

# **The Prevention of Food Adulteration Act, 1954**

## **[Act No. 37 of 1954]**

**[29<sup>th</sup> September, 1954]**

An act to make provision for the prevention of adulteration of food.

BE it enacted by Parliament in the Fifth Year of the Republic of India as Follows:-

### **PRELIMINARY**

**1. Short title, extent and commencement-** (1) This act may be called the Prevention of Food Adulteration Act, 1954.

(2) It extends to the whole of India

(3) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint,

**2. Definitions-** In this Act, unless the context otherwise requires-

(i) "adulterant" means any material which is or could be employed for the purposes of adulteration;)

(ia) "adulterated" - an article of food shall be deemed to be adulterated-

(a) If the article sold by a vendor is not of the nature, substance or quality demanded by the purchaser and is to his prejudice, or is not of the nature, substance or quality which it purports or is represented to be;

(b) If the article contains any other substance which affects, or if the article is so processed as to affect, injuriously the nature, substance or quality thereof;

(c) If any inferior or cheaper substance has been substituted wholly or in part for the article so as to affect injuriously the nature, substance or quality thereof;

(d) If any constituent of the article has been wholly or in part abstracted so as to affect injuriously the nature, substance or quality thereof;

(e) If the article had been prepared, packed or kept under insanitary conditions whereby it has become contaminated or injurious to health;

(f) If the article consists wholly or in part of any filthy, putrid, rotten, decomposed or diseased animal or vegetable substance or is insect-infested or is otherwise unfit for human consumption;

(g) If the article is obtained from a diseased animal;

(h) If the article contains any poisonous or other ingredient which renders it injurious to health;

- (i) If the container of the article is composed, whether wholly or in part, of any poisonous or deleterious substance which renders its contents injurious to health;
- (j) If any colouring matter other than that prescribed in respect thereof is present in the article, or if the amounts of the prescribed colouring matter which is present in the article are not within the prescribed limits of variability;]
- (k) If the article contains any prohibited preservative or permitted preservative in excess of the prescribed limits;
- (l) If the quality or purity of the article falls below the prescribed standards or its constituents are present in quantities not within the prescribed limits of variability, which renders it injurious to health;
- (m) If the quality or purity of the article falls below the prescribed standards or its constituents are present in quantities not within the prescribed limits of variability but which does not render it injurious to health.

Provided that, Where the quality or purity of the article, being primary food, has fallen below the prescribed standards or its constituents are present in quantities not within the prescribed limits of variability, in either case, solely due to natural causes and beyond the control of human agency, then, such article shall not be deemed to be adulterated within the meaning of this sub-clause.

Explanation - Where two or more articles of primary food are mixed together and the resultant article of food -

- (a) is stored, sold or distributed under a name which denotes the ingredients thereof; and
- (b) is not injurious to health;

then; such resultant article shall not be deemed to be adulterated within the meaning of this clause;

(ii) "Central Food Laboratory" means any laboratory or institute established or specified under section 4'

(iii) "Committee" means the Central Committee for Food Standards constituted under Section 3;

(iv) "Director of the Central Food Laboratory" means the person appointed by the Central Government by notification in the Official Gazette as the Director of the Central Food Laboratory and includes any person appointed by the Central Government in like manner to perform all or any of the functions of the Director under this Act;

Provided that no person who has any financial interest in the manufacture, import or sale of any article of food shall be appointed to be a Director under this clause;

(v) "Food" means any article used as food or drink for human consumption other than drugs and water and includes-

- (a) any article which ordinarily enters into, or is used in the composition or preparation of, human food,
- (b) any flavouring matter or condiments, and

- (c) any other article which the Central Government may, having regard to its use, nature, substance or quality, declare, by notification in the Official Gazette, as food for the purposes of this Act;
- (vi) "Food (Health) Authority" means the Director of Medical and Health Services or the Chief Officer-in-charge of Health administration in a state, by whatever designation he is known, and includes any officer empowered by the Central Government or the State Government, by notification in the Official Gazette, to exercise the powers and perform the duties of the Food (Health) Authority under this Act with respect to such local area as may be specified in the notification.
- (vii) "local area" means any area, whether urban or rural, declared by the Central Government or the State Government by notification in the Official Gazette, to be a local area for the purposes of this Act;
- (viii) "local authority" means in the case of:-
- (1) a local area which is-
    - (a) a municipality, the municipal board or municipal corporation;
    - (b) a cantonment, the cantonment authority;
    - (c) a notified area, the notified area committee;
  - (2) any other local area, such authority as may be prescribed by the Central Government or the State Government or the State Government under this Act;
- (viiiia) "Local (Health) Authority" in relation to a local area, means the officer appointed by the Central Government or the State Government, by notification in the Official Gazette, to be in charge of Health administration in such area with such designation as may be specified therein;
- (viiiib) "manufacture" includes any process incidental or ancillary to the manufacture of an article of food.
- (ix) "misbranded"- an article of food shall be deemed to be misbranded-
- (a) If it is an imitation of, or is a substitute for, or resembles in a manner likely to deceive, another article of food under the name of which it is sold, and is not plainly and conspicuously labelled so as to indicate its true character;
  - (b) If it is falsely stated to be the product of any place or country;
  - (c) If it is sold by a name which belongs to another article of food;
  - (d) If it is so coloured, flavoured or coated, powdered or polished that the fact that the article is damaged is concealed or if the article is made to appear better or of greater value than it really is;
  - (e) If false claims are made for it upon the label or otherwise;
  - (f) If, when sold in packages which have been sealed or prepared by or at the instance of the manufacturer or producer and which bear his name and address, the contents of each

package are not conspicuously and correctly stated on the outside thereof within the limits of variability prescribed under this Act;

- (g) If the package containing it, or the label on the package bears any statement, design or device regarding the ingredients or the substances contained therein, which is false or misleading in any material particular; or if the package is otherwise deceptive with respect to its contents;
- (h) If the package containing it or the label on the package bears the name of a factitious individual or company as the manufacturer or producer of the article;
- (i) If it purports to be, or is represented as being, for special dietary uses, unless its label bears such information as may be prescribed concerning its vitamin, mineral, or other dietary properties in order sufficiently to inform its purchaser as to its value for such uses;
- (j) If it contains any artificial flavouring, artificial colouring or chemical preservative, without a declaratory label stating that fact, or in contravention of the requirements of this Act or rules made thereunder;
- (k) If it is not labelled in accordance with the requirements of this Act or rules made thereunder;
- (x) "package" means a box ,bottle, gasket, tin, barrel, case, receptacle, sack bag, wrapper or other thing in which an article of food is placed or packed;
- (xi) "premises" include any shop, stall, or place where any article of food is sold or manufactured or stored for sale;
- (xi)prescribed" means prescribed by rules made under this Act;
- (xiiia) "primary food" means any article of food, being a produce of agriculture or horticulture in its natural form;
- (xii) "sale" with its grammatical variations and cognate expressions, means the sale of any article of food, whether for cash or on credit or by way of exchange and whether by wholesale or retail, for human consumption or use, or for analysis, and includes an agreement for sale an offer for sale, the exposing for sale or having in possession for sale of any such article, and includes also an attempt to sell any such article;
- (xiii) "sample" means a sample of any article of food taken under the provisions of this Act or of any rules made thereunder;
- (xiv) the words "unwholesome" and "noxious" when used in relation to an article of food mean respectively that the article is harmful to health or repugnant to human use.

**2A. Rule of construction** - Any reference in this act to a law which is not in force in the State of Jammu and Kashmir shall, in relation to that State, be construed as a reference to the corresponding law, if any, in force in that State.

## CENTRAL COMMITTEE FOR FOOD STANDARDS AND CENTRAL FOOD LABORATORY

3. **The Central Committee for Food Standards**--(1) The Central Government shall, as soon as may be after the commencement of this Act, constitute a Committee called the Central Committee for Food Standards to advise the Central Government and the State Governments on matters arising out of the administration of this Act and to carry out the other functions assigned to it under this Act.
- (2) The Committee shall consist of the following members, namely:-
- (a) the Director-General, Health Services, ex officio, who shall be the Chairman.
  - (b) the Director of the Central Food Laboratory or, in a case where more than one Central Food Laboratory is established, the Directors of such Laboratories, ex officio;
  - (c) two experts nominated by the Central Government;
  - (d) one representative each of the Departments of Food and Agriculture in the Central Ministry of Food and Agriculture and one representative each of the Central Ministries of Commerce, Defence, Industry and Supply and Railways, nominated by the Central Government;]
  - (e) one representative each nominated by the Government of each State;
  - (f) two representatives nominated by the Central Government to represent the [Union territories];
  - (g) one representative each, nominated by the Central Government to represent the agricultural, commercial and industrial interests;
  - (gg) five representatives nominated by the Central Government to represent the consumers' interests, one of whom shall be from the hotel industry;
  - (h) one representative of the medical profession nominated by the Indian Council of Medical Research;
  - (i) one representative nominated by the Indian Standards Institution referred to in clause (e) of section 2 of the Indian Standards Institution (Certification Marks) Act, 1952 (36 of 1952).
- (3) The members of the Committee referred to in clauses (c),(d),(e),(f),<sup>6</sup>[<sup>7</sup>[(g), (gg),] (h) and (i)] of sub-section (2) shall, unless their seats become vacant earlier by registration, death or otherwise, be entitled to hold office for three years and shall be eligible for re-nomination.
- (4) The functions of the Committee may be exercised notwithstanding any vacancy therein.
- (5) The Committee may appoint such and so many sub-committees as it deems fit and may appoint to them persons who are not members of the Committee to exercise such powers and perform such duties as may, subject to such conditions, if any, as the Committee may impose, be delegated to them by the Committee.
- (6) The Committee may, subject to the previous approval of the Central Government, make bye-laws for the purpose of regulating its own procedure and the transaction of its business.

**3A. Appointment of Secretary and other staff**-(1) The Central Government shall appoint a Secretary to the Committee who shall, under the control and direction of Committee, exercise such powers and perform such duties as may be prescribed or as may be delegated to him by the Committee.

(2) The Central Government shall provide the Committee with such clerical and other staff as that Government considers necessary.

**4. Central Food Laboratory**---(1) The Central Government shall, by notification in the Official Gazette, establish one or more Central Food Laboratory or Laboratories to carry out the functions entrusted to the Central Food Laboratory or Laboratories to carry out the functions entrusted to the Central Food Laboratory by this Act or any rules made under this Act.

Provided that the Central Government may by notification in the Official Gazette, also specify any laboratory or institute as a Central Food Laboratory for the purposes of this Act.

(2) The Central Government may, after consultation with the Committee, make rules prescribing---

- (a) the functions of a Central Food Laboratory and the local area or areas within which such functions may be carried out;
- (b) the procedure for the submission to the said Laboratory of samples of articles of food for analysis or tests, the forms of the Laboratory's reports thereon and the fees payable in respect of such reports;
- (c) such other matters as may be necessary or expedient to enable the said Laboratory to carry out its functions.

## **GENERAL PROVISIONS AS TO FOOD**

**5. Prohibition of Import of certain articles of food**---No person shall import into India--

- (i) any adulterated food;
- (ii) an misbranded food;
- (iii) any article of food for the import of which a license is prescribed, except in accordance with the conditions of the license; and
- (iv) any article of food in contravention of any other provision of this Act or any rule made thereunder.

**6. Application of law relating to sea customs and powers of Customs Officers**---(1) The law for the time being in force relating to sea customs and to goods, the import of which is prohibited by section 18 of the Sea Customs Act, 1878 (8 of 1878) shall, subject to the provisions of section 16 of this Act, apply in respect of articles of food, the import of which is prohibited under section 5 of this Act, and officers of Customs and officers empowered under that Act to perform the duties imposed thereby on a Customs Collector] and other officers of Customs shall have the same powers in respect of such articles of food as they have for the time being in respect of such goods as aforesaid.

(2) Without prejudice to the provisions of sub-section (1), the Customs Collector, or any officer of the Government authorised by the Central Government in this behalf, may detain any imported package which he suspects to contain any article of food the import of which is prohibited under section 5 of this Act and shall forthwith report such detention to the Director of the Central Food

Laboratory and if, required by him, forward the package or send samples of any suspected article of food found therein to the said Laboratory.

7. **Prohibition of manufacture, sale, etc., of certain articles of food**--- No person shall himself or by any person on his behalf manufacture for sale, or store, sell or distribute-
- (j) any adulterated food;
  - (ii) any misbranded food;
  - (iii) any article of food for the sale of which a licence is prescribed, except in accordance with the conditions of the licence;
  - (iv) any article of food the sale of which is for the time being prohibited by the Food (Health) Authority <sup>1</sup>[in the interest of public health;
  - (v) any article of food in contravention of any other provision of this Act or of any rule made thereunder;
  - (vi) any adulterant.

Explanation-- For the purposes of this section, a person shall be deemed to store any adulterated food or misbranded food or any article of food referred to in clause (iii) or clause (iv) or clause (v) if he stores such food for the manufacture there from of any article of food for sale.

## **ANALYSIS OF FOOD**

8. **Public Analysts** -- The Central Government or the State Government may, by notification in the Official Gazette, appoint such persons as it thinks fit, having the prescribed qualifications to be public analysts for such local area as may be assigned to them by the Central Government or the State Government as the case may be.

Provided that no person who has any financial interest in the manufacture, import or sale of any article of food shall be appointed to be a public analyst under this section.

Provided further that different public analysts may be appointed for different article of food.

9. **Food Inspectors** ----(1) The Central Government or the State Government may, by notification in the Official Gazette, appoint such person as it thinks fit, having the prescribed qualifications to be food inspectors for such local areas as may be assigned to them by the Central Government or the State Government, as the case may be.

Provided that no person who has any financial interest in the manufacture, import or sale of any article of food shall be appointed to be a food inspector under this section.

(2) Every food inspector shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code (45 of 1860) and shall be officially subordinate to such authority as the Government appointing him, may specify in this behalf.

## **10.Powers of Food Inspectors**

(1) A food Inspector shall have power---

- (a) to take samples of any article of food from-
  - (i) any person selling such article
  - (ii) any person who is in the course of conveying , delivering or preparing to deliver such article to a purchaser or consignee
  - (iii) a consignee after delivery of any such article to him and
- (b) to send such sample for analysis to the public analyst for the local area within which such sample has been taken;
- (c) with the previous approval of the Local (Health) Authority having jurisdiction in the Local area concerned, or with the previous approval of the Food (Health) Authority, to prohibit the sale of any article of food in the interest of public health.

**Explanation-** For the purposes of sub-clause (iii) of clause (a) " consignee" does not include a person who purchases or receives any article of food for his own consumption.

- (2) Any food inspector may enter and inspect any place where any article of food is manufactured, or stored for sale, or stored for the manufacture of any other article of food for sale, or exposed or exhibited for sale or where any adulterant is manufactured or kept, and take samples of such article of food or adulterant for analysis.

Provided that no sample of any article of food, being primary food, shall be taken under this sub-section if it is not intended for sale as such food.

- (3) Where any sample is taken under clause (a) of sub-section (1) or sub-section (2), its cost calculated at the rate at which the article is usually sold to the public shall be paid to the person from whom it is taken.
- (4) If any article intended for food appears to any food inspector to be adulterated or misbranded, he may seize and carry away or keep in the safe custody of the vendor such article in order that it may be dealt with as hereinafter provided and he shall, in either case, take a sample of such article and submit the same for analysis to a public analyst.

Provided that where the food inspector keeps such article in the safe custody of the vendor he may require the vendor to execute a bond for a sum of money equal to the value of such article with one or more sureties as the food inspector deems fit and the vendor shall execute the bond accordingly.

- (4A) Where any article of food seized under sub-section (4) is of a perishable nature and nature and the Local (Health) Authority is satisfied that such article of food is so deteriorated that it is unfit for human consumption, the said Authority may, after giving notice in writing to the vendor, cause the same to be destroyed.
- (5) The power conferred by this section includes power to break open any package in which any article of food may be contained or to break open the door of any premises where any article of food may be kept for safe.

Provided that the power to break open the package or door shall be exercised only after the owner or any other person-in-charge of the package or, as the case may be, in occupation of the

premises, if he is present therein, refuses to open the package or door on being called upon to do so, and in either case after recording the reasons for doing so.

Provided further that the food inspector shall, in exercising the powers of entry upon , and inspection of any place under this section , follow, as far as may be the provisions of the Code of Criminal Procedure , 1973 (2 of 1974) relating to the search or inspection of a place by a police officer executing a search warrant issued under that code.

- 6) Any adulterant found in the possession of a manufacturer or distributor of, or dealer in , any article of food or in any of the premises occupied by him as such and for the possession of which he is unable to account to the satisfaction of the food inspector, and any books of account or other documents found in his possession or control and which would be useful for, or relevant to, any investigation or proceeding under this Act, may be seized by the food inspector and a sample of such adulterant submitted for analysis to a public analyst.

Provided that no such books of account or other documents shall be seized by the food inspector except with the previous approval of the authority to which he is officially subordinate.

7) Where the food inspector take any action under clause (a) of sub-section (1) sub-section (2), sub-section (4) , or sub-section (6) , he shall call one or more persons to be present at the time when such action is taken and take his or their signatures.

7A) Where any books of account or other documents are seized under sub-section (6) the food inspector shall, within a period not exceeding thirty days from the date of seizure , return the same to the person from whom they were seized after copies thereof or extracts therefrom as certified by that person in such manner as may be prescribed have been taken.

Provided that where such person refuses to so certify, and a prosecution has been instituted against him under this Act, such books of account or other documents shall be returned to him only after copies thereof or extracts therefrom as certified by the court have been taken.

(7B) Where any adulterant is seized under sub-section (6) , the burden of proving that such adulterant is not meant for purposes of adulteration shall be on the person from whose possession such adulterant was seized.

- (8) Any food inspector may exercise the powers of a police officer under section 42 of the Code of Criminal Procedure, 1973 (2 of 1974) for the purpose of ascertaining the true name and residence of the person from whom a sample is taken or an article of food is seized.
- (9) Any food inspector exercising powers under this Act or under the rules made thereunder who-
- (a) vexatiously and without any reasonable grounds of suspicion seizes any articles of food or adulterant or
  - (b) commits any other act to the injury of any person without having reason to believe that such act is necessary for the execution of his duty.

shall be guilty of an offence under this Act and shall be punishable for such offence with fine which shall not be less than five hundred rupees but which may extend to one thousand rupees.

**11. Procedure to be followed by food Inspectors-** (1) When a food Inspector takes a sample of food for analysis, he shall-

- (a) give notice in writing then and thereof his intention to have it so analysed to the person from whom he has taken the sample and to the person, if any, whose name, address and other particulars have been disclosed under section 14A.
- (b) except in special cases provided by rules under this Act, divide the sample them and there into three parts and mark and seal or fasten up each part in such a manner as its nature permits and take the signature or thumb impression of the person from whom the sample has been taken in such place and in such manner as may be prescribed.

Provided that where such person refuses to sign or put his thumb impression the food inspector shall call upon one or more witnesses and take his or their signatures or thumb impressions, as the case may be in lieu of the signature or thumb impression of such person.

- (c) (i) send one of the parts for analysis to the public analyst under intimation to the Local (Health) Authority; and
  - (ii) send the remaining two parts to the Local (Health) Authority for the purposes of sub-section (2) of this section and sub sections(2A) and (2E) of section 13.
- (2) Where the part of the sample sent to the public analyst under sub-clause (I) of clause (c) of sub-section (1) is lost or damaged, the Local (Health) Authority shall, on a requisition made to it by the public analyst or the food inspector dispatch one of the parts of the sample sent to it under sub-clause (ii) of the said clause (c) to the public analyst for analysis.
- (3) When a sample of any article of food or adulterant is taken under sub-section (1) or sub-section (2) of section 10, the food inspector shall, by the immediately succeeding working day, send a sample of the article of food or adulterant or both, as the case may be, in accordance with the rules prescribed for sampling to the public analyst for the local area concerned.
- (4) An article of food seized under sub-section (4) of section 10, unless destroyed under sub-section (4A) of the section, and any adulterant seized under sub-section (6) of that section shall be produced before a magistrate as soon as possible and in any case not later than seven days after the receipt of the report of the public analyst.

Provided that if an application is made to the magistrate in this behalf by the person from whom any article of food has been seized, the magistrate shall by order in writing direct the food inspector to produce such article before him within such time as may be specified in the order.

- (5) If it appears to the magistrate on taking such evidence as he may deem necessary-
  - (a) that the article of food produced before him under sub-section(4) is adulterated or misbranded, he may order it-
    - (i) to be forfeited to the Central Government, the State Government or the local authority, as the case may be; or
    - (ii) to be destroyed at the cost of the owner or the person from whom it was seized so as to prevent its being used as human food; or
    - (iii) to be so disposed of as to prevent its being again exposed for sale or used for food under its deceptive name; or

(iv) to be returned to the owner, on his executing a bond with or without sureties, for being sold under its appropriate name or, where the magistrate is satisfied that the article of food is capable of being made to conform to prescribed standards for human consumption after reprocessing, for being sold after reprocessing under the supervision of such officer as may be specified in the order;

(b) that the adulterant seized under sub-section (6) of section 10 and produced before him is apparently of a kind which may be employed for purposes of adulteration and for the possession of which the manufacturer, distributor or dealer, as the case may be, is unable to account satisfactorily, he may order it to be forfeited to the Central Government, the State Government or the local authority, as the case may be.

(6) If it appears to the magistrate that any such-

(a) article of food is not adulterated; or

(b) adulterant which is purported to be an adulterant is not an adulterant, the person from whose possession the article of food or adulterant was taken shall be entitled to have it restored to him and it shall be in the discretion of the magistrate to award such person from such fund as the State Government may direct in this behalf, such compensation not exceeding the actual loss which he has sustained as the magistrate may think proper.

**12 Purchaser may have food analysed-** Nothing contained in this Act shall be held to prevent a purchaser of any article of food other than a food inspector {or a recognised consumer association, whether the purchaser is a member of that association or not,} from having such article analysed by the public analyst on payment of such fees as may be prescribed and from receiving from the public analyst a report of his analysis.

Provided that such purchaser or recognised consumer association shall inform the vendor at the time of purchase of his or its intention to have such article so analysed.

Provided further that the provision of sub-section(1), sub-section(2) and sub-section(3) of section 11 shall, as far as may be, apply to a purchaser of article of food or recognised consumer association who or which intends to have such articles so analysed, as they apply to a food inspector who takes a sample of food for analysis.

Provided also that if the report of the public analyst shows that the article of food is adulterated, the purchaser or recognised consumer association shall be entitled to get refund of the fees paid by him or it under this section.

Explanation- For the purposes of this section and section 20, "recognised consumer association" means a voluntary consumer association registered under the Companies Act, 1956(1 of 1956) or any other law for the time being in force.)

**13. Report of Public analyst-** (1) The public analyst shall deliver, in such form as may be prescribed, a report to the Local (Health) Authority of the result of the analysis of any article of food submitted to him for analysis.

(2) On receipt of the report of the result of the analysis under sub-section (1) to the effect that the article of food is adulterated, the Local (Health) Authority shall, after the institution of prosecution against the person from whom the sample of the article of food was taken and the person, if any,

whose name, address and other particulars have been disclosed under section 14A, forward, in such manner as may be prescribed, a copy of the report of the result of the analysis to such person or persons that if it is so desired, either or both of them may make an application to the court within a period of ten days from the date of receipt of the copy of the report to get the sample of the article of food kept by the Local (Health) Authority analysed by the Central Food Laboratory.

(2A) When an application is made to the court under sub-section (2), the court shall require the Local (Health) Authority to forward the part or parts of the sample kept by the said Authority and upon such requisition being made, the said Authority shall forward the part or parts of the sample to the court within a period of five days from the date of receipt of such requisition.

(2B) On receipt of the part or parts of the sample from the Local (Health) Authority under sub-section (2A), the court shall first ascertain that the mark and seal or fastening as provided in clause(b) of sub-section (1) of section 11 are intact and the signature or thumb impression, as the case may be, is not tampered with and dispatch the part or, as the case may be, one of the parts of the sample under its own seal to the Director of the Central Food Laboratory who shall thereupon send a certificate to the court in the prescribed form within one month from the date of receipt of the part of the sample specifying the result of the analysis.

(2C) Where two parts of the sample have been sent to the court and only one part of the sample has been sent by the court to the Director of the Central Food Laboratory under sub-section(2B), the court shall, as soon as practicable, return the remaining part to Local (Health) Authority and that Authority shall destroy that part after the certificate from the Director of the Central Food Laboratory has been received by the court.

Provided that where the part of the sample sent by the court to the Director of the Central Food Laboratory is lost or damaged, the court shall require the Local (Health) Authority to forward the part of the same, if any, retained by it to the court and on receipt thereof, the court shall proceed in the manner provided in sub-section (2B).

