chocolate-like portion of any confectionery within the scope of food category 5.2.

5.2 Confectionery including hard and soft candy, nougats, etc.

Includes all types of products that primarily contain sugar and their dietetic counterparts and may or may not contain cocoa. Includes hard candy (5.2.1), soft candy (5.2.2), and nougats and marzipans (5.2.3).

The confectioneries products (named below) shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
5.2	Sugar Confectionery Pectin based Products	PS:4715	Annexure-110
5.2	Sugar Confectionery Gelatin based products (<i>Halaal</i>)	PS:4716	Annexure-111
5.2	Losenges	PS: 490	Annexure-112
5.2	Hard Boiled Sugar Confectionary	PS:1933	Annexure-113

5.2.1 Hard candy

Products made from water and sugar (simple syrup), colour and flavour that may or may not have a filling, their dietetic counterparts, and products that may or may not contain cocoa. Includes:

pastilles and lozenges (rolled, shaped and filled sweetened candy). These types of products may be used as fillings for chocolate products within the scope of food categories 5.1.4 and 5.1.5.

The hard candy shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
5.2.1	Hard Candy	PS:4254	Annexure-114

5.2.2 Soft candy

Products include soft, chewy products such as caramels (containing sugar syrup, fats, colour and flavour) and their dietetic counterparts; products that may or may not contain cocoa and milk (e.g. toffees and chocolate-flavoured caramels); jelly-based candies (e.g. jelly beans, jellied fruit paste covered in sugar, made from gelatin, pectin, colour and flavour); and licorice. Also included are *halwa teheniaa* and oriental specialties, such as sweet bean jelly and agar jelly for *mitsumame*. These types of products may be used as fillings for chocolate products within the scope of food categories 5.1.4 and 5.1.5.

The Toffees shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
5.2.2	Toffees	PS: 971	Annexure-115

5.2.3 Nougats and marzipans

Nougats consist of roasted ground nuts, sugar and cocoa and their dietetic counterparts, that may be consumed as is, or may be used as a filling for chocolate products within the scope of food categories 5.1.4 and 5.1.5. Marzipan consists of almond paste and sugar and their dietetic counterparts that may be shaped and coloured for direct consumption, or may be used as a filling for chocolate products within the scope of food categories 5.1.4 and 5.1.5.

5.3 Chewing gum

Product made from natural or synthetic gum base containing flavours, sweeteners (nutritive or non-nutritive), aroma compounds, and other additives. Includes bubble gum and breath-freshener gum products. The chewing gum shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
5.3	Chewing Gum & Bubble Gum	PS:2855	Annexure-116

5.4 Decorations (e.g. for fine bakery wares), toppings (non-fruit) and sweet sauces

Includes ready-to-eat icings and frostings for cakes, cookies, pies and bread and flour confectionery, as well as mixes for these products. Also includes sugar- and chocolate- based coatings for baked goods. Sweet sauces and toppings include butterscotch sauce for use, e.g. on ice cream. These sweet sauces are different than the syrups (e.g. maple, caramel, and flavoured syrups for fine bakery wares and ices) included in category 11.4. Fruit-based toppings are included in 4.1.2.8. Chocolate sauce is included in 5.1.2.

CHAPTER-6

6 Cereals and Cereal Products

Includes unprocessed (6.1) and various processed forms of cereal and cereal-based products derived from cereal grains, roots and tubers, pulses, legumes and pith or soft core of palm tree, excluding bakery wares of food category 7.0.

6.1 Whole, broken, or flaked grain, including rice

Includes whole, husked, unprocessed cereals and grains. Examples include: barley, corn (maize), hops (for beer manufacture), oats, rice (including enriched, instant and parboiled), sorghum, soybeans, and wheat.

6.1.1 Food grains

Food grains shall include barley, oats, *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.

- (i) **Colour:** The grain as far as possible, shall have its normal colour but mere discoloration shall not make it unfit if repellent smell or taste have not developed.
- (ii) **Discolored seed:** Not more than 6 percent
- (iii) **Smell:** The grains must have normal 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,
- (iv) **Taste:** Any taste other than the characteristic taste of food grains shall be deemed to render the food grains injurious to health and must be discouraged.
- (v) **Foreign Matter:** Not more than 2 percent out of which inorganic matter and organic matter shall not exceed 0.5 percent and 1.5 percent respectively.
- (vi) **Impurities of Animal Origin** (Filt, including Dead Insects): Not more than 0.1 percent.
- (vii) **Poisonous and Noxious Seed:** The grains shall be free from the poisonous or noxious seeds which represent a hazard to human health. These include datura species (common thorn apple or jimson weed), akra (*vicia species*), corn cockle (*Agrostemtna githago l.*) and castor bean (*Ricinus communis l.*)
- (viii) **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.

- (ix) **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.
- (x) **Insect Damaged Grains:** Shall not exceed the limit of 2 percent. Wheat grain shall be separately specified.
- (xi) **Moisture content:** The moisture content at any time irrespective of time or any season shall not exceed 12 percent or otherwise indicated in the relevant session
- (xii) **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".
- (xiii) **Contaminants**
- | | |
|------------------------------------|-------------------------|
| (i) Uric acid | Not more than 100 mg/kg |
| (ii) Mycotoxin including aflatoxin | Not more than 20 g/kg |
- (xiv) **Foreign matter:** Means any extraneous matter other than food grains, comprising of
- 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,
 - Organic matter consisting of husk, straws, seeds and other inedible grains and also paddy in the case of rice, and
 - Poisonous/ toxic I noxious and / or harmful seeds means any seeds which if present may have effect on health, organoleptic properties or technological performances such as datura (*Dfastuosat Stramoniumlinn*), corncockle (*Agrostemma githago*) and akra (*vicia species*).
- (xv) **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

6.1.1.1 Food grains (wheat, rice, & maize)

Food grains include wheat, rice, and maize shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
6.1	Rice	PS: 3342	Annexure-117
6.1	Wheat	PS: 3747	Annexure-118
6.1	Corn	PS: 4839	Annexure-119

6.1.1.2 Masur whole

Masur whole shall consist of lentil. It shall be clean, dry, sound, wholesome and sweet. It shall confirm to the standard of food grains and including the following standards:

- | | | |
|-------|-----------------------------------|--|
| (i) | Foreign matter | Not more than 2 percent
<i>(Out of which inorganic and impurities of animal origin shall not exceed 0.5 and 0.10 percent)</i> |
| (ii) | Foreign food grains | Not more than 3.0 percent |
| (iii) | Damaged / slightly defected seeds | Not more than 3.0 percent |

Provided that the total of foreign matter, other foreign food grains and damaged / grains shall not exceed 8 percent

6.1.1.3 Mash Whole

Mash whole consists of seeds of pulses (*Phaseolus radiall*). It shall be clean, dry, wholesome and sweet. It shall confirm to the standard of food grains including the following standards:

- | | | |
|-------|----------------------------|--|
| (i) | Foreign matter | Not more than 2 percent
<i>(Out of which inorganic and impurities of animal origin shall not exceed 0.5 and 0.10 percent)</i> |
| (ii) | Foreign food grains | Not more than 3.0 percent |
| (iii) | Damaged / 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.

6.1.1.4 Moong Whole

Moong whole shall consist of seeds of green gram (*Phaseolus aureusroxb*, *Phaseolus radiates*). It shall be clean, dry, sound, wholesome and sweet, and free from admixture of unwholesome substances. It shall confirm to the standard of food grains including the following standards:

- | | | |
|-------|----------------------------|--|
| (i) | Foreign matter | Not more than 2 percent
<i>(Out of which inorganic and impurities of animal origin shall not exceed 0.5 and 0.10 percent)</i> |
| (ii) | Foreign food grains | Not more than 3.0 percent |
| (iii) | Damaged / 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 9.0 percent.

6.1.1.5 Chana Whole

Chana whole shall be the dried grains of gram (*Cicer arietinum L.*). 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:

- | | | |
|-------|----------------------------|--|
| (i) | Foreign matter | Not more than 2 percent
<i>(Out of which inorganic and impurities of animal origin shall not exceed 0.5 and 0.10 percent)</i> |
| (ii) | Foreign food grains | Not more than 3.0 percent |
| (iii) | Damaged / 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 9.0 percent.

6.1.2 Split pulse

6.1.2.1 Dal Arhar

Dal Arhar shall consist of de-husked and split seeds of red gram (*Cajanuscajan 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:

- | | | |
|-------|----------------------------|--|
| (i) | Foreign matter | Not more than 2 percent
<i>(Out of which inorganic and impurities of animal origin shall not exceed 0.5 and 0.10 percent)</i> |
| (ii) | Foreign food grains | Not more than 0.5 percent |
| (iii) | Damaged / weevilled grains | Not more than 4.0 percent |

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 5.0 percent.

6.1.2.2 Dal Moong

Dal moong shall consist split seeds of green grams (*Phaseolus aureusroxb, Phaseolus radiatus*). 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:

- | | | |
|-------|----------------------------|--|
| (i) | Foreign matter | Not more than 2 percent
<i>(Out of which inorganic matter shall not exceed 0.5 percent)</i> |
| (ii) | Foreign food grains | Not more than 4.0 percent |
| (iii) | Damaged / weevilled grains | Not more than 3.0 percent |

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 8 percent.

6.1.2.3 *Dal Chana*

Dal chana shall consist of split, de-husked seeds of green gram (*Cicer arietinum L.*). 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:

- | | | |
|-------|----------------------------|--|
| (i) | Foreign matter | Not more than 2 percent
<i>(Out of which inorganic matter shall not exceed 0.5 percent)</i> |
| (ii) | Foreign food grains | Not more than 2.0 percent |
| (iii) | Damaged / weevilled grains | Not more than 4.0 percent |

Provided that the total of foreign matter, other foreign food grains and damaged grains shall not exceed 6 percent.

6.1.2.4 *Split Pulse (Dal) Masur*

Dal masur shall consist of de-husked whole and split seeds of the lentil (*Lens esculentamoench or lens culinaris medik, or Ervum lens*). 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:

- | | | |
|-------|----------------------------|--|
| (i) | Foreign matter | Not more than 2 percent
<i>(Out of which inorganic matter shall not exceed 0.5 percent)</i> |
| (ii) | Foreign food grains | Not more than 2.0 percent |
| (iii) | Damaged / weevilled 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.

6.1.3 Any Other Food-grains

Not specified above shall conform to the following standards, namely

Provided that total of foreign matter, other edible grains and damaged grains shall not exceed 9 percent by weight.

6.2 Flours and starches (including soybean powder)

The basic milled products of cereal grains, roots, tubers, pulses, pith or softy core of palm tree or legumes sold as such or used as ingredients (e.g. in baked goods).

6.2.1 Flours

Flour is produced from the milling of grain, cereals and tubers (e.g. cassava) and pith or soft core of palm tree. Includes flour pastes for bread and flour confectionery, flour for bread, pastries,

noodles and pasta, and flour mixes (physical mixtures of flours from different cereal or grain sources, which are different from mixes for bakery goods (dry mixes containing flour and other ingredients, categories 7.1.6 (mixes for ordinary bakery wares) and 7.2.3 (mixes for fine bakery wares)). Examples include: durum wheat flour, self-rising flour, enriched flour, instantized flour, corn flour, corn meal, bran, farina, roasted soybean flour, *konjac* flour, and *maida* (refined wheat flour) and sago flour.

The below mentioned flours shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
6.2.1	Enriched Wheat Flour & Self-rising Wheat flour	PS: 4560	Annexure-120
6.2.1	Fortified Wheat <i>Atta</i>	PS: 4872-2017 (R)	Annexure-121
6.2.1	Whole Meal Wheat <i>Atta</i>	PS: 380	Annexure-122
6.2.1	Wheat Bran	PS: 193	Annexure-123
6.2.1	Barley Powder	PS: 192	Annexure-124
6.2.1	<i>Suji</i> (Semolina)	PS: 190	Annexure-125
6.2.1	<i>Besan</i>	PS:1798	Annexure-126
6.2.1	Wheat Protein Products including Wheat Gluten	PS: 4443	Annexure-127
6.2.1	Edible Full Fat Soya flour	PS: 4556	Annexure-128

It shall be mandatory for all type of Wheat Flour, Maida and Fine Atta milled at roller flour mills to comply with following fortification standards

Iron	Not less than 15ppm in the form of NaFeEDTA
Folic acid	Not less than 1 ppm
Zinc	Not less than 30 ppm in the form of zinc oxide
Vitamin B12	Not less than 0.008 ppm

6.2.1.1 Fortified Maida

Means the fine product made by milling or grinding cleaned wheat and bolting or dressing the resulting wheat meal with addition of one or more fortificants. Rest of the specifications are same as for "maida".

It shall be mandatory to confirm following Fortification standards:

(i) Iron	Not less than 15ppm in the form of NaFeEDTA
(ii) Folic acid	Not less than 1 ppm
(iii) Zinc	Not less than 30 ppm in the form of zinc oxide
(iv) Vitamin B12	Not less than 0.008 ppm

6.2.1.2 Rice or Miscellaneous Edible Ground Flour

Shall be the product obtained by grinding, sound, cleaned, milled rice or miscellaneous edible grain. It shall conform to the following standards:

- | | | |
|------|--------------------------|----------------------------|
| (i) | Moisture | Not more than 12.0 percent |
| (ii) | Total ash (on dry basis) | Not more than 0.4 percent |

6.2.1.3 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 present by weight. Barely powder shall be the product obtained by grinding clean and sound (*Hordeum vulgare* or *Hordeum distichon*) grains. Barley starches shall not be less than 98.0 percent by mass. Barley powder shall also confirm to the following standards:

- | | | |
|-------|---|--|
| (i) | Moisture | Not more than 12.5 percent |
| (ii) | Total ash (on dry basis) | Not more than 1.0 percent |
| (iii) | Ash insoluble in HCl | Not more than 0.1 percent |
| (iv) | Alcoholic acidity as H ₂ SO ₄ . | Not more than 0.1 percent
(with 90 % alcohol) |
| (v) | Protein (N x 6.25) (on dry basis) | Not less than 7.0 percent |

6.2.1.4 Whole Meal Barley Powder

Means the product obtained by grinding clean and sound de-husked barley (*Hordeum vulgare* or *Hordeum distichon*) grains. It shall confirm to the following standards:

- | | | |
|-------|---|--|
| (i) | Moisture | Not more than 12.5 percent |
| (ii) | Total ash (on dry basis) | Not more than 3.0 percent |
| (iii) | Ash insoluble in HCl | Not more than 0.50 percent |
| (iv) | Alcoholic acidity as H ₂ SO ₄ | Not more than 0.17 percent
(with 90 percent alcohol on dry basis) |

6.2.1.5 Defatted Soy Flour

Means the product obtained from clean, sound healthy soybeans. It shall be in the form of coarse or fine powder or grits, white to creamy white in colour of uniform composition and free from rancid and objectionable odour, extraneous matter, insects, fungus, rodent hair and excreta. It shall be free from any added colour and flavour. It shall confirm to the following standards:

- | | | |
|-------|--------------------------|---|
| (i) | Moisture | Not more than 9.0 percent by weight |
| (ii) | Total ash (on dry basis) | Not more than 6 percent by weight on dry basis |
| (iii) | Protein (Nx6.25) | Not less than 48 percent by weight on dry basis |
| (iv) | Fat | Not more than 1.5 percent weight on dry basis |

6.2.2 Starches

Starch is a glucose polymer occurring in granular form in certain plant species, notably seeds (e.g. cereals, pulses, corn, wheat, rice, beans, peas) and tubers (e.g. tapioca, potato). The polymer consists of linked anhydro-alpha-D-glucose units. Native starch is separated by processes that are specific for each raw material.

The below mentioned starches shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
6.2.2	Maize, Rice, Wheat and Potato Starches	PS: 154	Annexure-129
6.2.2	Edible Starch (Corn Flour)	PS: 4456	Annexure-130
6.2.2	Corn Flour Maize Starch (Food Grade)	PS: 4456	Annexure-131
6.2.2	Arrowroot Starch	PS: 370	Annexure-132
6.2.2	Custard Powder	PS: 628	Annexure-133
6.2.2	Edible Tapioca Starch	PS: 676	Annexure-134
6.2.2	Sweet Potato Starch	PS: 547	Annexure-135
6.2.2	Sago Starch	PS: 371	Annexure-136
6.2.2	Shoti Starch	PS: 372	Annexure-137
6.2.2	Acid Modified Starch	PS: 548	Annexure-138
6.2.2	Oxidized Starch	PS: 549	Annexure-139

6.3 [Breakfast cereals, including rolled oats](#)

Includes all ready- to-eat, instant, and regular hot breakfast cereal products. Examples include: granola- type breakfast cereals, instant oatmeal, farina, corn flakes, puffed wheat or rice, multi-grain (e.g. rice, wheat and corn) breakfast cereals, breakfast cereals made from soy or bran, and extruded-type breakfast cereals made from grain flour or powder.

The below mentioned breakfast cereals shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
6.3	Rolled Oats (Quick Cooking Type)	PS: 735	Annexure-140

6.3	Corn Flakes	PS: 629	Annexure-141
6.3	Pearl Barley	PS: 191	Annexure-142

6.4 [Pastas and noodles and like products](#)

This food category was revised, with the understanding that there would be few, if any additives needed in dried pastas and noodles. Includes all pasta, noodle and similar products.

6.4.1 [Fresh pastas and noodles and like products](#)

Products that are untreated (i.e. not heated, boiled, steamed, cooked, pre-gelatinized or frozen) and are not dehydrated. These products are intended to be consumed soon after preparation. Examples include: unboiled noodles, and “skins” or crusts for spring rolls, wontons, and *shuo mai*.

6.4.2 [Dried pastas and noodles and like products](#)

Products that are untreated (i.e. not heated, boiled, steamed, cooked, pre-gelatinized or frozen) and are dehydrated. Examples include dried forms of: spaghetti, bean vermicelli, rice vermicelli, macaroni, and rice noodles.

The below products shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
6.4.2	Rice Noodles	PS:3955	Annexure-143
6.4.2	Macaroni, Spaghetti, Vermicelli & Noodles	PS: 384	Annexure-144

6.4.3 [Pre-cooked pastas and noodles and like products](#)

Products that are treated (i.e. heated, boiled, steamed, cooked, pre-gelatinized or frozen) . These products may be sold directly to the consumer (e.g. pre-cooked, chilled gnocchi to be heated prior to consumption), or may be the starch component of prepared meals (e.g. heat-and-serve frozen dinner entrees containing spaghetti, macaroni or noodles; canned spaghetti and meatballs entrée). Also includes instant noodles (e.g. pre-cooked rice noodles), that are pre-gelatinized, heated and dried prior to sale to the consumer.