(2D) Until the receipt of the certificate of the result of the analysis from the Director of the Central Food Laboratory, the court shall not continue with the proceedings pending before it in relation to the prosecution.

(2E) If, after considering the report, if any, of the food inspector or otherwise the Local (Health) Authority is of the opinion that the report delivered by the public analyst under sub-section(1) is erroneous, the said Authority shall forward one of the parts of the sample kept by it to any other public analyst for analysis and if the report of the result of the analysis of that part of the sample by that other public analyst is to the effect that the article of food is adulterated, the provisions of sub-sections(2) to (2D) shall, so far as may be, apply.

(3) The certificate issued by the Director of the Central Food Laboratory (under sub-section (2B) shall supersede the report given by the public analyst under sub-section(1).

(4) Where a certificate obtained from the Director of the Central Food Laboratory (under sub-section (2B) is produced in any proceeding under this Act, or under sections 272 to 276 of the Indian Penal Code (45 of 1860), it shall not be necessary in such proceeding to produce any part of the sample of food taken for analysis.

(5) Any document purporting to be a report signed by a public analyst, unless it has been superseded under sub-section(3), or any document purporting to be a certificate signed by the Director of the Central Food Laboratory, may be used as evidence of the facts stated therein any proceeding under the Act or under section 272 to 276 of the Indian Penal Code (45 of 1860).

Provided that any document purporting to be a certificate signed by the Director of the Central Food Laboratory (not being a certificate with respect to the analysis of the part of the sample of any article of food referred to in the proviso to sub-section (1A) of section 16) shall be final and conclusive evidence of the facts stated therein.

Explanation - In this section, and in clause (f) of sub-section(1) of section 16, "Director of the Central Food Laboratory shall include the officer for the time being in charge of any Food Laboratory (by whatever designation he is known) recognised by the Central Government for the purposes of this section.

## MISCELLANEOUS

**14. Manufacturers, distributors and dealers to give warranty-** No manufacturer or distributor of, or dealer in any article of food shall sell such article to any vendor unless he also give a warranty in writing in the prescribed form about the nature and quality of such article to the vendor.

Provided that a bill, cash memorandum or invoice in respect of the sale of any article of food given by a manufacturer or distributor of, or dealer in, such article to the vendor thereof shall be deemed to be a warranty given by such manufacturer, distributor or dealer under this section.

Explanation- In this section, in sub-section(2) of section 19 and in section 20A, the expression "distributor" shall include a commission agent.

**14A. Vendor to disclose the name, etc, of the person from whom the article of food was purchased-** Every vendor of an article of food shall, is so required, disclose to the food inspector the name, address and other particulars of the person from whom he purchased the article of food.

**15 Notification of food poisoning-**The central Government or the State Government may , by notification in the Official Gazette, require medical practitioners carrying on their profession in any local area specified in the notification to report all occurrences of food poisoning coming within their cognizance to such officer as may be specified in the notification.

**16. Penalties -** Subject to the provision of sub-section (1A) if any person -

- (a) Whether by himself or by any other person on his behalf, imports into India or manufacturers for sale or stores, sells or distributes any article of food -
  - (i) which is adulterated within the meaning of sub-clause (m) of clause (ia) of section 2 or misbranded within the meaning of clause (ix) of that section or the sale of which is prohibited under any provision of this Act or any rule made thereunder or by an order of the Food (Health) Authority.
  - (ii) Other than an article of food referred to in sub-clause(I), in contravention of any of the provision of this Act or of any rule made thereunder, or
- (b) whether by himself or by any other person on his behalf, imports into India or manufacturers for sale or stores, sells or distributes any adulterant which is not injurious to health; or
- (c) prevents a food inspector from taking a sample as authorised by this Act; or
- (d) prevents a food inspector from exercising any other power conferred on him by or under this Act; or

- (e) being a manufacturer of an article of food, has in his possession, or in any of the premises occupied by him, any adulterant which is not injurious to health; or
- (f) uses any report or certificate of a test or analysis made by the Director of the Central Food Laboratory or by a public analyst or any extract thereof for the purpose of advertising any article of food; or
- (g) whether by himself or by any other person on his behalf, give to the vendor a false warranty in writing in respect of any article of food sold by him.

he shall, in addition to the penalty to which he may be liable under the provisions of section 6, be punishable with imprisonment for a term which shall not be less than six months but which may extend to three years, and with fine which shall not be less than one thousand rupees.

Provided that -

- (i) if the offence is under sub-clause (I) of clause (a) and is with respect to an article of food, being primary food, which is adulterated due to human agency or is with respect to an article of food which is misbranded within the meaning of sub-clause (k) of clause (ix) of section 2; or
- (ii) if the offence is under sub-clause(ii) of clause (a), but not being an offence with respect to the contravention of any rule made under clause (a) or clause (g) of sub-section (1A) of section 23 or under clause (b) of sub-section (2) of section 24, the court may, for any adequate and special reasons to be mentioned in the judgment, impose a sentence of imprisonment for a term which shall not be less than three months but which may extend to two years, and with fine which may extend to two years, and with fine which shall not be less than five hundred rupees.

Provided further that if the offence is under sub-clause (ii) of clause (a) and is with respect to the contravention of any rule made under clause (a) or clause (g) of sub-section (1A) of section 23 or under clause (b) of sub-section (2) of section 24, the court may, for any adequate and special reasons to be mentioned in the judgment, impose a sentence of imprisonment for a term which may extend to three months and with fine which may extend to five hundred rupees.

(1A) If any person whether by himself or by any other person on his behalf, imports into India or manufactures for sale, or stores, sells or distributes -

- (i) any article of food which is adulterated within the meaning of any of the sub-clause (e) to (1) (both inclusive) of clause (ia) of section 2; or
- (ii) any adulterant which is injurious to health.

he shall, in addition to the penalty to which he may be liable under the provisions of section 6, be punishable with imprisonment for a term which shall not be less than one year but which extend to six years and with fine which shall not be less than two thousand rupees.

Provided that if such article of food or adulterant, when consumed by any person is likely to cause his death or is likely to cause such harm on his body as would amount to grievous hurt within the meaning of section 320 of the Indian Penal code (45 of 1860), he shall be punishable with imprisonment for a term which shall not be less than three years but which may extend to term of life and with fine which shall not be less than five thousand rupees.

(1AA) if any person in whose safe custody any article of food has been kept under sub-section 10, tampers or in any other manner interferes with such article, he shall be punishable with

imprisonment for a term which shall not be less than six months but which may extend to two years and with fine which shall not be less than one thousand rupees.

(1B) if any person in whose safe custody any article of food has been kept under sub-section (4) of section 10, sells or distributes such article which is found by magistrate before whom it is produced to be adulterated within the meaning of sub-clause (h) of clause (ia) of section 2 and which, when consumed by any person, is likely to cause his death or is likely to cause such harm on his body as would amount to grievous hurt within the meaning of section 320 of the Indian Penal Code (45 of 1860), then notwithstanding anything contained in sub-section (1AA), he shall be punishable with imprisonment for a term which shall not be less than three years but which may extend to term of life and with fine which shall not be less than five thousand rupees.)

(1C) if any person contravenes the provisions of section 14 or section 14A, he shall be punishable with imprisonment for a term which may extend to six months and with fine which shall not be less than five hundred rupees.

(1D) if any person convicted of an offence under this Act commits a like offence afterwards, then without prejudice to the provision of sub-section (2), The court, before which the second or subsequent conviction takes place, may order the cancellation of the licence, if any, granted to him under this Act and thereupon such licence shall., notwithstanding anything contained in this Act or in the rules made thereunder, stand cancelled.

(2) if any persons convicted of an offence under this Act commits a like offence afterwards it shall be lawful for the court before which the second or subsequent conviction takes place to cause the offender's name and place of residence, the offence and the penalty imposed to be published at the offender's expense in such newspapers or in such other manner as the court may direct. The expenses of such publication shall be deemed to be part of the cost attending the conviction and shall be recoverable in the same manner as a fine.

**16A. Power of court to try cases summarily** - Notwithstanding anything contained in the code of Criminal procedure, 1973 (2 of 1974), all offences under sub-section (1) of section 16 shall be tried in a summary way by a judicial Magistrate of the first class specially empowered in this behalf by the State Government or by a Metropolitan Magistrate and the provisions of sections 262 to 265 (both inclusive) of the said Code shall, as far as may be apply to such trial.

Provided that in the case of any conviction in a summary trial under this section, it shall be lawful for the Magistrate to pass a sentence of imprisonment for a term not exceeding one year.

Provided further that when at the commencement of, or in the course of, a summary trial under this section, it appears to the Magistrate that the nature of the case is such that a sentence of imprisonment for a term exceeding one year may have to be passed or that it is, for any other reason, undesirable to try the case summarily, the Magistrate shall after hearing the parties, record an order to that effect and thereafter recall any witness who may have been examined and proceed to hear or rehear the case in the manner provided by the said Code.

**17. Offence by companies-** (1) where an offence under this Act has been committed by a company-

- (a) (i) the person, if any, who has been nominated under sub-section (2) to be in charge of, and responsible to, the company for the conduct of the business of the company (hereinafter in this section referred to as the person responsible), or

(ii) where no person has been so nominated, every person who at the time the offence was committed was in charge of, and was responsible to, the company for the conduct of the business of the company; and

(b) the company,

shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly.

Provided that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act if he proves that the offence was committed without his knowledge and that he exercised all due diligence to prevent the commission of such offence.

(2) Any company may, by order in writing, authorise any of its directors or managers (such manager being employed mainly in a managerial or supervisory capacity) to exercise all such powers and take all such steps as may be necessary or expedient to prevent the commission by the company or any offence under this Act and may give notice to the Local (Health) Authority, in such form and in such manner as may be prescribed, that it has nominated such director or manager as the person responsible, along with the written consent of such director or manager for being so nominated.

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

(3) The person nominated under sub-section (2) shall, until-

(i) further notice cancelling such nomination is received from the company by the Local (Health) Authority; or

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

(iii) he makes a request in writing to the Local (Health) Authority, under intimation to the company, to cancel the nomination (which request shall be complied with by the Local (Health) Authority.)

whichever is the earliest, continue to be the person responsible.

Provided that where such person ceases to be a director or, as the case may be, manager of the company, he shall intimate the fact of such cesser to the Local (Health) Authority.

Provided further that where such person makes a request under clause (iii), the Local (Health) Authority shall not cancel such nomination with effect from a date earlier than the date on which the request is made.

(4) Notwithstanding anything contained in the foreign sub-sections, where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to, any neglect on the part of, any director, manager, secretary, or other officer of the company, (not being a person nominated under sub-section (2) such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation - For the purposes of this section -

- (a) "company" means any body corporate and includes a firm or other association of individuals;
- (b) "director", in relation to a firm, means a partner in the firm; and
- (c) "manager" in relation to a company engaged in hotel industry, includes the person in charge of the catering department of any hotel managed or run by it.)

**18. Forfeiture of property-**Where any person has been convicted under this Act for the contravention of any of the provisions of this Act or of any rule thereunder, the article of food in respect of which the contravention has been committed may be forfeited to the Government .

Provided that where the court is satisfied that the article of food is capable of being made to conform to prescribed standards for human consumption after reprocessing, the court may order the article of food to be returned to the owner, on his executing a bond with or without sureties, for being sold, subject to the other provisions of this Act, after reprocessing under the supervision of such officer as may be specified therein.

**19. Defences which may or may not be allowed in prosecutions under this Act-** (1) It shall be no defence in a prosecution for an offence pertaining to the sale of any adulterated or misbranded article of food to allege merely that the vendor was ignorant of the nature, substance or quality of the food sold by him or that the purchaser having purchased any article for analysis was not prejudiced by the sale.

(2) A vendor shall not be deemed to have committed an offence pertaining to the sale of any adulterated or misbranded article of food if he proves-

(a) that he purchased the article of food-

- (i) in a case where a licence is prescribed for the sale thereof, from a duly licensed manufacturer, distributor or dealer,
  - (ii) in any other case, from any manufacturer, distributor or dealer,
- with a written warranty in the prescribed form; and

(b) that the article of food while in his possession was properly stored and that he sold it in the same state as he purchased it.

(3) Any person by whom a warranty as is referred to (in section 14) is alleged to have been given shall be entitled to appear at the hearing and give evidence.

**20 Cognizance and trial of offences-** (1) No prosecution for an offence under this Act, not being an offence under section 14 or section 14A shall be instituted except by , or with the written consent of, the Central Government or the State Government or a person authorised in this behalf, by general or special order, by the Central Government or the State Government.

Provided that a prosecution for an offence under this Act may be instituted by a purchaser (or recognised consumer association) referred to in section 12, if he or it produces in court a copy of the report of the public analyst along with the complaint.

(2) No court inferior to that of a Metropolitan Magistrate or Judicial Magistrate of the first class shall try any offence under this Act.

(3) Notwithstanding anything contained in the Code of Criminal Procedure, 1973 (2 of 1974), an offence punishable under sub-section (1AA) of section 16 shall be cognizable and non-bailable).

**20A Power of court to implead manufacturer , etc.-**Where at any time during the trial of any offence under this Act alleged to have been committed by any person, not being the manufacturer, distributor or dealer of any article of food, the court is satisfied, on the evidence adduced before it, that such manufacturer, distributor or dealer is also concerned with that offence, then , the court may, notwithstanding anything contained in Sub section (3) of section 319 of the Code of Criminal Procedure, 1973 (2 of 1974) or in section 20 proceed against him as though a prosecution had been instituted against him under section 20.

**20 AA. Application of the Probation of Offenders Act, 1958 and section 360 of the Code of Criminal Procedure, 1973-**Nothing contained in the Probation of offenders Act, 1958 (20 of 1958) or section 360 of the code of Criminal Procedure, 1973 (2 of 1974) shall apply to a person convicted of an offence under this Act unless that person is under eighteen years of age.

**21 Magistrate's power to impose enhanced penalties-**Notwithstanding anything contained in section 29 of the Code of Criminal Procedure, 1973 (2 of 1974), it shall be lawful for any Metropolitan Magistrate or any Judicial Magistrate of the first class to pass any sentence authorised by this Act, except a sentence of imprisonment for life or for term exceeding six years in excess of his powers under the said section.

**22 protection of action taken in good faith-**No suit, prosecution or other legal proceedings shall lie against any person for anything which is in good faith done or intended to be done under this Act.

**22A Power of Central Government to give directions-**The Central Government may give such directions as it may deem necessary to a State Government regarding the carrying into execution of all or any of the provisions of this Act and the State Government shall comply with such directions.

**23 Power of Central Government to make rules-** The Central Government may, after consultation with the Committee and after previous publication by notification in the Official Gazette, make rules to carry out the provisions of this Act.

Provided that consultation with the Committee may be dispensed with if the Central Government is of the opinion that circumstances have arisen which render it necessary to make rules without such consultation, but, in such a case, the Committee shall be consulted within six months of the making of the rules and the Central Government shall take into consideration any suggestions which the Committee may make in relation to the amendment of the said rules.

(1A) In particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:-

(a) specifying the articles of food or classes of food for the import of which a licence is required and prescribing the form and conditions of such licence, the authority empowered to issue the same, (the fees payable therefor, the deposit of any sum as security for the performance of the conditions of the licence and the circumstances under which such licence or security may be cancelled or forfeited).

(b) Defining the standards of quality for, fixing the limits of variability permissible in respect of, any article of food;

(c) Laying down special provisions for imposing rigorous control over the production, distribution and sale of any article or class of articles of food which the Central Government may, by notification in the Official Gazette, specify in this behalf including registration of the premises where they are manufactured, maintenance of the premises in a sanitary condition and maintenance of the healthy state of human beings associated with the production, distribution and sale of such article or class of articles;

(d) Restricting the packing and labeling of any article of food and the design of any such package or label with a view to preventing the public or the purchaser being deceived or misled as to the character, quality or quantity of the article or to preventing adulteration.

(e) Defining the qualifications powers and duties of food inspectors and public analysts;

(ee) defining the laboratories where samples of articles of food or adulterants may be analysed by public analysts under this Act.

(f) prohibiting the sale or defining the conditions of sale of any substance which may be injurious to health when used as food or restricting in any manner its use as an ingredient in the manufacture of any article of food or regulating by the issue of licences the manufacture or sale of any article of food.

(g) Defining the conditions of sale or conditions for licence of sale of any article of food in the interest of public health;

(h) Specifying the manner in which containers for samples of food purchased for analysis shall be sealed up or fastened up;

(hh) defining the methods of analysis;

(i) specifying a list of permissible preservatives, other than common salt and sugar, which alone shall be used in preserved fruits, vegetables or their products or any other article of food as well as the maximum amounts of each preservative.

(j) Specifying the colouring matter and the maximum quantities thereof which may be used in any article of food;

(k) Providing for the exemption from this Act or of any requirements contained therein and subject to such conditions, if any, as may be specified, of any article or class of articles of food.

(l) Prohibiting or regulating the manufacture, transport or sale of any article known to be used as an adulterant of food;

(m) Prohibiting or regulating-

(i) the addition of any water, or other diluent or adulterant to any article of food;

(ii) the abstraction of any ingredient from any article of food;

(iii) the sale of any article of food to which such addition or from which such abstraction has been made or which has been otherwise artificially treated;

(iv) the mixing of two or more articles of food which are similar in nature or appearance.

(n) providing for the destruction of such articles of food as are not in accordance with the provisions of this Act or of the rules made thereunder.

(2) Every rule made by the Central Government under this act shall be laid as soon as may be after it is made before each House of Parliament while it is in session for a total period of thirty days which may be comprised in one session or in two or more successive sessions and if, before the expiry of the session immediately following the session or the successive sessions aforesaid both Houses agree in making and modification in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect as the case may be, so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.

**24. Power of the State Government to make rules-** (1) The State Government may, after consultation with the Committee and subject to the condition of previous publication, make rules for the purpose of giving effect to the provisions of this Act in matters not falling within the purview of section 23.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may-

(a) define the powers and duties of the Food (Health) Authority, local authority and Local (Health) Authority under this Act

(b) prescribe the forms of licences for the manufacture for sale, for the storage, for the sale and for the distribution of articles of food or any specified article of food or class of articles of food, the form of application for such licences, the conditions subject to which such licences may be issued, the authority empowered to issue the same, the fees payable therefor, the deposit of any sum as security for the performance of the conditions of the licences and the circumstances under which such licences or security may be suspended, cancelled or forfeited.

(c) direct a fee to be paid for analysing any article of food or for any matter for which a fee may be prescribed under this Act.

(d) direct that the whole or any part of the fines imposed under this Act shall be paid to a local authority on realisation;

(e) Provide for the delegation of the powers and functions conferred by this Act on the State Government or the Food (Health) Authority to subordinate authorities or to local authorities.

(3) All rules made by the State Governments under this Act, shall, as soon as possible after they are made, be laid before the respective State Legislatures.

**25. Repeal and Saving** - (1) if, immediately before the commencement of this Act, there is in force in any State to which this Act extends any law corresponding to this Act, that corresponding law shall upon such commencement stand repealed.

(2) Notwithstanding the repeal by this Act of any corresponding law, all rules, regulations and bye-laws relating to the prevention of adulteration of food made under such corresponding law and in force immediately before the commencement of this Act shall, except where and so far as they are inconsistent with or repugnant to the provisions of this Act, continue in force until altered, amended or repealed by rules made under this Act.

# The Prevention of Food Adulteration Rules, 1955

(12<sup>th</sup> September , 1955)

## PART I—PRELIMINARY

**1. Short title, extent and commencement**—(1) These Rules may be called the Prevention of Food Adulteration Rules, 1955.

(2) They extend to the whole of India.

(3) The rules other than those contained in Part III. Appendix 'B', Item A. 12- Margarine, Part VI and Part VII shall come into force on the date of their publication in the Official Gazette, the rules contained in Part III, Appendix 'B' Item A.12- Margarine shall come into force on the first day of June, 1956 and the rules contained in Part VI and Part VII shall come into force on the first day of December, 1956

**2. Definition --** In these rules, unless the context otherwise requires—

(a) "Act" means the Prevention of Food Adulteration Act, 1954(37 of 1954);

(b) "Director" means the Director of the Laboratory;

(c) "Laboratory" means a Central Food Laboratory;

(d) "Form" means a Form set forth in Appendix A to these rules;

(da) "infant" means a child not more than twelve months of age;

(db) "infant food" means any food (by whatever name called) being marketed or otherwise represented as a complement of mother's milk to meet the growing nutritional needs of infant after the age of four months;

(dc) "infant milk substitute" means any food being marketed or otherwise represented as partial or total replacement for mother's milk, whether or not it is suitable for such replacement?;

(e) "Local Authority" means—

(i) in the case of sea ports, the Health Officer as defined in the Indian Port Health Rules, 1955, in respect of that portion of local area falling within the jurisdiction of the ports;

(ii) in the case of airports, the Health Officer as defined in the Indian Aircraft (Public Health) Rules, 1954, in respect of that portion of the local area falling within the jurisdiction of the airport;

(iii) in the case of all railway stations or groups of railway stations (including any railway colony, office, yard, goods-shed, transhipment shed, workshop and other works owned and maintained by the Railway Administration for the purpose or in connection with Railways) the Medical Superintendent/ Divisional Medical Officer of the Railways in respect of that portion of the local area falling within the jurisdiction of the said railway station or group of railway stations.

- (iv) in case of an ordnance factory or equipment factory, the General Manager of such factory or equipment factory or both.

## PART II – THE CENTRAL FOOD LABORATORY

**3. Functions-** (1) In addition to the functions entrusted to the Laboratory by the Act, the Laboratory shall carry out the following functions, namely—

- (a) analysis of samples of food sent by any officer or authority authorized by the Central Government for the purpose and submission of the certificate of analysis to the authorities concerned;
- (b) investigation for the purpose of fixation of standard of any article of food;
- (c) investigation, in collaboration with the laboratories of Public Analysis in the various States and such other laboratories and institutes which the Central Government may approve in this behalf for the purpose of standardizing methods of analysis.

(2) The laboratory specified in column (1) of Table-I below, shall carry out the functions entrusted to it by the Act, or these rules in respect of the local areas specified in the corresponding entry in column (2) thereof:

**TABLE I**

Name of the central Food Laboratories	Local Areas
(1)	(2)
1. Central Food Laboratory, Kolkatta-700016	Arunachal Pradesh, Assam, Chattisgarh, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Sikkim, Tripura, Uttranchal and Union Territory of Andaman and Nicobar Island and Lakshdweep
2. Central Food Laboratory, Mysore-570013	Gujarat, Haryana, Himachal Pradesh, Maharashtra, Punjab, Uttar Pradesh and Union Territory of Chandigarh.
3. Central Food Laboratory Pune-411001	Andhra Pradesh, Delhi, Jammu, and Kashmir, Karnataka, Kerala, Rajasthan and Tamil Nadu.
4. Central Food Laboratory Ghaziabad-201001	Bihar, Goa, Jharkhand, Madhya Pradesh, West Bengal, Union Territories of Dadar and Nagar Haveli, Daman and Diu and pondicherry

Provided that the laboratory specified in column (1) of Table-II, shall also carry out analysis of samples received under sub-section (2) of section 6 of the Act in respect of the local areas specified in the correspondence entry in column (2) thereof.

**TABLE-II**

Name of the Central Food Laboratory	Local Areas
(1)	(2)
1. Central Food Laboratory, Calcutta	1. All seaports/Airports/ Container Depots in the Union Territories/States of— (i) The Andamand and Nicobar Islands, (ii) Andhra Pradesh, (iii) Arunachal Pradesh, (iv) Assam, (v) Bihar, (vi) Manipur, (vii) Meghalaya, (viii) Mizoram, (ix) Nagaland, (x) Orissa, (xi) Sikkim, (xii) Tripura, (xiii) West Bengal and [(xiv) Jharkhand 2. International Borders in the States of – (i) Arunachal Pradesh, (ii) Assam, (iii) Bihar, (iv) Manipur, (v) Meghalaya, (vi) Mizoram, (vii) Nagaland, (viii) Sikkim, (ix) Tripura, and (x) West Bengal
2. Central Food Laboratory, Ghaziabad	1. All Airports/ Inland Container Depots in the Union Territories/ States of— (i) Chandigarh, (ii) Delhi, (iii) Haryana, (iv) Himachal Pradesh, (v) Jammu and Kashmir, (vi) Madhya Pradesh, (vii) Punjab, (viii) Rajasthan (ix) Uttar Pradesh, (x) Chattisgarh and (xi) Uttranchal 2. All International Borders in the States if – (i) Himachal Pradesh, (ii) Rajasthan , (iii) Jammu and Kashmir, (iv) Punjab, (v) Uttar Pradesh and (vi) Uttranchal
3. Central Food Laboratory- Mysore	1. All Airports/ Inland Container Depots in the Union Territories / states of— (i) Karnataka, (ii) Kerala, (iii) Lakshdweep , (iv) Pondicherry, and (v) Tamil Nadu.
4. Central Food Laboratory—Pune	1. All Airports/ Inland container depots in the Union Territories/ States of— (i) Dadra abd Nagar Haveli (ii) daman and Diu, (iii) Goa, (iv) Gujarat, and (v) Maharashtra. 2. All International Borders in the States of—(I) Gujarat

**4. Analysis of Food Samples--** (1) (a) Sample of food for analysis under sub section (2) of section 13 of the Act shall be sent either through a Messenger or by registered post in a sealed packet, enclosed together with a memorandum in Form I in an outer cover addressed to the Director.

(b) Samples of food for analysis under sub-section (2) of section of the Act or under clause (a) of Rule 3 shall be sent either through a Messenger or by registered post in a sealed packet enclosed together with a memorandum in Form I-A in an outer cover addressed to the Director.

- (2) The container as well as the outer covering of the packet shall be marked with a distinguishing number.
- (3) A copy of the memorandum and a specimen impression of the seal used to seal the container and the cover shall be sent separately by registered post to the Director.
- (4) On receipt of a package containing a sample for analysis, the Director or an officer authorised by him, shall compare the seals on the container and the outer cover with specimen impression received separately and shall note the condition of the seals thereon.
- (5) After test or analysis, the certificate<sup>4</sup> thereof shall be supplied forthwith to the sender in Form II.
- (6) The fees payable in respect of such a certificate shall be Rs.1000 per sample of food analysed.
- (7) Certificates issued under these rules by the Laboratory shall be signed by the Director.
- (8) The fee payable in respect of analysis of samples of imported food analysed in any designated laboratory shall be Rs. 3000/- per sample payable by the importer.

### **PART III – DEFINITIONS AND STANDARDS OF QUALITY**

5. Standards of quality of the various articles of food specified in Appendix B to these rules are as defined in that unless he:

### **PART IV – PUBLIC ANALYSTS AND FOOD INSPECTORS**

6. **Qualification of Public Analyst**—A person shall not be qualified for appointment as a public analyst unless he:

- (1) hold a Master's Degree in Chemistry or Bio-Chemistry Food Technology or Microbiology or Food and Drugs from a University established in India by Law or is an Associate of the Institution of Chemists (India) by examination in the section of Food Analyst conducted by the Institution of Chemists (India) or has an equivalent qualification recognised and notified by the Central Government for such purposes and has not less than three years' experience in the analysis of food;
- (2) has been declared qualified for appointment as a public analyst by a Board appointed and notified by the Central Government for such purposes.

Provided that a person who is a public analyst on the date of commencement (24.8.1995) of these Prevention of Food Adulteration (Amendment) Rules, 1995 or who has worked as a public analyst for a period of three years before such commencement may hold office as such, subject to the terms and conditions of service applicable to him even though he does not fulfil the qualifications laid down in clauses (1) and (2).

Provided further that a person who:-

- (i) holds a degree in science with chemistry or Bio-chemistry or Food Technology or Food and Drugs from a University establishment in India by law or has an equivalent qualification recognised and notified by the Central Government for such purpose and has not less than five years of experience after graduation in the analysis of food, and

- (ii) (a) has been declared qualified for appointment as a public analyst by a Board appointed and notified under clause (2) of this rule, prior to commencement of the Prevention of Food Adulteration (Amendment) Rules, 1955 or
- (b) shall be declared qualified for appointment as a public analyst by a Board appointed and notified under clause (2) of this rule upto the period of 31<sup>st</sup> March , 1999.

shall be eligible for appointment as public analyst, even though he does not fulfil the qualification laid down in clause (1)

**7. Duties of public analyst--** (1) On receipt of a package containing a sample for analysis from a Food Inspector or any other person the Public Analyst or an officer authorised by him shall compare the seals on the container and the outer cover with specimen impression received separately and shall note the condition of the seals thereon.

Provided that in case sample container received by the public analyst is found to be is broken condition or unfit for analysis he shall within a period of seven days from the date of receipt of such sample inform the Local (Health) Authority about the same and send requisition to him for sending second part of the sample.

(2) The public analyst shall cause to be analysed such samples of article of food as may be sent to him by Food Inspector or by any other person under the Act.

(3) The public analyst shall, within a period of forty days from the date of receipt of any sample for analysis, send by registered post or by hand to the Local (Health) Authority a report of the result of such analysis in Form III.

Provided that where any such sample does not conform to the provisions of the Act or these rules, the public analyst shall send by registered post or by hand four copies of such report to the said Authority.

Provided further that the public analyst shall forward a copy of such report also to the person who purchased an article of food and forwarded the same to him for analysis under section 12 of the Act.

**Note:** In case of sample received under the proviso of Rule 7(1) or Rule 9A, the period of forty days shall be counted from the date of receipt of the second part of the sample.

**8. Qualifications for Food Inspector-** A person shall not be qualified for appointment as Food Inspector unless he—

- (a) is a medical officer in charge of health administration of a local area; or
- (b) is a graduate in medicine and has received at least one month's training in food inspection and sampling work approved for the purpose by the Central Government or a State Government or
- (c) is a graduate in Science with Chemistry as one of the subjects or is a graduate in Agriculture or Public Health or Pharmacy or in Veterinary Science or a graduate in Food Technology or Dairy Technology or is a diploma holder in Food Technology or Dairy Technology from a University or Institution established in India by law or has

equivalent qualifications recognised and notified by the Central Government for the purpose and has received three month's satisfactory training in food inspection and sampling work under a Food (Health) Authority or in an institution approved for the purpose by the Central Government.

Provided that the training in Food inspection and sampling work obtained prior to the commencement of Rule 3 of Prevention of Food Adulteration (Fourth Amendment) Rules, 1976 in any of the laboratories under the control of –

- (i) a public analyst appointed under the Act, or
- (ii) a fellow of the Royal Institution of Chemistry of Great Britain (Branch E); or
- (iii) any Director, Central Food Laboratory; or

the training obtained under a Food (Health) Authority, prior to the commencement (1.3.1980) of the Prevention of Food Adulteration (Amendment) Rules 1980, shall be considered to be equivalent for the purpose of the requisite training under these rules.

Provided further that a person who is a qualified Sanitary Inspector having experience as such for a minimum period of one year and has received at least three months training in whole or in parts in food inspection and sampling work, may be eligible for appointment as food inspector, upto the period ending on the 31<sup>st</sup> March, 1985 and may continue as such if so appointed even though he does not fulfil the qualifications laid down in clauses (a) to (c).

Provided also that nothing in this rule shall be construed to disqualify any person who is a food inspector on the commencement (1.3.1980) of the Prevention of Food Adulteration (Amendment) Rules, 1980 from continuing as such after such commencement.

**9. Duties of Food Inspector:-** It shall be the duty of the food inspector--

- (a) to inspect as frequently as may be prescribed by the Food (Health) 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 the licences are being observed;
- (c) to procure and send for analysis; of necessary, samples of any articles of food which he has reason of suspect are being manufactured, stocked or sold or exhibited for sale in contravention of the provisions of the Act or rules thereunder;
- (d) to investigate any complaint which may be made to him in writing in respect of any contravention of the provisions of the Act, or rules framed thereunder;
- (e) to maintain a record of all inspections made and action taken by him in the performance of his duties, including the taking of sample and the seizure of stocks, and to submit copies of such record to the health officer or the Food (Health) Authority as directed in this behalf.
- (f) To make such enquiries and inspections as may be necessary to detect the manufacture, storage or sale of articles of food in contra-vention of the Act or rules framed thereunder;

- (g) To stop any vehicle suspected to contain any food intended for sale or delivery for human consumption;
- (h) When so authorised by the health officer, having jurisdiction in the local area concerned or the Food (Health) Authority, to detain imported packages which he has reasons to suspect contain food, the import or sale of which is prohibited.
- (i) To person such other duties as may be entrusted to him by the health officer having jurisdiction in the local area concerned or Local (Health) Authority or the Food (Health) Authority;

**9-A. Sending of sample by Local Health Authority--** (a) Local (Health) Authority shall within a period of seven days of receipt of requisition for second part of the sample from Public Analyst under the proviso of Rule 7(1), send such sample of the Public Analyst.

- (b) Local (Health) Authority, while sending second part of the sample under the provision of sub-section (2E) of section 13 of the Act, shall do so within a period of 20 days from the date of receipt of the report from the first public analyst.

**9-B. Local (Health) Authority to send report to person concerned--** The Local (Health) Authority shall within a period of ten days after the institution of prosecution forward a copy of the report of the result of analysis in Form III delivered to him under sub-rule(3) of Rule-7, by registered post or by hand, as may be appropriate, to the person from whom the sample of the article was taken by the Food Inspector, and simultaneously also to the person, if any, whose name, address and other particulars have been disclosed under section 14A of the Act.

Provided that where the sample conforms to the provisions of the Act or the rules made thereunder, and no prosecution is intended under sub-section (2), or no action is intended under sub-section (2E) of section 13 of the Act, the Local (Health) Authority shall intimate the result to the vendor from whom the sample has been taken and also to the person, whose name, address and other particulars disclosed under section 14A of the Act, within 10 days from the receipt of the report from the public analyst.

**10. Forms of order not to dispose of stock and of bond-** Where the food inspector keeps any article of food in the safe custody of the vendor under sub-section (4) of section 10—

- (a) he shall, after sealing such article of food, make an order to the Vendor in Form IV and the vendor shall comply with such an order, and
- (b) he may require the vendor to execute a bond in Form IV A.

**11. Form of receipt for food seized by a food inspector—**For every articles of food seized and carried away by food inspector under sub-section (4) of section 10 of the Act, a receipt in Form V shall be given by the food inspector to the person from whom the article was seized.

**12. Notice of intention to take sample for analysis--** When a Food Inspector takes a sample of an article for the purpose of analysis, he shall give notice of his intention to do so in writing in Form VI, then and there, to the person from whom he takes the sample and simultaneously, by appropriate means, also to the persons, if any, whose name, address and other particulars have been disclosed under section 14A of the Act.

Provided that in case where a food inspector draws a sample from an open container, he shall also draw a sample from the container in original condition of the same article bearing the same declaration, if such container is available, and intimate this fact to the Public Analyst.

**12A. Warranty**—Every manufacturer, distributor or dealer selling an article of food to a vendor shall give either separately or in the bill, cash memo or a label a warranty in Form VIA.

**12B. Form of nomination of Director or Manager and his content, under section 17--** (1) A company may inform the Local (Health) Authority of the concerned local area, by notice in duplicate, in Form VIII containing the name and address of the Director or Manager, who has been nominated by it under sub section (2) of section 17 of the Act to be in charge of, and responsible to the company for the conduct of the business of the company or any establishment, branch or unit thereof.

Provided that no such nomination shall be valid unless the Director or Manager who has been so nominated, gives his consent in writing and has affixed his signature, in Form VIII in duplicate in token of such consent.

(2) The Local (Health) Authority shall sign and return one copy of the notice in Form VIII to the company to signify the receipt of the nomination and retain the second copy in his office for record.

**12C. Vendor to disclose name and address of Director/Manager in certain circumstances**—Every vendor of an article of food shall disclose the name and address of the Director or Manager, as the case may be, nominated in Form VIII under Rule-12B to a purchase who informs such vendor of his intention of purchasing any such article him for analysis by a public analyst under section 12 of the Act.

**13. Power of food inspector to deal with carriers of disease handling food**—

(1) Where the food inspector is of the opinion that any person engaged in selling or manufacturing any article of food is suffering from or harbouring the germs of any infectious disease, he may examine or cause to be examined such person.

Provided that where such person is a female above the age of eight years she shall be examined by a woman duly authorised by the food inspector.

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

## **PART V - SEALING, FASTENING AND DISPATCH OF SAMPLES**

**14. Manner of Sending of sample for analysis:** Sample of food for the purpose of analysis shall be taken in clean and dry bottles or jars or in other suitable containers which shall be closed sufficiently tight to prevent leakage, evaporation or in the case of dry substance entrance of moisture and shall be carefully sealed.

**15. Bottles or containers to be labelled and addressed-** All bottles or jars or other containers containing samples for analysis shall be properly labelled and the parcels shall be properly addressed. The label on any sample of food sent for analysis shall bear:-

- (a) code number and Serial number of the Local(Health) Authority
- (b) Name of the sender with official designation, if any
  
- (d)Date and Place of collection;

- (e) Nature of article submitted for analysis;
- (f) Nature and quantity of preservative if any, added to the sample;

Provided that in the case of a sample of food which has been taken from Agmark sealed container, the label shall bear the following additional information:-

- (a) Grade;
- (b) Agmark label no/Batch No;
- (c) Name of packing station.

**16. Manner of Packing and sealing the samples** - All samples of food sent for analysis shall be packed, fastened and sealed in the following manner, namely :-

- a) The stopper shall first be securely fastened so as to prevent leakage of the content in transit;
- b) The bottle, jar or other container shall then be completely wrapped in fairly strong thick paper, The ends of the paper shall be neatly folded in and affixed by means of gum or other adhesive;
- c) a paper slip of the size that goes round completely from the bottom to top of the container, bearing the signature and code and serial number of the Local (Health) Authority, shall be pasted on the wrapper, the signature or the thumb impression of the person from whom the sample has been taken being affixed in such a manner that the paper slip and the wrapper both carry a part of the signature or thumb impression:

Provided that in case, the person from whom the sample has been taken refuses to affix his signature or thumb impression, the signature or thumb impression of the witness shall be taken in the same manner.

- d) The paper cover shall be further secured by means of strong twine or thread both above and across the bottle, jar or other container, and the twine or thread shall then be fastened on the paper cover by means of sealing wax on which there shall be at least four distinct and clear impressions of the seal of the sender, of which one shall be at top of the packet, one at the bottom and the other two on the body of the packet. The knots of the twine or thread shall be covered by means of sealing wax bearing the impression of the seal of the sender.

**17. Manner of despatching of containers of samples :-** The containers of the sample shall be despatched in the following manner, namely:-

- a) the sealed container of one part of the sample for analysis and a memorandum in Form VII shall be sent in a sealed packet to the public analyst immediately but not later than the succeeding working day by any suitable means;
- b) the sealed containers of the remaining two parts of the sample and two copies of the memorandum in Form VII shall be sent in a sealed packet to the Local (Health) Authority immediately but not later than the succeeding working day by any suitable means;
- c) The sealed container of one of the remaining two parts of the sample and a copy of the memorandum in Form VII kept with the local (Health) Authority shall within a period of 7 days be sent to the Public Analyst on requisition made by him to it by any suitable means.

Provided that in the case of food which has been taken from container bearing Agmark seal, the memorandum in Form VII shall contain the following additional information, namely:-

- a) Grade;
- b) Agmark label No /Batch No:
- c) Name of packing station

**18 Memorandum and impression of seal to be sent separately:-** A copy of the memorandum and specimen impression of the seal used to seal the packet shall be sent, in a sealed packet separately to the Public Analyst by any suitable means immediately but not later than the succeeding working day.

**19. Addition of preservatives to sample--** Any person taking a sample of any food for the purpose of analysis under the Act may add a preservative as may be prescribed from time to time to the sample for the purpose of maintaining it in a condition suitable for analysis.

**20. Preservative in respect of milk, cream, dahi , khoa or khoa based and paneer based sweets, such as Kalakand and Burfi, Chutney and prepared foods Gur, Coffee and Tea --** The preservative used in the case of samples of any milk including toned, separated and skimmed milk , standardised milk chhanna, skimmed milk chhanna , cream , ice candy, dahi khoa or khoa based and Paneer based sweets, such as Kalakand and Burfi, Chutney and prepared foods Gur, Coffee and Tea in liquid or semi-liquid form shall be the liquid commonly known as “formalin” that is to say, a liquid containing about 40 per cent of formaldehyde in aqueous solution in the proportion of 0.1ml. (two drops) for 25ml. Or 25 grams.

Provided that in case of samples of ice cream and mixed ice cream, the preservative used shall be the liquid commonly known as formalin, that is to say a liquid containing about 40 per cent of formaldehyde in aqueous solution in the proportion of 0.6ml.for 100ml. or 100 grams.

**21. Nature and quantity of the preservative to be noted on the label—**Whenever any preservative is added to a sample, the nature and quantity of the preservative is added shall be clearly noted on the label to be affixed to the container.

**22. Quantity of sample to be sent to the public analyst—**The quantity of sample of food to be sent to the public analyst/Director for analysis shall be as specified in the Table below:-

	Article of food	Approximate quantity to be supplied
	(1)	(2)
1.	<b>Milk</b>	500ml
2.	<b>Sterilized Milk/UHT Milk</b>	250ml.
3.	<b>Malai/Dahi</b>	200gms
4.	<b>Yoghurt/ Sweetened Dahi</b>	300gms
5	<b>Chhana/ Paneer/ Khoya Shrikhand</b>	250gms
6	<b>Cheese/cheese spread</b>	200gms
7	<b>Evaporated Milk/ Condensed Milk</b>	200gms
8	<b>Ice Cream/ Softy/Kulfi/Ice Candy Ice Lolly</b>	300gms
9	<b>Milk powder/Skimmed Milk Powder</b>	250gms
10	<b>Infant Food/ Weaning Food</b>	500gms
11	<b>Malt Food/ Malted Milk Food</b>	300gms
12	<b>Butter/Butter Oil/Ghee/Margarine/Cream/Bakery Shortening</b>	200gms
13	<b>Vanaspati, Edible Oils/Fats</b>	250gms
14.	<b>Carbonated Water</b>	600gms
15.	<b>Baking Powder</b>	100gms
16.	<b>Arrow root/Sago</b>	250gms
17.	<b>Corn Flakes/Macaroni Products/Corn</b>	200gms

	<b>Flour/Custard Powder</b>	
18.	<b>Spices, Condiments and Mixed Masala (whole)</b>	200gms
19.	<b>Spices, Condiments and Mixed Masala (Powder)</b>	250gms
20.	<b>Nutmeg/Mace</b>	150gms
21.	<b>Asafoetida</b>	100gms
22.	<b>Compounded Asafoetida</b>	150gms
23.	<b>Saffron</b>	20gms
24.	<b>Gur/Jaggery, icing Sugar, Honey, Synthetic Syrup, Bura</b>	250gms
25.	<b>Cane Sugar/ Refined Sugar/ Cube sugar, Dextrose, Misri/dried Glucose Syrup</b>	200ml.
26.	<b>Artificial Sweetener</b>	100gms
27.	<b>Fruit Juice/Fruit Drink/Fruit Squash</b>	400gms
28.	<b>Tomato Sauce/Ketchup/ Tomato Paste, Jam/Jelly/Marmalade/ Tomato Puree/Vegetable Sauce</b>	300gms
29.	<b>Non Fruit Jellies</b>	200gms
30.	<b>Pickles and chutneys</b>	250gms
31.	<b>Oilseeds/Nuts/Dry Fruits</b>	250gms
32.	<b>Tea, Roasted coffee/Roasted Chicory</b>	200gms
33.	<b>Instant Tea/Instant Coffee/Instant coffee-chocory mixture</b>	100gms
34.	<b>Sugar Confectionery/Chewing Gum/ Bubble Gum</b>	200gms
35.	<b>Chocolates</b>	200gms
36.	<b>Edible Salt</b>	200gms
37.	<b>Iodised salt/ Iron Fortified Salt</b>	200gms
38.	<b>Food Grains and Pulses (Whole and Split)</b>	500gms
39.	<b>Atta/Maida/Suji/Besan/Other Milled Product/ Paushtik and Fortified Atta /Maida</b>	500gms
40.	<b>Biscuits and Rusks</b>	200gms
41.	<b>Bread/Cakes/Pastries</b>	250gms
42.	<b>Gelatin</b>	150gms
43.	<b>Catechu</b>	150gms
44.	<b>Vinegar/ Synthetic Vinegar</b>	300gms
45.	<b>Food colour</b>	25gms
46.	<b>Food colour preparation (Solid/Liquid)</b>	25gms Solid/ 100ml. liquid
47.	<b>Natural Mineral water/ Packaged Drinking Water</b>	3000ml. in three minimum original sealed packs.
48.	<b>Silver Leafs (1)</b>	1 gm
	<b>(2)</b>	(2)
49.	<b>Prepared Food</b>	500gms
50.	<b>Proprietary Food, (Non Standardised Foods)</b>	300gms
51.	<b>Canned Foods</b>	6 sealed cans
52.	<b>Food not specified</b>	300gms.

**Note:** Foods sold in packaged condition (Sealed container/package) shall be sent for analysis in its original condition without opening the package and alongwith original label to constitute the approximate quantity.

**22A. Contents of one or more similar sealed containers having identical labels to constitute the quantity of a food sample**—Where food is sold or stocked for sale or for distribution in sealed container having identical label declaration, the contents of one or more of such containers as may be required to satisfy the quantity prescribed in Rule 22 shall be treated to be a part of the sample.

**22B.Quantity of sample sent to be considered as sufficient** – Notwithstanding anything contained in Rule 22 and Rule 22C, the quantity of sample sent for analysis shall be considered as sufficient unless the public analyst or the Director reports to the contrary.

**22-C. Quantity of samples of food packaging material to be sent to the public analyst--** The quantity of sample of food packaging, material to be sent to the Public Analyst/Director for analysis shall be as specified below:-

Name of food packaging material	Approximate quantity/surface area to be supplied
Food packaging material of plastic origin	8 X 1000 X 9 sq.cm.surface area

## PART VI – COLOURING MATTER

**23. Unauthorised addition of colouring matter prohibited** – The addition of a colouring matter to any article of food except as specifically permitted by these rules, is prohibited.

**24. Extraneous addition of colouring matter to be mentioned on the label --** Where an extraneous colouring matter has been added to an article of food, there shall be displayed one of the following statements in capital letters, just beneath the list of ingredients on the label attached to any package of food so coloured, namely:--

- (i) CONTAINS PERMITTED NATURAL COLOUR(S)  
OR
- (ii) CONTAINS PERMITTED SYNTHETIC FOOD COLOUR(S)  
OR
- (iii) CONTAINS PERMITTED NATURAL AND SYNTHETIC FOOD COLOUR(S)  
OR
- (iv) CONTAINS PERMITTED NATURAL\*/AND\*SYNTHETIC COLOUR(S)  
(for the period up to and inclusive of Ist September, 2001.)

(\*strike out whichever is not applicable)

**Note:** Provided that where such a statement is displayed, the colour used in the product need not be mentioned in the list of ingredients.

**25. Use of caramel permitted:** Notwithstandaing provisions of Rule 24 and Rule32 (b) caramel may be used without label declaration.

**26. Natural colouring matter which may be used** – Except as otherwise provided in the rules the following natural colouring principles whether isolated from natural colours or produced synthetically may be used in or upon any article of food—

- b (i) Beta-carotene
- (ii) Beta-apo-8 carotenal,
- (iii) Methyl ester of Beta-apo-8 carotenoic acid,
- (iv) Ethyl ester of Beta-apo-8 carotenoic acid;
- (v) Canthaxanthin;
  
- (c) Chlorophyll;
- (d) riboflavin ( Lactoflavin ;
- (e) Caramel;
- (f) Annatto;
- (h) Saffron;
- (i) Curcumin or turmeric

Explanation - In the preparation of the solution of annatto colour in oil, any edible vegetable oil listed in Appendix ‘B’ to these rules may be used either singly or in combination and the name of the oil or oils used shall be mentioned on the label as provided in sub-rule (Z) of rule 42

**27. Addition of inorganic matter and pigments prohibited-** Inorganic colouring matters and pigments shall not be added to any article of food;

Provided that chewing gum may contain Titanium dioxide – (food grade) up to a maximum limit of 1 per cent

**28. Synthetic food colours which may be used-** No synthetic food colours or a mixture thereof except the following shall be used in food:

S. No.	Colour	Common Name (1956)	Colour index	Chemical Class
(1)	(2)	(3)	(4)	(5)
1.	Red	Ponceu 4R Carmoisine Erythrosine	16255 14720 45430	Azo Azo Xanthene
2.	Yellow	Tartrazine Sunset yellow FCF	19140 15985	Pyrazolone Azo
3.	Blue	Indigo Carmine Brilliant Blue FCF	73015 42090	Indigoid Triarylmethane
4.	Green	Fast green FCF	42053	Triarylmethane

**28A. Use of Lake colours as colourant in foods**—Aluminium Lake of Sunset yellow FCF may be used in powdered dry beverages mix (powdered softdrink concentrate) upto a maximum limit of 0.04 percent weigh by weight. The maximum limit of colour content in final beverage for consumption shall not exceed 8.3 ppm and that of aluminium content shall not exceed 4.4ppm of the final beverage for consumption.