The Instant Noodles shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
6.4.3	Instant Noodles	PS: 5245	Annexure-145

6.5 [Cereal and starch based desserts](#)

Dessert products containing cereal, starch or grain as the main ingredient. Also includes cereal- or starch based fillings for desserts. Examples include: rice pudding, semolina pudding, tapioca pudding, rice flour dumplings (*dango*), a steamed yeast-fermented wheat flour dough dessert (*musipan*), and a starchy pudding based dessert (*namagashi*).

6.6 [Batters \(e.g. for breading or batters for fish or poultry\)](#)

Products containing flaked or ground cereal or grain that when combined with other ingredients (e.g. egg, water, milk) are used as a coating for fish or poultry. Products are usually sold as dry mix of the cereal or grain component. Examples include breading for *tempura* batter. Doughs (e.g. for bread) are found in 7.1.4, and other mixes (e.g. for bread or cakes) are found in 7.1.6 and 7.2.3, respectively.

6.7 [Pre-cooked or processed rice products, including rice cakes](#)

Products prepared from rice that is soaked, drained, steamed, kneaded and shaped into cake forms (e.g. Japanese *mochi*, Korean *teuck*). Crisp snacks made from rice grains, also called “rice cakes” are categorized in 15.1, and dessert -type rice cakes are in 6.5. Category 6.7 would also include processed rice and enriched rice products, such as pre-cooked products that are sold canned, chilled or frozen; and processed rice products sold in retort pouches. This is to distinguish from category 6.1 (Whole, broken, or flaked grain, including rice) that is intended to include only whole, husked, unprocessed cereals and grains.

6.8 [Soybean products](#)

Includes dried, cooked, fried or fermented soybean products, and soybean curd products.

The Soybean products shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
6.8	Soya Protein Products.	PS:3739	Annexure-146

6.8.1 [Soybean-based beverages](#)

Products prepared from dried soybeans that are soaked in water, pureed, boiled and strained, or prepared from soybean flour, soybean concentrate, or soybean isolate. In a number of countries this category includes products referred to as soybean milk. Soybean-based beverages may be consumed as is, or used to prepare other soybean products, such as those in food categories 6.8.2 (soybean-based beverage film), 6.8.3 (soybean curd (*tofu*)), 6.8.4 (semi-dehydrated soybean curd), and 6.8.5 (dehydrated soybean curd (*kori tofu*)). Also includes soybean products,

such as soybean-based beverage powder, which is sold as is, for reconstitution, or as a mix containing a coagulant that can be reconstituted by the consumer for preparation of home-made soft tofu.

6.8.2 Soybean-based beverage film

Film formed on the surface of boiling soybean-based beverage that is dried. It may be deep-fried or softened in water prior to use in soups or poached food. Also known as *fuzhu* or *yuba*.

6.8.3 Soybean curd (tofu)

Soybean curd is prepared from dried soybeans that are soaked in water, pureed, and strained to produce soybean-based beverage, which is then made into a curd with a coagulant, and placed in a mould. Soybean curds may be of a variety of textures (e.g. soft, semi-firm, firm).

6.8.4 Semi-dehydrated soybean curd

Soybean curd that has been pressed while being moulded into blocks so that some moisture has been removed, but so that it is not completely dried (see food category 6.8.5). Semi-dehydrated soybean curd typically contains 62% water, and has a chewy texture.

6.8.4.1 *Thick gravy-stewed semi-dehydrated soybean curd:*

Partially dehydrated soybean curd that is cooked (stewed) with a thick sauce (e.g. miso sauce). The partially dehydrated soybean curd typically absorbs the sauce, and so regains its original texture.

6.8.4.2 *Deep fried semi-dehydrated soybean curd:*

Partially dehydrated soybean curd that is deep-fried. It may be consumed as such, or cooked (e.g. stewed in sauce) after frying.

6.8.4.3 *Semi-dehydrated soybean curd, other than food categories 06.8.4.1 and 06.8.4.2:*

Partially dehydrated soybean curd prepared other than by stewing in thick (e.g. miso) sauce or by deep-frying. Includes grilled products and mashed products that may be combined with other ingredients (e.g. to make a patty or a loaf).

6.8.5 Dehydrated soybean curd (*kori tofu*)

Soybean curd from which all moisture has been removed through the process of freezing, aging, and dehydrating. It may be reconstituted with water or sauce for consumption, or is used directly in prepared dishes. It may also be deep-fried or simmered in sauce.

6.8.6 Fermented soybeans (e.g. *natto*, *tempe*)

The product is prepared from soybeans that have been steamed and fermented with certain fungi or bacteria (starter). The soft, whole beans have a distinctive aroma and taste.

6.8.7 Fermented soybean curd

The product is prepared by forming soybean curd into a loaf during the fermentation process. It is a soft, flavoured product, either in red, rice-yellow, or grey-green.

6.8.8 Other soybean protein products

Other products from soybeans composed mainly of soybean protein such as extruded, textured, concentrated, and isolated soybean protein.

CHAPTER-7

7 Bakery Wares

Includes categories for bread and ordinary bakery wares (7.1) and for sweet, salty and savoury fine bakery wares (7.2).

7.1 Bread and ordinary bakery wares and mixes

Includes all types of non-sweet bakery products and bread-derived products.

7.1.1 Breads and rolls

Includes fortified bread, rolls, buns, yeast-leavened and specialty breads, and soda breads. Products should have confirm to the following standards:

- | | |
|--------------|--------------------------|
| (i) Moisture | Not more than 40 percent |
| (ii) pH | from 6.2 to 7.5 |

Provided that the samples shall be free from yeast and mold

7.1.1.1 *Yeast-leavened breads and specialty breads*

Includes all types of non-sweet bakery products and bread-derived products. Examples include: white bread, rye bread, pumpernickel bread, raisin bread, whole wheat bread, pain courant francais, malt bread, whole wheat rolls, and milk rolls.

A. *Bread*

Bread, white bread, bran-bread, whole wheat bread, milky bread, multi grain bread, seed bread or multi cereal bread, bread-rolls, white rolls, bun, white bun and sheer mall are foods obtained by baking yeast leavened dough prepared from tine wheat fortified flour (*maida*), water, iodized salt and leavening agent.

The bread shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
7.1.1.1	Bread	PS: 382	Annexure-147

7.1.1.2 *Soda breads*

Includes soda breads

7.1.1.3 Enriched / Fortified Bread Rolls and Buns

Each of the foods enriched bread, enriched rolls and enriched buns conforms to the definition and standards of the 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 (450 grams), 1.8 milligram of thiamine, 1.1 milligrams of riboflavin, 1.5 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 (450 grams), 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 paragraph (1) and (2) of this clause will be deemed to have been met if reasonable averages 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.

7.1.2 Crackers, excluding sweet crackers

The term “cracker” refers to a thin, crisp wafer, usually of unsweetened dough. Flavoured crackers (e.g. cheese flavoured) that are consumed as snacks are in 15.1. Examples include: soda crackers, rye crisps, and *matzo*s.

The bread rusk shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
7.1.2	Bread Rusks	PS: 4840	Annexure-148

7.1.3 Other ordinary bakery products (e.g. bagels, pita, English muffins)

Includes all other ordinary bakery wares, such as cornbread and biscuits. The term “biscuit” in this category refers to a small cake of shortened bread, leavened with baking powder or baking soda. It does not refer to the British “biscuit,” which is a “cookie” or “sweet cracker” included in category 7.2.1.

7.1.4 Bread-type products, including bread stuffing and bread crumbs

Includes bread-based products such as croutons, bread stuffing and stuffing mixes, and prepared doughs (e.g. for biscuits). Bread mixes are included in category 7.1.6.

7.1.5 Steamed breads and buns

Oriental-style leavened wheat or rice products that are cooked in a steamer. Products may be made with or without filling. In China, products without filling are called steamed bread (*mantou*), and those with filling are called steamed buns (*baozi* or *bao*). Twisted rolls of various shapes (*huajuan*) may also be prepared. Examples include: filled dumplings and steamed bun with meat, jam or other filling (*manjyu*).

Food Cat. No.	Standard Title	Standard No.	Annexure No.
7.1.5	Fruits Buns and <i>Sheermal</i>	PS: 760	Annexure-149

7.1.6 Mixes for bread and ordinary bakery wares

Includes all the mixes containing the dry ingredients to which wet ingredients (e.g. water, milk, oil, butter, and eggs) are added to prepare a dough for baked goods from food categories 7.1.1 to 7.1.5. Examples include: French bread mix, tin bread mix, among others. Mixes for fine bakery wares (e.g. cakes, cookies, pancakes) are found in category 7.2.3.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
7.1.6	Bakery Fat	PS: 3403	Annexure-150
7.1.6	Cakes Mixes (Prepared)	PS: 761	Annexure-151

7.2 Fine bakery wares (sweet, salty, savoury) and mixes

Includes sub-categories for ready-to-eat products (7.2.1 and 7.2.2) as well as mixes (7.2.3) for preparing fine baked goods.

7.2.1 Cakes, cookies and pies (e.g. fruit-filled or custard types)

The term “sweet cracker” or “sweet biscuit” used in this category refers to a cookie-like product that may be eaten as a dessert. Examples include: butter cake, cheesecake, fruit-filled cereal bars, pound cake (including *kasutera*), moist cake (type of starchy dessert), western cakes, moon cakes, sponge cake, fruit-filled pies (e.g. apple pie), oatmeal cookies, sugar cookies and British “biscuits” (cookies or sweet crackers).

7.2.1.1 *Biscuits and Wafers*

The Biscuits and Wafers shall conform to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
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7.2.2	Biscuits (excluding Wafer Biscuits)	PS: 383	Annexure-152
7.2.2	Wafer Biscuits	PS: 614	Annexure-153

7.2.1.2 Biscuits (Bakery)

Biscuits (Bakery) shall conform to the following standards:

- | | |
|--|---|
| i. Moisture | Not more than 5.5 percent
<i>(With exception for biscuits like macrons, American cookies etc. where moisture shall not be more than 6 percent)</i> |
| ii. Ash insoluble in HCl | Not more than 0.06 percent (on dry basis) |
| iii. Acidity of ether
(as Oleic acid) | Not more than 1 percent extracted Fat |
| iv. Rancidity (<i>Kries</i> 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.

- | | |
|----------------------------------|---|
| i Arrow root | 5.0 percent of the cereal present to be arrowroot. |
| ii Barley | 5.0 percent of the cereal present to be Barley. |
| iii Butter or butter fat or Ghee | 100 percent of the fat present to be butter fat or ghee (milk fat). |
| iv Corn flour | 5.0 percent of the cereal present to be corn flour. |
| v Chocolate | 10 percent of the total shall be cocoa (defatted). |
| vi Coconut or coconut fat | 50.0 percent of the fat present to be coconut fat. |
| vii Glucose | 10 percent of dextrose in finished product. Either added as such or derived from glucose. |
| viii Honey | 7.0 percent of invert sugar derived from honey in finished product. |
| ix Milk | Doughed wholly with skim milk or containing equivalent of skim milk powder, the resultant biscuit to contain 1.5 percent lactose equivalent to 3.0 percent separated milk solids. |
| x Rice | 5.0 percent of cereal present to be rice. |
| xi Soya | 15.0 percent of Soya in the finished product. |
| xii Tapioca | 5.0 percent 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.

- i. No biscuit shall be labeled with the word “egg” or any word of similar meanings unless that biscuit contains not less than 10 percent egg solids calculated on dry basis.
- ii. 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.
- iii. In the case of flavoured biscuits, there shall be written on the package the word “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.

7.2.1.3 Pastry

A sweet baked food made of baked foods made from ingredients such as fortified flour, milk, butter, shortening, baked powder or egg. Examples: include small cakes, tarts and other sweet baked goods. Pastry shall conform to following standards:

- | | |
|-------------------|--------------------------|
| i. Moisture | Not more than 20 percent |
| ii. Fat | Not more than 50 percent |
| iii. Iodized Salt | Not more than 2 percent |

7.2.1.4 Puff pastry

Puff pastry, is a flaky light pastry containing several layers of fat. It shall contain:

- | | |
|-------------------|---------------------------|
| i. Moisture | Not more than 35 percent |
| ii. Fat | Not more than 25 percent |
| iii. Iodized Salt | Not more than 0.7 percent |

7.2.1.5 Tart

A tart is a baked dish consisting of a filling over a pastry base with an open top not covered with pastry. The pastry is usually short crust pastry; the filling may be sweet or savoury, though modern tarts are usually fruit-based. Examples include: Bake well tarts, jam tarts and custard tarts. Bake well tart shall contain:

- | | |
|-------------|---------------------------|
| i. Moisture | Less than 15 percent. |
| ii. Fat | Not more than 17 percent. |

7.2.1.6 Jam tarts

Jam tarts shall contain

- | | |
|-------------|--------------------------|
| i. Moisture | Less than 17 percent. |
| ii. Fat | Not more than 14 percent |

7.2.1.7 *Custard tarts*

Custard tarts shall contain:

- | | |
|-------------|--------------------------|
| i. Moisture | Not more than 50 percent |
| ii. Fat | Not more than 15 percent |

7.2.1.8 *Tartlet*

Refers to a miniature tart; an example would be egg tarts. The categories of 'tart', flan, quiche and pie overlap with no sharp distinctions.

- | | |
|--------|-------------------------|
| i. Fat | Not more than 9 percent |
|--------|-------------------------|

7.2.1.9 *Cheese cake*

It is a sweet dessert consisting of one or more layers. The main, and thickest layer, consists of a mixture of soft, fresh cheese (typically cream cheese or ricotta), eggs, and sugar; if there is a bottom layer it often consists of a crust or base made from crushed cookies (or digestive biscuits), graham crackers, pastry or sponge cake. It may be baked or unbaked (usually refrigerated). Cheese cake is usually sweetened with sugar and may be flavored or topped with fruit, whipped cream, nuts, cookies, fruit sauce, and/or chocolate syrup. Cheesecake may be prepared in many flavors, such as strawberry, pumpkin, key lime, chocolate, Oreo, chestnut, or toffee.

- | | |
|--------|--------------------------|
| i. Fat | Not more than 35 percent |
|--------|--------------------------|

7.2.1.10 *Cream cake*

This is a rich, moist white cake with great flavor, perfect for decorating. It shall contain dairy based cream, eggs, sugar, flavor, fortified flour, baking powder, and iodized salt. It shall contain moisture not more than 20 percent. Fat shall not exceed 14 percent.

7.2.1.11 *Non-dairy Cream cake*

This is a rich, moist white cake with great flavor, perfect for decorating. It shall contain vegetable fat, eggs, sugar, flavor, fortified flour, baking powder, and iodized salt. It shall contain moisture not more than 20 percent. Fat shall not exceed 14 percent.

7.2.1.12 *Cream biscuits*

Cream biscuits are classic buttermilk biscuits. They are slightly crispy on the outside and pillow-soft on the inside. In cream-based biscuits (no butter), cream shall be of dairy/non-dairy origin. Examples include chocolate coated biscuits (moisture: not less than 1.6 percent and fat not less than 28.2 percent) and cream sandwiched biscuits (moisture: not less than 2.3 percent, whereas fat not more than 23 percent).

7.2.1.13 Croissant

Crescent shaped, mostly sweet in taste characterized by its flaky, golden brown crust which might be plane, filled or coated having 2-3 folds with layered and tender crumb. It shall conform to following standards:

i. Moisture	Not exceed 26 percent
ii. pH	range between 5-6
iii. Butter or margarine	Not exceed 35 percent
iv. Ash	Not exceed 6 percent
v. Iodized Salt	Not exceed 1.5 percent

7.2.2 Other fine bakery products (e.g. doughnuts, sweet rolls, scones, and muffins)

Includes products that may be eaten as a dessert or as breakfast. Examples include: pancakes, waffles, filled sweet buns, pastry, wafers or cones for ice cream, flour confectionery, and trifles.

7.2.2.1 Doughnuts

Doughnuts are snack foods made from deep fried sweet dough usually circular with a hole in the middle but also made in the shape of ball, fingers and stars. These may be filled with jam. Types include hot doughnuts, cold doughnuts, sugared doughnuts, plane doughnuts and cake doughnuts. These shall contain:

i. Moisture	Not exceed 20 percent
ii. Total fat	Not exceed 23 percent
iii. Ash	Not exceed 1.5 percent

7.2.3 Mixes for fine bakery wares (e.g. cakes, pancakes)

Mixes containing the dry ingredients to which wet ingredients (e.g. water, milk, oil, butter, eggs) are added to prepare a dough for fine baked goods. Examples include: cake mix, flour confectionery mix, pancake mix, pie mix, and waffle mix. Prepared dough is found in category 7.1.4. Mixes for ordinary bakery wares (e.g. bread) is found in category 7.1.6.

7.2.3.1 Prepared Cake Mixes

Prepared Cake Mixes means a mixture of fortified flour, sugar, fat, egg, leavening agent with or without permitted food colours and flavours. It shall be free from infestation, rancidity, pathogenic micro-organisms, 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.

7.2.3.2 Plain Cake

Plain Cake means a mixture of fortified flour, sugar, fat, egg, leavening agent with or without permitted food colours and flavours. It shall be free from infestation, rancidity, pathogenic micro-organisms, bitterness and mustiness. It shall conform to following standards

i. Moisture	Shall range between 15-25 percent.
-------------	------------------------------------

- ii. Acid insoluble ash in HCl 0.1 percent.
- iii. Acidity of extracted fat Not more than 1 percent.
(As oleic acid percent by mass)

7.2.3.3 Fruit Cake

Fruit Cake means a mixture of fortified flour, sugar, fat, egg, fruits/preserved fruits, leavening agent with or without permitted food colours and flavours. It shall be free from infestation, rancidity, pathogenic micro-organisms, bitterness and mustiness.

- i. Moisture Shall range between 15-25 percent.
- ii. Acid insoluble ash in HCl 0.1 percent.
- iii. Acidity of extracted fat Not more than 1.5 percent.
(As oleic acid percent by mass)

7.2.3.4 Sponge Cake

Sponge Cake is a mixture of fortified flour (*maida*), shortening (butter or margarine or hydrogenated ground nut oil or other hydrogenated edible oil or their mixture free from free oil conforming to standards of fats and oils) sugar, eggs (poultry eggs; fresh and of good quality or dried egg products) fruits (dry/preserved). It shall conform to following standards:

- i. Moisture Shall range between 20-27 percent.
- ii. Acid insoluble ash in HCl 0.1 percent.
- iii. Acidity of extracted fat Not more than 1 percent.
(As oleic acid percent by mass)

7.2.3.5 Muffins

Muffins may include enriched fortified flour, sweetening agents, eggs, vegetable oil or vegetable shortening or butter, water, iodized salt, permitted flavoring and leavening agents and emulsifiers/other stabilizers. It shall contain moisture not more than 20 per cent. Fat shall not exceed 6 percent.

7.2.3.6 Baqar Khani

Baqar Khani means a mixture of fortified flour, with or without sugar, iodized salt, shortening. It shall be free from infestation, rancidity, pathogenic micro-organisms, bitterness and mustiness. It shall contain moisture not more than 5 per cent.