Provided that the powdered dry beverages mix (powdered softdrink concentrate) label shall give clear instruction for reconstitution of product for making final beverage.

**29. Use of permitted synthetic food colours prohibited** - Use of permitted synthetic food colours in or upon any food other than those enumerated below is prohibited:--

- (a) Ice- Cream, milk lollies, frozen deserts, flavoured milk, yoghurt, ice-cream mix powder;
- (b) Biscuits including biscuits wafers, pastries, cake, confectionery, thread candies, sweets, savouries (dal moth, mongia, phululab, sago papad, dal biji only);
- (c) Peas, strawberries and cherries in hermaticly sealed container, preserved or processed oapaya, canned tomato juice, fruit syrup, fruit squash, fruit cordial, jellies, jam, marmalade, candied crystallised or glazed fruits;
- (d) Non-alcoholic carbonated and non- carbonated ready-to- serve synthetic beverages including synthetic syrups, sherbets, fruit bar, fruit beverages, fruit drinks, synthetic soft drink concentrates;
- (e) Custard powder;
- (f) Jelly crystal and ice candy;
  
- (h) Flavour emulsion and flavour pate for use in carbonated or non carbonated beverages only under label declaration as provided in clause (13) of sub-rule (ZZZ) of rule 42.

**30. Maximum limit of permitted synthetic food colours**—The maximum limit of permitted synthetic food colours or mixture thereof which may be added to any food article enumerated in rule 29 shall not exceed 100 parts per million of the final food or beverage for consumption, except in vase of food articles mentioned in clause (c ) of rule 29 where the maximum limit of permitted synthetic food colours shall not exceed 200 parts per million of the final food or beverage for consumption.

**31. Colours to be pure**—The colours specified in Rule 28 when used in the preparation of any article of food shall be pure and free from harmful impurities.

## **PART VII - PACKAGING AND LABELLING OF FOODS**

**32. Package of food to carry a label** - Every package of food shall carry label and unless otherwise provided in these rules, there shall be specified every label:-

- (a) the name trade name or description of food contained in the package, Provided that the name, trade name or the description of food given on the package of food shall not include the name of any food or ingredient prefixed or suffixed to it, if such food ingredient is not the main ingredient of the final food product.
  
- (b) the names of ingredients used in the product in descending order their composition by weight or volume as the case may be.

Provided that in the case of artificial flavouring substances, the label may not declare the chemical names of the flavours, but in the case of natural flavouring substances or nature-identical falvouring substances, the common name of flavours shall be mentioned on the label.

Provided also that whenever Gelatine is used as an ingredient, a declaration to this effect shall be made on the label by inserting the word " Gelatine-Animal Origin."

Provided also that when any article of food contains whole or part of any animal including birds, fresh water or marine animals or eggs or product of any animal origin, but not including milk or milk products, as an ingredient, -

- (a) a declaration to this effect shall be made by a symbol and colour code so stipulated for this purpose to indicate that the product is Non-Vegetarian Food. The symbol shall consist of a brown colour filled circle having a diameter not less than the minimum size specified in the Table given below, inside the square with brown outline having side double the diameter of the circle, as indicated in clause (16) of sub-rule (ZZZ) of rule 42;

TABLE

S.NO.	Area of principal display panel	Minimum size of diameter in mm.
1.	Upto 100 cms square	3
2.	Above 100 cms square upto 500 cms square	4
3.	Above 500 cms square upto 2500 cms square	6
4.	Above 2500 cms square	8

- (b) the symbol shall be prominently displayed,-

- (i) on the package having contrast background on principal display panel,  
(ii) just close in proximity to the name or brand name of the product, and  
(iii) on the labels, containers, pamphlets, leaflets, advertisements in any media;

Provided also that where any article of food contains egg only as Non-Vegetarian ingredient, the manufacturer, or packer or seller may give declaration to this effect in addition to the said symbol.

Provided also that in case of any bottle containing liquid milk or liquid beverage having milk as an ingredient, softdrink, carbonated water or ready-to-serve fruit beverages, the declarations with regard to addition of fruit pulp and fruit juice as well as the "date of manufacture" and "best before date" shall invariably appear on the body of the bottle.

Provided also that in case of returnable bottle which are recycled for refilling, where the label declarations are given on the crown, the declaration referred to in the above proviso, with regard to addition to fruit pulp and fruit juice shall be enforced as per the Schedule given below. The bottles on which the year of manufacture is not embossed, the date of replacing such bottle shall be, the 1<sup>st</sup> day of April 2008.

SCHEDULE

S.No	Year of manufacture cm bossed on the bottle	Date of enforcement of the declarations referred to in first proviso by replacing old bottles with new bottles.
1.	2002 and beyond but before the commencement of the Prevention of Food Adulteration (8 <sup>th</sup> Amendment) Rules, 2002	1-4-2008
2.	2001	1-4-2007
3.	2000	1-4-2006
4.	1999	1-4-2005
5.	1998	1-4-2004

6. 1997 and before

From the date of commencement of the Prevention of Food Adulteration (8<sup>th</sup> Amendment ) Rules, 2002 (w.e.f 1.10.2003, Vide GSR 853(E), dt.30.12.2002)

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Provided also that the returnable new glass bottle manufactures and used for packing of such beverages on the date of commencement of the Prevention of Food Adulteration (8<sup>th</sup> Amendment) Rules, 2002 w.e.f. 1.10.2003, vide GSR 853(E) dt, 30.12.2002, shall carry these declarations on its body.

Provided also that the above provisions except date of manufacture and "best before date" shall not apply in respect of carbonated water (plain soda) portable water impregnated with carbon dioxide under pressure) packed in returnable glass bottles.

Provided further that the provisions of these rules shall not apply in respect of any Non-vegetarian Food which is manufactured and packed without the symbol before the commencement of the Prevention of Food Adulteration (Fourth Amendment ) Rules, 2001.

In case of packages of confectionery weighing 20 gm. or less, which are also exempted from the declaration of ingredients, will be exempted from the declaration of "Animal Origin" even if it contains Gelatine provided that such declaration shall be given on the multi piece package in such a manner that the same is readable even without opening the package.

Note---- A specific name shall be used for ingredients in the list of ingredients except that-

(i) for ingredients falling in the respective classes, the following class titles may be used, namely:-

"edible fats, edible oils, spice and condiments, edible starches (except modified starches), vitamin and minerals, salts. However in case of currency powder or mixed masalas whole or other such masala containing spices, either whole or powdered as major ingredient, the name of spices used in the product be mentioned on the label in descending order of their composition by weight."

(ii) for substances falling in the respective classes and appearing in the list of food additives permitted for use in foods generally, the following class titles may be used, namely, antioxidants, anticaking agents, flavour improves sequestering and buffering agents, bleaching agents, emulsifying and stabilising agents, antifoaming agents preservatives, colours, flavours, vitamins, minerals and edible gums;

Provided further that when statement regarding addition of colours or flavours is displayed on the label in accordance with rule 24 and rule 64BB respectively addition of such colours or flavours need not be mentioned in the list of ingredients.

Provided also that in case both colour and flavour are used in the product, one of the following combined statements in capital letters shall be displayed , just beneath the list of ingredients on the label attached to any package of food so coloured and flavoured, namely:-

(i) CONTAINS PERMITTED NATURAL COLOUR(S) AND ADDED FLAVOUR(S)

OR

(ii) CONTAINS PERMITTED SYNTHETIC FOOD COLOUR(S) AND ADDED FLAVOUR(S)

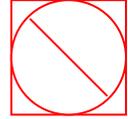
OR

(iii) CONTAINS PERMITTED NATURAL AND SYNTHETIC FOOD COLOUR(S) AND ADDED FLAVOUR(S)

OR

- (iv) CONTAINS PERMITTED NATURAL /AND SYNTHETIC FOOD COLOUR(S) AND ADDED FLAVOUR(S)  
(For the period up to and inclusive of 1<sup>st</sup> September , 2001.)

Provided further that whenever any article of food contains whole or part of any animal including birds and fresh water or marine animals or eggs as an ingredient, a declaration to this effect shall be made by a symbol and colour code so stipulated for this purpose to indicate that the product is Non-Vegetarian Food. The symbol shall consist of a circle with a single chord passing through its centre from top left hand side to the right diagonally as indicated below:-



The symbol shall be displayed in prominent red colour on the package having contrast background and shall have width of circumference equal to the width of the letters used in the name or brand name of the product and diameter equal to the height of the letters used for the name or brand name of the product. The symbol shall be displayed just above the name or brand name of the product and approximately to its centre and shall form an integral part of the name or brand name of any article of Non-Vegetarian Food , to be indicated wherever the name or brand name shall be displayed, including labels, containers as well as in pamphlets, leaflets, advertisements in any media, etc.

The symbol and colour code used to indicate nature of the food as Non-Vegetarian, shall be published/displayed extensively by the manufacturers, or packers or sellers, so as to reach the entire population irrespective of their literacy status .

Provided also that for all vegetarian Food-

- (a) a declaration to this effect shall be made by a symbol and colour code so stipulated for this purpose to indicate that the product is Vegetarian Food. The symbol shall consist of a green colour filled circle, having a diameter not less than the minimum size in the Table given below, inside the square with green outline having side double the diameter of the circle, as indicated in clause (17) of sub-rule (ZZZ) of rule 42.

TABLE

Sl. No.	Area of principal display panel	Minimum size of diameter in mm
(1)	(2)	(3)
1.	Upto 100 Cms square	3
2.	Above 100 cms square upto 500 cms square	4
3.	Above 500 cms square upto 2500 cms square	6
4.	Above 2500 cms square	8

(b) the symbol shall be prominently displayed:-

- (i) on the package having contrast background on principal display panel, (ii) just close in proximity to the name of brand name of the product, and (iii) on the labels, containers, pamphlets, leaflets, advertisements in any media;

Provided further that the provisions of these rules shall not apply in respect of any Vegetarian Food which is manufactured and packed without the symbol before the commencement of the Prevention of Food Adulteration (9<sup>th</sup> Amendment) Rules, 2001:

Provided also that the provisions of these rules shall not apply in respect of mineral water or packaged drinking water or carbonated water or liquid and powdered milk.

(c) (i) the name and complete address of the manufacturer and the manufacturing unit, if these are located at different places and in case the manufacturer is not the packer or bottler, the name and complete address of the packing or bottling unit as the case may be;

(ii) where an article of food is manufactured or packed or bottled by any person or a company under the written authority of some other manufacturer or company, under his or its brand name, the label shall carry the name and complete address of the manufacturing or packing or bottling unit as the case may be, and also the name and complete address of the manufacturer or the company, for and on whose behalf it is manufactured or packed or bottled;

(iii) Where an article of food is imported into India the package of food shall also carry the name and complete address of the importer in India.

Provided that where any food article manufactured outside India is packed or bottled in India, the package containing the such food article shall also bear on the label, the name of the country of origin of the food article and the name and complete address of the importer and the premises of the packing or bottling in India.

(d) the net weight or number or measure of volume of content, as the circumstances may require, except in the case of biscuits, breads, confectionery and sweets where the weight may be expressed in terms of either average net weight or minimum net weight.

Note--- In declaring the net quantity of the commodity contained in the package, the weight of the wrappers and material other than commodity shall be excluded.

Provided that where a package contains a large number of small items of confectionery, each of which is separately wrapped and it is not reasonably practicable to exclude from the net weight of the commodity, the weight of such immediate wrappers of all the items of the confectionery contained in the package, the net weight declared on the package, containing such confectionery or on the label thereof may include the weight of such immediate wrapper if, and only if the total weight of such immediate wrapper does not exceed-

- (i) 8 per cent where such immediate wrapper is a waxed paper or any other paper with wax or aluminium foil under strip; or
- (ii) 6 per cent in the case of any other paper, of the total net weight of all the items of confectionery contained in the package minus the weight of immediate wrapper;

(e) a distinctive batch number or lot number or code number, either in numericals or alphabets or in combination, the numericals or alphabets or their combination, representing the batch number or lot number or 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 appear on the body of the container.

(f) the month and year in which the commodity is manufactured or prepacked.

Provided that in case of package weighing 20 g. less and liquid products marketed in bottles which are recycled for refilling, particulars under clause (b) need not be specified.

Provided further also that such declarations shall be given on the label of a multipiece package either on the label of multipiece package or in a separate slip inside the multipiece package in such a manner that the same is readable even without opening the package.

Provided that in case of carbonated water containers and the packages of biscuits, confectionery and sweets, containing more than 60 g., but not more than 120 g. and food packages weighing not more than 60 g., particulars under clause (d) and (e) need not be specified.

Provided also that in case of package containing bread and milk including sterilised milk, particulars under clause (e) need not be specified.

(Provided also that in case of any package containing bread or liquid milk, sterilised or Ultra High Temperature treated milk, soya milk, flavoured milk, any package containing dhokla, bhelpuri, pizza, doughnuts, khoa, paneer or any uncanned package of fruits, vegetables, meat, fish or any other like commodity which has a short shelf life, the date, month and year in which the commodity is manufactured or prepared or prepacked shall be mentioned, on the label;

Provided also that in case of package containing confectionery weighing 20 g. or less, the particulars under this clause need not be specified.)

(g) the date of expiry in case of packages of aspartame which shall not be more than three years from the date of packing.

(h) the purpose of irradiation and licence number in case of Irradiated Food.

(i) the month and year in capital letters upto which the product is best for consumption, in the following manner, namely :-

"BEST BEFORE .....MONTHS AND YEAR

OR

"BEST BEFORE .....MONTHS FROM PACKAGING

OR

"BEST BEFORE .....MONTHS FROM MANUFACTURE

OR

"BEST BEFORE UPTO MONTHS AND YEAR .....

OR

"BEST BEFORE WITHIN.....MONTHS  
FROM THE DATE OF PACKAGING/MANUFACTURE

(Note : Blank be filled up)

{For the period upto  
and inclusive of 1st  
September, 2001 }

Provided that in case of wholesale packages the particulars under clauses (b), (f), (g), (h) and this clause need not be specified.

Provided further that in case of package or bottle containing sterilised or Ultra High Temperature treated milk, soya milk, flavoured milk, any package containing bread, dhokla, bhelpuri, pizza, doughnuts,

khoa, paneer or any uncanned package or fruits, vegetables, meat, fish or any other like commodity, the declaration be made as follows :

"BEST BEFORE .....DATE /MONTHS /YEAR"

OR

"BEST BEFORE .....DAYS FROM PACKAGING"

OR

"BEST BEFORE .....DAYS FROM MANUFACTURE"

OR

"BEST BEFORE UPTO.....DATE /MONTHS /YEAR"

OR

"BEST BEFORE WITHIN .....DAYS FROM THE

{For the period upto  
and inclusive of 1st  
September, 2001 }

DATE OF PACKAGING /MANUFACTURE"

(Note : (i) Blank be filled up)

(ii) Month and year may be used in numerals.

(iii) Year may be given in two digits.)

Provided also that in case of a package containing confectionery weighing 20g or less, the particulars under clause (i) may not be specified.

Provided also that the above declaration of best before consumption shall not be applicable to the Packages of Aspartame and Infant milk substitute and Infant food. }

Explanation I - The term "label" means a display of written, marked, graphic, printed, perforated, stencilled, embossed or stamped matter upon the container, cover, lid or crown of any food package.

Explanation II -Omitted by GSR 877 (E), dt. 20.11.2000, w.e.f 20.11.2001

ExplanationIII- For the purpose of declaration of month and year of manufacture, the provision under Rule 6(B) of the Standards of Weights and Measures (packaged Commodities) Rules 1977 shall apply.

Explanation IV-A Batch Number or Code Number or Lot Number is a mark of identification by which the food can be traced in manufacture and identified in distribution.

Explanation V-"Multipiece package" means a package containing two or more individually packaged or labelled pieces of the same commodity of identical quantity, intended for retail either in individual places or packages as a whole. }

Explanation VI - " Wholesale package" means a package containing --

(a) a number of retail package, where such first mentioned package is intended for sale, distribution or delivery to an intermediary and is not intended for sale direct to a single consumer, or }

(b) a commodity of food sold to an intermediary in bulk to enable such intermediary to sell, distribute or deliver such commodity of food to the consumer in smaller quantities.

Explanation VII -Prepacked commodity with its grammatical variations and cognate expressions means a commodity of food with or without the purchaser being present, is placed in a package of whatever nature so that the quality of the commodity contained therein has a predetermined value and such value cannot be altered without the package or its lid or cap, as the case may be, being opened or undergoing a perceptible modification.

Explanation VIII -

- (i) "Best Before" means the date which signifies the end of the period under any stated storage conditions during which the product will remain fully marketable and will retain any specific qualities for which tacit or express claims have been made. However, Provided that beyond the date the food may still be perfectly satisfactory.
- (ii) In addition to the date of best before, any special conditions for the storage of the food shall be declared on the label if the validity of the date depends on such storage.

Note : The expression 'package', wherever it occurs in these rules, shall be construed as package containing prepacked commodity of food articles. }

Explanation IX- "Non-Vegetarian Food" means an article of food which contains whole or part of any animal including birds, fresh water or marine animals or eggs or products of any animal origin, but not including milk or milk products, as an ingredient.

Explanation X- "Vegetarian Food" means any article of Food other than the Non- Vegetarian Food as defined in Explanation IX of this rule;

**32A. Nutritional Food--** The food claimed to be enriched with nutrients such as minerals, proteins or vitamins shall give the quantities of such added nutrients on the label.

**33 Languages of the particulars or declaration of the label**—The particulars of declaration required under these rules to be specified on the label shall be in English or Hindi in Devnagri script.

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

**34. Declaration to be surrounded by line-** There shall be a surrounding line enclosing the declaration and where the words "unsuitable or babies" are required to be used there shall be another such line enclosing these words.

**35. distance of surrounding line**—The distance between any part of the words unsuitable for babies and the surrounding line enclosing these words shall not be less than 1.5mm .

**36. Principal display panel, its area, size and letters, etc.** – (1) Principal display panel means that part of a label which is intended or is likely to be displayed, presented or shown or examined by the customer under normal and customary conditions of display, sale or purchase of the commodity of food contained in the package.

- (2) The area of the principal display panel shall not be less than—

- (a) in the case of a rectangular container, forty percent of the product of height and width of the panel of such container having the largest area;
- (b) in case of cylindrical or nearly cylindrical, round or nearly round, oval or nearly oval container, twenty percent of the product of the height and average circumference of such container; or
- (c) in the case of a container of any other shape, twenty percent of the total surface area of the container except where there is label, securely affixed to the container, such label shall give a surface area of not less than ten percent of the total surface area of the container.
- (3) In computing the area of the principal display panel, the tops, bottoms, flanges at top and bottoms of cans, and shoulders and necks of bottles or jars shall be excluded.
- (4) In the case of package having a capacity of five cubic centimeters or less, the principal display panel may be card or tape affixed firmly to the package or container and bearing the required information under these rules.
- (5) The height of any numeral in the declaration required under these rules, on the principal display panel shall not be less than—
- (i) as shown in Table-I below if the net quantity is declared in terms of weight or volume.

**TABLE-I**

Minimum height of numeral

Sl. No.	Net quantity in weight/volume	Minimum height in mm	
		Normal case	When blown, formed, moulded, or perforated on container
1.	Upto 50g/ml.	1	2
2.	Above 50g/ml. upto 200g/ml	2	4
3.	Above 200g/ml. upto 1 kg/litre	4	6
4.	Above 1 kg/litre	6	8

- (ii) as shown in Table-II below if the net quantity is declared in terms of length, area or number.

Minimum height of numeral

Sl. No.	Net quantity in Length area or number, area of principal display panel	Minimum height in mm	
		Normal case	When blown, formed, moulded, or perforated on container
1.	Upto 100cms. Square	1	2
2.	Above 100cms. Square upto 500 cms square	2	4
3.	Above 500 cms, square 2500 cms square	4	6
4.	Above 2500 cms square.	6	8

(6) The height of letters in the declaration under sub-rule(5) shall not be less than 1 mm height. When blown, formed, moulded, embossed or perforated, the height of letters shall not be less than 2mm.

Provided that the width of the letter or numeral shall not be less than one third of its height, but this proviso shall not apply in the case of numeral 'I' and letters I, I and 1.

Provided further than in case of label declarations required under rule 42 except in case declaration specifying instructions for use or preparation of the product, the size of letters shall not be less than 3mm.

Provided also that the size of letter specified under this rule shall be applicable to declaration made only under rule 32 or 32-A of these rules.

(7) Every declaration which is required to be made on package under these rules shall be —

- (a) legible, prominent, definite, plain and unambiguous;
- (b) conspicuous as to size number and colour, and
- (c) as far as practicable, in such style or type of lettering as to be boldly, clearly and conspicuously present in distinct contrast to the other type, lettering or graphic material used on the package, and shall be printed or inscribed on the package in a colour that contrasts conspicuously with the background of the label.

Provided that—

- (a) Where any label information is blown, formed or moulded on a glass or plastic surface or where such information is embossed or perforated on a package, that information shall not be required to be presented in a contrasting colours;
- (b) Where any declaration on a package is printed either in the form of a handwriting or hand script, such declaration shall be clear, unambiguous and legible.

(8) No declaration shall be made so as to require it to be read through any liquid commodity contained in the package.

(9) Where a package is provided with an outside container or wrapper such container or wrapper shall also contain all the declarations which are required to appear on the package except where such container or wrapper itself is transparent and the declarations on the package are easily readable through such outside container or wrapper.

**37. Labels not to contain false or misleading statements--** A label shall not contain any statement, claim, design, device, fancy name or abbreviation which is false or misleading in any particular concerning the food contained in the package, or concerning the quantity or the nutritive value or in relation to the place of origin of the said food.

Provided that this rule shall not apply in respect of established trade or fancy names of confectionery, biscuits and sweets such as Barley, sugar, Bulls, Cream Cracker, or in respect of aerated waters such as Ginger Beer or Gold Spot or any other name in existence in international trade practice.

**37A. Manufacture of proprietary foods and infant foods—**(1) An article of infant milk substitutes/ infant food whose standards are not prescribed in Appendix 'B', shall be manufactured for sale, exhibited for sale or stored for sale only after obtaining the approval of such article of food and its label from Government of India.

(2) In case of proprietary foods, the name of the food or category under which it falls in these rules shall be mentioned on the label.

*Explanation--* For the purposes of this rule

(b) “ proprietary food” means a food which has not been standardised under the Prevention of Food Adulteration Rules, 1955.

**37B. Labeling of infant milk substitute and infant food—**(1) without prejudice to any other provisions relating to labelling requirements contained in these rules, every container of infant milk substitute or infant food or any label affixed thereto shall indicate in a clear, conspicuous and in an easily readable manner, the words, “IMPORTANT NOTICE” in capital letters and indicating thereunder the following particulars, namely:-

- (a) a statement “MOTHER’S MILK IS BEST FOR YOUR BABY” in capital letters. The types of letters used shall not be less than five millimeters and the text of such statement shall be in the Central Panel of every container of infant milk substitute or infant food or any label affixed there to. The colour of the text printed or used shall be different from that of the background of the label, container of the advertisement, as the case may be. In case of infant food, a statement indicating “infant food shall be introduced only after four months of age “ shall also be given.
  - (b) A statement that infant milk substitute or infant food should be used only on the advice of a health worker as to the need for its use and the proper method of its use;
  - (c) A warning that infant milk substitute or infant food is not the sole source of nourishment of an infant;
  - (d) A statement indicating the process of manufacture (spray or roller dried) except in case of infant foods, instruction for appropriate and hygienic preparation including cleaning of utensils, bottles and teats and warning against health hazards of in-appropriate preparations, as under :-  
“ Warning/caution-Careful and hygienic preparation of infant foods/ infant milk substitute is most essential for health. Do not use fewer scoops than directed since diluted feeding will not provide adequate nutrients needed by your infant. Do not use more scoops than directed since concentrated food will not provide the water needed by your infant”;
  - (e) the approximate composition of nutrients per 100 gms. of the product including its energy value in Kilo Calories/Joules;
  - (f) the storage condition specifically stating “store in cool and dry place in an air tight container” or the like;
  - (g) the feeding chart and directions for use and instruction for discarding left over feed;
  - (h) instruction for use of measuring scoop (level or heaped) and the quantity per scoop (scoop to be given with pack);
  - (i) indicating the Batch No., Month and Year of its manufacture and month and year before which it is to be consumed.
  - (j) The protein efficiency ratio (PER) which shall be minimum 2.5, if the product other than infant milk substitute is claimed to have higher quality protein.
- (2) No container or label referred to in sub-rule(1) relating to infant milk substitute and any advertisement and any advertisement relating thereto shall have a picture of infant or woman or both. It shall not have picture of infant or woman or both. It shall not have picture or other graphic materials or phrases designed to increase the saleability of the infant milk substitute. The terms “Humanised” or “Maternalised “ or any other similar words shall not be used. The package and / or the label and/ or the advisement of infant foods/ infant milk substitute shall not exhibit the

words “full protein food”. “energy food”, “complete food” or Health Food: or any other similar expression”.

- (3) The container of infant milk substitute meant for low birth weight infant (less than 2500 gm.) or labels affixed thereto shall indicate the following additional information, namely:--
  - (a) the words “LOW BIRTH WEIGHT (LESS THAN 2.5 KG.)” in capital letters alongwith the product name in central panel;
  - (b) a statement “the low birth weight infant milk substitute shall be withdrawn under medical advice as soon as the mother’s milk is sufficiently available”; and
  - (c) a statement “TO BE TAKEN UNDER MEDICAL ADVICE” in capital letters.
- (4) The product which contains neither milk nor any milk derivatives shall be labeled “ contains no milk or milk or milk product” in conspicuous manner.
- (5) The container of infant milk substitute for lactose intolerant infants or label affixed thereto shall indicate conspicuously “LACTOSE FREE” in capital letters and statement “TO BE TAKEN UNDER MEDICAL ADVICE”.

**37-C. Labelling of Irradiated Food--** The labelling of prepacked Irradiated food shall be in accordance with the provision of Rule-32 and Rule-42 of the Prevention of Food Adulteration Rules, 1955 and the provisions of the “Atomic Energy (Control of Irradiation of Food) Rules, 1991, under the Atomic Energy Act, 1962 (33 of 1962).

**37-D. Labelling of edible oils and fats--** The package, label or the advertisement of edible oils and fats shall not use the expressions “Super-Refined”, “Extra- Refined”, “Micro-Refined”, “Double Refined”, “Ultra- Refined”, “Anti- Cholesterol”, “Cholesterol Fighter”, “Soothing to Heart”, “Cholesterol Friendly”, “Saturated Fat Free” or such other expressions which are an exaggeration of the quality of the Product.

**38. Labels not to contain reference to Act or rules contradictory to required particulars--** The label shall not contain any reference to the act or any of these rules or any comment on , or reference to, or explanation of any particulars or declaration required by the Act or any of these rules to be included in the label which directly or by implication, contradicts, qualifies or modifies such particulars or declaration.

**39. Labels not to use words implying recommendation by medical profession—** There shall not appear in the label of any package containing food for sale the words, “recommended by the medical profession” or any words which imply or suggest that the food is recommended, prescribed or approved by medical practitioners or approved for medical purpose .

**40. Unauthorised use of words showing imitation prohibited.—** (1) There shall not be written in the statement or label attached to any package containing any article of food the word “imitation” or any word , or words implying that the article is a substitute for any food, unless the use of the said word or words is specifically permitted under these rules.

(2) Any fruit syrup, fruit juice, fruit squash, fruit beverage or cordial or crush which does not contain the prescribed amount of fruit juice, shall not be described as fruit syrup, fruit juice, fruit squash, fruit beverage or cordial or crush, as the case may be, and shall be described as a synthetic product. Every synthetic product shall be clearly and conspicuously marked on the label as “SYNTHETIC” and no container containing such product shall have a label, whether attached thereto or printed on the wrapper of such container or otherwise, which may lead the consumer into believing that it is a fruit product. Neither the word “FRUIT” shall be used in describing such a product not shall it be sold under the cover of a label which carries picture of any fruit.

Carbonated Water containing no fruit juice or pulp shall not have a label which leads the consumer into believing that it is a fruit product.

(3) Any fruit and vegetable product alleged to be fortified with vitamin C shall contain not less than 40 mgm. of ascorbic acid per 100 gm. Of the product.

**41. Imitations not to be marked “pure”** – The word “pure” or any word or words of the same significance shall not be included in the label of a package that contains an imitation of any food.

**42. Form of labels— (A) COFFEE-CHICORY MIXTURE—**

(i) Every package containing a mixture of Coffee and Chicory shall have affixed to it a label upon which shall be printed following declaration:--

Coffee blended with Chicory	
This mixture contains:	
Coffee	per cent
Chicory	per cent

(ii) Every package containing Instant Coffee- Chicory mixture shall have affixed to it a label upon which shall be printed the following declaration :--

Instant Coffee- Chicory mixture made from blends of	
Coffee and Chicory	
Coffee	per cent
Chicory	per cent

(B) **CONDENSED MILK OR DESSICATED (DRIED)MILK—** (i) Every package containing condensed milk or dessicated (dried) milk shall bear a label upon which is printed such on of the following declaration as may be application or such other declaration substantially to the like effect as may be allowed by the State Government.

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

<b>CONDENSED MILK UNSWEETENED</b> (Evaporated Milk) <b>This tin contains the equivalent of</b> (x) ..... litres of toned milk
--

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

<b>CONDENSED MILK SWEETENED</b> This tin contains the equivalent of (x)..... litres of toned milk with sugar added
--

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

<b>CONDENSED SKIMMED MILK SWEETENED</b> (Evaporated Skimmed Milk) This tin contains the equivalent of (x) ..... litres of skimmed milk
---

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

CONDENSED SKIMMED MILK SWEETENED  
This tin contains the equivalent of  
(x)... Litres of skimmed milk with sugar added.

(dd) In the case of condensed milk (Sweetened and flavoured):

This has been flavoured with.....  
NOT TO BE USED FOR  
INFANTS BELOW  
SIX MONTHS

(ddd) In the case of condensed milk/ condensed skimmed milk (unsweetened) sterilised by Ultra High Temperature (UHT) treatment:-

This has been  
Sterilised by UHT Process.

(e) In the case of milk powder:

MILK POWDER  
This tin contains the equivalent of  
(x)..... Litres of toned milk.

(ee) In the case of milk powder which contain lecithin:

MILK POWDER IN THIS PACKAGE CONTAINS  
LECITHIN

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

PARTLY SKIMMED MILK POWDER  
This tin contains the equivalent of  
(x)..... litres of partly skimmed milk  
having ..... per cent milk fat.

(g) In the case of skimmed milk powder:

SKIMMED MILK POWDER  
This tin contains the equivalent of  
(x) .....litres of skimmed milk

(ii) The declaration shall in each case be completed by inserting at (x) the appropriate number in words and in figures, for example, “ one and half (1½)”, any fraction being expressed as eight quarters or a half, as the case may be.

(iii) There shall not be places on any package containing condensed milk or dessicated (dried) milk any comment on, explanation of, or reference to either the statement of equivalence,

contained in the prescribed declaration or on the words “machine skimmed”, “skimmed” or “unsuitable for babies” except instructions as to dilution as follow:

“To make a fluid not below the composition of toned milk or skimmed milk \*\*\* (as the case may be) with the contents of this package add (here insert the number of parts) of water by volume to one part by volume of this condensed milk or dessicated (dried) milk”. Sweetened condensed milk and other similar products which are not suitable for infant feeding shall not contain any instruction of modifying then for infant feeding .

- (iv) Wherever the word “milk” appears on the label of a package of condensed skimmed milk or of dessicated (dried) skimmed milk as the description or part of the description of the contents, it shall be immediately preceded or followed by the word “machine skimmed” or “partly skimmed”, as the case may be.

(C) FLUID MILK -- The caps of the milk bottles shall clearly indicate the nature of the milk contained in them. The indication mayh be either in full or by abbreviation shown below:--

- (i) Buffalo milk may be denoted by the letter ‘B’
- (ii) Cow milk may be denoted by the letter ‘C’
- (iii) Goat milk may be denoted by the letter ‘G’
- (iv) Standardised milk may be denoted by the letter ‘S’
- (v) Toned milk may be denoted by the letter “T”
- (vi) Double toned milk may be denoted by the letters ‘DT’
- (vii) Skimmed milk may be denoted by the letter ‘K’
- (viii) Pasteurised milk may be denoted by the letter ‘P’ followed by the class of milk. For example Pasteurised milk shall bear the letters ‘PB’

Alternatively coloures of the caps of the milk bottles shall be indicative of the nature of milk contained in them, the classification of colours being displayed at places where milk is sold/stored of exhibited for sale, provided that the same had been simultaneously intimated to the concerned Local (Health) Authority. Other media of information like Press may also be utilised .

(D) ICE CREAM—Every dealer in ice-cream or mixed ice-cream who, in the street or other place of public resort, sells or offers or exposes for sale, ice cream or ice-candy from a stall or from a cart, barrow or other vehicle, or from a basket, phial tray or other container used without a staff or a vehicle shall have his name and address along with the name and address of the manufacturer, if any, legibly and conspicuously displayed on the stall, vehicle or container as the case may be.

(E) HINGRA—Every container containing Hingra shall bear a label upon which is printed a declaration in the following form, namely:

“This container contains Hingra (Imported From Iran/Afghanistan) and is certified to be conforming to the standards laid down in the Prevention of Food Adulteration Rules, 1955 ”

(F) LIGHT BLACK PEPPER-- Every package containing light black pepper shall bear the following label in addition to the Agmark seal and the requirements prescribed under Rule-32.

Light Black Pepper (Light berries)

(G) Every package containing “CASSIA BARK” shall bear the following label:

CASSIA BARK (TAJ)

(GG) Every package containing 'CINNAMON' shall bear the following label:

CINNAMON (DALCHINI)

(H) Every package of chillies which contains added edible oil shall bear the following label:

CHILLIES IN THIS PACKAGE CONTAINS AN  
ADMIXTURE OF NOT MORE THAN 2 PER CENT  
OF .....(NAME OF OIL) EDIBLE OIL

(J) Every package of ice cream, kulfi, kulfa and chocolate ice cream containing starch shall have a declaration on a label as specified in sub-rule(2) of Rule-43.

(L) MASALA – Every package of mixed masala fried in oil shall bear the following label .  
If mixed masala is fried in oil, it shall bear the following label, namely:--

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

(M) COMPOUNDED ASAFOETIDA-- Every container of compounded asafoetida shall indicate the approximate composition of edible starch or edible cereal flour used in the compound, on the label.

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

WHEAT FLOUR TREATED WITH IMPROVER/ BLEACHING  
AGENTS, TO BE USED BY  
BAKERIES ONLY

(O) Every package containing an admixture of palmolein with groundnut oil shall carry the following label, namely:-

BLEND OF PALMOLEIN AND GROUNDNUT OIL  
Palmolein .....per cent  
Groundnut oil.....per cent

(P) Every package containing an admixture of imported rapeseed oil with mustard oil, shall carry the following label, namely:-

BLEND OF IMPORTED RAPSEED OIL  
AND MUSTARD OIL  
Imported rapeseed oil .....per cent  
Mustard Oil.....per cent

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

{(R) Unless otherwise provided in these rules, every package of malted milk food which contains added natural colouring matter except caramel, shall bear the following label, namely:-

MALTED MILK FOOD IN THIS PACKAGE CONTAINS  
PERMITTED NATURAL COLOURING MATTER

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

This package of .....(name of the food) contains  
Added MONOSODIUM GLUTAMATE NOT  
RECOMMENDED FOR INFANTS BELOW—12  
MONTHS

(T) Every container of refined salseed fat shall bear the following label, namely:-

REFINED SALSEED FAT FOR USE IN  
BAKERY AND CONFECTIONERY ONLY

(V) Every container or package of edible common salt or iodised salt or iron fortified common salt containing permitted anti-caking agents shall bear the following label, namely:-

EDIBLE COMMON SALT OR IODISED SALT OR IRON FORTIFIED  
COMMON SALT  
CONTAINS PERMITTED ANTI-CAKING AGENT

(VV) Every container or package of iron fortified common salt bear the following label, namely:--

IRON FORTIFIED COMMON SALT

(W) Every container of refined vegetable oil shall bear the following label, namely:--

“Refined (Name of the oil) Oil”:--  
Provided that the container of imported edible oil shall also bear  
the words “IMPORTED”, as prefix.

(X) Every package of the Dried Glucose Syrup containing sulphur dioxide exceeding 40ppm shall bear the following label, namely:--

DRIED GLUCOSE SYRUP  
FOR USE IN SUGAR CONFECTIONERY ONLY

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

FLAVOURED TEA  
(Common name of permitted flavour) percentage  
Registration No. ....

(Z) A package containing annatto colour in vegetable oils shall bear the following label, namely:--

ANNATTO COLOUR IN OIL  
(NAME OF OIL/ OILS) USED

(ZZ) Every package containing an admixture of edible oils shall carry the following label, namely:--

This blended edible vegetable oil contains an admixture of  
(i) .....% by weight  
(ii) .....% by weight  
(Name and nature of edible vegetable oils  
i.e. in raw or refined form)  
Date of packing .....

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

“CHEWING OF TOBACCO IS INJURIOUS TO HEALTH”

(ZZZ) (1) Every package of food which is permitted to contain artificial sweetener mentioned in the table given in Rule 47, and an advertisement for such food shall carry the following label, namely:--

- (i) This ..... (Name of food) contains ( Name of artificial sweetener)
- (ii) Not recommended for children.
- (iii) \*(a) Quantity of sugar added ..... Gm/ 100gm.  
(b) No Sugar added in the product.
- (iv) \* Not for Phenylketoneurics (if Aspartame is added)  
(\* strike out whatever is not applicable.)

(ZZZ) (2) Every package of Aspartame Methyl ester), Acesulfame K and Saccharin Sodium marketed as Table Top Sweetener and every advertisement for such Table Top Sweetener shall carry the following label, namely:--

- (i) Contains .....(name of artificial sweetener)
- (ii) Not recommended for children.

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

“Not for Phenylketoneurics”

(ZZZ) (3) Every package of Pan Masala and advertisement relating thereto shall carry the following warning, namely:--

“Chewing of Pan Masala may be injurious to Health”

(ZZZ) (4) Every package of vanaspati made from more than 30 per cent of Rice bran oil shall bear the following label, namely:--

This package of Vanaspati is made from more  
than 30 per cent. Rice bran oil by weight.

(ZZZ) (5) Every package containing Fat Spread shall carry the following labels, namely:--

(i) Milk Fat Spread Total Milk Fat Content..... Per cent by weight Date of packing..... Use before.....
---

(ii) Mixed Fat Spread Total fat content..... Per cent content Milk fat content..... Per cent by weight Date of packing..... Use before.....
---

(iii) Vegetable Fat Spread Total fat content..... Per cent, by weight Date of packing..... Use before.....
--

(ZZZ) (6) Every package of supari and advertisement relating thereto shall carry the following warning in conspicuous and bold print, namely:--

<b>Chewing of Supari is Injurious to Health</b>
---

(ZZZ) (7) All packages of irradiated food shall bear the following declaration and logo, namely:--

PROCESSED BY IRRADIATION METHOD DATE OF IRRADIATION_____
LICENCE NO. _____
PURPOSE OF IRRADIATION_____

(ZZZ) (8) Every package of fruit squash by whatever name it is sold, containing additional sodium or potassium salt shall bear the following label, namely:--

<b>IT CONTAINS ADDITIONAL SODIUM /POTASSIUM SALT</b>
--

(ZZZ) (9) Every package of Cheese (Hard), surface treated with Natamycin, shall bear the following label, namely:--

Surface treated with Natamycin

(ZZZ) (10) Every package of Bakery and Industrial Margarine made from more than 30 per cent of Rice Bran Oil shall bear the following label, namely:--

This package of Bakery & Industrial Margarine is made from more than 30 per cent of Rice Bran Oil by Wt.

(ZZZ) (12) Every package of food which is permitted to contain a mixture of Aspartame (Methyl Ester) and Acesulfame Potassium Sweeteners mentioned in the Table given in rule 47, shall carry the following label, namely:--

(i) This....( Name of Food) contains.... Contains an admixture.  
Of Aspartame (Methyl Ester and Acesulfame Potassium.  
(ii) Not recommended for children  
(iii) \*(a) Quantity of sugar added.....gm/ 100gms  
(b) No sugar added in the product.  
(iv) \* Not for Phenylketoneurics (if Aspartame is added  
(\*strike out whatever is not applicable).

(ZZZ) (13) Every container or package of flavour emulsion and flavour paste meant for use in carbonated or non-carbonated beverages shall carry the following declaration, in addition to the instructions for dilution, namely:--

FLAVOUR EMULSION AND FLAVOUR PASTE  
FOR USE IN CARBONATED OR NON-CARBONATED BEVERAGES ONLY

(ZZZ) (14) Every package of drinking water shall carry the following declaration in capital letters having the size of each letter as prescribed in rule 36;

PACKAGED DRINKING WATER

(ZZZ) (15) Every package of mineral water shall carry the following declaration in capital letters having the size of each letter as prescribed in rule 36.

NATURAL MINERAL WATER

(ZZZ) (16) Every package of Non-Vegetarian Food shall bear the following symbol on the principal display panel just close in proximity to the name or brand name of food, namely: →



(ZZZ) (17) Every package of Vegetarian Food shall bear the following symbol in green colour on the principal display panel just close in proximity to name or brand name of the Food, namely:--



(ZZZ) (18) Every package of food having added caffeine, shall carry the following label, namely:-

“CONTAINS CAFFEINE

Provided if caffeine is added in the products, it shall be declared on the body o f the container/bottle.,

Provide also that in case of returnable glass bottles, which are recycled for refilling the declaration of caffeine, may be given on the crown.

**43. Notice addition, admixture or deficiency in food**—(1) Every advertisement and every price or trade list or label for an article of food which contains an addition, admixture deficiency shall describe the food as containing such containing such addition, admixture or deficiency and shall also specify the nature and quantity of such addition, admixture or deficiency. No such advertisement or price or trade list or label attached to the container of the food shall contain any words which might imply that the food is pure.

Provided that for the purpose of this rule the following shall not be deemed as an admixture or an addition, namely:--

- (a) salt in butter or margarine;
- (b) vitamins in food.

(2) Every package, containing a food which is not pure by reason of any addition, admixture or deficiency shall be labelled with an adhesive label. Which shall have he following declaration:

DECLARATION THIS (a) .....CONTAINS AN ADMIXTURE/ ADDITION OF NOT MORE THAN (b) .....PER CENT OF *** (c) .....
---

- (a) Here insert the name of food.
- (b) Here insert the quantity of admixture which may be present.
- (c) Here insert the name of the admixture or the name of the ingredient which is deficient.

Where the context demands it, the words, “contains an admixture of” shall be replaced by the words” contains an addition of “ is deficient in”.

(3) Unless the vendor of a food containing an addition, admixture or deficiency, has reason to believe that the purchaser is able to read and understand the declaratory label, he shall give the purchaser, if asked, the information contained in the declaratory label by word of mouth at the time of sale.

(4) Nothing contained in this rule shall be deemed to authorise any person to sell any article of food required under the Act or these rules to be sold in pure condition, otherwise than in its pure condition.

(5) Nothing contained in the rule shall apply in the case of sweets confectionery, biscuits, bakery products, processed fruits, aerated waters, vegetables and flavouring agents .

**43A. Restriction on Advertisement--** There shall be no advertisement of any food which is misleading or contravening the provisions of Prevention of Food Adulteration Act, 1954 (37 of 1954) or the rules made thereunder.

Explanation – The term “Advertisement” means any visible representation or announcement made by means of any light, sound, smoke, gas, print, electronic media, internet or website.

## PART VIII - PROHIBITION AND REGULATIONS OF SALES

**44. Sale of certain admixtures prohibited-** Notwithstanding the provisions of Rule 43, no person shall either by himself or by any servant or agent, sell:-

- (a) cream which has not been prepared exclusively from milk or which contains less than 25 per cent of milk fat,
  - (b) milk which contains any added water.
  - (c) ghee which contains any added matter not exclusively derived from milk fat,
  - (d) skimmed milk (fat abstracted) as milk,
  - (e) a mixture of two or more edible oils as an edible oil,
  - (f) vanaspati to which ghee or any other substance has been added,
  - (h) turmeric containing any foreign substances,
  - (i) mixture of coffee and any other substance except chicory,
  - (j) dahi, or curd not prepared from boiled, pasteurized or sterilised milk.
- (1) milk or a milk product specified in Appendix B containing a substance not found in milk, except as provided in the rules;

Provided that the Central Government may by notification in the Official Gazette, exempt any preparations made of soluble extracts of coffee from the operation of this rule.

Provided further that proprietary food articles relating to clause (I) , shall be exempted from the operation of the rule.

Provided further that in respect of clause (e) a maximum tolerance of 15.0 red units in 1 cm. cell on Lovibond scale is permitted when the oil is tested for Baudouin test without dilution, that is to say , by shaking vigorously for 2 minutes, 5 ml. of the sample with 5 ml. of hydrochloric acid (specific gravity 1.19) and 0.3 ml of 2 percent, alcoholic solution of furfural and allowing to stand for 5 minutes.

Provided also that in respect of clause (e), maximum tolerance of 10 red unit in 1 cm. cell on lovibond scale is permitted when the oil is tested for Halphen's test without dilution, that is to say , by shaking 5 ml. of the sample with 5 ml. of sulphur solution [one per cent (w/v) solution of sulphur in carbon-di-sulphide mixed with equal volume of amyl alcohol], in a closed system test tube (250 x 25m), heating in hot water (70degree C-80 degree C) for a few minutes with occasional shaking until carbon-di-sulphide is boiled off and the sample stops foaming and then placing the tube on saturated brine bath, capable of being regulated at 110 degree C - 115 degree C for 2.5 hours.]

Provided also that prohibition in clause (e) shall remain inoperative in respect of admixture of any two edible vegetable oils as on edible vegetable oil, where-

- (a) the proportion by weight of any edible vegetable oil used in the admixture is not less than 20 per cent by weight, and
- (b) the admixture of edible vegetable oils, is processed or packed and sold, by the Department of Civil Suppliers, Government of India (Directorate of Vanaspati, Vegetable Oil and Fats) or by the agencies in public, private or joint sector authorised by the Department, or by the National Dairy Development Board or by the State Cooperative Oilseeds Growers Federation or Regional and District Cooperative Oilseeds Growers Union set-up under National Dairy Development Board's Oilseeds and Vegetable Oil project or by the Public Sector Undertaking of Central and State Government, in sealed packages weighing not

more than 5 kgs. Under Agmark Certification Mark compulsorily and bearing the label declaration as laid down in sub rule (ZZ) of Rule 42; and

- (c) the quality of each edible oil used in the admixture conforms to the relevant standard prescribed by these rules.

Provided also that proprietary food articles, as defined in clause (b) of the Explanation to Rule 37A, relating to clause (1) shall be exempted from the operation of the rule.

**44A.** No person in any State shall, with effect from such date as the State Government concerned may be notification in the Official Gazette specify in this behalf, sell or offer or expose for sale, or have in his possession for the purpose of sale, under any description or for use as an ingredient in the preparation of any article of food intended for sale-

- (a) Kesari gram (Lathyrus sativus ) and its products,  
(b) Kesari dal (Lathyrus sativus ) and its products,  
(c) Kesari dal flour (Lathyrus sativus ) and its products,  
(d) A mixture of Kesari gram (Lathyrus sativus) and Bengal-gram (cicer arietinum) or any other gram,  
(e) A mixture of Kesari dal (Lathyrus sativus) and Bengal-gram dal (Cicer arietinum) or any other dal,  
(f) A mixture of Kesari dal(Lathyrus sativus) flour and Bengal-gram (Cicer arietinum) flour or any other flour.

Explanation- The equivalent of Kesari gram in some of the Indian languages are as follows:-

1.	Assamese	Khesari, Teora
2.	Bengali	Khesari, Teora, Kassur, Batura
3.	Bihari	Khesari
4.	English	Chikling vetch
5.	Gujrati	Lang
6.	Hindi	Khesari, Kassur, Kasari, Kassartiuri, Batura, Chapri, Dubia, Kansari, Kesori, Latri, Tinra, Tiuri, Kassor.
7.	Kannada	Laki Bele, Kesari Bele
8.	Malayalam	Kesari Lanki, Vattu
9.	Tamil	Muku
10.	Marathi	Lakheri, Batri, Lakhi, Lang, Mutra, Teora Batroli-ki-dal, lakh.
11.	Oriya	Khesra, Khesari, Khesari dal.
12.	Persian	Masang
13.	Punjabi	Kisari Chural Karas, Karil Kasa, Kesari, Chapa.
14.	Sanskrit	Sandika, Triputi.
15.	Sindhi	Matter.
16.	Telugu	Lamka.

**44AA. Prohibition of use of carbide gas in ripening of fruits-** No persons shall sell or offer or expose for sale or have in his premises for the purpose of sale under any description, fruits which have been artificially ripened by use of acetylene gas, commonly known as carbide gas.

**44AAA.** No person shall sell or offer or expose for sale or have in his premises for the purpose of sale under any description, food articles which have been coated with mineral oil, except where the addition of mineral oil is permitted in accordance with the standards laid down in Appendix 'B'.