7.2.3.7 Cake Rusk

Cake Rusk 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 micro-organisms, bitterness and mustiness.

- i. Moisture not more than 10 percent.
- ii. Acid insoluble ash in HCl 0.5 percent.
- iii. Acidity of extracted fat Not more than 1.5 percent.
(As oleic acid percent by mass)

7.2.3.8 Rusk

Rusk means a mixture of fortified flour, sugar, fat, iodized salt, and yeast as a leavening agent with or without permitted flavor (and maybe added *zeera*, black pepper, cardamom, fennel). It shall be free from infestation, rancidity, pathogenic micro-organisms, bitterness and mustiness. It shall contain moisture not more than 2.5 per cent.

7.2.3.9 Butter Rusk

Butter Rusk means a mixture of fortified flour, sugar, butter, iodized salt, and yeast as a leavening agent with or without permitted flavor (and maybe added *zeera*, black pepper, cardamom, fennel). It shall be free from infestation, rancidity, pathogenic micro-organisms, bitterness and mustiness. It shall contain moisture not more than 2.5 per cent.

7.3 Microbiological Limits of Bakery-ware

Parameter	Unit	Bread (All Types)	Biscuits	Pastries, Cakes & Muffins	Doughnuts	Miscellaneous
Total Plate Count	CFU/gram	<50000	<50000	<50000	<50000	<50000
<i>Staph. aureus</i>	CFU/gram	<100	<100	<100	<100	<100
Coliform	CFU/gram	<100	<100	<100	<100	<100
<i>E. coli</i>	CFU/gram	<10	<10	<10	<10	<10
Salmonella	Per 25 gram	Absent	Absent	Absent	Absent	Absent
Yeast/Mould	CFU/gram	<500	<500	<500	<500	<500

CHAPTER-8

8 Meat and Meat Products, including Poultry and Game

This category includes all types of halal meat (beef, mutton), poultry (chicken, duck, turkey ostrich etc.), and game (quail etc.) products, in pieces and cuts or comminuted fresh (8.1) and processed (8.2 and 8.3). All kinds of meat and meat products including poultry and game shall make compliance to the standing PSQCA and Codex Alimentarius standards according to their corresponding notes and quality criteria prescribed in Annexures 08.1, 08.2, 08.3 and 08.4.

“Meat Products” means the edible part of the skeletal muscle of a halal animal (including poultry and game), excluding fish, that is normally used for human consumption and that (animal) 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. Animal shall be free from disease (any abnormality affecting safety and or suitability as specified in the Annexure - 8.1).

This category shall conform to the following standards.

- i. Meat Product, means the product prepared from halal meat (beef and mutton, etc.)
- ii. Nutritional labelling shall be in the descending order where applicable.
- iii. Following additives shall be used in following limits

	Additive	Maximum level
i	Brilliant blue FCF	100 mg/kg
ii	Caramel III - Ammonia caramel	GMP
iii	Caramel IV - Sulfite ammonia caramel	GMP

- iv. Meat or meat product shall not contain any kind of added hormones. Examples of hormone include:
 - (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]

8.1 [Fresh meat, poultry and game](#)

Fresh products are usually free of additives. However, in certain circumstances, additives are necessary. For example, colours are used for certification stamps on the surfaces of fresh cuts of meat, and are indicated in the Food Category System with a notation for “stamping, marking or branding the product.” Additionally, coatings, such as glazes and spice rubs, may be applied to meat products prior to marketing to the consumer. In the Food Category System, this is indicated with a notation for “use as a glaze or coating (surface treatment).” It should be noted that the coatings marketed *per se* are included in food categories 4.1.2.8 (fruit-based glazes) and 12.2 (spice rubs).

The coatings shall conform to the following standards.

- | | | |
|------|---------------------------|--|
| i. | Disodium 5'-Guanylate | GMP |
| ii. | Disodium 5'-Inosinate | GMP |
| iii. | Fast green FCF | 100 mg/kg |
| iv. | Mono ammonium L-Glutamate | GMP (<i>should be Halaal source</i>) |
| v. | Monosodium L-Glutamate | GMP |

8.1.1 [Fresh meat, poultry and game, whole pieces or cuts](#)

Untreated raw meat, poultry and game carcasses and cuts. Examples include: beef carcasses; fresh beef blood; fresh whole chickens and chicken parts; fresh beef cuts (e.g. steaks); beef organs (e.g. heart, kidney); fresh tripe; and chops.

The following PSQCA Standards shall be confirm to grades of carcasses.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
8.1.1	Basic Requirements for a Stall for Sale Meat of Large Animals	PS:4439	Annexure-154
8.1.1	Terminology of Poultry & Poultry Meat.	PS:1737	Annexure-155
8.1.1	Chicken/Fowl Dressed	PS: 867	Annexure-156
8.1.1	Grades of Carcasses of Goat	PS: 157	Annexure-157
8.1.1	Grades of Carcasses of Sheep	PS: 158	Annexure-158
8.1.1	Grades of Carcasses of Oxen	PS: 159	Annexure-159
8.1.1	Grades of Carcasses of Buffalo	PS: 160	Annexure-160

The term fresh on a poultry label refers to any raw poultry product whose internal temperature should never be below -3.3 and above 25°C. There is “zero tolerance” standard for visible fecal material on poultry carcasses. An improperly bled chicken has cherry red skin and is condemned.

The products of this category shall conform to the following standards:

Kind of Meat	Meat Color	Fat Color	Medulla Color
Beef	Red velvet with violet stripes	White	Grey with violet shade
Mutton	Grey-brown with white stripes	Clear White	Grey - Yellow
Poultry	Light pinkish to slight yellow	Clear White	Grey - Yellow

8.1.1.1 Meat pH

i.pH of meat soon after slaughter	07 – 7.2
ii.pH after some hours of slaughter	6.2 – 6.4
iii.pH after 24–48 hours of slaughter	5.30 – 5.70

8.1.1.2 Lean meat

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 (less than 5 per cent in extra lean) and 75 percent water.

8.1.2 Fresh meat, poultry and game, comminuted

Untreated raw comminuted or mechanically deboned meat, poultry and game. Examples include: fresh beef patties; boerewors; fresh breakfast sausages; chopped meat; fresh, uncured sausage; fresh meatballs; mechanically deboned, ground and formed poultry pieces (with or without breading or coating); and fresh sausages (e.g. beef, Italian, and mutton).

8.1.2.1 Sausages

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. Surface of sausages must be dry, clean, not tattered, without molds, not covered with fat. At the surface of boiled sausages there should not be any dark spots. Wrap must be elastic, not mucous, not separated from meat. Their meat shall be pressed well, not crumbling, without air caves. Color of good quality sausage is pink, without grey spots. It shall be stuffed in natural / artificial casing (tight, not softened). It shall contain not less than 60 per cent of meat content to be lean meat and shall also conform to the following standards: -

(a) Moisture	less than 75 per cent
(b) Total Protein	Not less than 18 per cent

- | | |
|---------|----------------------------|
| (c) Fat | Not more than 12 per cent |
| (d) Ash | Not more than 2.5 per cent |

A. Edible casings (e.g. sausage casings)

Casings or tubing shall be prepared from collagen, cellulose, or food-grade synthetic material or from natural sources (e.g. sheep intestines) that contain the sausage mix. Edible casings shall conform to the following standards of preservatives as applicable under specific notes given in the codex alimentarius.

Additives	Maximum level
Allura Red AC	300 mg/kg
Ascorbyl esters	5000 mg/kg
Carotenes, beta-, vegetable	5000 mg/kg
Carotenoids	100 mg/kg
Fast green FCF	100 mg/kg
Grape skin extract	5000 mg/kg
Hydroxybenzoates, para-	36 mg/kg
Iron oxides	1000 mg/kg
Nisin	7 mg/kg
Phosphates	1100 mg/kg
Polysorbates	1500 mg/kg
Ponceau 4R (Cochineal Red A)	500 mg/kg
Riboflavins	1000 mg/kg
Sorbates	10000 mg/kg
Carmines	Zero
Tocopherols	5000 mg/kg

8.1.2.2 Minced meat or ground meat

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.

8.1.2.3 Meat paste

Meat paste means paste, which includes meat spread, prepared from Halal meat, cooked or uncooked, with or without additives and other foods. 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) Total 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 |

8.1.2.4 *Shami Kabab*

Shami Kabab means a product prepared from meat with gram flour and with or without seasoning, spices, iodized salt and coated with egg paste and fried with edible fat/oil. It shall contain not less than 50 percent of meat.

8.1.2.5 *Seekh Kabab, Qeema Ki Tikki*

Seekh Kabab, Qeema Ki Tikki means a product prepared from meat with seasoning, spices, iodized 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: -

- | | |
|-------------------|----------------------------|
| (a) Total Protein | Not less than 18 percent |
| (b) Fat | Not more than 12.5 percent |

8.1.2.6 *Burger patties (chicken, mutton, beef and fish)*

Burger patties (chicken, mutton, beef and fish) means the minced meat product comprising a minimum of 80 percent meat with or without the addition of cereal, spices, iodized salt, herbs, sugar, vinegar, sodium caseinates 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.

8.1.2.7 *Hunter Beef*

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:

- | | |
|----------------------|----------------------------|
| (a) Moisture. | Not more than 15 per cent |
| (b) Total Protein. | Not less than 35 per cent |
| (c) Fat. | Not more than 10 per cent. |
| (d) Sodium chloride. | Not more than 5 per cent |
| (e) Lead. | Less than 1 ppm |

8.1.2.8 *Meat cubes (chicken, mutton, beef)*

Meat cubes (chicken, mutton, beef) means a product prepared from hydrolyzed protein, meat stock, flour, yeast extract, caramel, iodized salt, meat extract, meat fat, desiccated meat, spices and seasoning and other flavouring. It shall conform to the following standards:

(a) Moisture.	Not more than 5.0 per cent
(b) Nitrogen	Not less than 5.0 per cent
(c) Ash.	Not more than 32 per cent.
(d) Iodized Salt	Not more than 27 per cent
(e) Fat.	<25 per cent
(f) MSG (<i>Aginomotto</i>)	Zero percent

8.1.2.9 *Meat extracts, meat essences and meat juices*

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:

(a) Total solid matter.	Not less than 75 per cent
(b) Sodium chloride.	Not more than 12 per cent.
(c) Fat	Not less than 0.6 per cent
(d) Nitrogen.	Not less than 8 per cent.
(e) Nitrogenous compounds.	Not less than 40 per cent.

Chopped Meat

Chopped Meat means the product prepared from edible portion of halal meat of mammalian animals (beef and mutton) and poultry slaughtered in accordance with Islamic injunctions.

- i. The product shall be uniformly cured with edible common salt and Sodium or Potassium Nitrite. The product may be with or without binders such as cereal flour/starch, bread, biscuit, or bakery product. Vegetable protein product, fructose, invert sugar; dextrose, lactose, maltose, glucose syrup including corn syrup, spices, seasoning and condiments and water soluble hydrolyzed protein.
- ii. The product may be smoked and flavoured with permitted flavors and flavor enhancers
- iii. The product may contain ascorbic acid / isoascorbic acid and its sodium salts singly or in combination not exceeding 500 mg / kg expressed as ascorbic acid and sodium and or potassium mono-di-polyphosphate, singly or in combination not exceeding 3000 mg/kg expressed as P₂O₅ as antioxidants and water retention agent respectively.
- iv. The product shall be packed in hermetically sealed containers which shall not show any change on incubation at 35 °C for 10 days and 55 °C for 5 days.
- v. The product shall be clean and substantially free from staining and contamination from the container, foreign matter and shall be capable of being sliced. The product shall conform to the following requirements as given below.

Characteristics

Limits

Total Fat content:

a) Product without binder	Not more than 25.0 percent
---------------------------	----------------------------

- b) Product with binder (Halal) Not more than 30.0 percent

The microbial quality should confirm the standards given in Annex 8.2.

8.2 Processed meat, poultry, and game products in whole pieces or cuts

Includes various treatments for non-heat treated meat cuts (8.2.1) and heat-treated meat cuts (8.3.2). These products shall make compliance to the following levels of additives to be used under particular notes as given in the codex alimentarius.

Additive	Maximum levels
Butylated hydroxyanisole	200 mg/kg
Butylated hydroxytoluene	100 mg/kg
Carotenes, beta-, vegetable	5000 mg/kg
Erythrosine	30 mg/kg
Fast green FCF	100 mg/kg
Grape skin extract	5000 mg/kg
Polysorbates	5000 mg/kg
Propyl gallate	200 mg/kg
Riboflavins	1000 mg/kg
Sodium diacetate	1000 mg/kg
Carmines	Zero
Tertiary butylhydroquinone	100 mg/kg
Tocopherols	500 mg/kg

8.2.1 Non-heat treated processed meat, poultry and game products in whole pieces or cuts

This category describes several treatment methods (e.g. curing, salting, drying, pickling) that preserve and extend the shelf life of meats.

8.2.1.1 *Cured (including salted) non-heat treated processed meat, poultry, and game products in whole pieces or cuts*

Salted products are treated with sodium chloride. Dry cured (dry pickled) products are prepared by rubbing salt directly on the meat surface. Wet pickle cured products are prepared by submerging the meat in a brine solution. Pump cured products are prepared by injecting brine into the meat. Curing may also be achieved by addition of additives. Smoked products are also included here. Examples include: bacon (cured, dry-cured, immersion-cured, and pump-cured); side bacon; corned beef; marinated beef; and different types of Oriental pickled products: miso-pickled meat, *koji*-pickled meat, and soy sauce-pickled meat.

Additive	Max Levels
Lauric Arginate Ethyl Ester	200 mg/kg

Phosphates

2200 mg/kg

The following canned products in brine confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
8.2.1.1	Meat of Sheep and Goat Canned in Brine	PS: 546	Annexure-161
8.2.1.1	Canned Corned Beef	PS:3596	Annexure-162

A. Cured beef

Means the product prepared from boneless meat of carcasses of bovine animals including buffalo meat, which have been subjected to *ante-mortem* and *postmortem* inspection.

The product shall be uniformly cured with edible common salt and sodium and / or potassium nitrite. The product may contain ascorbic acid, sodium ascorbate or isoascorbate acid/ sodium isoascorbate singly or in combination not exceeding 500 mg/kg. The product may also contain sucrose, dextrose, lactose, maltose, and glucose syrup including corn syrup.

- i. The product shall be packed in hermetically sealed containers which shall not show any change on incubation at 35⁰C for 10 days and 55⁰C for 5 days.
- ii. The product shall be in the form of a solid pack capable of being sliced.
- iii. The product shall be free from any added colour and natural and artificial flavour. The product shall be clean and substantially free from staining and contamination from the container, foreign matter and objectionable odour.

8.2.1.2 Cured (including salted) and dried non-heat treated processed meat, poultry, and game products in whole pieces or cuts:

The meat cuts may be cured or salted as described for category 8.2.1.1, and then dried, or they may only be dried. Drying is achieved either in hot air or in vacuum. Examples include: dried salt meat, dehydrated meat.

The "Luncheon Halaal Meat" shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
8.2.1.2	Luncheon Halal Meat	PS: 3941	Annexure-163

Examples include: dried salt beef/mutton and dehydrated meats. Products of this category shall conform to the following standards.

Additive	Max Level
Benzoates	1000 mg/kg
Isopropyl citrates	200mg/kg

Natamycin (pimaricin) (Halaal)	6 mg/kg
Sorbates	2000 mg/kg

8.2.1.3 Fermented non-heat treated processed meat, poultry, and game products in whole pieces or cuts

Fermented products are a type of pickled product produced by the action of lactic acid bacteria in the presence of salt. Examples include: potted beef and pickled (fermented) pig's feet.

Additive	Max Level
Sorbates	200 mg/kg

8.2.2 Heat-treated processed meat, poultry, and game products in whole pieces or cuts

Includes cooked (including cured and cooked, and dried and cooked), heat-treated (including sterilized) and canned meat cuts. Examples include: cured, cooked beef and mutton; cured, cooked beef and mutton shoulder; canned chicken meat; and meat pieces boiled in soy sauce.

The "Goat Meat Curried & Canned" shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
8.2.2	Goat Meat Curried & Canned	PS: 2861	Annexure-164

In cooked and ready-to-eat chicken products, there is zero tolerance for *Salmonella* and *Listeria monocytogenes*. These products shall conform to the following standards:

Additive	Maximum Levels
Lauric Arginate Ethyl Ester	200 mg/kg
Nisin (<i>Halaal</i>)	25 mg/kg
Nitrites	80 mg/kg
Phosphates	1320 mg/kg
Saccharin	500 mg/kg
Sorbates	200 mg/kg
Stevia	330 mg/kg
Stearoyl lactylates	2000 mg/kg
Sucroglycerides	5000 mg/kg
Sucrose esters of fatty acids	5000 mg/kg

8.2.3 Frozen processed meat, poultry, and game products in whole pieces or cuts

Frozen meat means meat that for one continuous period from the time of preparation for sale has been maintained at a temperature below -18°C and shall not have been thawed before sale. The temperature of frozen meat at any time does not exceed minus 12⁰ C. Raw poultry held at 0 °F (-17.8 °C) or below must be labeled frozen or previously frozen. Includes raw and cooked meat

cuts that have been frozen. Examples include: frozen whole chickens, frozen chicken parts, and frozen beef steaks. No hormones are used in the raising of chickens. The product shall conform to the following requirements.

Additive	Max Level
Lauric Arginate Ethyl Ester	200 mg/kg
Mineral oil, high viscosity	950 mg/kg
Phosphates	2200 mg/kg
Sorbates	200 mg/kg

The “Frozen Chicken” shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
8.2.3	Frozen Chicken	PS: 4726	Annexure-165

8.2.3.1 Chilled meat

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. Chilled meat requires refrigeration promptly.

8.3 Processed comminuted meat, poultry, and game products

Includes various treatments for non-heat treated products (8.3.1) and heat-treated products (8.3.2).

Additive	Maximum Levels
Butylated hydroxyanisole	200 mg/kg
Butylated hydroxytoluene	100 mg/kg
Erythrosine	30 mg/kg
Grape skin extract	5000 mg/kg
Nitrites	80 mg/kg
Phosphates	2200 mg/kg
Polysorbates	5000 mg/kg
Propyl gallate	200 mg/kg
Propylene glycol alginate	3000 mg/kg
Riboflavin	1000 mg/kg
Sodium diacetate	1000 mg/kg
Sorbates	1500 mg/kg
Tertiary butylhydroquinone	100 mg/kg
Tocopherols	500 mg/kg

8.3.1 Non-heat treated processed comminuted meat, poultry, and game products:

This category describes several treatment methods (e.g. curing, salting, drying, pickling) that preserve and extend the shelf life of comminuted and mechanically deboned meat products.