**44B Restriction on sale of ghee having less Reichert value than that specified for the area where such ghee is sold** - (1) The ghee having less Reichert value and a different standard for Butyro-refractometer reading at 40 degree C than that specified for the area in which it is imported for sale or storage shall not be sold or stored in that area except under the "AGMARK" seal.

Provided that such ghee may be (I) sold loose, after opening the "AGMARK" sealed container, in quantities not exceeding two kilograms at a time and (ii) used in the preparation of confectionery (including sweetmeats).

- (2) A person selling-
  - (i) such ghee in the manner specified in sub-rule (1), and
  - (ii) confectionery (including sweetmeats) in the preparation of which such ghee is used, shall give a declaration in Form VI-B, to the Food Inspector when a sample thereof is taken by him for analysis under section 10 of the Act and also to a purchaser desiring to have the sample analysed under section 12 of the Act.
- (3) If on analysis such sample is found to be conforming to the standards of quality prescribed for the area where it is alleged to have been produced, the ghee shall not be deemed to be adulterated by reason only that it does not conform to the standards of quality prescribed for the area where it is sold.

**44C. Restriction on sale of Til Oil produced in Tripura Assam and West Bengal**- Til Oil (Sesame oil) obtained from white sesame seeds, grown in Tripura, Assam and West Bengal having different standards than those specified for til oil shall be sold in sealed containers bearing Agmark label. Where this til oil is sold or offered for sale without bearing an Agmark label, the standard given for all oil shall apply.

**44D. Restriction on sale of Carbia Callosa and Honey dew** - Carbia Callosa and Honey dew shall be sold only in sealed containers bearing Agmark seal.

**44E. Restriction on sale of Kangra tea** - Kangra tea shall be sold or offered for sale only after it is graded and marked in accordance with the provisions of the Agricultural Produce (Grading and Marking) Act, 1937 (1 of 1937) and the rules made thereunder.

**44F. Restriction on Sale of irradiated Food** - Irradiated food shall be offered for sale only in prepackaged conditions.

**44G. Conditions for sale of flavoured tea :-**

- (i) Flavoured tea shall be sold or offered for sale only by those manufacturers who are registered with Tea Board. Registration No. shall be mentioned on the label.
- (ii) It shall be sold only in packed conditions with label declaration as provided in clause "YY' or Rule 42".

**45. Food resembling but not pure honey not to be marked honey** - No person shall use the word "honey" or any word, mark, illustration, or device that suggests honey on the label or any package of, or in any advertisement for, any food that resembles honey but is not pure honey.

**46. Sale or use for sale of admixtures of ghee or butter prohibited** - No person shall sell or have in his possession for the purpose of sale or for use as an ingredient in the preparation of an article of food for sale a mixture of ghee or butter and any substance (a) prepared in imitation of or as a substitute for ghee or butter, or (b) consisting of or containing any oil or fat which does not conform to the definition of ghee.

Provided where a mixture prohibited by this rule is required for the preparation of an article of food, such mixture shall be made only at the time of the preparation of such article of food.

**47. Restriction on use and sale of artificial sweeteners** - No artificial sweetener shall be added to any article of food.

Provided that artificial sweeteners may be used in following food articles in quantities not exceeding the limits shown against them and shall bear the label declaration as provided in (1) of sub-rule (ZZZ) of Rule 42.

TABLE

Sl. No.	Name of artificial sweetener	Article of food	Maximum limit of artificial sweetener
1.	2. Saccharine sodium	3. Carbonated water	4. 100ppm
	-do-	Soft Drink Concentrate	*100ppm
	-do-	Supari	4000ppm
	-do-	Pan Masala	8000ppm
	-do-	Pan flavouring material	8 percent
2.	Aspartame (methyl eater)	Carbonated Water	700ppm
		Soft Drink Concentrate	*700ppm
3.	Acesulfame Potassium	Carbonated Water	300ppm
		Soft Drink Concentrate	*300ppm

Explanation I:- Pan flavouring material refers to the flavouring agents permitted for human consumption to be used for pan. It shall be labelled as -

**"PAN FLAVOURING MATERIAL"**

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

Provided that Saccharine Sodium or aspartame (methyl ester) or Acesulfame Potassium may be sold individually as Table Top sweetener and may contain the following carrier or filler articles with label declaration as provided in sub-clauses (1) and (2) of sub-rule (ZZZ) of rule 42, namely:-

- |                            |                                |
|----------------------------|--------------------------------|
| 1. Dextrose                | 11. Cross Carmellose sodium    |
| 2. Lactose                 | 12. Colloidal silicone dioxide |
| 3. Maltodextrin            | 13. Glycine                    |
| 4. Mannitol                | 14. L-leucine                  |
| 5. Sucrose                 | 15. Magnesium stearate IP      |
| 6. Isomalt                 | 16. Purified Talc              |
| 7. Citric acid             | 17. Poly vinyl pyrrolidone     |
| 8. Calcium silicate        | 18. Providone                  |
| 9. Carboxymethyl Cellulose | 19. Sodium hydrogen carbonate  |
| 10. Cream of Tartar, IP    | 20. Starch                     |
|                            | 21. Tartaric acid.             |

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

Provided that wherein column 2 of the Table given under sub-rule(1), the use of Aspartame (Methyl Ester) and Acesulfame - K artificial sweeteners have been allowed in the alternative, these artificial sweeteners may be used in combination with one or more alternatives if the quantity of each artificial sweeteners so used does not exceed the maximum limits as specified for that artificial sweetener in column (4) of the said Table as may be worked out on the basis of the proportion in which such artificial sweeteners are combined. Food products containing mixture of artificial sweetener shall bear the label as provided under clause (12) of sub-rule ZZZ of the rule 42.

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

- (3) No person shall sell table top sweetener except under label declaration as provided in clauses (1) and (2) of sub-rule (ZZZ) of rule 42;

Provided that aspartame may be marketed as a table top sweetener in tablet or granular form in moisture-proof packages and the concentration of aspartame shall not exceed 18 mg per 100 mg of tablet or granule.

**48 Use of flesh of naturally dead animals or fowls prohibited** - No person shall sell or use as an ingredient in the preparation of any article of food intended for sale, the flesh of any animal or fowl which has died on account of natural causes.

**48A. Sale of permitted food colours** - No person shall manufacture, sell, stock, distribute or exhibit for sale synthetic food colours or their mixtures or any preparation of such colours for use in or upon food except under a licence.

- (2) No person shall sell a permitted synthetic food colours for use in or upon food unless its container carries a label stating the following particulars:
- (a) the words "Food Colours";
  - (b) the chemical and the common or commercial name and colour index of the dyestuff.
- (3) No person shall sell a mixture of permitted synthetic food colours for use in or upon food unless its container carries a label stating the following particulars.
- (a) the words "Food Colour Mixture";
  - (b) the chemical and the common or commercial name and colour index of the dye-stuffs contained in the mixture.
- (4) No person shall sell a preparation of permitted synthetic food colours for use in or upon food unless its container carries a label stating the following particulars:
- (a) the words "Food Colour Preparation";
  - (b) the name of the various ingredients used in the preparation.

- (5) The licence referred to in sub-rule (1) shall be issued by the licensing authority appointed under sub-rule (2) of Rule 50 and shall be subject to such conditions as the State Government may specify in this behalf.
- (6) All food colours, including natural colouring matter and permitted synthetic food colours their preparation or mixtures, except saffron and curcumin, shall be sold only under Indian Standards Institution Certification mark.

**48B. Sale of insect-damaged dry fruits and nuts:-** The dry fruits and nuts like raisins, currants, fig, cashewnut, apricots, almonds may contain not more than 5 percent of insect damaged fruits and nuts, by count.

**48C. Sale of Food Additives -** The following food additives permitted for use in certain foods shall be sold only under the Indian Standards Institution Certification marks, namely:-

1. Sulphuric acid (Food grade)
2. Sodium propionate (Food grade)
3. Calcium propionate (Food grade)
4. Sorbic acid (Food grade)
5. Potassium metabisulphite (Food grade)
6. Sodium metabisulphite (Food grade)
7. Sorbitol (Food grade)
8. Benzoic acid (Food grade)
9. Sodium benzoate (Food grade)
10. Fumaric acid (Food grade) and Quick Dissolving Fumaric Acid (Food grade).
11. Sodium carboxymethyl cellulose (Food Grade)
12. Sodium alginate (Food Grade)
13. Agar Agar (Food Grade)
14. Alginic acid (Food Grade)
15. Calcium alginate (Food Grade)
16. Gelatin (Food Grade)
17. Ascorbic acid (Food Grade)
18. Butylated Hydroxy Toluene (BHT) (Food Grade)
19. Butylated Hydroxy Anisole (BHA) (Food Grade)
20. Caramel (Food Grade)
21. Annatto Colour (Food Grade)

**48D. Storage and sale of irradiated food-** Save as otherwise provided in these rules, no person shall irradiate for sale, store for sale, or transport for sale irradiated food.

## **PART IX - CONDITIONS FOR SALE AND LICENCE**

**49. Conditions for sale -** (1) Every utensil or container used for manufacturing, preparing or containing any food or ingredient of food intended for sale shall be kept at all times in good order and repair and in a clean and sanitary condition. No such utensil or container shall be used for any other purpose.

(2) No person shall use for manufacturing, preparing or storing any food or ingredient of food intended for sale, any utensil or container which is imperfectly enameled or imperfectly tinned or which is made of such materials or is in such a state as to be likely to injure such food or render it noxious.

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

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

(5) A utensil or container made of the following materials or metals, when used in the preparation, packaging and storing of food shall be deemed to render it unfit for human consumption:

- (i) containers which are rusty;
- (ii) enameled containers which have become chipped and rusty;
- (iii) copper or brass container which are not properly tinned;
- (iv) containers made of aluminium not conforming in chemical composition to \*IS: 20 specification for Cast Aluminium and Aluminium Alloy for utensils or \*IS: 21 specification for Wrought Aluminium and Aluminium Alloy for utensils; and
- (v) Containers made of plastic materials not conforming to the following Indian Standards Specification, used as appliances or receptacles for packing or storing whether partly or wholly, food articles namely:-
  - (a) \*IS : 10146 (Specification for polyethylene in contact with foodstuffs);
  - (b) \*IS : 10142 (Specification for Styrene Polymers in contact with foodstuffs);
  - (c) \*IS : 10151 (Specification for Polyvinyl Chloride (PVC), in contact with foodstuffs);
  - (d) \*IS :10910 (Specification for polypropylene in contact with foodstuffs);
  - (e) \*IS : 11434 (Specification for Ionomer Resins in contact with foodstuffs);
  - (g) \*IS : 11704 (Specification for Ethylene Acrylic Acid (EAA) copolymer)
  - (h) \*IS : 12252 (Specification for Poly alkylene terephthalates (PET));
  - (i) \*IS : 12247 (Specification for Nylon 6 Polymer).
  - (j) \*IS : 13601 Ethylene Vinyl Acetate (EVA)
  - (k) \*IS : 13576 Ethylene Methacrylic Acid (EMAA)

(vi) Tin and plastic containers once used shall not be re-used for packaging of edible oil and fats.

Provided that utensils or containers made of copper though not properly tinned may be used for the preparation of sugar confectionery or essential oils and mere use of such utensils or containers shall not be deemed to render sugar, confectionery or essential oils unfit for human consumption.

(6) No person shall sell compounded asafoetida exceeding one kilogram in weight except in a sealed container with a label.

(7) No person shall sell Hingra without a label on its container upon which is printed a declaration in the form specified in Rule 42.

(8) No person shall sell Titanium Dioxide (food grade) except under Indian Standards Institution Certification Mark.

- (9) No person shall sell salseed far for any other purpose except for BAKERY AND CONFECTIONERY and it shall be refined and shall bear the label declaration as laid down in Rule 42 (T).
- (10) Edible common salt or iodised salt or iron fortified common salt containing anticaking agent shall be sold only in a package which shall bear the label as specified in sub-rule (V) of Rule 42.
- (10A) Iron fortified common salt shall be sold only in high density polyethylene bag (HDPE) (14 mesh, density 100 kg/m<sup>3</sup>, unlaminated ) package which shall bear the label as specified in sub-rule(VV) of Rule 42.
- (11) No person shall sell lactic acid for use in food except under Indian Standards Institution Marks.
- (12) The Katha prepared by Bhatti method shall be conspicuously marked as "Bhatti Katha".
- (13) All edible oils, except coconut oil, imported in crude, raw or unrefined from shall be subjected to the process of refining before sale for human consumption. Such oils shall bear a label declaration as laid down in Rule 42 (W).
- (14) Dried Glucose Syrup containing sulphur-dioxide exceeding 40 ppm shall be sold only in a package which shall bear the label as specified in sub-rule (X) of Rule 42.
- (15) No person shall store expose for sale or permit the sale, of any insecticide in the same premises where articles of food are stored, manufactured or exposed for sale.

Provided that nothing in this sub-rule shall apply to the approved household insecticides which have been registered as such under the Insecticides Act, 1968 (46 of 1968).

Explanation - For the purpose of this sub-rule , the word "insecticide" has the same meaning as assigned to it in the Insecticides Act, 1968 (46 of 1968).

- (16) Condensed milk sweetened, condensed skimmed milk sweetened, milk powder, skimmed milk powder partly skimmed milk powder and partly skimmed sweetened condended milk shall not be sold except under Indian Standards Institution Certification Mark.
- (17) No person shall sell mineral oil (food grade) for used in confectionery except under Indian Standards Institution Certification Mark.
- (18) No person shall sell confectionery weighing more than 500 gms. except in packed condition and confectionery sold in pieces shall be kept in glass or other suitable containers.

Explanation:- For the purposes of sub-rules (17) and (18) "Confectionery" shall mean sugar boiled confectionery, lozenges and chewing gum and bubble gum.

- (19) No person shall manufacture, sell, store or exhibit for sale an infant milk food, infant formula milk cereal based weaning food and processed cereal based weaning food except under Bureau of Indian Standards Institution Certificate Mark.
- (20) No person shall sell protein rich atta and protein rich maida except in packed condition mentioning the names of ingredients on the label.

(21) The Blended Edible Vegetable Oils shall not be sold in loose form. It shall be sold in sealed packages weighing not more than 5 kg. It shall also not be sold under the common or generic name of the oil used in the blend but shall be sold as a "Blended Edible Vegetable Oil". The sealed package shall be sold or offered for sale only under AGMARK Certification Mark bearing the label declarations as provided under Rule 42 and Rule 44 besides other labelling requirements under these rules.

(22) Coloured and flavoured table margarine shall only be sold in a sealed package weighing not more than 500 gms. with a label declaring addition of colour and flavour as required under these rules.

(23) The fat spread shall not be sold in loose form. It shall be sold in sealed packages weighing not more than 500 gms. The word "butter" shall not be associated while labelling the product. The sealed package shall be sold or offered for sale only under AGMARK Certification Mark bearing the label declaration as provided under Rule 42 besides other labelling requirements under these rules.

(24) No person shall sell powdered spices and condiments except under packed conditions.

Explanation:- For the purpose of this sub-rule, "Spices and Condiments" means the spices and condiments as specified in Appendix 'B' of Prevention of Food Adulteration Rules, 1955.

(25) No person shall sell or serve food in any "commercial establishment" in plastic articles used in catering and cutlery, unless the plastic materials used in catering and cutlery articles, conform to the food grade plastic, specified in Rule 49(5)(v).

Explanation:- For the purpose of this sub-rule "commercial establishment" means any establishment, called by whatever name, being run/managed by any person or by any authority of the Government/Semi-Government or by any corporate/registered body which deals in the business of selling or serving food.

(26) Conditions for sale of irradiated food - All irradiated food shall be sold in pre-packed conditions only. The type of packaging material used for irradiated food for sale or for stock for sale or for exhibition for sale or for storage for sale shall conform to the requirement of packaging material as per Rule 49.

(27) Every package of cheese (hard), surface, treated with Natamycin, shall bear the label as specified under clause (9) of sub-rule (zzz) of Rule 42.

(28) No person shall manufacture, sell or exhibit for sale packaged drinking water except under the Bureau of Indian Standards Certification Mark.

(29) No person shall manufacture, sell or exhibit for sale mineral water except under the Bureau of Indian Standards Certification Mark.

Explanation:- For the purpose of this rule, the expression " mineral water" shall have the same meaning as assigned to it in item A.32 of Appendix 'B' to these Rules.

(30) Tin Plate used for the manufacture of tin containers for packaging edible oils and fats shall conform to the standards of prime grade quality contained in B.I.S. Standards No.1993 or 13955 or 9025 or 13954 as amended from time to time or in respect of Tin containers for packaging edible oils and fats shall conform to IS No.10325 or 10339 as amended from time to time.

**50 Conditions for licence:-** No person shall manufacture, sell, stock, distribute or exhibit for sale any article of food, including prepared food or ready to serve food or irradiated food except under a licence.

Provided that the fruit-products covered under the Fruit Products Order, 1955, solvent extracted oil, de-oiled meal and edible flour covered under the Solvent Extracted Oil, De-oiled Meal and Edible Flour (Control) order, 1967, Vanaspati covered under the Vegetable Oil products (Regulation) Order, 1998, and meat and poultry products covered under the Meat Food Products Order, 1973, shall be exempted from the above rule.

Provided further that a producer of milk, who sells milk only to a milk cooperative society which is a member of a Milk Co-operative Union engaged in reconstitution of milk or manufacture of milk products, shall be exempted from this sub-rule.

Provided also that no person shall manufacture, sell, stock distribute or exhibit for sale any article of food which has been subjected to the treatment of irradiation, except under a licence from Department of Atomic Energy (Control of Irradiation of Food) Rules, 1991, under the Atomic Energy Act, 1962(Act 33 of 1962.)

(1A) One licence may be issued by the licensing authority for one or more articles of food and also for different establishments or premises in the same local area.

(1B) The name and address of the Director or Manager, as the case may be, nominated by the company, under Rule 12-B shall be mentioned in the licence.

(2) The State Government or the local authority shall appoint licensing authorities.

(3) A licensing authority may with the approval of the State Government or the local authority by an order in writing delegate the power to sign licences and such other powers as may be specified in the order to any other person under his control.

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

Provided that the itinerant vendors who have no specified place of business, shall be licensed to conduct business in a particular area within the jurisdiction of the licensing authority.

(5) Before granting a licence for manufacture, stock or exhibition of any of the articles of food in respect of which a licence is required, the licensing authority shall inspect the premises and satisfy itself that it is free from sanitary defects. The applicant for the licence shall have to make such alteration in the premises as may be required by the licensing authority for the grant of a licence.

Provided that the licensing authority may, for reasons to be recorded in writing, refuse to grant a licence, if it is satisfied that it is necessary to do so in the interest of public health.

(7) Proprietors of hotels, restaurants and other food stall (including mobile and itinerant food stalls) who sell or expose for sale savourites, sweets or other articles of food shall put up a notice board containing separate lists of the articles which have been cooked in ghee, edible oils, vanaspati and other fats for the information of the intending purchasers.

(9) No licensee shall employ in his work any person who is suffering from infectious, contagious or loathsome disease.

(10) No person shall manufacture, store or expose for sale or permit the sale of any article of food in any premises not effectively separated to the satisfaction of the licensing authority from any privy, urinal, sullage, drain or place of storage of foul and waste matter.

(11) All vessels used for the storage or manufacture of the articles intended for sale shall have proper cover to avoid contamination.

(12) Every manufacture including ghani operator or wholesale dealer in butter ghee, vanaspati, edible oils, and other fats shall maintain a register showing the quantity manufactured, received or sold and the destination of each consignment of the substances sent out from his manufactory or place of business, and shall present such register for inspection whenever required to do so by the licensing authority.

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

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

(14) The nature of articles of food for the sale of which a licence is required under these rules shall be mentioned in the application for licence. Any objectionable, ambiguous or misleading trade name shall not be approved by the licensing authority.

(15) Every licensee who sells any food, shall display a notice board containing the nature of the articles which he is exposing or offering for sale.

**51. Duration of licences-** A licence shall, unless sooner suspended or cancelled, will be in force for such period as the State Government may prescribe.

Provided that if application for a fresh licence is made before the expiry of the period of validity of the licence, the licence shall continue to be in force until orders are passed on the application.

**51A. Procedure for issue of licence in certain local areas-** A licensing authority empowered to issue licences in local areas falling within the jurisdiction of a sea-port, airport, a railway station or a group of railway stations (including any railway colony, office yard, goods-shed, transshipment shed, workshop and other works owned and maintained by the Railway Administration, for the purpose or in connection with the railways), shall exercise his functions in the manner prescribed by the State Government concerned in which sea-port, airport or railway station is situated and adopt such forms as are prescribed by the Government for the purpose of licensing.

## **PART X - PRESERVATIVES**

**52 Definition of preservative-** "Preservative" means a substance which when added to food, is capable of inhibiting, retarding or arresting the process of fermentation, acidification or other decomposition of food.

**53 Classification of preservative-** Preservatives shall be divided into following classes:

(i) Class I preservatives shall be :-

- (a) Common salt,
- (b) Sugar,
- (c) Dextrose,
- (d) Glucose (syrup),
- (e) Spices,
- (f) Vinegar or acetic acid,
- (g) Honey,
- (h) Edible vegetable oils.

Addition of Class I preservatives in any food is not restricted, unless otherwise provided in the rules.

Provided that the article of food to which a Class I preservative has been added conforms to the specifications laid down in Appendix "B".

(ii) Class II preservatives shall be:-

- (a) Benzoic acid including salts thereof.
- (b) Sulphurous acid including salts thereof.
- (c) Nitrates or Nitrates of Sodium or Potassium in respect of food like ham, pickled meat.
- (d) Sorbic acid including its sodium, potassium and calcium salts, propionates of calcium or sodium, lactic acid, and acid calcium phosphate.
- (e) Nicin
- (f) Sodium and calcium propionate.
- (g) Methyl or propyl Parahydroxy-Benzoate.
- (h) Propionic acid, including esters or salts thereof.
- (i) Sodium diacetate, and
- (j) Sodium, potassium and calcium salts of lactic acid.

**54. Use of more than one Class II preservatives prohibited-** No person shall use in or upon a food more than one class II preservative.

Provided that where in column(2) of the table given below Rule 55 the use of more than one preservative has been allowed in the alternative, those preservatives may, notwithstanding anything contained in Rule 55, be used in combination with one or more alternatives, provided the quantity of each preservative so used does not exceed such number of parts out of those specified for that preservative in column (3) of the aforesaid table as may be worked out on the basis of the proportion in which such preservatives are combined.

Illustration - In the group of foods specified in Item 6 of the table given below Rule 55, sulphur dioxide or Benzoic acid can be added in the proportion of 40 parts per million or 200 parts per million respectively. If both preservatives are used in combination and the proportion of sulphur dioxide is 20 parts per million the proportion of Benzoic acid shall not exceed the proportion of 100 parts per million.

**55 Use of Class II preservatives restricted-** The use of Class II preservatives shall be restricted to the following group of foods in concentration not exceeding the proportions given below against each:

Article of Food	Preservative	Parts per million
(1)	(2)	(3)
1. Sausages and sausage meat containing raw meat,		

	cereals and condiments.	Sulphur dioxide	450
2.	Fruit, fruit pulp or juice (not dried) for conversion into jam or crystallised glace or cured fruit or other products:		
	(a) Cherries	Do	2,000
	(b) Strawberries and raspberries	Do	2,000
	(c) Other fruits	Do	1,000
3.	Fruit juice concentrate	Do	1,500
4.	Dried fruits:		
	(a) Apricots, peaches, apples, pears and other fruits	Do	2,000
	(b) Raisins and sultanas	Do	750
5.	Other non-alcoholic wines, squashes, crushes, fruit syrups, cordials, fruit juices and barley water to be used after dilution.	Sulphur dioxide Or Benzoic acid	350 600
6.	Jam, marmalade, preserve, canned cherry and fruit jelly	Sulphur dioxide or Benzoic acid	40 200
7.	Crystallised glace or cured fruit (including candied peel).	Sulphur dioxide	150
8.	Fruit and fruit pulp not otherwise specified in the schedule.	Do	350
9.	Plantation white sugar cube, sugar, dextrose, gur or jaggery, misri	Do	70
9A	Khandsari (Sulphur) and Bura	Do	150
9B	Refined sugar	Do	40
10	Corn flour and such like starches	Do	100
11	Corn syrup	Do	450
11A	Canned Rasogolla (The cans, shall be internally lacquered with sulphur-dioxide resistant lacquer)	Do	100
12	Gelatine	Do	1000
13	Beer	Do	70
14	Cider	Do	200
15	Alcoholic wines	Do	450
16	Ready to serve beverages	Sulphur dioxide or Benzoic acid	70 120
17.	Brewed ginger beer	Benzoic acid	120
18	Coffee extract	Do	450
19	Pickles and chutneys made from fruit or Vegetables	Benzoic acid or Sulphur dioxide	250 100
20	Tomato and other sauces	Benzoic acid	750
21	Cooked pickled meat including ham and bacon	Sodium or Potassium nitrite (calculated as sodium nitrite) Or Commercial Salt- petre (calculated as sodium nitrite)	200 500
22	Danish tinned caviar	Benzoic acid	50
23	Dehydrated vegetables	Sulphur dioxide	2,000
24	Tomato puree and paste	Benzoic acid	750

25	Syrups and sharbats	Sulphur dioxide or Benzoic acid	350 600
26	Dried ginger	Sulphur dioxide	2,000
27	Hard boiled sugar confectionery	Sulphur dioxide	350
28	Cheese or processed cheese	Sorbic acid including its sodium, Potassium and Calcium salts (calculated as Sorbic acid)	3,000
29	Flour confectionery	Nisin Sorbic acid including Sodium, Potassium and Calcium salts (calculated as Sorbic acid)	12.5 1,500
30	Smoked fish (in wrappers)	Sorbic acid	Only wrappers may be impregnated with sorbic acid
31	Dry mixes of Rasogollas	Sulphur dioxide	100
32	(a) Soups (other than canned)	Sulphur dioxide	150
	(b) Dried soups	Sulphur dioxide	1,500
	(c) Dehydrated soup mix, when packed in containers other than cans.	Sulphur dioxide	1,500
33	Fruits and vegetables, flake powder, figs	Sulphur dioxide	600
34	Flour for baked food	Sodium diacetate or Propionates or Methyl Propyl hydroxy Benzoate	2,500 3,200 500
35	Preserved chapatias	Sorbic Acid	1,500
36	Paneer or Chhana	Sorbic acid and its sodium potassium or calcium salts (calculated as sorbic acid) Or Propionic acid and its sodium or potassium salts (calculated as propionic acid).	2,000 2,000
37	Fat Spread	Sorbic acid and its sodium, potassium and calcium salts (calculated or sorbic acid)	1,000

		Or	
		Benzoic acid and its sodium and potassium salts (calculated as benzoic acid) or both	1,000
38	Jam jellies, Marmalades, preserves, crystallised, glazed or candied fruits including candied peels, fruit bars	Sorbic Acid and its calcium/sodium/potassium salts (calculated as sorbic acid)	500
39	Fruit Juice concentrates with preservatives for conversion in juices, nectars for ready to serve beverages in bottles/pouches selling through dispenser	Do	100
40	Fruit juices (tin, bottles or pouches)	Do	200
41	Nectars, ready-to-serve beverages in bottles, Pouches or selling through dispensers	Do	50
42	Prunes	Potassium Sorbate (calculated as Sorbic acid)	1000

**55A Use of Class II preservatives in mixed foods-** In a mixture of two or more foods or groups of foods mentioned against each item in the Table under Rule 55, the use of Class II preservative or preservatives shall be restricted to the limit up to which the use of such preservative is permitted for the foods or groups of foods contained in such mixture.

Illustration - In the food specified in Item 23 of the table given below Rule 55, sulphur dioxide can be added to dehydrated vegetables in the proportion of 2000 parts per million. If this food is mixed with the food specified in Item 24 given in the said Table, that is to say tomato puree and paste, where benzoic acid is permitted to an extent of 250 p.p.m. then in the mixture containing equal parts of these two foods, the proportion of sulphur dioxide and benzoic acid, shall be 1000 p.p.m. and 125 p.p.m. respectively.

**55B. Restriction on use of nitrate and nitrite** - No nitrate of nitrite shall be added to any infant food.

**55 C. Use of Natamycin for surface treatment of cheese (hard)** - Natamycin may be used for surface treatment of cheese (hard) under label declaration as specified in clause (8) of sub-rule (ZZZ) of Rule 42 subject to the following conditions, namely:-

- (i) Maximum level of application of Natamycin shall not exceed 2 mg/dm
- (ii) The penetration depth of natamycin in cheese (hard) shall not exceed 2 mm.
- (iii) The maximum residue level of Natamycin in the finished cheese (hard) shall not exceed 1 mg/dm<sup>3</sup>.

**55D. Use of Nisin as a preservative in Coconut Water Drink** - Nisin may be used in prepackaged Coconut Water Drink upto a maximum concentration of 5000 International Unit per litre.

## PART XI - POISONOUS METALS

**57. Poisonous metals** - (1) Chemicals described in monographs of the Indian Pharmacopoeia when used in foods, shall not contain poisonous metals beyond the limits specified in the appropriate monographs of the Indian Pharmacopoeia for the time being in force.

(2) Notwithstanding the provisions of sub-rule (1), no article of food specified in Column 2 of the table below shall contain any metal specified in excess of the quantity specified in Column 3 of the said table:

TABLE

Name of the poisonous metal 1.	Article of food 2.	Parts per million by weight 3.
1. Lead	i) Beverages:	
	Concentrated soft drinks (but not including concentrates used in the manufacture of soft drinks)	0.5
	Fruit and vegetable juice (including tomato juice but not including lime juice and lemon juice)	1.0
	Concentrates used in the manufacture of soft drinks, lime juice and lemon juice.	2.0
	(i-a) Baking powder	10
	(i-b) Edible oils and fats	0.5
	(i-c) Infant Milk substitute and Infant foods	0.2
	(i-d) Turmeric whole and powder	10.0
	(ii) Other foods:	
	Anhydrous dextrose and dextrose monohydrate, refined white sugar (sulphated ash content not exceeding 0.03 percent.)	0.5
	Ice cream, iced lollies and similar frozen confections	1.0
	Canned fish, canned meats, edible gelatin, meat extracts and hydrolysed protein, dried or dehydrated vegetables (other than onions)	
	All type of sugar, sugar syrup, invert sugar and direct consumption coloured sugars with sulphated ash content exceeding 1.0 percent.	5.0
	Raw sugar except those sold for direct consumption or used for manufacturing purposes other than the manufacture of refined sugar.	
Edible molasses, caramel, liquid and solid glucose and starch conversion products with a sulphated ash content exceeding 1.0 percent.		

Cocoa powder	5.0 on the dry fat free substance.
Yeast and yeast products	5.0 on the dry matter
Tea, dehydrated onions, dried herbs and spices, flavouring, alginic acid, alginates agar, carrageen and similar products derived from seaweed.	10.0 on the dry matter.
Liquid pectin, chemicals not otherwise specified, used as ingredients or in the preparation or processing of food.	10.0
Food colouring other than caramel	10.0 on the dry colouring matter
Solid pectin	50.0
Hard boiled sugar confectionery	2.0
Iron Fortified Common Salt	2.0
(ii-a) Corned beef, Luncheon meat, Cooked Ham, Chopped meat, Canned Chicken, Canned Mutton and Goat meat	2.5
(iii) Food not specified	2.5
2. Copper	
(i) Beverages:	
Soft drinks excluding concentrates and carbonated water	7.0
Carbonated water	1.5
Toddy	5.0
Concentrates for soft drinks	20.0
(ii) Other foods:	
Chicory - dried or roasted, coffee beans, flavourings,	30.00
pectin - liquid	30.00 on the dry
Colouring	colouring matter
	30.0
Edible gelatin	50.0 on the dried
Tomato ketchup	total solids.
	60.0 on the dry
Yeast and yeast products	matter
	70.0 on the fat-
Cocoa powder	free substance.
	100.0 on the
Tomato puree, paste, powder juice and cocktails	dried, tomato solid
	150.00
Tea	300.00
Pectin-solid	5.0
Hard boiled sugar confectionery	2.0
Iron Fortified Common Salt	5.0
(ii-a) Turmeric whole and powder	5.0
(ii-b) Juice of orange, grape, apple, tomato,	

	pineapple and lemon	5.0
	Pulp and pulp products of any fruit	15.00 (but not less than 2.8)
	(ii-c) Infant milk substitute and infant foods	30.0
3. Arsenic	(iii) Foods not specified	0.1
	(I) Milk	
	(iv) Beverages	0.5
	Soft drinks intended for consumption after dilution except carbonated water	0.25
	Carbonated water	0.05
	(ii-a) Infant Milk Substitute and Infant Foods	0.1
	(ii-b) Turmeric whole and powder	0.2
	(ii-b) Juice of orange, grape, apple, tomato, pineapple and lemon	0.2
	Pulp and pulp products of any fruit	3.0 on dry matter
	(iii) Preservative, anti-oxidants, emulsifying and stabilising agents and synthetic food colours	
	(iv) Other foods:	0.5
	Ice-cream, iced lollies and similar frozen confections	2.0
	Dehydrated onions, edible gelatin, liquid pectin	4.0
	Chickory-dried or roasted	5.0
	Dried herbs, finings and clearing agents, solid Pectin - all grades, spices	5.0 on dry
	Food colouring other than synthetic colouring	colouring matter. 1.0
	Hard boiled sugar confectionery	1.0
	Iron Fortified Common Salt	1.1
4. Tin	(v) Foods not specified	250.0
	(i) Processed and canned products	5.0
	(i-a) Hard boiled sugar confectionery	250
	(i-a) Jam, Jellies and marmalade	250
	Juice or orange, apple, tomato, pineapple and lemon	250
	Pulp and pulp products of any fruit	5.0
	(i-b) Infant Milk Substitute and Infant foods	Nil
	(i-c) Turmeric whole and powder	
	(i-d) Corned beef, Luncheon meat, Cooked Ham, Chopped meat, Canned Chicken, Canned Mutton and Goat meat	250.0
5. Zinc	(vi) Foods not specified	5.0
	(i) Ready-to-drink beverages	5.0
	Juice of orange, grape, tomato, pineapple and lemon	5.0
	Pulp and pulp products of any fruit	50.0
	(i-a) Infant milk substitute and Infant foods	(But not less than

		25.0)
		100.0
	(ii) Edible gelatin	25.0
	(ii-a) Turmeric whole and powder	50.0
	(iii) Fruit products covered under the Fruit Products Order, 1955	5.0
	(iii-a) Hard boiled sugar confectionery	50.0
	(iii) Foods not specified	
6. Cadmium		0.1
	(i) Infant Milk substitute and Infant foods	0.1
	(ii) Turmeric whole and powder	1.5
	(iii) Other foods	
7. Mercury		0.5
	Fish	1.0
	Other foods	
8. Methyl Mercury (Calculated as the element)	All foods	0.25
9. Chromium		20ppb
	Refined Sugar	
10. Nickel		1.5
	All hydrogenated, partially hydrogenated, interesterified vegetable oils and fats such as vanaspati, table margarine, bakery and industrial margarine, bakery shortening, fat spread and partially hydrogenated soyabean oil.	

**PART XIA- CROP CONTAMINANTS AND NATURALLY OCCURRING TOXIC SUBSTANCES**

**57A. Crop contaminants** - (1) Crop contaminant means any substance not intentionally added to food, but which gets added to articles of food in the process of their production (including operations carried out in crop husbandry, animal husbandry and veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging, transport or holding of articles of such food as a result of environmental contamination.

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

Name of the contaminants (1)	Article of Food (2)	Mg./Kg. (3)
Aflatoxin	All articles of food	0.03

**57B. Naturally occurring toxic substances** - The toxic substances specified in column(1) of the Table below, which may occur naturally in any article of food, shall not exceed the limit specified in the corresponding entry in column (2) of the said Table:-

Name of substance (1)	Maximum limit (2)
--------------------------	----------------------

Agaric acid	100ppm
Hydrocyanic acid	5ppm
Hypericine	1ppm
Saffrole	10ppm

## PART XII - ANTI-OXIDANTS, EMULSIFYING AND STABILISING AND ANTICAKING AGENTS

**58. Definition of anti-oxidant** - 'Anti-oxidant' means a substance which when added to food retards or prevents oxidative deterioration of food and does not include sugar, cereal oils, flours, herbs and spices.

**59. Restriction on use of anti-oxidants** - No anti-oxidant other than lecithin, ascorbic acid and tocopherol shall be added to any food.

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

- |   |                    |
|---|--------------------|
| 1. Ethyl gallate-----                   |                    |
| 2. Propyl gallate                       |                    |
| 3. Octyl gallate                        | or mixture thereof |
| 4. Dodecyl gallate----                  | 0.01 Percent       |
| 5. Ascrobyl Palmitate                   | 0.02 Percent       |
| 6. Butylated hydroxyanisole(BHA)        | 0.02percent        |
| 7. Citric acid                          |                    |
| 8. Tartaric acid                        |                    |
| 9. Gallic acid                          | 0.01 Percent       |
| 10. Resin Guaiac                        | 0.05 percent       |
| 11. Tertiary butyl hydro quinone (TBHQ) | 0.02 percent       |

Provided that dry mixes of Rasgollas and vadas may contain butylated hydroxyanisole (BHA) not exceeding 0.02 percent calculated on the basis of fat content.

Provided further that anti-oxidants permitted in Rule 59 may be used in permitted flavouring agents in concentration not exceeding 0.01 percent.

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

Provided also that Ghee and Butter may contain Butylated hydroxyanisole(BHA) In a concentration not exceeding 0.02 percent.

Provided also that fat spread may contain Butylated hydroxyanisole (BHA) or Tertiary butyl hydro quinone (TBHQ) in a concentration not exceeding 0.02 per cent by weight on fat basis.

Provided further that ready-to-eat dry breakfast cereals may contain Butylated Hydroxamisole (BHA) not exceeding 0.005 percent (50 ppm).

Provided also that in ready to drink infant milk substitute, lecithin and ascrobyl palmitate may be used upto maximum limit of 0.5 gm./100 ml. and 1 mg./100 ml. respectively.

**59A. Use of anti-oxidants in Vitamin D preparation** - Vitamin D preparation may contain anti-oxidants prescribed in Rule 59 not exceeding 0.08 per cent.

**60. Definition of emulsifying and stabilising agents** - "Emulsifying agents" and "stabilising agents" means substances which, when added to food, are capable of facilitating a uniform dispersion of oils and fats in aqueous media, or vice versa, and / or stabilising such emulsions and include the following, namely

Agar, alginic acid, calcium and sodium alginates carrageen, edible gums (such as guar, karaya arabic, carobean, furcellaran, tragacanth, gum ghatti), dextrin, sorbitol, pectin, sodium and calcium pectate, sodium citrate, sodium phosphates, sodium tartrate, calcium lactate, lecithin, albumen, gelatin quillaia, modified starches, hydrolysed proteins, monoglycerides or diglycerides of fatty acids, synthetic lecithin, propylkeneglycol stearate, propylenegylcol alginate, methylethyl cellulose, methyl cellulose, sodium carboxymethyl cellulose, stearyl tartaric acid, esters of monoglycerides and diglycerides of fatty acids, monosterin sodium sulphoacetate, sorbitan esters of fatty acids or in combination, poly-oxy-ethylene sorbiton monostenrate sodium stearoyl-2-lactylate and calcium stearoyl-2 lactylate Polyglycerol Esters of fatty acids and polyglycerol Ester of interesterified Ricinoleic acid and brominated vegetable oil Glycerol esters of wood resins (Ester Gum).

**61. Restriction on use of emulsifying and stabilising agent** - No emulsifying or stabilising agents shall be used in any food, except where the use of emulsifying or stabilising agent is specifically permitted.

Provided that the following emulsifying or stabilising agents shall not be used in milk and cream, namely, monoglycerides or diglycerides of fatty acids, synthetic lecithin, propyleneglycol stearate, propyleneglycol alginate, methyl ethyl cellulose, methyl cellulose, sodium carboxymethyl cellulose, stearyl tartaric acid esters of monoglycerides and diglycerides of fatty acids, monosterain sodium sulphoacetate, sorbitan esters of fatty acids or in combination, and brominated vegetable oil.

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

Provided also that Diacetyl Tartaric acid esters of Mono and Diglycerides may be used in Bread and Cakes.

**61A. Use of starch phosphate** - Starch phosphate, a gum arabic substitute may be used in syrup, ice-cream powder, salad dressing and pudding to a maximum extent of 0.5 percent.

**61.AA. Use of modified starches** - Modified food starches (derivative starches) may be used in baked foods, confectionery, snacks, flavours, dairy products (where use of emulsifier/stabiliser is allowed in Appendix 'B' to the Prevention of Food Adulteration Rules, 1955) glazes, icings, gravies, sauce, soups, coatings and upto a maximum concentration of 0.5 percent by weight.

**61B. Use of emulsifying and stabilising agents in flavouring agents** - The emulsifying and stabilising agents may be added to flavouring agents.

**61C. Use of emulsifying and stabilizing agents in fruit products** - The following emulsifying and stabilizing agents may be added to fruit products:-

1. Pectin
2. Sodium alginate
3. Calcium alginate
4. Alginic acid
5. Propylene glycol alginate.

**61D. Use of emulsifying and stabilising agents in Frozen Desserts** - The emulsifying and stabilizing agents enlisted under Rule 60 may be added to frozen desserts.

**61E. Use of Xanthan Gum** - Xanthan Gum may be used in food articles upto a maximum extent of 0.5 percent by weight.

**62. Restriction on use of anticaking agents** - No anticaking agents shall be used in any food except where the use of anticaking agents is specifically permitted.

Provided that table salt, onion powder, garlic powder, fruit powder and soup powder may contain the following anticaking agents in quantities not exceeding 2.0 percent, either singly or in combination, namely:-

1. carbonates of calcium and magnesium
2. phosphates of calcium and magnesium
3. silicates of calcium, magnesium, aluminium or sodium or silicon dioxide
4. myristates, palmitates or stearates of aluminium, ammonium, calcium, potassium or sodium;

Provided further that calcium, potassium or sodium ferrocyanide may be used as crystal modifiers and anti-caking agent in common salt, iodised salt and iron fortified salt in quantity not exceeding 10 mg/kg. singly or in combination expressed as ferrocyanide.

**62.A. Antifoaming agents in edible oils and fats** - Dimethyl and Polysiloxane, food grade, may be used as an antifoaming agent in edible oils and fats for deep fat frying up to a maximum limit of 10 parts per million.

Provided that mono and diglycerides of fatty acids of edible oil may be used as antifoaming agent in jam, jellies and marmalade.

Explanation - For the purpose of this rule, "Antifoaming agent" means substance which retards deteriorative changes and foaming height during heating.

**62B. Use of release agents in confectionery** - Spreadasil silicon spray (Dimethyl Polysiloxane) if used, as release agents in confectionery, shall not exceed 10 ppm. of the finished product.

### **PART XIII - FLAVOURING AGENTS AND RELATED SUBSTANCES**

**63. Flavouring agents** - Flavouring agents include flavour substances, flavour extracts or flavour preparations, which are capable of imparting flavouring properties, namely taste or odour or both to food. Flavouring agents may be of following three types:-

- (A) *Natural Flavours and Natural Flavouring Substances* - "Natural flavours" and "Natural flavouring substances" are flavour preparations and single substance respectively,

acceptable for human consumption, obtained exclusively by physical processes from vegetable, for human consumption.

- (B) *Nature Identical Flavouring Substances* - Natural-identical flavouring substances are substances chemically isolated from aromatic raw materials or obtained synthetically; they are chemically identical to substances present in natural products intended for human consumption, either processed or not.
- (C) *Artificial Flavoring Substances* - Artificial flavouring substances are those substances which have not been identified in natural products intended for human consumption either processed or not.

**63A. Restriction on use of flavouring agents** - The use of the following flavouring agents are prohibited in any article of food, namely:-

1. Coumarin and dihydrocoumarin;
2. Tonkabean (Dipetery, adorat); and
3. B-asarone and cinamyl anthracilate.
4. Estragole
5. Ethyl Methyl Ketone
6. Ethyl-3-Phenylglycidate
7. Eugenyl methyl ether
8. Methyl bita naphthyl Ketone
9. P.Propylanisole
10. Saffrole and Isosaffrole
11. Thujone and Isothujone alpha and bita thujone.

**64.Solvent in flavour** - Diethylene Glycol and Monoethylether shall not be used as solvent in flavours.

**64A. Use of anti-oxidants, emulsifying and stabilizing agents and food preservatives in flavour** - The flavouring agents may contain permitted anti-oxidants, emulsifying and stabilizing agents and food preservatives.

**64B. Use of monosodium glutamate** - Monosodium glutamate may be added to an article of food under proper lable declaration as provided in sub-rule (S) of Rule 42 provided the total glutamate content of the ready-to-serve food does not exceed 1 percent. It shall not be added to any food for use by the infant below twelve months.

**64BB.Extraneous addition of flavouring agent to be mentioned on the lable** - Where an extraneous flavoruing agent has been added to any article of food, there shall be written just beneath the list of ingredients on the lable attached to any package of food so flavoured, a statement in capital letters as below:-

**"CONTAINS ADDED FLAVOUR"**

Note: If such a statement is displayed, the flavour used in the product need not be mentioned in the list of ingredients.

## PART XIII A - CARRY OVER FOOD ADDITIVES

**64C. Carry over of Food Additives** - (1) For the purpose of the standards specified in Appendix 'B' the "Carry Over" principle applies to the presence of additives such as colours, flavouring agents, anti-oxidants, 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. The presence of contaminants is not covered by this purpose.

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

## PART XIV - INSECTICIDES AND PESTICIDES

**65. Restriction on the use of insecticides** - Subject to the provisions of sub-rule (2), no insecticide shall be used directly on articles of food.

Provided that nothing in this sub-rule shall apply to the fumigants which are registered and recommended for use as such on articles of food by the Registration Committee, constituted under section 5 of the Insecticides Act, 1968 (46 of 1968).