8.3.1.1 Cured (including salted) non-heat treated processed comminuted meat, poultry, and game products

Salted products are treated with sodium chloride. Dry cured (dry pickled) products are prepared by rubbing salt directly on the meat surface. Wet pickle cured products are prepared by submerging the meat in a brine solution. Pump cured products are prepared by injecting brine into the meat. Curing may also be achieved by addition of additives. Also includes smoked products. Examples include: chorizos (spicy meat sausages), salami-type products, *salchichon*, *tocino* (fresh, cured sausage), and smoked sausage.

Additive	Max Level
Canthaxanthin	100 mg/kg
Carotenoids	100 mg/kg
Carmines	Zero

8.3.1.2 Cured (including salted) and dried non-heat treated processed comminuted meat, poultry, and game products

The comminuted or mechanically deboned products may be cured or salted as described for category 8.3.1.1, and then dried, or they may only be dried. Drying is achieved either in hot air or in vacuum. Examples include: *pasturmas*, dried sausages, cured and dried sausages, beef jerky, Chinese sausages (including traditional cured or smoked meat sausage), and *sobrasada*.

8.3.1.3 Fermented non-heat treated processed comminuted meat, poultry, and game products:

Fermented products are a type of pickled product produced by the action of lactic acid bacteria in the presence of salt. Certain types of sausages may be fermented.

8.3.2 Heat-treated processed comminuted meat, poultry, and game products

Includes cooked (including cured and cooked, and dried and cooked), heat -treated (including sterilized) and canned comminuted products. Examples include: pre-grilled beef patties; pates; brawn and head cheese; cooked, cured chopped meat; chopped meat boiled in soy sauce (*tsukudani*); canned corned beef; luncheon meats; meat pastes; cooked meat patties; cooked salami- type products; cooked meatballs; *saucises de strasbourg*; breakfast sausages; brown-and-serve sausages; and terrines (a cooked chopped meat mixture).

8.3.2.1 Canned meat

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. Further canned meat shall conform to the following standards;

Canned meat parts	Proportion
Fats	not more than 10 %
Iodized Salt	not more than 1.4%
Bones (canned poultry)	not more than 14 %

Chemical composition: general amount of proteins in canned beef must be not less than 21 % (mass %). Meat amount in salted canned beef can be from 80 to 90 % (mass %) and more.

A. Canned chicken

Means the product prepared from edible portion of meat of poultry birds, slaughtered according to Islamic injunctions, which have been subjected to ante-mortem and postmortem inspection. The product shall be free from bones, blood clots, skin, hair, viscera and bruised/disintegrated material. The product shall be cured with a mixture of edible common salt and sodium nitrite. The product shall be free from added colour flavour and meat tenderizer. The packing medium and other ingredients shall be of food grade quality.

- i. The product shall be packed in hermetically sealed clean and sound tin containers which shall not show any change on incubation at 35⁰C for 10 days and 55⁰C for 5 days.
- ii. The contents shall have the characteristic colour, free from objectionable odour, discoloration and excessive disintegration.
- iii. The product shall conform the microbial quality standard given in Annexure 8.2.

B. Canned mutton

Means the product prepared from edible portion of meat of caprine animals slaughtered according to Islamic injunctions, which have been subjected to ante-mortem and postmortem inspection. The product shall be free from bones, blood clots, skin, hair, strings and fibrous tissue, bruised material, viscera, tendons and excessive fat.

- i. The product shall be cut into pieces of reasonably uniform size and cured with a mixture of edible salt and sodium nitrate and or sodium nitrite. The product shall be free from added colour, flavour and meat tenderizing agents. The packing medium and other ingredients shall be of food grade quality.
- ii. The product shall be packed in hermetically sealed clean and sound tin containers which shall not show any change on incubation at 35⁰C for 10 days and 55⁰C for 5 days. The contents shall have characteristic colour, free from objectionable odour, discoloration and excessive disintegration.
- iii. The product shall conform to the microbial quality standards given in Annexure:

C. Meat canned with other food

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 Guidelines, 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. This category of product shall conform to the following standards.

Product	Preservative	Limit
Dehydrated soup mix when packed in container other than canned	Sulfur dioxide	1000 ppm

8.3.3 Frozen processed comminuted meat, poultry, and game products

Includes raw, partially cooked and fully cooked comminuted or mechanically deboned meat products that have been frozen. Examples include: frozen burger patties; frozen breaded or battered chicken fingers.

8.4 Edible casings (e.g. sausage casings)

Casings or tubing prepared from collagen, cellulose, or food-grade synthetic material or from natural sources (e.g. hog or sheep intestines) that contain the sausage mix.

Annexure 8.1: Chemical Contaminants Limits for various meat and meat products**A) Contaminant or toxins**

Product	Contaminant	Max Level
Canned meats, Meat extracts and hydrolysed protein,	Lead	0.5 ppm
Iron fortified common salt Corned beef, luncheon meat, Chopped meat, Canned chicken, etc.	Lead	0.5 ppm
Canned mutton	Lead	0.5 ppm
Corned beef, Chopped meat, Canned chicken, Canned mutton	Tin	250 ppm
Meat	Mercury Mercury <i>(Calculated as the element)</i>	1.0 ppm 0.25 ppm

B) Insecticides

Meat	Aldrin, dieldrin (the limits apply to aldrin and dieldrin singly or in any combination and are expressed as dieldrin)	0.2 mg/Kg
Meat and Poultry	D.D.T. (The limits apply to DDT, DDT and DDE singly or in any combination (on whole product basis)	7.0 ppm
Meat	Fenitrothion	0.03 ppm
Meat and poultry	Hexachlorocycle hexane and its Isomers (gamma) known as Lindane	2.0 ppm
Meat and poultry	Chlorienvinphos	0.2 ppm
Meat and poultry	CHLORPYRIFOS	0.1 ppm
Meat and poultry	2,4D	0.05 ppm
Meat and poultry	Residues to be determined as Ethion And its oxygen analogue expressed as Ethion	0.2 ppm

	(Carcass fat basis)	
Meat and poultry	MONOCROTHPHOS	0.02 ppm
Meat and poultry	TRICHLORFON	0.1 ppm
Meat and poultry	Benomyl	0.1 ppm (Carcass fat basis)
Meat and poultry	Carbofuran (sum of carbofuran and 3-hydroxy carbofuran expressed as carbofuran)	0.1 ppm (Carcass fat basis)
Meat and poultry	Edifenphos	0.02 ppm (Carcass fat basis)
Meat and poultry	Fenthion (sum of fenthion, its oxygen analogue and their sulphoxides and sulphones expressed as fenthion)	2.00 ppm (Carcass fat basis)
Meat and poultry	Fenvalerate	1.0 ppm (Carcass fat basis)
Meat and poultry	Phenthoate	0.05 ppm (Carcass fat basis)
Meat and poultry	sulphoxides and sulphones expressed as phorate	0.05 ppm (Carcass fat basis)
Meat and poultry (FSSR)	Pirimiphos-methyl	0.05 ppm (Carcass fat basis)
Irradiations		
Meat and Meat Products including Chicken (FSSR)	Irradiation	2.5 (KGY) min limit 4.0 (KGY) max limit

Annex 8.2: Microbiological Limits for Ready to Cook & Ready to Eat Poultry, Mutton and Beef Products

Tests	Unit of Measurement	Ready to Cook Products (Poultry/Mutton/Beef)	Ready to Eat Products (Poultry/Mutton/Beef)
TPC	Per Gram	<1000000	<50000
<i>Staph. aureus</i>	Per Gram	<1000	<100
<i>E. coli</i>	Per Gram	<100	<10
<i>E. coli</i> O157	Per 25 Grams	GMP/FSMS	Absent
Coliform/Fecal Coliform	Per Gram	<1000	<200
Salmonella	Per 25 Grams	GMP/FSMS	Absent
<i>Listeria monocytogenese</i>	Per 25 Grams	GMP/FSMS	Absent
Campylobacter	Per 25 Grams	GMP/FSMS	Absent
<i>Bacillus cereus</i>	Per Gram	<1000	<100
<i>Clostridium perfringens</i>	Per Gram	<1000	<10
Yeast/Mould	Per Gram	NA	<500

GMP=Good Manufacturing Practices, FSMS=Food Safety Management System

CHAPTER-9

9 Fish and Fish Products

This broad category is divided into categories for fresh fish (9.1) and various processed fish products (9.2– 9.4). This category includes aquatic vertebrates (fish and aquatic mammals (e.g. whales)), aquatic invertebrates (e.g. jellyfish), as well as *molluscs* (e.g. clams, snails), crustaceans (e.g. shrimp, crab, lobster), and echinoderms (e.g. sea urchins, sea cucumbers). Fish products may be treated with coatings, such as glazes and spice rubs, prior to marketing to the consumer (e.g. glazed frozen fish fillets). In the Food Category System, this is indicated with a notation for “use as a glaze or coating (surface treatment).”

9.1 Fresh fish and fish products.

The term “fresh” refers to fish and fish products including *molluscs*, crustaceans, and echinoderms that are untreated except for refrigeration, storage on ice, or freezing upon catching at sea or in lakes or other bodies of water in order to prevent decomposition and spoilage.

The “Fish and Fish Products” shall conform to following general PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
9.1.	Fish, Fresh, Quick Frozen	PS: 540	Annexure-166

9.1.1 Fresh fish:

Includes fresh whale meat, cod, salmon, trout, etc.; and fresh fish roe.

9.1.2 Fresh *molluscs*, crustaceans and echinoderms

Includes fresh shrimp, clams, crabs, lobster, snails, etc.

9.2 Processed fish and fish products.

This category refers to fish products including *molluscs*, crustaceans, and echinoderms that are frozen and may require further cooking, as well as ready-to-eat cooked, smoked, dried, fermented, and salted products.

9.2.1 Frozen fish, fish fillets, and fish products

Fresh, including partially cooked, fish including *molluscs*, crustaceans, and echinoderms subjected to freezing or quick-freezing at sea and on land for further processing. Examples

include: frozen or deep frozen clams, cod fillets, crab, finfish, haddock, hake, lobster, minced fish, prawns and shrimp; frozen fish roe; frozen surimi; and frozen whale meat.\

The “frozen fish, fish fillets, and fish products” shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
9.2.1	Quick Frozen Cuttle Fish and Squid	PS: 4562	Annexure-167
9.2.1	Sardine Frozen	PS: 4248	Annexure-168
9.2.1	Frozen Frog Legs	PS: 674	Annexure-169
9.2.1	Lobster, Fresh and Frozen	PS: 626	Annexure-170
9.2.1	Frozen Prawn, Peeled & Deveined	PS: 365	Annexure-171
9.2.1	Frozen Raw Headless Shrimp	PS: 194	Annexure-172
9.2.1	Quick Frozen Blocks of Fish Fillet and Minced Fish Flesh	PS: 5244	Annexure-173

9.2.2 Frozen battered fish, fish fillets and fish products

Uncooked product prepared from fish or fish portions including molluscs, crustaceans, and echinoderms, with dressing in eggs and bread crumbs or batter. Examples include: frozen raw breaded or batter-coated shrimp; and frozen or quick-frozen breaded or batter-coated fish fillets, fish portions and fish sticks (fish fingers).

This category of “frozen fish products” shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
9.2.2	Quick Frozen Blocks of Fish Fillet and Minced Fish Flesh	PS: 5244	Annexure-173

9.2.3 Frozen minced and creamed fish products, including molluscs, crustaceans, and echinoderms:

Uncooked product prepared from minced fish pieces in cream-type sauce.

This category of “frozen fish products” shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
9.2.3	Quick Frozen Blocks of Fish Fillet and Minced Fish Flesh	PS: 5244	Annexure-173
9.2.3	Fish Paste (Fish Spread)	PS: 603	Annexure-174

9.2.4 Cooked and/or fried fish and fish products, including molluscs, crustaceans, and echinoderms:

Includes all ready-to-eat cooked products as described in the sub-categories.

9.2.4.1 Cooked fish and fish products

Cooked products include steamed, boiled or any other cooking method except frying (see 9.2.4.3). The fish may be whole, in portions or comminuted. Examples include: fish sausage; cooked fish products boiled down in soy sauce (*tsukudani*); cooked surimi product (*kamaboko*); crab-flavoured cooked *kamaboko* product (*kanikama*); cooked fish roe; cooked surimi; cooked, tube-shaped surimi product (*chikuwa*); and cooked fish and lobster paste (surimi-like products). Other fish paste (Oriental type) is found in 9.3.4.

9.2.4.2 Cooked molluscs, crustaceans, and echinoderms

Cooked products include steamed, boiled or any other cooking method except frying (see 9.2.4.3). Examples include: cooked *crangon crangon* and *crangon vulgaris* (brown shrimp); cooked shrimp, clams and crabs.

This category of “cooked fish products” shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
9.2.4.2	Frozen Prawn Peeled Deveined, Cooked.	PS: 366	Annexure-175

9.2.4.3 Fried fish and fish products, including molluscs, crustaceans, and echinoderms:

Ready-to-eat products prepared from fish or fish portions, with or without further dressing in eggs and bread crumbs or batter, that are fried, baked, roasted or barbecued, and then packaged or canned with or without sauce or oil. Examples include: ready-to-eat fried surimi, fried calamari, and fried soft-shell crabs.

9.2.5 Smoked, dried, fermented, and/or salted fish and fish products

Smoked fish including *molluscs*, crustaceans, and echinoderms are usually prepared from fresh deep frozen or frozen fish that are dried directly or after boiling, with or without salting, by exposing the fish to freshly- generated sawdust smoke. Dried fish are prepared by exposing the fish to sunlight or drying directly or after boiling in a special installation; the fish may be salted prior to drying. Salted fish are either rubbed with salt or placed in a salt solution. This manufacturing process is different from that described in food category 09.3 for marinated and pickled fish. Cured fish is prepared by salting and then smoking fish.⁶¹ Examples include: salted anchovies, shrimp, and shad; smoked chub, cuttlefish and octopus; fish; dried and salted species

of the *Gadidae* species; smoked or salted fish paste and fish roe; cured and smoked sablefish, shad, and salmon; dried shellfish, dried bonito (*katsuobushi*), and boiled, dried fish (*niboshi*).

This category of “preserved fish and/or fish products” shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
9.2.5	Fish, Dried, Unsalted	PS: 156	Annexure-176
9.2.5	Fish, Dried, Salted	PS: 155	Annexure-177
9.2.5	Dry Salted Mackrels	PS: 3406	Annexure-178
9.2.5	Dry Salted Tuna	PS: 3407	Annexure-179
9.2.5	Dried Prawn	PS: 741	Annexure-180
9.2.5	Fish Maws	PS: 658	Annexure-181
9.2.5	Smoke Fish, Smoke-Flavoured Fish and Smoke-Dried Fish	CS: 311-2013	Annexure-182

9.3 [Semi-preserved fish and fish products](#)

Includes fish and fish products including *molluscs*, crustaceans, and echinoderms treated by methods such as marinating, pickling and partial cooking that have a limited shelf life.

9.3.1 [Fish and fish products marinated and/or in jelly](#)

Marinated products are manufactured by soaking the fish in vinegar or wine with or without added salt and spices. They are packaged in jars or cans and have a limited shelf life. Products in jelly may be manufactured by tenderizing fish products by cooking or steaming, adding vinegar or wine, salt and preservatives, and solidifying in a jelly. Examples include: “rollmops” (a type of marinated herring), sea eel (dogfish) in jelly and fish aspic.

9.3.2 [Fish and fish products pickled and/or in brine](#)

Pickled products are sometimes considered a type of marinated product. Pickling results from the treatment of the fish with a salt and vinegar or alcohol (e.g. wine) solution. Examples include: different types of Oriental pickled products: *koji*- pickled fish (*koji-zuke*), lees-pickled fish (*kasu-zuke*), *miso*- pickled fish (*miso-zuke*), soy sauce-pickled fish (*shoyu-zuke*), and vinegar-pickled fish (*su-zuke*); pickled whale meat; and pickled herring and sprat.

9.3.3 [Salmon substitutes, caviar, and other fish roe products](#)

Roe is usually produced by washing, salting and allowing to ripen until transparent. The roe is then packaged in glass or other suitable containers. The term “caviar” refers only to the roe of the

sturgeon species (e.g. beluga). Caviar substitutes are made of roe of various sea and freshwater fish (e.g. cod and herring) that are salted, spiced, dyed and may be treated with a preservative.⁶¹ Examples include: salted salmon roe (*sujiko*), processed, salted salmon roe (*ikura*), cod roe, salted cod roe (*tarako*) and lumpfish caviar. Occasionally, roe may be pasteurized. In this case, it is included in food category 9.4, since it is a fully preserved product. Roe products that are frozen, cooked or smoked are included in category 9.2.1, 9.2.4.1, and 9.2.5, respectively; fresh fish roe is found in category 9.1.1.

9.3.4 Semi-preserved fish and fish products (e.g. fish paste)

Examples include fish and fish products, including *molluscs*, crustaceans, and echinoderms (e.g. fish paste), excluding products of food categories 9.3.1 – 9.3.3 or crustacean pates and traditional oriental fish paste. The latter is produced from fresh fish or the residue from fish sauce production, which is combined with other ingredients such as wheat flour, bran, rice or soybeans. The product may be further fermented. Cooked fish or crustacean pastes (surimi-like products) are found in 9.2.4.1 and 9.2.4.2, respectively.

9.4 Fully preserved, including canned or fermented fish and fish products

Products including molluscs, crustaceans, and echinoderms with extended shelf life, manufactured by pasteurizing or steam retorting and packaging in vacuum-sealed air-tight containers to ensure sterility. Products may be packed in their own juice or in added oil or sauce. This category excludes fully cooked products (see category 9.2.4). Examples include: canned tuna, clams, crab, fish roe and sardines; gefilte fish balls; and surimi (heat-pasteurized).

This category of “preserved fish and/or fish products” shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
9.4	Prawn Canned in Brine	PS: 539	Annexure-183
9.4	Canned Sardine & Sardine Type Products	PS: 3408	Annexure-184
9.4	Canned Mackerel	PS: 3942	Annexure-185
9.4	Canned Salmon	CS: 03-1981	Annexure-186
9.4	Canned Shrimps or Prawns	CS: 37-1981	Annexure-187
9.4	Canned Tuna and Bonito	CS: 70-1981	Annexure-188

CHAPTER-10

10 Eggs and Egg Products

Definitions:

Breaking – the process of intentionally cracking the egg shell and separating its pieces to remove the egg contents.

Breeding flock – a group of birds kept for the purpose of production of the laying flock.

Broken/leaker egg – an egg showing breaks of both the shell and the membrane, resulting in the exposure of its contents.

Candling – examining the interior condition of an egg and the integrity of the shell by rotating or causing the egg to rotate in front of or over a light source that illuminates the contents of the egg.

Cracked egg – an egg with a damaged shell, but with intact membrane

Dirty egg – an egg with foreign matter on the shell surface, including egg yolk, manure or soil.

Domesticated birds – members of the Class Aves that are kept for the production of eggs intended for human consumption.

Egg laying establishment – the facilities and the surrounding area where primary production of eggs takes place.

Incubator egg – an egg that has been set in an incubator.

Microbiocidal treatment is a control measure that practically eliminates the number of micro-organisms, including pathogenic micro-organisms present in a food or reduces them to a level at which they do not constitute a health hazard.

Table egg – an egg destined to be sold to the end consumer in its shell and without having received any treatment significantly modifying its properties.

Eggs and egg products include fresh in-shell eggs (10.1), products that may substitute for fresh eggs (10.2) and other egg products (10.3 and 10.4). Shell egg (or egg) means the egg of the domesticated chicken. "Egg Product" means all, or a portion of, the contents found inside eggs separated from the shell and pasteurized in a food processing plant, with or without added ingredients, intended for human consumption, such as dried, frozen or liquid eggs.

These rules apply to hen's egg and egg products to be use in the food industry for human consumption. These products may be in whole egg form or in the dried, liquid or frozen form.

- i) **Whole egg:** The homogeneous product obtained from the complete contents of broken out hens eggs-in-shell, in accordance with good manufacturing practice.
- ii) **Egg yolk:** The homogeneous product produced from the separation of the yolk of broken out hens-eggs-in-shell, in accordance with good manufacturing practice.

- iii) **Egg albumen:** The homogeneous product obtained from the separation of the white of broken out hens eggs-in-shell, in accordance with good manufacturing practice.

10.1 Fresh eggs

Fresh in-shell eggs are not expected to contain additives. However, colours may be used for decorating, dyeing or stamping the exterior surfaces of shell eggs. In the Food Category System, a notation for "for decoration, stamping, marking or branding the product (surface treatment) accommodates this.

10.2 Egg products

Products that may be used as replacement for fresh eggs in recipes or as a food (e.g. omelette). They are produced from fresh eggs by either (i) mixing and purifying the whole egg; or (ii) separating the egg white and yolk, and then mixing and purifying each separately. The purified whole egg, white or yolk is then further processed to produce liquid, frozen or dried eggs as described below.⁶⁴

10.2.1 Liquid egg products

The purified whole egg, egg yolk or egg white is pasteurized and chemically preserved (e.g. by addition of salt).

10.2.2 Frozen egg products

The purified whole egg, egg yolk or egg white is pasteurized and frozen.

10.2.3 Dried and/or heat coagulated egg products

Sugars are removed from the purified whole egg, egg yolk or egg white, which is then pasteurized and dried.

10.3 Preserved eggs, including alkaline, salted, and canned eggs

Includes traditional Oriental preserved products, such as salt-cured duck eggs (*Hueidan*), and alkaline treated "thousand-year-old-eggs" (*pidan*).

10.3.1 Shell Egg (Egg) Requirements

- i. Eggs must be transported within a system which avoids excessive temperature fluctuations and where the temperature does not exceed 25 °C. Eggs must be sold under a "best before" date to ensure high quality and that consumers receive accurate and relevant information. It is recommended that eggs on catering premises, processing industry, outlets etc. should be stored in a below 25 °C, with appropriate storage information being included on egg packs.
- ii. Shell must be clean to slightly stained and unbroken
- iii. Egg white must be clear and reasonably firm

- iv. Egg yolk outline shall be well defined and free from defects
- v. Retailers must ensure that eggs be stored in their outer boxes, prepacks or egg trays in a clean, dry place away from strong smelling foods and possible contaminants;
- vi. Must not be stored or displayed near to heat sources or direct sunlight.
- vii. Be isolated from any pre-cooked or raw foods

10.3.2 Egg Products requirements

- i. Raw material requirements for Egg Products
- ii. Eggs obtained from other species (e.g. duck, geese, turkeys, guinea fowls or quail) must not be mixed with chicken egg products that are being processed for human consumption.
- iii. Unhatched eggs from incubators and cracked eggs (i.e. where both the shell and membrane are broken) must not be used for the production of egg products or used for human consumption and must be destroyed in the hatcheries.
- iv. Eggs for the product development for human consumption must not be broken by centrifuging or crushing. Egg white obtained from centrifuging empty shells or from shell conveyors must not be used for human consumption. Shells and membranes must be kept out of the products. Shell eggs must be stored in cool conditions at a constant temperature of below 20 °C and processed within seven days of receipt.
- v. Eggs held below 8 °C throughout the production / distribution chain may be processed within eight weeks.
- vi. Containers of shell eggs arriving at the processing plant must be clearly labeled to give the name of the farm or packing station and the date of packing. The date of receipt at the processing plant must be marked on these containers. Raw liquid egg products arriving from outside the plant must carry traceability information stating date of breaking.
- vii. Where liquid egg is brought in from a packer or from another processing plant it must either have been deep frozen or chilled to a temperature of not more than 4 °C at the place where the eggs were broken. Chilled egg liquid must be processed within 72 hours following the day of cracking the eggs.

10.3.3 General quality criteria

- i. Egg products must be homogeneous, fit for human consumption, practically free from shell fragments, and foreign matter. The taste, colour and odour of egg products shall be natural and characteristic of each product. In the case of dried egg products these shall be easily reconstituted.

10.4 Egg-based desserts (e.g. custard)

Includes ready-to-eat products and products to be prepared from a dry mix. Examples include: flan and egg custard. Also includes custard fillings for fine bakery wares (e.g. pies).

Annexure: 10.1 Composition of Egg and Egg Products

		Total Solids % (Min)	Total Fat % (Min)	FFA (Max)	pH
Liquid / Frozen	Whole Egg	23	9.8		7 - 7.5
	White (Albumen)	10.5			8.5-8.8
	Yolk	43	25		6 - 6.7
Dried	Whole Egg (Spray)	95	39	3.5	
	White (Spray)	92	0.4		4
	Yolk (Spray)	95	56	3.5	
	White (Pan)	84			4

Annexure: 10.2 Microbiological Limits for eggs (including pasteurized eggs) and egg products:

Test	Unit	Limit
Total Plate Count	CFU Per gram	<50000
<i>Staph. aureus</i>	CFU Per gram	<100
<i>E. coli</i> O157	CFU Per 25 grams	Absent
Salmonella	CFU Per 25 grams	Absent
<i>E. coli</i>	CFU Per gram	<10
Coliform	CFU Per gram	<100
<i>Listeria monocytogenese</i>	CFU Per 25 grams	Absent
Yeast / Mold	CFU Per gram	<100

CHAPTER-11

11 Sweeteners and Honey

Includes all standardized sugars (11.1), non-standardized products (e.g. 11.2, 11.3, 11.4 and 11.6), and natural sweeteners (11.5 – honey).

11.1 Refined and raw sugars

Nutritive sweeteners, such as fully or partially purified sucrose (derived from sugar beet and sugar cane), glucose (derived from starch), or fructose, that are included in sub-categories 11.1.1 to 11.1.5.

11.1.1 White sugar, dextrose anhydrous, dextrose monohydrate, fructose

White sugar is purified and crystallized sucrose with a polarization of not less than 99.7oZ (means 99.7%). Dextrose anhydrous is purified and crystallized D-glucose without water of crystallization. Dextrose monohydrate is purified and crystallized D-glucose with one molecule of water of crystallization. Fructose is purified and crystallized D-fructose.

This category of “sugars” shall confirm to following PSQCA Standards.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
11.1.1	Refined Sugar & White Sugar	PS:1822	Annexure-189
11.1.1	Cube Sugar	PS: 369	Annexure-190
11.1.1	Dextrose Monohydrate	PS: 140	Annexure-191
11.1.1	Dextrin	PS: 379	Annexure-192

11.1.2 Powdered sugar, powdered dextrose

Powdered sugar (icing sugar) is finely pulverized white sugar with or without added anticaking agents. Powdered dextrose (icing dextrose) is finely pulverized dextrose anhydrous or dextrose monohydrate, or a mixture of the two, with or without added anticaking agents.

Powdered sugar / Icing sugar shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
11.1.2	Icing Sugar	PS: 467	Annexure-193

11.1.3 Soft white sugar, soft brown sugar, glucose syrup, dried glucose syrup, raw cane sugar

Soft white sugar is fine grain purified, moist sugar, that is white in colour. Soft brown sugar is fine grain moist sugar that is light to dark brown in colour. Glucose syrup is a purified concentrated aqueous solution of nutritive saccharides derived from starch and/or inulin. Dried glucose syrup is glucose syrup from which water has been partially removed. Raw cane sugar is partially purified sucrose crystallized from partially purified cane juice without further purification.

This category of sugar shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
11.1.3	Soft Sugar	PS:1903	Annexure-194
11.3	Desi Sugar	PS:3410	Annexure-195
11.3	Raw Sugar	PS:4796	Annexure-196

11.1.3.1 Dried glucose syrup used to manufacture sugar confectionery

Dried glucose syrup, as described in 11.1.3, used to manufacture candy products that are included in food category 5.2 (e.g. hard or soft candies).

Solid glucose shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
11.1.3.1	Solid Glucose	PS: 835	Annexure-197

11.1.3.2 Glucose syrup used to manufacture sugar confectionery

Glucose syrup, as described in 11.1.3, used to manufacture candy products that are included in food category 5.2 (e.g. hard or soft candies).

Glucose syrup shall confirm to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
11.1.3.2	Liquid Glucose	PS: 141	Annexure-198

11.1.4 Lactose

A natural constituent of milk normally obtained from whey. It may be anhydrous, or contain one molecule of water of crystallization, or be a mixture of both forms.

11.1.5 Plantation or mill white sugar

Purified and crystallized sucrose with a polarization of not less than 99.5oZ (means 99.5%)

11.2 [Brown sugar excluding products of food category 11.1.3](#)

Includes large-grain, brown or yellow lump sugars, such as *Demerara* sugar. Brown sugar shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
11.2	Brown Sugar	PS:3409	Annexure-199

11.3 [Sugar solutions and syrups](#)

Sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3 are co-products of the sugar refining process (e.g. treacle and molasses), invert sugar (equimolar mixture of glucose and fructose produced from the hydrolysis of sucrose), and other sweeteners, such as high fructose corn syrup, high fructose inulin syrup and corn sugar.

11.4 [Other sugars and syrups \(e.g. xylose, maple syrup, sugar toppings\)](#)

Includes all types of table syrups (e.g. maple syrup), syrups for fine bakery wares and ices (e.g. caramel syrup, flavoured syrups), and decorative sugar toppings (e.g. coloured sugar crystals for cookies). "Golden Syrup" means the syrup obtained by inversion of sugar. It shall be golden yellow in colour, pleasant in taste and free from any crystallization. It shall conform to the following standards:

- | | |
|-----------------------------------|----------------------------|
| i. Moisture | Not more than 25 per cent |
| ii. Total ash. | Not more than 2.5 per cent |
| iii. Total sugar as invert sugar. | Not less than 72 per cent |
| iv. Sulphur dioxide content | Not exceed 70 mg/kg |

Sodium bicarbonate, if used, for clarification purposes, shall be of food grade quality.

Fruit Syrup shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
11.4	Fruit Syrup.	PS: 528	Annexure-200

11.5 [Honey](#)

Honey is the natural sweet substance produced by honeybees from the nectar of blossoms or secretions of plants. The honeybees collect the nectar or secretions, transform it by combination with specific substances of the bees' own, and store it in a honeycomb to ripen and mature. Examples of honey include wildflower honey and clover honey.

Honey shall conform to following PSQCA Standard.

Food Cat. No.	Standard Title	Standard No.	Annexure No.
11.5	Honey	PS:1934	Annexure-201

11.6 [Table-top sweeteners, including those containing high-intensity sweeteners](#)

Includes products that are preparations of high-intensity sweeteners (e.g. acesulfame potassium) and/or of polyols (e.g. sorbitol) which may contain other additives and/or nutritive ingredients, such as carbohydrates. These products, which are sold to the final consumer, may be in powder, solid (e.g. tablets or cubes), or liquid form.

11.6.1 [Gur/Shakar](#)

“*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:

i.	Moisture.	Not more than 10 per cent
ii.	Sucrose	Not less than 80 per cent
iii.	Matters insoluble in water.	Not more than 2.0 per cent
iv.	Total ash	Not more than 5.0 per cent
v.	Ash insoluble in HCl	Not more than 0.5 per cent

The product may contain permitted food additives. Sodium bicarbonate, if used for clarification purposes, shall be of food grade quality.

11.6.2 Batasha / Makhana

“*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.

11.6.3 Misri

“*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: -

- | | | |
|-----|-----------|-----------------------------|
| i. | Total ash | Not more than 0.4 per cent |
| ii. | Sucrose | Not less than 98.0 per cent |

The product may contain permitted food additives.

11.6.4 *Khandsari* Sugar

Khandsari Sugar Obtained from sugarcane juice by open pan process may be of two varieties, namely; (i) *Khandsari* Sugar Desi; and (ii) *Khandsari* Sugar (Sulphur) also known as “Sulphur Sugar”. It may be crystalline or in powder form. It shall be free from dirt, filth, iron filings and added colouring matter. Extraneous matter shall not exceed 0.25 per cent by weight. It may contain sodium bicarbonate (food grade). It shall also conform to the following standards, namely:

	<i>Khandsari</i> Sugar (Desi)	<i>Khandsari</i> Sugar (Sulphur Sugar)
Moisture	Not > 1.5% by weight	Not > 1.5% by weight
Ash insoluble in dilute HCl	Not > 0.5% by weight	Not > 0.7% by weight
Sucrose	Not < 96.5% by weight	Not < 93.0% by weight
Conductivity (104 mho/cm ²)	Not > 100 in 5% solution at 30 °C	100-300 in 5% solution at 30 °C
Calcium oxide	Not more than 50 mg/100gm	Not more than 100 mg/100gm

NOTE: - *Khandsari* sugar can be distinguished from plantation white sugar on the characteristics i.e. conductivity and calcium oxide

11.6.5 Bura Sugar

Bura Sugar Means the fine grain size product made out of any kind of sugar. It shall be free from dirt, filth, iron filing and added colouring matter. Extraneous matter shall not exceed 10.1 per cent by weight. It shall also conform to the following standards, namely:

- | | | |
|-----|-----------------------------|---------------------------------------|
| i. | Sucrose | Not less than 90.0 per cent by weight |
| ii. | Ash insoluble in dilute HCL | Not more than 0.7 per cent by weight |

The product may contain permitted food additives.

CHAPTER-12

12 Salts and Spices

This is a broad category that includes substances added to food to enhance its aroma and taste (12.1 – salt and salt substitutes; 12.2 – herbs, spices, seasonings and condiments (e.g. seasoning for instant noodles); 12.3 – vinegars; and 12.4 – mustards), certain prepared foods (12.5 – soups and broths; 12.6 – sauces and like products; and 12.7 – salads (e.g. macaroni salad, potato salad) and sandwich spreads, excluding cocoa-and nut- based spreads of food categories 4.2.2.5 and 5.1.3)), and products composed primarily of protein that are derived from soybeans or from other sources (e.g. milk, cereal, or vegetables) (12.9 - soybean-based seasonings and condiments; and 12.10 – protein products other than from soybeans).

12.1 Salt and salt substitutes

Includes salt (12.1.1.) and salt substitutes (12.1.2) used as seasoning for food.

12.1.1 Salt

Primarily food-grade sodium chloride with iodine .

Food Cat. No.	Standard Title	Standard No.	Annexure No.
12.1.1	Edible Iodized Salt	PS:1669*	Annexure-203 Annexure 203 (A) Health Dept Law on Compulsory iodization of Edible salt

* The level of IODINE is modified according to the Law on Compulsory iodization of Edible salt by Health Department of Sindh 2013 and Rules Notified in 2018 that is 30 ppm at production level.

12.1.2 Salt substitutes

Salt substitutes are seasonings with reduced sodium content intended to be used on food in place of salt.

12.1.2.1 *Monosodium Glutamate*

Monosodium L-glutamate is a food additive may be used in the following foods under the conditions of good manufacturing practices (GMP) as outlined in the preamble of the Codex GSFA. Although not listed below, Monosodium L-glutamate could also be used in heat-treated butter milk of food category 1.1.1 and spices of food category 12.2.1. Monosodium L-glutamate is acceptable in foods conforming to the following commodity standards: CS 98-1981, CS 117-1981, CS 97-1981, CS 96-1981, and CS 89-1981.

List of Foods Where Monosodium Glutamate is Allowed

Food Cat. No.	Food Category
01.1.4	Flavoured fluid milk drinks
1.3	Condensed milk and analogues (plain)
01.4.3	Clotted cream (plain)
01.4.4	Cream analogues
1.5	Milk powder and cream powder and powder analogues (plain)
01.6.1	Unripened cheese
01.6.2	Ripened cheese
01.6.4	Processed cheese
01.6.5	Cheese analogues
1.7	Dairy-based desserts (e.g. pudding, fruit or flavoured yoghurt)
01.8.1	Liquid whey and whey products, excluding whey cheeses
02.2.2	Fat spreads, dairy fat spreads and blended spreads
2.3	Fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions
2.4	Fat-based desserts excluding dairy-based dessert products of food category 01.7
3	Edible ices, including sherbet and sorbet
04.1.2	Processed fruit
04.2.2.2	Dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds
04.2.2.3	Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds in vinegar, oil, brine, or soybean sauce
04.2.2.4	Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds
04.2.2.5	Vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)
04.2.2.6	Vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g. vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5
04.2.2.8	Cooked or fried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds
5	Confectionery
6.3	Breakfast cereals, including rolled oats

06.4.3	Pre-cooked pastas and noodles and like products
6.5	Cereal and starch based desserts (e.g. rice pudding, tapioca pudding)
6.6	Batters (e.g. for breading or batters for fish or poultry)
6.7	Pre-cooked or processed rice products, including rice cakes (Oriental type only)
6.8	Soybean products (excluding soybean-based seasonings and condiments of food category 12.9)
7	Bakery wares
8.2	Processed meat, poultry, and game products in whole pieces or cuts
8.3	Processed comminuted meat, poultry, and game products
8.4	Edible casings (e.g. sausage casings)
9.3	Semi-preserved fish and fish products, including mollusks, crustaceans, and Echinoderms
9.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms
10.2.3	Dried and/or heat coagulated egg products
10.3	Preserved eggs, including alkaline, salted, and canned eggs
10.4	Egg-based desserts (e.g. custard)
11.6	Table-top sweeteners, including those containing high-intensity sweeteners
12.2.2	Seasonings and condiments
12.3	Vinegars
12.4	Mustards
12.5	Soups and broths
12.6	Sauces and like products
12.7	Salads (e.g. macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories 04.2.2.5 and 05.1.3
12.8	Yeast and like products
12.9	Soybean-based seasonings and condiments
12.1	Protein products other than from soybeans
13.3	Dietetic foods intended for special medical purposes (excluding products of food category 13.1)
13.4	Dietetic formulae for slimming purposes and weight reduction
13.5	Dietetic foods (e.g. supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6

13.6	Food supplements
14.1.4	Water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks
14.2.1	Beer and malt beverages
14.2.2	Cider and perry
14.2.4	Wines (other than grape)
14.2.5	Mead
14.2.6	Distilled spirituous beverages containing more than 15% alcohol
14.2.7	Aromatized alcoholic beverages (e.g. beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)
15	Ready-to-eat savouries
16	Prepared foods

12.2 [Herbs, spices, seasonings, and condiments \(e.g. seasoning for instant noodles\)](#)

This category describes items whose use is intended to enhance the aroma and taste of food.

12.2.1 Herbs and spices

Herbs and spices are usually derived from botanical sources, and may be dehydrated, and either ground or whole. Examples of herbs include basil, oregano and thyme. Examples of spices include cumin and caraway seeds. Spices may also be found as blends in powder or paste form. Examples of spice blends include *chilli* seasoning, *chilli* paste, curry paste, curry roux, and dry cures or rubs that are applied to external surfaces of meat or fish.

The following herbs and spices shall conform to the following PSQCA Standards, namely:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
12.2.1	Curry Powder	PS: 1741	Annexure-204
12.2.1	Ajowan	PS: 4565	Annexure-205
12.2.1	Amchur Raw Mango Powder	PS: 4258	Annexure-206
12.2.1	Bay Leaves (Whole & Ground)	PS: 4444	Annexure-207
12.2.1	Black Caraway & Blond Caraway	PS: 3423	Annexure-208
12.2.1	Cardamom (Lesser <i>Elaichi</i>)	PS: 2094	Annexure-209
12.2.1	Large Cardamom	PS: 3949	Annexure-210

Food Cat. No.	Standard Title	Standard No.	Annexure No.
12.2.1	Cinamon Whole	PS: 3113	Annexure-211
12.2.1	Cinnamon Products (Quilts)	PS: 4721	Annexure-212
12.2.1	Cloves Whole & Ground	PS: 2859	Annexure-213
12.2.1	Coriander Powder	PS: 2863	Annexure-214
12.2.1	Coriander Seed (Whole)	PS: 4446	Annexure-215
12.2.1	Flavoured Condiment	PS: 3738	Annexure-216
12.2.1	Cumin (Whole)	PS: 3112	Annexure-217
12.2.1	Dried Sage (Whole & Ground)	PS: 4841	Annexure-218
12.2.1	Dried Thyme	PS: 3948	Annexure-219
12.2.1	Dried Whole Chillies	PS: 4251	Annexure-220
12.2.1	Fennel Seed Whole	PS: 3420	Annexure-221
12.2.1	Saffron	PS: 2987	Annexure-222
12.2.1	Tamarind Concentrate	PS: 3422	Annexure-223
12.2.1	Turmeric Ground (Powdered)	PS: 1820	Annexure-224

The remaining herbs and spices (not enlisted in PSQCA Standards) are given as below:

12.2.1.1 *Haldi OR Turmeric (whole)*

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 be free from mould, living and dead insects, insect fragments, and rodent contamination. The product shall be free from Lead Chromate added starch and any other extraneous colouring matter. It shall conform to the following standards:

- i. Moisture Not more than 12 percent
- ii. Total ash Not more than 9.0 percent

12.2.1.2 *Zeera Siah OR Cumin (powder)*

Zeera Siah Cumin (powder) means the powder obtained from the dried seeds of the Cumin *Cuminum*. It shall have the characteristic aroma. It shall be free from any added colouring matter. It shall conform to the following standards:

- i. Moisture Not more than 9.0 percent

- | | |
|--|-------------------------------|
| ii. Total ash | Not more than 9.0 percent |
| iii. Ash insoluble in hydrochloric acid | Not more than 1.5 percent |
| iv. Volatile essential oil | Not less than 3 percent |
| v. Non-volatile ether extract (mL/100gm) | Not less than 12.0% by weight |

12.2.1.3 *Zeera Sufaid (whole)*

Zeera Sufaid (whole) means the dried sound fruit of *Carum 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 |
| ii. Total ash on dry basis | Not more than 8.0 percent |
| iii. Ash insoluble in hydrochloric acid | Not more than 1.5 percent |
| iv. Volatile essential oil | Not less than 1.5 percent |

12.2.1.4 *Zeera Sufaid (powder)*

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:

- | | |
|---|--------------------------------------|
| i. Moisture | Not more than 9.0 percent |
| ii. Total ash | Not more than 9.5 percent. |
| iii. Ash insoluble in hydrochloric acid | Not more than 1.5 percent. |
| iv. Volatile essential oil | Not less than 1.5 percent. |
| v. Non-volatile ether extracts on dry basis | Not less than 15.0 percent by weight |

12.2.1.5 *Mirch or Lal Mirch or Chillies (powder)*

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:

- | | |
|---|--------------------------------------|
| i. Moisture | Not more than 10 percent |
| ii. Total ash | Not more than 8.0 percent |
| iii. Ash insoluble in hydrochloric acid | Not more than 1.5 percent |
| iv. Non-volatile ether extract | Not less than 12 percent |
| v. Butyro Refractive value at 40°C of the ether extract | Not less than 69.0 |
| vi. Crude fibre | Not more than 30.0 percent by weight |
| vii. Non-volatile ether extract on dry basis | Not less than 12.0 percent by weight |

12.2.1.6 *Kali Mirch or Black Pepper (whole)*

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. It shall conform to the following standards:

i. Moisture	Not more than 10.0 percent by weight
ii. Total ash on dry basis	Not more than 6.0 percent by weight
iii. Volatile oil content on	Not less than 2.0 percent by v/w
iv. Non-volatile ether extract	Not less than 6.0 percent by weight
v. Peperine Content	Not less than 4.0 percent by weight
vi. Bulk Density (gm/litre)	Not less than 490 gm/litre by weight

12.2.1.7 *Kali Mirch or Black Pepper (powder)*

Kali Mirch or *Gol Mirch*, Papper 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:

i. Moisture.	Not more than 10 percent.
ii. Total ash.	Not more than 6.0 percent.
iii. Ash insoluble in hydrochloric acid.	Not more than 1.0 percent.
iv. Non-volatile ether extract.	Not less than 6.0 percent.
v. Volatile oil.	Not less than 1.75 percent.
vi. Total starch on dry basis	Not less than 30 percent.
vii. Crude Fibre on dry basis	Not more than 17.5 percent by weight
viii. Peperine Content on dry basis	Not less than 4.0 percent by weight

12.2.1.8 *White pepper (Whole)*

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:

i. Moisture	Not more than 12 percent
ii. Total ash	Not more than 3.5 percent
iii. Ash insoluble in hydrochloric acid	Not more than 0.3 percent
iv. Non-volatile ether extract	Not less than 5.5 percent
v. Volatile oil content on dry basis	Not less than 1.5 percent by v/w
vi. Peperine Content on dry basis	Not less than 4.0 percent by weight
vii. Bulk Density (gm/litre)	Not less than 600 percent by weight

12.2.1.9 *White pepper (powder)*

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:

i. Moisture	Not more than 10 percent
ii. Total ash	Not more than 3.5 percent
iii. Ash insoluble in hydrochloric acid	Not more than 0.3 percent
iv. Non-volatile ether extract	Not less than 5.5 percent
v. Volatile oil content on dry basis	Not less than 0.7 percent by v/w
vi. Peperine Content on dry basis	Not less than 4.0 percent by weight
vii. Crude fiber on dry basis	Not more than 6.5 percent by weight

12.2.1.10 *Saunf or Fennel Fruit (powder)*

“*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:

i. Moisture	Not more than 10 percent
ii. Total ash	Not more than 9.0 percent
iii. Ash insoluble in hydrochloric acid	Not more than 2 percent
iv. Volatile oil	Not less than 4.0 percent

12.2.1.11 *Methi or Fenugreek (whole)*

“*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 be free from added colouring matter. It shall conform to the following standards:

i. Moisture	Not more than 10.0 percent by weight
ii. Total ash on dry basis	Not more than 5.0 percent by weight
iii. Ash insoluble in dilute HCl on dry basis	Not more than 1.5 percent by weight
iv. Cold water soluble extract on dry basis	Not less than 30.0 percent by weight

12.2.1.12 *Methi or Fenugreek (powder)*

“*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:

i. Moisture	Not more than 9 percent
ii. Total ash	Not more than 7 percent
iii. Ash insoluble in hydrochloric acid	Not more than 2 percent
iv. Water soluble extract	Not less than 30 percent

12.2.1.13 *Jaifal or Nutmeg (whole)*

“*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. It shall conform to the following standards:

i. Moisture	Not more than 10.0 percent by weight
ii. Total ash on dry basis	Not more than 3.0 percent by weight
iii. Water insoluble ash on dry basis	Not more than 1.5 percent by weight
iv. Ash insoluble in dilute HCl on dry basis.	Not more than 0.5 percent by weight
v. Volatile oil content on dry basis	Not less than 6.5 percent by v/w
vi. Calcium expressed as Calcium Oxide	Not more than 0.35 percent by weight
vii. Extraneous matter	Absent
viii. Mace in Nutmeg	Not more than 3.0 percent by weight

12.2.1.14 *Jaifal or Nutmeg (powder)*

“*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:

i. Moisture	Not more than 8.0 percent.
ii. Total ash	Not more than 5.0 percent.
iii. Ash insoluble in hydrochloric acid	Not more than 0.5 percent.
iv. Non-volatile ether extract	Not less than 25.0percent.
v. Essential volatile oil	Not less than 7 percent.
vi. Crude Fibre	Not more than 10.0 percent by weight

12.2.1.15 *Javitri or Mace (Whole)*

“*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 nalaharica* or *Fatua (Bombay mace)* and *Myristica argentea* (Wild mace). It shall be sound and free from infestation.

It shall be free from added coloring matter. It shall contain moisture not more than 7.0 per cent, crude fiber not less than 10 percent and volatile essential oil not less than 7 percent.

12.2.1.16 *Javitri or Mace (powder)*

“*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 arillus of any other variety of *Myristica nalaharica* or *Fatua (Bombay mace)* and *Myristica argentea* (Wild mace). It shall conform to the following standards:

i. Moisture	Not more than 8.0 percent
ii. Total ash	Not more than 3.0 percent
iii. Ash insoluble in hydrochloric acid	Not more than 1.0 percent
iv. Non-volatile ether extract	Not less than 30.0percent

- | | | |
|-----|-----------------------------------|--------------------------------------|
| v. | Volatile oil content on dry basis | Not less than 5.0 percent by v/w |
| vi. | Crude fibre | Not more than 10.0 percent by weight |

12.2.1.17 *Laung or Cloves (whole)*

“*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.

12.2.1.18 *Laung or Cloves (powder)*

“*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:

- | | | |
|------|------------------------------------|--------------------------------------|
| i. | Moisture | Not more than 10 percent. |
| ii. | Total ash | Not more than 7.0 percent. |
| iii. | Ash insoluble in hydrochloric acid | Not more than 1.0 percent. |
| iv. | Volatile oil | Not less than 16.0 percent |
| v. | Crude Fiber | Not more than 13.0 percent by weight |

12.2.1.19 *Ginger (sonth, adrak) (whole)*

“*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 be free from added colouring matter. It shall conform to the following standards:

- | | | |
|------|---------------------------------------|--------------------------------------|
| i. | Moisture | Not more than 12.0 percent by weight |
| ii. | Extraneous matter | Not more than 1.0 percent by weight |
| iii. | Total ash on dry basis | Not more than 8.0 percent by weight |
| iv. | Calcium as Calcium oxide on dry basis | |
| v. | Unbleached | Not more than 1.1 percent by weight |
| vi. | Volatile oil content on dry basis | Not less than 1.5 percent by v/w |
| vii. | Insect damaged matter | Not more than 1.0 percent by weight |

12.2.1.20 *Ginger (Sonth, Adrak) (powder)*

Ginger (Sonth, Adrak) (powder) means the powder obtained by grinding ginger (*Zingiberis officinal*) whole. The powder shall conform to the following standards:

It shall be free from added starch

- | | | |
|------|--------------------------------------|----------------------------|
| i. | Moisture | Not more than 10 percent |
| ii. | Total ash | Not more than 7.0 percent |
| iii. | Water soluble ash | Not less than 1.7 percent |
| iv. | Ash insoluble in hydrochloric acid | Not more than 1.0 percent |
| v. | Cold water soluble extract | Not less than 11.4 percent |
| vi. | Alcohol (90 percent) soluble extract | Not less than 5.1 percent |

- vii. Volatile oil Not less than 1.5 percent v/w

12.2.1.21 *Sowa or Aniseed (whole)*

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.

It shall conform to the following standards:

- | | |
|---|--------------------------------------|
| i. Moisture | Not more than 12.0 percent by weight |
| ii. Total ash on dry basis | Not more than 9.0 percent by weight |
| iii. Ash insoluble in dilute HCl on dry basis | Not more than 1.5 percent by weight |
| iv. Volatile oil content on dry basis | Not less than 1.0 percent by v/w |

12.2.1.22 *Khash-khash or Poppy seed*

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:

- | | |
|-----------------------------------|----------------------------|
| i. Total ash | Not more than 8.0 percent |
| ii. Oil | Not less than 40.0 percent |
| iii. Harmless foreign matter etc. | Not more than 2 percent |

12.2.2 Seasonings and condiments

Condiments include seasonings such as meat tenderizers, onion salt, garlic salt, Oriental seasoning mix (*dash*), topping to sprinkle on rice (*furikake*, containing, e.g. dried seaweed flakes, sesame seeds and seasoning), and seasoning for noodles. The term “condiments” as used in the Food Category System does not include condiment sauces (e.g. ketchup, mayonnaise, mustard) or relishes.

12.3 Vinegars

Liquid produced from fermentation of ethanol from a suitable source (e.g. wine, cider). Examples include, cider vinegar, wine vinegar, malt vinegar, spirit vinegar, grain vinegar, raisin vinegar, and fruit (wine) vinegar.

This product shall conform the following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
12.3	Synthetic Vinegar	PS: 3602	Annexure-225

12.5.2.2 Soup Stock

“*Soup Stock*” shall be composed of any of the ingredients of soup in liquid, dry or compacted form. It may contain sugar, spices, oleoresins and *aquasins*, permitted flavouring substance, permitted flavours enhancer and permitted food conditioner. It shall be free from added colouring matter. Every package containing soup stock shall be labeled with a direction for its use.

12.5.2.3 Soup Powders

Soup Powders means the products obtained by mechanical dehydration of fresh vegetables/ fruits juice/ pulp/puree of sound vegetables / fruits and or prior concentrated, dehydrated, frozen or processed fruits & vegetables, meat, poultry & fish singly or in combination by blending with salt, permitted nutritive sweeteners, herbs, spices and condiments or any other ingredients suitable to the product, and packed suitably to prevent spoilage. Soup powder shall comply with the requirements given below:

- | | |
|--|--------------------------|
| i. Moisture, percent by weight, Max | 10% |
| ii. Total soluble solids (m/m) percent Min | 5 |
| iii. Yeast and mould count | Not be more than 1000/gm |

12.6 Sauces and like products

Includes ready-to-eat sauces, gravies and dressings, and mixes to be reconstituted before consumption. The ready-to eat products are divided into sub-categories for emulsified (12.6.1) and non-emulsified (12.6.2) products, whereas the sub-category for the mixes (12.6.3) encompasses both emulsified and non-emulsified sauce mixes.

12.6.1 Emulsified sauces and dips (e.g. mayonnaise, salad dressing, onion dips)

Sauces, gravies, dressings based and dips, at least in part, on a fat - or oil-in water emulsion. Examples include: salad dressing (e.g. French, Italian, Greek, ranch style), fat-based sandwich spreads (e.g. mayonnaise with mustard), salad cream, and fatty sauces and snack dips (e.g. bacon and cheddar dip, onion dip).

Mayonnaise shall conform following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
12.6.1	Mayonnaise	PS:3947	Annexure-228

12.6.2 Non-emulsified sauces (e.g. ketchup, cheese sauce, cream sauce, brown gravy)

Include water-, coconut milk-, and milk-based sauces, gravies and dressings. Examples include: barbecue sauce, tomato ketchup, cheese sauce, Worcestershire sauce, Oriental thick Worcestershire sauce (*tonkatsu sauce*), chilli sauce, sweet and sour dipping sauce, and white

(cream-based) sauce (sauce consisting primarily of milk or cream, with little added fat (e.g. butter) and flour, with or without seasoning or spices).

The following products shall conform following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
12.6.2	Tamarind Pulp	PS: 3742	Annexure-229
12.6.2	Chilli Sauce	PS: 3604	Annexure-230
12.6.2	Sauce (Fruits & Vegetables)	PS: 512	Annexure-231
12.6.2	Tomato Ketchup/Sauce	PS: 530	Annexure-232

12.6.3 Mixes for sauces and gravies

Concentrated product, usually in powdered form, to be mixed with water, milk, oil or other liquid to prepare a finished sauce or gravy. Examples include mixes for cheese sauce, hollandaise sauce, and salad dressing (e.g. Italian or ranch dressing).

12.6.3.1 Culinary Powder/ Recipe Mix

Culinary Powder / Recipe Mix means a culinary preparation used as an adjunct to food, prepared from whole spices and the powder obtained through grinding clean, dried and sound spices belonging to the group of aromatic herbs and seeds, dried fruits and vegetables, salt, and other ingredients appropriate to the product. It shall be free from visible mold and insects, sand and grit. The product may contain permitted food additives according to Codex and should be free from added starch and coloring matter. It shall conform to the following standards:

- | | |
|--|--------------------------|
| i. Moisture | Not more than 10 percent |
| ii. Ash insoluble in dilute hydrochloric acid. | Not more than 4percent |
| iii. Crude fiber | Not more than 15 percent |

12.6.4 Clear sauces (e.g. fish sauce)

Includes thin, non-emulsified clear sauces that may be water-based. These sauces may be used as condiments or ingredients rather than as finished gravy (for use e.g. on roast beef). Examples include: oyster sauce, and Thai fish sauce (*nam pla*).

12.7 Salads (e.g. macaroni salad, potato salad) and sandwich spreads

Includes prepared salads, milk-based sandwich spreads, non-standardized mayonnaise-like sandwich spreads, and dressing for coleslaw (cabbage salad).

12.8 Yeast and like products

Includes baker's yeast and leaven used in the manufacture of baked goods. Includes the Oriental products *koji* (rice or wheat malted with *A. oryzae*) used in the production of alcoholic beverages.

12.9 Soybean-based seasonings and condiments:

Includes products that are derived from soybeans and other ingredients intended for use as seasonings and condiments, such as fermented soybean paste and soybean sauces.

12.9.1 Fermented soybean paste (e.g. miso):

The product is made of soybeans, salt, water and other ingredients, using the process of fermentation. The product includes *dou jiang* (China), *doenjang* (Republic of Korea), or *miso* (Japan), which may be used in the preparation of soups or dressings, or as a seasoning.

12.9.2 Soybean sauce

A liquid seasoning obtained by fermentation of soybeans, non-fermentation (e.g. hydrolysis) of soybeans, or by hydrolysis of vegetable protein. "Soybean Sauce" shall be the product derived from any suitable variety of sound and wholesome soybean free from insect or fungal or any other blemish affecting the quality of soybean. The only substances 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 added starch and any added colouring matter except caramel.

- | | |
|------------------------------|-----------------------------|
| i. Total soluble solids. | Not less than 25 per cent |
| ii. Acidity (as acetic acid) | Not less than 0.6 per cent. |

12.9.2.1 *Fermented soybean sauce*

A clear, non-emulsified sauce made of soybeans, cereal, iodized salt and water by the fermentation process.

12.9.2.2 *Non-fermented soybean sauces*

Non-fermented soybean sauce, which is also known as non-brewed soybean sauce, may be produced from vegetable proteins, such as defatted soybeans that are acid-hydrolyzed (e.g. with hydrochloric acid), neutralized (e.g. with sodium carbonate), and filtered.

12.9.2.3 *Other soybean sauce*

Non-emulsified sauce made from fermented soybean sauce and/or non-fermented soybean sauce, with or without sugar, with or without caramelization process.

12.10 Protein products other than from soybeans:

Includes, for example, milk protein, cereal protein and vegetable protein analogues or substitutes for standard products, such as meat, fish or milk. Examples include: vegetable protein analogues, *fu* (a mixture of gluten (vegetable protein) and flour that is sold dried (baked) or raw, and is used as an ingredient, e.g. in miso soup) and proteinaceous meat and fish substitutes.

CHAPTER-13

13 Foodstuffs intended for particular nutritional uses

Foods for special dietary use are specially processed or formulated to satisfy particular dietary requirements that exist because of a particular physical or physiological condition and/or specific disease and disorder. The composition of these foods must differ significantly from the composition of ordinary foods of comparable nature, if such foods exist. Dietetic foods other than those in 13.0 are included in the categories for their standard counterparts.

13.1 Infant formulae, follow-up formulae, and formulae for special medical purposes for infants

Foods that are intended for infants and for young children as defined in the sub-categories 13.1.1, 13.1.2, and 13.1.3.

13.1.1 Infant formulae

A human milk substitute for infants (aged no more than 12 months) that is specifically formulated to provide the sole source of nutrition during the first months of life up to the introduction of appropriate complementary feeding. Product is in a liquid form, either as a ready-to-eat product, or is reconstituted from a powder. Products, other than those under food category 13.1.3, may be, hydrolyzed protein and/or amino acid-based, or milk-based.

The infant formulas shall confirm following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
13.1.1	Food for Infants and Children	PS:1688	Annexure-233

13.1.2 Follow-up formulae

Food intended for use as a liquid part of the complementary feeding of infants (aged at least 6 months) and for young children (aged 1- 3 years). They may be ready-to-eat or in a powdered form to be reconstituted with water. Products, other than those under food category 13.1.3, may be soy based hydrolyzed protein and/or amino acid-based, or milk-based.

The follow-up formula shall confirm following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
13.1.2	Food for Infants and Children	PS: 1688	Annexure-233
13.1.2	Follow-up Formula	PS: 4819	Annexure-234

13.1.3 [Formulae for special medical purposes intended for infants](#)

Foods for special dietary use that are specially processed or formulated and presented for the dietary management of infants and may be used only under medical supervision. They are intended for the exclusive or partial feeding of infants with limited or impaired capacity to take, digest, absorb or metabolize ordinary infant formulae or certain nutrients contained therein, or who have other special medically-determined nutrient requirement, whose dietary management cannot be achieved only by modification of the normal diet, by other foods for special dietary uses, or by a combination of the two.

The following products shall conform following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
13.1.3	Food for Infants and Children	PS:1688	Annexure-233

13.2 [Complementary foods for infants and young children](#)

Foods that are intended for infants 6 months of age and older, and for progressive adaptation of infants and children to ordinary food. Products may be ready- to-eat or in powder form to be reconstituted with water, milk, or other suitable liquid. These foods exclude infant formulae (13.1.1), follow-up formulae (13.1.2), and formulae for special medical purposes (13.1.3). Examples include: cereal-, fruit-, vegetable-, and meat-based “baby foods” for infants, “toddler foods,” and “junior foods”; lactea flour, biscuits and rusks for children.

The following products shall conform following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
13.2	Canned Baby Foods	PS: 3110	Annexure-235
13.2	Processed Cereal-Based Food for Infants & Children	PS: 740	Annexure-236
13.2	Guidelines on Formulated Supplementary Foods for Infants and Young Children	PS: 3953	Annexure-237

13.3 [Dietetic foods intended for special medical purposes \(excluding products of food category 13.1\)](#)

Foods for special dietary use that are specially processed or formulated and presented for the dietary management of patients and may be used only under medical supervision. They are intended for the exclusive or partial feeding of patients with limited or impaired capacity to take, digest, absorb or metabolize ordinary foods or certain nutrients contained therein, or who have other special medically-determined nutrient requirement, whose dietary management cannot be achieved only by modification of the normal diet, by other foods for special dietary uses, or by a combination of the two.

The following products shall conform following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
13.3	Foods for Special Dietary Use for Persons intolerant to Gluten	PS: 4554	Annexure-238

13.4 [Dietetic formulae for slimming purposes and weight reduction](#)

Formula foods that when presented as “ready-to-eat” or when prepared in conformity with the directions for use are specifically presented as replacements for all or part of the total daily diet.⁷⁹ Includes products with reduced caloric content such as those that are low in sugar and/or fat, sugar- or fat-free, or contain sugar-and/or fat-substitutes.

13.5 [Dietetic foods \(e.g. supplementary foods for dietary use\):](#)

Dietetic foods excluding products of food categories 13.1 - 13.4 and 13.6 are products of high nutritional content, in liquid or solid form (e.g. protein bars), to be used by individuals as part of a balanced diet to provide supplemental nutrition. Products are not intended to be used for purposes of weight loss or as part of a medical regimen.

13.6 [Food supplements](#)

Includes vitamin and mineral supplements in unit dose forms such as capsules, tablets, powders, solutions, etc. where national jurisdictions regulate these products as food.

The following products shall conform following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
13.6	High Protein Mixes for Use as Food Supplements	PS: 2864	Annexure-239

CHAPTER-14

14 Beverages

This major category is divided into the broad categories of non-alcoholic (14.1) and alcoholic (14.2) beverages. Dairy-based beverages are included in 01.1.4.

14.1 Non-alcoholic ("soft") beverages

This broad category includes waters and carbonated waters (14.1.1), fruit and vegetable juices (14.1.2), fruit and vegetable nectars (14.1.3), water-based flavoured carbonated and non-carbonated drinks (14.1.4), and water-based brewed or steeped beverages such as coffee and tea (14.1.5).

14.1.1 Waters

Includes natural waters (14.1.1.1) and other bottled waters (14.1.1.2), each of which may be non-carbonated or carbonated.

This food category shall confirm following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.1	Water Quality Vocabulary	PS: 1826	Annexure-240

14.1.1.1 *Natural mineral waters and source waters*

Waters obtained directly at the source and packaged close to the source; are characterized by the presence of certain mineral salts in relative proportions and trace elements or other constituents. Natural mineral water may be naturally carbonated (with carbon dioxide from the source), carbonated (with added carbon dioxide of another origin), decarbonated (with less carbon dioxide than present in the water at the source so it does not spontaneously give off carbon dioxide under conditions of standard temperature and pressure), or fortified (with carbon dioxide from the source), and non-carbonated (contains no free carbon dioxide).

This food category shall confirm following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.1.1	Natural Mineral Water	PS: 2102	Annexure-241

14.1.1.1	Bottled Drinking Water	PS: 4639	Annexure-242
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14.1.1.2 *Table waters and soda waters*

Includes waters other than natural source waters that may be carbonated by addition of carbon dioxide and may be processed by filtration, disinfection, or other suitable means. These waters may contain added mineral salts. Carbonated and non-carbonated waters containing flavours are found in category 14.1.4. Examples are table water, bottled water with or without added minerals, purified water, seltzer water, club soda, and sparkling water.

This food category shall confirm following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.1.2	Drinking Water	PS: 1932	Annexure-243

14.1.2 *Fruit and vegetable juices*

This category applies only to fruit and vegetable juices. Beverages based on fruit and vegetable juices are found in food category 14.1.4.2. Fruit-vegetable juice blends have separate classifications for each component (i.e. fruit juice (14.1.2.1) and vegetable juice (14.1.2.3)).

14.1.2.1 *Fruit juice*

Fruit juice is the unfermented but fermentable liquid obtained from the edible part of sound, appropriately mature and fresh fruit or of fruit maintained in sound condition by suitable means. The juice is prepared by suitable processes, which maintain the essential physical, chemical, organoleptic and nutritional characteristics of the juices of the fruit from which it comes. The juice may be cloudy or clear, and may have restored (to the normal level attained in the same kind of fruit) aromatic substances and volatile flavour components, all of which must be obtained by suitable physical means, and all of which must have been recovered from the same kind of fruit. Pulp and cells obtained by suitable physical means from the same kind of fruit may be added. A single juice is obtained from one kind of fruit. A mixed juice is obtained by blending two or more juices or juices and purees, from different kinds of fruit. Fruit juice may be obtained, e.g. by directly expressing the juice by mechanical extraction processes, by reconstituting concentrated fruit juice (food category 14.1.2.3) with water, or in limited situations by water extraction of the whole fruit (e.g. prune juice from dried prunes). Examples include: orange juice, apple juice, black currant juice, lemon juice, orange-mango juice and coconut water.

This food category shall confirm following PSQCA Standards:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.2.1	Fruit Juice	PS: 513	Annexure-244
14.1.2.1	Fruit Squashes	PS: 506	Annexure-245
14.1.2.1	Fruit Squashes	PS:2854	Annexure-246
14.1.2.1	Apple Juice	PS:1739	Annexure-247
14.1.2.1	Orange Juice	PS:1738	Annexure-248

14.1.2.2 Vegetable Juice

Vegetable juice is the liquid unfermented but fermentable product intended for direct consumption obtained by mechanical expression, crushing, grinding, and/or sieving of one or more sound fresh vegetables or vegetables preserved exclusively by physical means. The juice may be clear, turbid, or pulpy. It may have been concentrated and reconstituted with water. Products may be based on a single vegetable (e.g. carrot) or blends of vegetables (e.g. carrots, celery).

This food category shall conform following PSQCA Standards:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.2.2	Vegetable Juice	PS:3598	Annexure-249
14.1.2.2	Lemon Juice Preserved Exclusively by Physical Means	PS:1823	Annexure-250
14.1.2.2	Tomato Juice	PS: 516	Annexure-251

14.1.2.3 Concentrates for Fruit Juice

Concentrated fruit juice is the product that complies with the definition given in food category 14.1.2.1. It is prepared by the physical removal of water from fruit juice in an amount to increase the Brix level to a value at least 50% greater than that established for reconstituted juice from the same fruit. In the production of juice that is to be concentrated, suitable processes are used, and may be combined, with simultaneous diffusion of the pulp cells or fruit pulp by water, provided that the water-extracted soluble fruit solids are added in-line to the primary juice, before the concentration procedure. Fruit juice concentrates may have restored (to the normal level attained in the same kind of fruit) aromatic substances and volatile flavours components, all of which must be obtained by suitable physical means, and all of which must be recovered from the same kind of fruit. Pulp and cells obtained by suitable physical means from the same kind of fruit may be added. Sold in liquid, syrup and frozen forms for the preparation of a ready-to-drink juice by

addition of water. Examples include: frozen orange juice concentrate, and lemon juice concentrate.

This food category shall confirm following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.2.3	Concentrated Fruit Juice	PS: 527	Annexure-252

14.1.2.4 Concentrates for Vegetable Juice

Prepared by the physical removal of water from vegetable juice. Sold in liquid, syrup and frozen forms for the preparation of a ready-to-drink juice by addition of water. Includes carrot juice concentrate.

This food category shall confirm following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.2.4	Tomato Concentrate	PS: 3952	Annexure-253

14.1.3 Fruit and vegetable nectars

Fruit and vegetable nectars are beverages produced from purees, juices, or concentrates of either, blended with water and sugar, honey, syrups, and/or sweeteners. Fruit-vegetable nectar blends are reported under their components (i.e. fruit nectar (14.1.3.1) and vegetable nectar (14.1.3.2)).

14.1.3.1 Fruit Nectar

Fruit nectar is the unfermented but fermentable product obtained by adding water with or without the addition of sugar, honey, syrups, and/or sweeteners to fruit juice, concentrated fruit juice, fruit purees or concentrated fruit purees, or a mixture of those products. Aromatic substances, volatile flavour components, pulp and cells, all of which must have been recovered from the same kind of fruit and obtained by suitable physical means, may be added. Products may be based on a single fruit or on fruit blends. Examples include: pear nectar and peach nectar.

This food category shall confirm following PSQCA Standards:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.3.1	Fruit Juices & Nectars	PS: 4973	Annexure-254
14.1.3.1	Fruit Nectars	PS: 4563	Annexure-255

14.1.3.1	Nectars of Certain Citrus Fruits	PS: 4450	Annexure-256
14.1.3.1	Guidelines on Mixed Fruit Nectars	PS: 2098	Annexure-257
14.1.3.1	Pulpy Nectars for Certain Small Fruits	PS: 4451	Annexure-258

14.1.3.2 Vegetable nectar

Product obtained by adding water with or without the addition of sugar, honey, syrups, and/or sweeteners to vegetable juice or concentrated vegetable juice, or a mixture of those products. Products may be based on a single vegetable or on a blend of vegetables.

14.1.3.3 Concentrates for fruit nectar

Prepared by the physical removal of water from fruit nectar or its starting materials.⁸² Sold in liquid, syrup and frozen forms for the preparation of a ready-to-drink nectar by addition of water. Examples: pear nectar concentrate and peach nectar concentrate.

14.1.3.4 Concentrates for vegetable nectar

Prepared by the physical removal of water from vegetable nectar. Sold in liquid, syrup and frozen forms for the preparation of ready-to-drink nectars by addition of water.

14.1.4 Water-based flavoured drinks, including “sport,” “energy,” or “electrolyte” drinks and particulated drinks

Includes all carbonated and non-carbonated varieties and concentrates. Includes products based on fruit and vegetable juices. Also, includes coffee-, tea- and herbal-based drinks.

This food category shall conform following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.4	Energy Drink (<i>Halaa</i>)	PS: 5156	Annexure-259
14.1.4	Sports Drink(<i>Halaa</i>)	PS: 5157	Annexure-260
14.1.4	Beverages (Containing Fruit Juice)	PS: 515	Annexure-261
14.1.4	Fruit Cordial	PS: 508	Annexure-262
14.1.4	Fruit Beverages, Drinks and Crushes	PS: 507	Annexure-263
14.1.4	Barley Waters (Lemon, Oranges or Grape Fruits)	PS: 509	Annexure-264

14.1.4	Soft Drinks Powder Mixes	PS: 3187	Annexure-265
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14.1.4.1 Carbonated water-based flavoured drinks

Includes water-based flavoured drinks with added carbon dioxide with nutritive, non-nutritive and/or intense sweeteners and other permitted food additives. Includes *gaseosa* (water-based drinks with added carbon dioxide, sweetener, and flavours), and sodas such as colas, pepper-types, root beer, lemon-lime, and citrus types, both diet/light and regular types. These beverages may be clear, cloudy, or may contain particulated matter (e.g. fruit pieces). Includes so-called “energy” drinks that are carbonated and contain high levels of nutrients and other ingredients (e.g. caffeine, taurine, and carnitine).

This food category shall confirm following PSQCA Standard:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.4.1	Carbonated Beverages	PS: 1654	Annexure-266

14.1.4.2 Non-carbonated water-based flavoured drinks, including punches and ades

Include water-based flavoured drinks without added carbon dioxide, fruit and vegetable juice-based drinks (e.g. almond, aniseed, coconut-based drinks, and ginseng drink), fruit flavoured *ades* (e.g. lemonade, orangeade), squashes (citrus-based soft drinks), *capile groselha*, lactic acid beverage, ready-to-drink coffee and tea drinks with or without milk or milk solids, and herbal-based drinks (e.g. iced tea, fruit-flavoured iced tea, chilled canned cappuccino drinks) and “sports” drinks containing electrolytes. These beverages may be clear or contain particulated matter (e.g. fruit pieces), and may be unsweetened or sweetened with sugar or non-nutritive high-intensity sweetener. Includes so-called “energy” drinks that are non-carbonated and contain high levels of nutrients and other ingredients (e.g. caffeine, taurine, and carnitine).

14.1.4.3 Concentrates (liquid or solid) for water-based flavoured drinks

Include powder, syrup, liquid and frozen concentrates for the preparation of carbonated or non-carbonated water-based non-alcoholic beverages by addition of water or carbonated water. Examples include: fountain syrups (e.g. cola syrup), fruit syrups for soft drinks, frozen or powdered concentrate for lemonade and iced tea mixes.

14.1.5 Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa:

Includes the ready-to-drink products (e.g. canned), and their mixes and concentrates. Examples include: chicory-based hot beverages (postum), rice tea, mate tea, and mixes for hot coffee and tea beverages (e.g. instant coffee, powder for hot cappuccino beverages). Treated coffee beans for the manufacture of coffee products are also included. Ready-to-drink cocoa is included in category 1.1.4, and cocoa mixes in 5.1.1.

This food category shall conform following PSQCA Standards:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
14.1.5	Tea Black	PS: 493	Annexure-267
14.1.5	Coffee & Its Preparation	PS: 763	Annexure-268
14.1.5	Tea Standard 'B'	PS: 784	Annexure-269
14.1.5	Green Tea	PS: 3108	Annexure-270

14.2 Alcoholic beverages, including alcohol-free and low-alcoholic counterparts

The alcohol-free and low-alcoholic counterparts are included in the same category as the alcoholic beverage.

14.2.1 Beer and malt beverages

Alcoholic beverages brewed from germinated barley (malt), hops, yeast, and water. Examples include: ale, brown beer, weiss beer, pilsner, lager beer, oud bruin beer, *Obergariges Einfachbier*, light beer, table beer, malt liquor, porter, stout, and barleywine.

14.2.2 Cider and Perry

Fruit wines made from apples (cider) and pears (perry). Also includes cider bouche.

14.2.3 Grape wines

Alcoholic beverage obtained exclusively from the partial or complete alcoholic fermentation of fresh grapes, whether crushed or not, or of grape must (juice).

14.2.3.1 *Still grape wine*

Grape wine (white, red, rosé, or blush, dry or sweet) that may contain up to a maximum 0.4g/100 ml (4000 mg/kg) carbon dioxide at 20 °C.

14.2.3.2 Sparkling and semi-sparkling grape wines:

Grape wines in which carbonation is produced during the fermentation process, either by bottle fermentation or closed tank fermentation. Also includes carbonated wine whose carbon dioxide is partially or totally of exogenous origin. Examples include: spumante, and “cold duck” wine.

14.2.3.3 Fortified grape wine, grape liquor wine, and sweet grape wine:

Grape wines produced either by: (i) the fermentation of grape must (juice) of high sugar concentration; or (ii) by the blending of concentrated grape juice with wine; or (iii) the mixture of fermented must with alcohol. Examples include: grape dessert wine.

14.2.4 Wines (other than grape)

Includes wines made from fruit other than grapes, apples and pears, and from other agricultural products, including grain (e.g. rice). These wines may be still or sparkling. Examples include: rice wine (*sake*), and sparkling and still fruit wines.

14.2.5 Mead

Alcoholic liquor made from fermented honey, malt and spices, or just of honey. Includes honey wine.

14.2.6 Distilled spirituous beverages containing more than 15% alcohol

Includes all distilled spirituous beverages derived from grain (e.g. corn, barley, rye, wheat), tubers (e.g. potato), fruit (e.g. grapes, berries) or sugar cane that contain greater than 15% alcohol. Examples include: aperitifs, brandy (distilled wine), cordials, liqueurs (including emulsified liqueurs), bagaceira belha (grappa from Portugal; bagaceira is a drink distilled from *bagaço* (pressed skins, seeds and stalks of the grapes)), eau de vie (a brandy), gin, grappa (Italian brandy distilled from the residues of pressed wine), marc (brandy distilled from grape or apple residue), korn (grain spirit (*schnapps*) of Germany, usually derived from rye (*Roggen*), sometimes from wheat (*Weizen*) or both (*Getreide*); also labelled as *Kornbrantt* or *Kornbranttwein*), mistela (also *mistelle* (France) and *jeropico* (South Africa); unfermented grape juice fortified with grape alcohol), ouzo (Greek spirit drink flavoured with aniseed), rum, tsikoudia (grape marc spirit from Crete), tsipouro (grape marc spirit from certain regions in Greece), wienbrand (style of grape brandy devised by *Hugo Asbach*, *Rudesheim*, Germany; literally, “burnt wine”), *cachaça* (Brazilian liquor made from fermented distilled sugar cane juice), tequila, whiskey, and vodka.

14.2.7 Aromatized alcoholic beverages (e.g. beer, wine and spirituous cooler-type beverages, low-alcoholic refreshers)

Includes all non-standardized alcoholic beverage products. Although most of these products contain less than 15% alcohol, some traditional non-standardized aromatized products may

contain up to 24% alcohol. Examples include aromatized wine, cider and perry; aperitif wines; americano; batidas (drinks made from *cachaça*, fruit juice or coconut milk and, optionally, sweetened condensed milk); *bitter* soda and bitter vino; clarea (also claré or clary; a mixture of honey, white wine and spices; it is closely related to *hippocras*, which is made with red wine); jurubeba alcoholic drinks (beverage alcohol product made from the *Solanum paniculatum* plant indigenous to the north of Brazil and other parts of South America); negus (sangria; a hot drink made with port wine, sugar, lemon and spice); sod, soft, and sodet; vermouth; zurra (in Southern Spain, a sangria made with peaches or nectarines; also the Spanish term for a spiced wine made of cold or warm wine, sugar, lemon, oranges or spices); *amazake* (a sweet low-alcoholic beverages (<1% alcohol) made from rice by *koji*; *mirin* (a sweet alcoholic beverage (<10% alcohol) made from a mixture of *shochuu* (a spirituous beverage), rice and *koji*); “malternatives,” and prepared cocktails (mixtures of liquors, liqueurs, wines, essences, fruit and plant extracts, etc. marketed as ready-to-drink products or mixes). Cooler-type beverages are composed of beer, malt beverage, wine or spirituous beverage, fruit juice(s), and soda water (if carbonated).

CHAPTER-15

15 Ready-to-eat savouries

Includes all types of savoury snack foods.

15.1 Snacks - potato, cereal, flour or starch based

Includes all savoury snacks, with or without added flavourings, but excludes unsweetened crackers (category 7.1.2). Examples include potato chips, popcorn, pretzels, rice crackers (*senbei*), flavoured crackers (e.g. cheese-flavoured crackers), *bhujia* (*namkeen*; snack made of a mixture of flours, maize, potatoes, iodized salt, dried fruit, peanuts, spices, colours, flavours, and antioxidants), and *papads* (prepared from soaked rice flour or from black gram or cow pea flour, mixed with salt and spices, and formed into balls or flat cakes).

15.1.1 Namkeen

- i. Namkeens are prepared using a number of ingredients and are available in various forms in the market. The common names Nimko Pakorian, dal sawwiyan, namak parayy, Bhalian, gol gappay, etc. The preparation prior to frying varies with the product. For example,
- ii. Namkeen are prepared by kneading Besan or flour with water and frying in suitable oil/fat or combination thereof. Iodized Salts/Spices and other optional ingredients are added either at the time of kneading or after frying.
- iii. Salted (iodized) and spiced fried Dals are made by soaking Dals in water and frying with or without other ingredients.
- iv. *Chewra* are made by direct frying the rice flakes in vegetable oil/ hydrogenated fat.
- v. Freid Dals including Channa (chickpea) are made by soaking pulses with water and frying in oil.

Ingredients:

- i. The following ingredients, singly, or in combination shall be used in preparation of Namkeens.
- ii. Cereals/Legumes and their Products e.g. *Besan* (gram flour), beaten rice/maize
- iii. Potatoes, Refined edible vegetable oil, edible hydrogenated vegetable oil (*Banaspati*)
- iv. Iodized Salt, spices e.g. chilli powder, black pepper, cloves, coriander, *Saunf*, *karri patta*, garlic, Cumin seeds, sesame seed, *khaskhas*, turmeric, black salt, garam masala etc.
- v. Dry Fruits e.g. raisins, cashew nuts, almonds, coconut, groundnut kernel, fig, apricot,
- vi. Sugar, Permitted Flavoring and food Colour
- vii. Citric Acid/Tartaric Acid, Sodium bicarbonate
- viii. The ingredients shall be clean, wholesome and free from any infection, infestation and foreign material and free from any undesirable smell.

Requirements:

- i. Namkeen shall comply with the requirements given below;
- ii. All the raw material or ingredient used for preparation of namkeens shall follow the prescribed standards as per these rules or codex standards in case where local standards are not available. Food additives used in these formulations must be of food grade, permitted and halal.
- iii. Namkeen shall have an attractive colour, texture and pleasant taste and odour. It shall be crisp and homogeneous in case of mixture.
- iv. The namkeen shall be free from rancidity and other objectionable odour and taste.
- v. The namkeen shall not bear any sign of burning or charring not more than 0.5 per cent.
- vi. The material shall be free from insects, insect fragments, rodent hair and excreta and fungal infestation.
- vii. The frying medium shall be regularly replaced with fresh batches of oil or fat or combination thereof to conform to rules of frying oil prescribed in these rules or good manufacturing practices. Temperature of the frying medium shall not exceed the smoke point.

Sr. #	Characteristics	Requirements
1	Moisture, percent by mass, Max	5
2	Moisture, percent by mass, Max For <i>Nimko</i> , dal <i>sawwiyān</i> , nuts, fried products	2
3	Acid insoluble ash (dry basis) % by wt.: Max	0.1
4	Fat (on dry basis), percent by mass.	15 – 45
5	Acid value of extracted fat. Max	2
6	Peroxide value meq oxygen/kg fat. Max	10

15.1.2 Traditional Ready to Eat Savouries

- i. **Kachori** is a spicy snack usually a round flattened ball made of fine flour filled with a stuffing of baked mixture of yellow moong dal or *Urd Dal* (crushed and washed beans), meat and meat products, *Besan* or flour, black pepper, red chili powder, iodized salt and other spices.
- ii. **Boondi** is a snack food made from sweetened, fried chickpea flour. Being very sweet, it can be stored for a week or so. To make *boondi laddu*, fried *boondi* is dipped in sugar syrup.
- iii. **Golgappay**, are round, hard, puffy shell broken and partially filled with the main stuffing of potatoes, vegetable, yogurt and other spices. Tartaric acid shall not be used

- iv. **Dahibarray** is a popular snack which is prepared by soaking bhalla (fried flour balls) in thick dahi (yogurt).
- v. **Pakora** also called pakoda, pakodi, is a fried snack (fritter). Usually, the name of the vegetable that is deep-fried may be potatoes, or meat or mixed vegetables
- vi. **Namakpara** is a crunchy savoury snack, ribbon-like strips of pastry delicately seasoned with cumin seeds, carom seeds, and caraway seeds and deep fried.
- vii. **Samosa** is a fried or baked dish with a savoury filling, such as spiced potatoes, onions, peas, lentils, noodles or minced meat (lamb, beef or chicken). All traditionally savory foods shall follow the standards of hygiene. The ingredient used in such products shall follow the standards prescribed in these rules and shall only use permitted additives (colours, flavors etc.) as per these rules. Potable water used in the premises whether used for cleaning or otherwise shall be clean and fit for drinking. Standards for vegetable oil used in frying shall be complied with these rules

It shall also be free from insects, insect residues, rodent hair and excreta, fungal infestation and any other extraneous and harmful material.

The vendor shall follow general hygiene rules. The food shall be covered and away from dust, smoke and insect. The frying medium shall follow the standards for frying oil as prescribed in these rules.

Sr. No.	Characteristics	Requirements
1	Peroxide value meq oxygen/kg fat. Max	10
2	FFA not more than	1.8 per cent

15.1.2.1 Papad

Papad is one of the popular articles of household food categories. It shall comply with following standards.

- i. The following edible quality ingredients free from insects, extraneous matter and fungal growth shall be used for manufacturing Papad;
 - ii. Rice flour, Wheat flour, barley flour, maize flour, sorghum flour, potato flour, gram, moong, and lentil.
 - iii. Iodized salt, edible vegetable oil
 - iv. Spices, Sodium bicarbonate
 - v. *Papads* shall be of pleasant taste and smell, and shall be free from rancid or bitter taste and shall not crumble.
 - vi. They shall be free from broken or frayed edges, excessive number of holes, dirt or foreign matters, insect infestation or fungal growth.
 - vii. On frying, *papads* shall be brittle (break easily) and crispy to bite. They shall not give leathery, gritty, sticky or soggy mouth feel. It shall be free from odor and off flavor.

15.1.3 Potato Chips:

The fried potato chips shall have an attractive light to golden yellow colour without brown spots, crisp texture, and pleasant taste and odour. Iodized Salt and other seasoning shall be added to taste. The chips shall be of thickness between 1.0 to 3.0 mm, free from blisters, excessive dark brown pigmentation and wet centers. It shall not have burnt pieces. The chips shall not be excessively greasy and shall be free from rancidity and other objectionable odour and taste. Any seasoning used for potato chips shall follow the standards of ingredients as prescribed in these rules. The label on the packaged product shall enlist ingredients in descending orders.

This food category shall confirm following PSQCA Standards:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
4.2.2.8	Potato Chips	PS: 3415	Annexure-105

15.2 Processed nuts, including coated nuts and nut mixtures (with e.g. dried fruit)

Includes all types of whole nuts processed by, e.g. dry-roasting, roasting, marinating or boiling, either in-shell or shelled, salted or unsalted. Yoghurt-, cereal-, and honey-covered nuts, and dried fruit-nut-and-cereal snacks (e.g. "trail mixes") are classified here. Chocolate-covered nuts are classified in 5.1.4, and nuts covered in imitation chocolate are included in 5.1.5.

15.3 Snacks - fish based

This describes savoury crackers with fish, fish products or fish flavouring. Dried fish *per se* that may be consumed as a snack is assigned to food category 9.2.5, and dried meat snacks (e.g. beef jerky, pemmican) are assigned to food category 8.3.1.2.

Annex: Microbiological Limits for Ready to Eat Snacks/ Savouries

Sr. #	Parameters	Limits
1	Total Plate Count (per gram)	<50,000
2	Coliforms (per gram)	<100
3	<i>E.coli</i> (per gram)	<10
4	<i>Staph. aureus</i> (per gram)	<100
5	Salmonella (per 25 gm)	Absent
6	<i>Clostridium perfringense</i>	<100

CHAPTER-16

16 Prepared Foods

These foods are not included in the other food categories (01-15) and should be considered on a case-by-case basis. Prepared foods are mixtures of multiple components (e.g. meat, sauce, grain, cheese, vegetables); the components are included in other food categories. Prepared foods require minimal preparation by the consumer (e.g. heating, thawing, rehydrating). Provisions for additives will be listed in this food category in the GSFA only if the additive is needed: (i) solely to have a technological function in the prepared food as sold to the consumer; or (ii) at a use level that has an intentional technological function in the prepared food that exceeds the use level that can be accounted for by carry-over from the individual components.

This food category shall conform following PSQCA Standards:

Food Cat. No.	Standard Title	Standard No.	Annexure No.
16	Ready to eat Products	PS: 514	Annexure-271

CHAPTER-17

17 Labeling & Packaging

Mode of labelling 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;

Explanation.- 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) In case of contract manufacturing, the proprietor must obtain license from food authority and the name of manufacturer must be mentioned on the label.
- c) 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; *Explanation.*- 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 address appear, the addresses shall be presumed to be that of the manufacturer, packer of the food and the address 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;
- d) 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;

Explanation.- 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

- (c) 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.

Explanation.- In 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 and, the mass/weight of the wrappers and materials other than commodity shall be excluded.

(2) The label shall also bear:

- (a) the license Number issued by the concerned Licensing Authority and 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 on the label on the package of any food signifying the manufacturing date and the expiry date or the date of minimum durability of the 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 of clear and unmistakable date, which can be correctly interpreted by the consumer, shall alone constitute date marking; however, the marking of date in code form for lot identification shall not constitute valid date marking;
 - (b) manufacturing date is the date expressed in day, month and year or in months and year;
 - (c) expiry date 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, on the label or elsewhere on the package, a date marking in accordance with any of the forms 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 to that effect shall also be indicated 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 specified in sub-rules (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.

Moreover, labelling, packaging and claims shall conform to following PSQCA Standards:

Serial No.	Standard Title	Standard Number	Annexure No.
1	Labelling of Prepackaged Foods	PS: 1485	Annexure-272
2	Guidelines on Nutrition Labelling	PS: 2009	Annexure-273
3	Labelling of Food Additives When Sold as Such	PS: 4844	Annexure-274
4	The composition and labeling of and claims for meal replacement for weight control or weight reduction	PS: 2018	Annexure-275
5	General Standard for the Labelling of and claims for prepackaged Foods for Special Dietary uses	PS: 4844	Annexure-276
6	Guidelines for Products Packaging Food Stuffs and Perishables	PS: 3951	Annexure-277

CHAPTER-18

18 Contaminants, Toxins and Residues

(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, hormonal 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 course 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.

Moreover, contaminants, toxins and residues shall conform to following PSQCA Standards:

Serial No.	Standard Title	Standard Number	Annexure No.
1	Maximum Limits for Pesticides Residues	PS:2023	Annexure-278
2	Recommended Limits for Radionuclides Contamination of Food	PS:2982	Annexure-279
3	Guide for the Microbiological Quality of the Spices and Herbs	PS:3741	Annexure-280
4	Tin Plate containments for Ghee Vanaspati, Cooking/Edible Oil	PS:4773	Annexure-281

CHAPTER-19

19 Food Additives

(1) **“Food additive”** means any safe substance that is intentionally introduced into food in small quantities for purposes of the maintaining quality, texture, consistency, appearance, odour, taste, alkalinity, or acidity of the food, or to serve any other technological function in the manufacture, processing, preparation, treatment, packing, packaging, transport, or storage of the food, and which results or may be reasonably expected to result, directly or indirectly, in the substance or any of its byproducts 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 does 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) Food grade iodized salt;
- (d) yeast or yeast extracts;
- (e) 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 the 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, and includes 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 19 (Part-VIII)

- (a) No person shall import, manufacture, advertise for sale or introduce into 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 or otherwise so specified; and
 - iii) Food shall contain any food additive other than those specified in these rule, Codex Standards and Pakistan Standards (by PSQCA) and is specified by a notification issued by the Government and shall be *Halaal*
- (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:

- (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 purposes of the standards, 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.

(4) 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, 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.

Following Pakistan Standards shall be applied to confirm the additives in named categories:

Serial No.	Standard Title	Standard Number	Annexure No.
1	Food Additives	PS:2022	Annexure-291
2	The Principal relating to carry-over of food additives in the Foods	PS:4719	Annexure-292
3	General Principal for the Use of Food Additives	PS: 4720	Annexure-293
<i>(i) Coloring matter</i>			
11	Sunset Yellow, FCF	PS: 677	Annexure-294
12	Tartrazine	PS: 678	Annexure-295
13	Cochineal	PS: 737	Annexure-296
14	Caramel	PS: 738-1	Annexure-297
15	Caramel-II Ammonia Process	PS: 738-2	Annexure-298
16	Caramel Part-III Ammonia Sulphites	PS: 738-3	Annexure-299
17	Colouring Matter Used in food Stuffs	PS: 3748	Annexure-300
18	Food Additive Colouring Matters Erythrocin BS	PS: 4433	Annexure-301
19	Food Colouring Matter Brilliant Blue FCF	PS: 4448	Annexure-302

20	Food Additives – Colouring Matters Carmosine	PS: 4555	Annexure-303
<i>(ii) Preservatives</i>			
21	Benzoic Acid Food Grade	PS: 4255	Annexure-304
22	Salts for Sulphurous Acid Used in Preservation of Food Stuffs	PS: 4558	Annexure-305
23	Sugar for Food Preservation	PS: 362	Annexure-306
<i>(iii) Non-nutritive constituents (artificial sweetener & color)</i>			
24	Acesulfame – K	PS: 4270	Annexure-307
25	Sodium Sacchrine Food Grade	PS: 4552	Annexure-308
26	Calcium Sacchrine food Grade	PS: 4553	Annexure-309
27	Neotame food grade	PS: 4871	Annexure-310
28	Sucralose Food Grade	PS:5331	Annexure-311
29	Steviol Food Grade	PS: 5332	Annexure-312
30	Aspartame Food grade	PS: 4836	Annexure-313
31	Sorbitol Food grade	PS: 4837	Annexure-314
32	Baking Powder	PS: 657	Annexure-315
33	Edible <i>Halaal</i> Gelatine	PS: 247	Annexure-316

(5) Food Additives, other than specified in these rule Pakistan Standards (by PSQCA)and Food Categories, shall confirm to CODEX STAN 192-1995.