(2) The amount of insecticide mentioned in Column 2, on the foods mentioned in Column 3, shall not exceed the tolerance limit prescribed in Column 4 of the Table given below:

TABLE

Sl.No	Name of Insecticide	Food	Tolerance limit mg/kg. (ppm)
1.	Aldrin, dieldrin (the limits apply to aldrin and dieldrin singly or in any combination and are expressed as dieldrin)	Foodgrains	0.01
		Milled Foodgrains	Nil
		Milk and Milk products	0.15 (on a fat basis)
		Fruits and Vegetables	0.1
		Meat	0.2
		Eggs	0.1
		(on a shell free basis)	
2	Carbaryl	Fish	0.2
		Foodgrains	1.5
		Milled Foodgrains	Nil
		Okra and leafy vegetables	10.5
		Potatoes	0.2
		Other vegetables	5.0
		Cottonseed (Whole)	1.0
		Maize cob (kernels)	1.0
		Maize	0.50
		Rice	2.50
3.	Chlordane (residue to be measured as cis plus transchlordane)	Chillies	5.00
		Food grains	0.02
		Milled foodgrains	Nil
		Milk and Milk Products	0.05 (on a fat basis)

		Vegetables	0.2
		Fruits	0.1
		Sugar beet	0.3
4.	D.D.T. (The limit apply to D.D.T., D.D.D. and D.D.E singly or in any combination).	Milk and Milk Products	1.25 (on a fat basis)
		Fruit and Vegetables	
		Including potatoes	3.5
		Meat, poultry and fish	7.0
			(on whole product basis)
		Eggs	0.5
			(on a shellfree basis).
5	Diazinon	Foodgrains	0.05
		Milled Foodgrains	Nil
		Vegetables	0.5
6.	Dichlorvos content of dichloroacetaldehyde (D.C.A) be reported where possible	Foodgrains	1.0
		Milled foodgrains	0.25
		Vegetables	0.15
		Fruits	0.1
7.	Dicofol	Fruits and Vegetables	5.0
		Tea(dry manufactured)	5.0
8	Dimethoate (residue to be determined as dimethoate and expressed as dimethoate).	Fruits and vegetables	2.0
9	Endosulfan (residues are measured and reported as total of endosulfan A and B and endosulfan-sulphate)	Fruits and vegetables	2.0
		Cottonseed	0.5
		Cotton seed oil	0.2
		(crude)	0.2
		Bengalgram	0.20
		Pigeonpea	0.10
		Fish	0.20
10	Fenitrothion	Foodgrains	0.02
		Milled foodgrains	0.005
		Milk and Milk products	0.05 (on a fat basis)
		Fruits	0.5
		Vegetables	0.3
		Meat	0.03
11	Heptachlor (Combined residues of heptachlor and epoxide to be determined and expressed as heptachlor)	Foodgrains	0.01
		Milled foodgrains	0.002
		Milk and Milk products	0.15
			(on a fat basis)
		Vegetables	0.05
12	Hydrogn cyanide	Foodgrains	37.5
		Milled foodgrains	3.0
13	Hydrogen phosphide	Foodgrains	Nil
		Milled foodgrains	Nil
14	Inorganic bromide (determined and expressed as total bromide from all sources)	Foodgrains	25.0
		Milled foodgrains	25.0
		Fruits	30.0
		Dried Fruits	30.0
		Spices	400.0
15	Hexachlorocyclohexane and its isomers		

	(a) Alpha Isomer:	Rice grain Unpolished	0.10
		Rice grain Polished	0.05
		Milk (whole)	0.05
		Fruits and vegetable	1.00
		Fish	0.25
	(b) Beta Isomer:	Rice grain Unpolished	0.10
		Rice grain Polished	0.05
		Milk (whole)	0.02
		Fruits and vegetable	1.00
		Fish	0.25
	(c) Gamma Isomer:	Food grains except rice	0.10
	Known as Lindane	Milled foodgrains	Nil
		Rice grain Unpolished	0.10
		Rice grain Polished	0.05
		Milk	0.01
			(on shell basis)
		Milk products	0.20 (on fat basis)
		Milk products (having less than 2 per cent fat)	0.20 (on whole basis)
		Fruits and vegetable	1.00
		Fish	0.25
		Eggs	0.10
			(on whole basis)
	(d) Delta Isomer:	Meat and poultry	2.00
			(on whole basis)
		Rice grain Unpolished	0.10
		Rice grain Polished	0.05
		Milk (whole)	0.02
		Fruits and vegetable	1.00
		Fish	0.25
16	Malathion (Malathion to be determined and expressed as combined residues of malathion and malaaxon )	Foodgrains	4.0
		Milled foodgrains	1.0
		Fruits	4.0
		Vegetables	3.0
		Dried fruits	8.0
17	Parathion (Combined residues of parathion and paraoxon to be determined and expressed as parathion)	Fruits and vegetables	0.5
18.	Parathion methyl (Combined residues of parathion methyl and its oxygen analogue to be determined and expressed as parathion methyl	Fruits	0.2
		Vegetables	1.0
19	Phosphamidon residues (expressed as the sum of the Phosphamidon and its desethyl derivative)	Foodgrains	0.05
		Milled Foodgrains	Nil
		Fruits and Vegetables	0.2
20	Pyrethrins (Sum of Pyrethrins I and II and other structurally related insecticidal ingredients of Pyrethrum	Foodgrains	Nil
		Milled Foodgrains	Nil
		Fruits and Vegetables	1.0
21	CHLORFENVINPHOS (Residues to be measured as alpha	Foodgrains	0.025
		Milled Foodgrains	0.006

	and beta isomers of chlorfenvinphos)	Milk and Milk products	0.2(fat basis)
		Meat and Poultry	0.2 (carcass fat)
		Vegetables	0.05
		Groundnuts	0.05 (shell-free basis)
22	CHLOROBENZILATE	Cotton seed	0.05
		Fruits	1.0
		Dry Fruits, Almonds and Walnuts	0.2 (shell-free basis)
23	CHLORPYRIFOS	Foodgrains	0.05
		Milled Foodgrains	0.01
		Fruits	0.5
		Potatoes and Onions	0.01
		Cauliflower and Cabbage	0.01
		Other vegetables	0.2
		Meat and Poultry	0.1 (carcass fat)
		Milk and Milk products	0.01(fat basis)
24	2,4D	Cotton seed	0.05
		Cotton seed oil (crude)	0.0025
		Foodgrains	0.01
		Milled Foodgrains	0.003
		Potatoes	0.2
		Milk and Milk products	0.05
		Meat and Poultry	0.05
		Eggs	0.05 (shell-free basis)
25	ETHION (Residues to be determined as ethion and its oxygen analogue and expressed as ethion)	Fruits	2.0
		Tea (dry manufactured)	5.0
		Cucumber and Squash	0.5
		Other vegetables	1.0
		Cotton seed	0.5
		Milk and Milk Products	0.5 (fat basis)
		Meat and Poultry	0.2 (carcass fat basis)
		Eggs	0.2 (shell-free basis)
		Foodgrains	0.025
		Milled Foodgrains	0.006
		Peaches	1.0
		Other fruits	2.0
		Dry fruits	0.1 (shell-free basis)
26	FORMATHION (Determined as dimethoate and its oxygen analogue and expressed as dimethoate except in case of citrus fruits where it is to be determined as formathion)	Citrus fruits	0.2
		Other fruits	1.0
		Vegetables	2.0
		Peppers and Tomatoes	1.0
27.	MONOCROTOPHOS	Foodgrains	0.025
		Milled foodgrains	0.006

		Citrus fruits	0.2
		Other fruits	1.0
		Carrot, Turnip, Potatoes And Sugar beet	0.05
		Onion and Peas	0.1
		Other vegetables	0.2
		Cotton seed	0.1
		Cotton oil (raw)	0.05
		Meat and Poultry	0.02
		Milk and Milk products	0.02
		Egg	0.02
			(shell-free basis)
28.	PARAQUAT – Dichloride (Determined as paraquat cations)	Coffee (raw beans)	0.1
		Foodgrains	0.1
		Milled foodgrains	0.025
		Potatoes	0.2
		Other vegetables	0.05
		Cotton seed	0.2
		Cotton oil (edible refined)	0.05
		Milk (whole)	0.01
29.	PHOSALONE	Fruits	0.05
		Pears	2.0
		Citrus fruits	1.0
		Other fruits	5.0
		Potatoes	0.1
		Other vegetables	1.0
		Rapeseed/Mustard oil (crude)	0.05
30.	THRICHLORFON	Foodgrains	0.05
		Milled foodgrains	0.0125
		Sugar beet	0.05
		Fruits and vegetables	0.1
		Oil seeds	0.1
		Edible oil (refined)	0.05
		Meat and Poultry	0.1
		Milk (whole)	0.05
31.	THIOMETON (Residues determined as thiometon its sulfoxide and sulphone expressed as thiometon)	Foodgrains	0.025
		Milled foodgrains	0.006
		Fruits	0.5
		Potatoes, Carrots and Sugar beets	0.05
		Other vegetables	0.5
32.	Acephate	Safflower seed	2.0
		Cotton Seed	2.0
33.	Methamido-phos (A metabolite of Acephate)	Safflower seed	0.1
		Cotton seed	0.1
34.	Aldicarb (sum of Aldicarb, its sulphoxide and sulphone, expressed as Aldicarb)	Potato	0.5
		Chewing Tobacco	0.1
35.	Atrazine	Maize	Nil
		Sugarcane	0.25
36.	Carbendazim	Foodgrains	0.50

		Milled foodgrains	0.12
		Vegetables	0.50
		Mango	2.00
		Banana(whole)	1.00
		Other fruits	5.00
		Cotton seed	0.10
		Groundnut	0.10
		Sugar beet	0.10
		Dry fruits	0.10
		Eggs	0.10
			(shell-free basis)
		Meat & poultry	0.10
			(carcass fat basis)
		Milk and Milk products	0.10
			(fat basis)
37	Benomyl	Foodgrains	0.50
		Milled foodgrains	0.12
		Vegetables	0.50
		Mango	2.00
		Banana(whole)	1.00
		Other fruits	5.00
		Cotton seed	0.10
		Groundnut	0.10
		Sugar beet	0.10
		Dry fruits	0.10
		Eggs	0.10
			(shell-free basis)
		Meat & poultry	0.10
			(carcass fat basis)
		Milk and Milk products	0.10
			(fat basis)
38	Captan	Fruit & Vegetable	15.00
39	Carbofuran (sum of carbofuran and 3 hydroxy carbofuran expressed as carbofuran)	Foodgrains	0.10
		Milled foodgrains	0.03
		Fruit & Vegetable	0.10
		Oil seeds	0.10
		Sugarcane	0.10
		Meat & poultry	0.10
			(carcass fat basis)
		Milk and Milk products	0.05
			(fat basis)
40	Copper Oxychloride (determined as Copper)	Fruit	20.00
		Potato	1.00
		Other vegetables	20.00
41	Cypermethrin (sum of isomers) (fat soluble residue)	Wheat grains	0.05
		Milled wheat grains	0.01
		Brinjal	0.20
		Cabbage	2.00
		Bhindi	0.20
		Oilseeds except groundnut	0.20
		Meat & Poultry	0.20
			(carcass fat basis)

		Milk & Milk product	0.01 (fat basis)
42	Decamethrin/deltamethrin	Cotton seed	0.10
		Foodgrains	0.50
		Milled Foodgrains	0.20
43	Edifenphos	Rice	0.02
		Rice bran	1.00
		Eggs	0.01 (shell-free basis)
		Meat & Poultry	0.02 (carcass fat basis)
		Milk & Milk Products	0.01 (fat basis)
44	Fenthion (sum of fenthion, its oxygen analogue and their sulphoxides and sulphones, expressed as fenthion)	Foodgrains	0.10
		Milled foodgrains	0.03
		Onion	0.10
		Patatoes	0.05
		Beans	0.10
		Peas	0.50
		Tomatoes	0.50
		Other vegetables	1.00
		Musk melon	2.00
		Meat & Poultry	2.00 (carcass fat basis)
		Milk & Milk Products	0.05 (fat basis)
45	Febvalerate (fat soluble residue)	Cauliflower	2.00
		Brinjal	2.00
		Okra	2.00
		Cotton seed	0.20
		Cotton seed oil	0.10
		Meat & Poultry	1.00 (carcass fat basis)
		Milk & Milk Products	0.01 (fat basis)
46	Dithiocarbamates (the residue tolerance limit are determined and expressed at mg/ CS <sub>2</sub> /kg and refer separately to the residues arising from any or each groups of dithiocarbamates-	Foodgrains	0.20
		Milled foodgrains	0.05
		Potatoes	0.10
		Tomatoes	3.00
		Cherries	1.00
		Other fruits	3.00
	(a) Dimethyl dithiocarbamates residue resulting from the use of ferbam or Ziram and		
	(b) Ethylene bis-dithiocarbamates resulting from the use of Mancozeb, Maneb or Zineb (including zineb derived from nabam plus zinc sulphate)		
47	Phenthoate	Foodgrains	0.05
		Milled foodgrains	0.01

		Oilseeds	0.03
		Edible oils	0.01
		Eggs	0.05
			(shell-free basis)
		Meat & Poultry	0.05
			(carcass fat basis)
		Milk & Milk products	0.01
			(fat basis)
48	Phorate (sum of phorate, its oxygen analogue and their sulphoxides and sulphones, expressed as phorate)	Foodgrains	0.05
		Milled foodgrains	0.01
		Tomatoes	0.10
		Other vegetables	0.05
		Fruits	0.05
		Oilseeds	0.05
		Edible oils	0.03
		Sugarcane	0.05
		Eggs	0.05
			(shell-free basis)
		Meat & Poultry	0.05
			(carcass fat basis)
		Milk & Milk products	0.05(fat basis)
49	Simazine	Maize	Nil
		Sugarcane	0.25
50	Pirimiphos-methyl	Rice	0.50
		Foodgrains except rice	5.00
		Milled Foodgrains except rice	1.00
		Eggs	0.05
			(shell-free basis)
		Meat & Poultry	0.05
			(carcass fat basis)
		Milk & Milk products	0.05(fat basis)
51	Alachlor	Cotton seed	0.05
		Groundnut	0.05
		Maize	0.10
		Soyabeans	0.10
52	Alfa Nephthy 1 Acetic Acid (A.N.A)	Pine-Apple	0.50
53	Bitertanol	Wheat	0.05
		Groundnut	0.10
54	Captafol	Tomato	5.00
55	Cartaphydrochloride	Rice	0.50
56	Chlormequatchloride	Grape	1.00
		Cotton seed	1.00
57	Chlorothalonil	Groundnut	0.10
		Potato	0.10
58	Diflubenzuron	Cotton seed	0.20
59	Dodine	Apple	5.00
60	Diuron	Cotton Seed	1.00
		Banana	0.10
		Maize	0.50
		Citrus(Sweet Orange)	1.00

61	Ethephon	Grapes	1.00
		Pine Apple	2.00
		Coffee	0.10
		Tomato	2.00
62	Fluchloralin	Mango	2.00
		Cotton seed	0.05
		Soya beans	0.05
63	Malic Hydrazide	Onion	15.00
		Potato	50.00
64	Metalyxyl	Bajra	0.05
		Maize	0.05
		Sorghum	0.05
		Cotton Seed	0.10
65	Methomyl	Cotton Seed	0.10
66	Methyl Chloro-phenoxyacetic Acid (M.C.P.A)	Rice	0.05
		Wheat	0.05
67	Oxadiazon	Rice	0.03
68	Oxydemeton methyl	Food grains	0.02
69	Permethrin	Cucumber	0.50
		Cotton Seed	0.50
		Soya Beans	0.05
		Sunflower seed	1.00
		Rice	0.01
		Pigeonpea	0.01
70	Quinolphos	Cardamom	0.01
		Tea	0.01
		Fish	0.01
		Apple	5.00
		Papaya	7.00
71	Thiophanatemethyl		

Explanation- For the purposes of this rule—

- (a) the expressions “insecticide” shall have the meaning assigned to it in the Insecticide Act, 1968 (46 of 1968).
- (b) Unless otherwise stated----
- (i) maximum levels are expressed in mg./kg on a whole product basis;
- (ii) all foods refer to raw agricultural products moving in commerce.

## PART XV - SOLVENT EXTRACTED OIL AND EDIBLE FLOUR

**66. Definition of solvent -extracted oils-**solvent extracted oil means any vegetable oil obtained from oil-bearing material by the process of extraction by a solvent.

**69 A. Restriction on the use of solvent-** (1) No solvent other than n-Hexane (Food Grade) shall be used in the extraction of cocoa butter, oils and fats and edible soya flour.

(2) The quantity solvent mentioned in the column (1) of the Table below, in the food mentioned in column (2) of the said Table, shall not exceed the tolerance limits prescribed in column (3) of the said Table;

**TABLE**

Name of solvent (1)	Article of food (2)	Tolerance limits Mg/kg (ppm) (3)
Hexane (Food Grade)	(a) Refined Solvent extracted cocoa butter.	5.00
	(b) Refined Solvent extracted oils & fats.	5.00
	(c) Solvent extracted edible soya flours.	10.00

**PART XVI – SEQUESTERING AND BUFFERING AGENTS (ACID BASES AND SALTS)**

**70. Definition of sequestering agents-** The sequestering agents are substances which prevent adverse effect of metals catalysing the oxidative breakdown of foods forming chelates; thus inhibiting decolourisation, off taste and rancidity.

**71. Definition of buffering agents-** Buffering agents are materials used to counter acidic and alkaline changes during storage or processing steps, thus improving the flavour and increasing the stability of foods.

**72. Restrictions on the use of sequestering and buffering agents-** Unless otherwise provided in these rules the sequestering and buffering agents specified in column (1) of the Table below, may be used in the groups of food specified in the corresponding entry in column (2) of the said Table, in concentration not exceeding the proportions specified in the corresponding entry in column (3) of the said Table:

**TABLE**  
**Groups of food**

Name of sequestering and buffering agents	Groups of food	Maximum level of use (parts per million) (ppm) (mg/kg)
1 Acetic Acid	(i) Acidulant, buffering and neutralising agents in beverages, soft drinks.	Limited by G.M.P
	(ii) In canned baby foods	5,000
2 Adipic acid	Salt substitute and dietary food	250
3 Calcium gulconate	In confections	2,500
4 Calcium Carbonate	As a neutralizer in a number of foods	10,000
5 Calcium oxide	As a neutralizer in specified dairy product	2,500
6 Citric acid Malic acid	Carbonated beverage and as an acidulant in miscellaneous foods	Limited by G.M.P
7 DL Lactic acid (food grade) 10A L (+) Lactic Acid (food grade)	As acidulant in miscellaneous foods	Limited by G.M.P
	As acidulant in miscellaneous foods	Limited by G.M.P
8 Phosphoric acid	Beverages, soft drinks	600
9 Polyphosphate containing less than 6 phosphate mouties	(a) Processed cheese bread	40,000
	(b) Milk preparations	4,000
	(c) Cake mixes	10,000
	(d) Protein foods	4,000
10 L(+) Tartaric acid	Acidulants	600
11 Calcium Disodium,	(i) Emulsions containing refined	50

Ethylene, diamine tetra acelate	vegetable oils, eggs, vinegar, salt, sugar, and spices;	
	(ii) Salad dressing;	
	(iii) Sandwich spread (or fat spread)	
12 Fumeric acid	As acidulant in miscellaneous foods	3000 ppm

Note: DL Lactic acid and L (+) Tartaric acid shall not be added to any food meant for children below 12 months. (The lactic acid shall also conform to the specification laid down by the Indian Standards Institution.

**72-A. Restriction on use of certain substance-** The use of substances specified in column (1) in the food mentioned in column (2) of the Table given below shall not exceed the limit specified in column (3) of the said table, namely:-

**TABLE**

Substances	Food	Maximum level of use (ppm) mg/kg
1 Ammonium Carbonate	Baked foods confections	5,000
2 Ammonium Bicarbonate	-do-	GMP
3 Baking powder	Baked foods	GMP
4 Ammonium Phosphate monobasic	Bread	2,500
5 Ammonium persulphate	-do-	2,500
6 Calcium Phosphate	-do-	5,000
7 Calcium Carbonate	-do-	2,500
8 Potassium Bromate and/or potassium Iodate	-do-	50
9 Ammonium Chloride	-do-	500
10 Fungal Alpha-amylase	-do-	100
11 Sodium Stearoy 1-2 lactylate of Calcium Stearoy 1-2 Lactylate (singly or in combination)	-do-	5,000
12 L-Cystein Mone Hydrochloride	-do-	90
13 Benzoyl Peroxide	Flour for bakery	40
14 Potassium Bromate	-do-	20
15 Ascorbic acid	-do-	200
16 Cluconodelta Lactone	Cured meat or meat products	5,000
17 Chlorine	Flour for bakery	2,000
18 Ascorbic Acid/Iso Ascorbic Acid and its Salts Singly or in combination	Corned beef, Luncheon meat, Cooked Ham, Chopped meat, Canned chicken, canned mutton And Goat meat.	500
19 Phosphates (Naturally present and added) expressed as P2O5	Luncheon meat, Cooked Ham, Chopped meat.	8000

**72-B. Use of Glycerol Esters of Wood Resins (Ester Gum)-** The maximum limit of glycerol esters of food resins (ester gum) when used in flavour emulsions, soft drink concentrate and carbonated water shall not exceed 100 PPM, of the final beverage for consumption.

**72-C Use of Sucrose Acetate Isobutyrate-**The maximum concentration of Surcrose Acetate Isobutyrate when used in non-alcoholic beverages as a clouding agent shall not exceed 300 ppm.

## PART XVII-IRRADIATION OF FOOD

**73.** For the purpose of this Chapter, unless the context otherwise requires:-

- (a) "Irradiation" means any physical procedure, involving the intentional exposure of food to ionizing radiations.
- (b) "Irradiation facility" means any facility which is capable of being utilized for treatment of food by irradiation.
- (c) 'Operator of irradiation facility' means any person appointed as such by licensee who satisfies the qualifications and requirements as for training specified in Schedule II of the Atomic Energy (Control of Irradiation of Food) Rule, 1991.
- (d) 'Irradiated food' means articles of food subjected to radiation by-
  - (i) Gamma rays;
  - (ii) X-rays generated from machine sources operated at or below an energy level of 5 million electron volts; and
  - (iii) Sub-atomic particles, namely, electrons generated from machine. Sources operated at or below an energy level of 10 million electron volts, to dose levels as specified in Schedule I of the Atomic Energy (Control of Irradiation of Food) Rules, 1991.

**74. Dose of Irradiation-**(1) Save as provided in sub-rule (2), no food shall be irradiated.

(2) No article of food permitted for irradiation specified in column (2) of the Table given below shall receive the dose of irradiation in excess of the quantity specified in column (3) of the said Table at the time of irradiation:-

Sr. no	Name of Foods	Dose of Irradiation (KGY)		
		Minimum	Maximum	Overall average
1	Onions	0.03	0.09	0.06
2	Spices	6	14	10
3	Potatoes	0.06	0.15	0.10
4	Rice	0.25	1.0	0.62
5	Somolina (Suji or Rawa), Wheat atta and Maida	0.25	1.0	0.62
6	Mango	0.25	0.75	0.50
7	Raisins, Figs and Dried Dates	0.25	0.75	0.50
8	Ginger, garlic and Shallots (Small Onions)	0.03	0.15	0.09
9	Meat and Meat Products including Chicken	2.5	4.0	3.25
10	Fresh Sea Foods	1.0	3.0	2.00
11	Frozen Sea Foods	4.0	6.0	5.00

12	Dried Sea Foods	0.25	1.0	0.62
13	Pulses	0.25	1.0	0.62

- (3) Routine quantitative dosimetry shall be made during operation and record kept of such measurement as provided under Department of Atomic Energy (Control of Irradiation of Food) Rule, 1991.

**75.Requirement for the process of irradiation-** (I) Approval of facilities- No irradiation facility shall be used for the treatment of food unless such facility-

- (a) has been approved and licenced under the Atomic Energy (Control of Irradiation of Food) Rules, 1991.
- (b) Complies with the conditions for approval, operation, license and process control prescribed under the Atomic Energy (Control of Irradiation of Food) Rules, 1991.
- (c) Carries out irradiation in accordance with the provisions of the Atomic Energy (Control of Irradiation of Food) Rules, 1991.

(2) Foods once irradiated shall not be re-irradiated unless specifically so permitted by the Licencing Authority for the Irradiation process control purposes.

(3) No Food/irradiated food shall leave the irradiation facility unless it has been irradiated in accordance with the provisions of Department of Atomic Energy (Control of Irradiation of Food) Rules, 1991 and a certificate of irradiation indicating the dose of irradiation and the purpose of irradiation is provided by the competent authority.

**76 Restrictions on Irradiation of Food-** (1) The irradiation shall conform to the dose limit and the radiation source to the specific conditions prescribed for each type or category of Food specified for treatment by irradiation, under the Atomic Energy (Control of Irradiation of Food) Rules, 1991.

(2) Food which has been treated by irradiation shall be identified in such a way as to prevent its being subjected to re-irradiation.

(3) The irradiation shall be carried out only by personnel having the minimum qualifications and training as prescribed for the purpose under the Atomic Energy (Control of Irradiation of Food) Rules, 1991.

(4) Food once irradiated shall not be re-irradiated unless specifically so permitted under these rules.

**77. Record of Irradiation of Food:-** Any treatment of Food by irradiation shall be recorded by an officer authorised by the competent authority as specified under the Atomic Energy (Control of Irradiation of Food) Rules, 1991 as follows-

- (i) Name of the article;
- (ii) License No;
- (iii) Name, address and other details of Licensee;
- (iv) Purpose of Irradiation;
- (v) Source of Irradiation;
- (vi) Date of Irradiation;
- (vii) Dose of Irradiation;
- (viii) Serial Number of Batch;
- (ix) The nature, quality of food to be irradiated and Batch number;
- (x) Quantity of Food Irradiated;

- (xi) Physical appearance of article, before and after irradiation;
- (xii) Type of packaging used during the irradiation treatment and for packing the irradiated food;

**78. Standards of Irradiated Food-** The irradiated foods shall comply with all the provisions of the Prevention of Food Adulteration Act, 1954, and rules made thereunder specifying standards of such food.

## APPENDIX A

### FORMS

FORM 1  
[See Rule 4 (1)]

#### MEMORANDUM TO THE DIRECTOR, CENTRAL FOOD LABORATORY

FROM

-----

-----

To

The Director  
Central Food Laboratory,

\_\_\_\_\_

No.

Dated:

#### MEMORANDUM

1. I send herewith under the provision of section 13(2) of the Prevention of Food Adulteration Act, 1954, sample(s) of a food purporting to be \_\_\_\_\_ for test or analysis and request that a report on the result of the test or analysis may be supplied to this court---

- (1) Distinguishing No. on the container and other covering \_\_\_\_\_
- (2) Particulars of offence alleged \_\_\_\_\_
- (3) Matter on which opinion required \_\_\_\_\_

2. A fees of {Rs. 1000} for analysis of the sample is enclosed vide Demand Draft for {Rs.. 1000} drawn in favour of the Pay and Account Officer, Central Food Laboratory, Directorate General of Health Services, Calcutta payable at Bank of Baroda, 4, India Exchange Place, Calcutta-700001. The Director, Central Food Laboratories, on receipt of the Demand Draft from the Court shall immediately send the same of the central Food Laboratory, 3 Kyd Street, Calcutta-700016 for deposition in respective Receipt Head.

3. A Copy of the memorandum and the specimen impression of the seal used to seal container and the cover are sent separately by Registered Post.

{Magistrate First Class/Presidency Magistrate }

FORM 1A

{See Rule 4(1)}

FROM

-----  
-----

To

The Director  
Central Food Laboratory,  
\_\_\_\_\_

No.

Dated:

MEMORANDUM

1. I send herewith under the provision of section 6(2) of the Prevention of Food Adulteration Act, 1954, or clause (a) of Rule 3 of the Prevention of Food Adulteration Rules , 1955, sample(s) of a food purporting to be \_\_\_\_\_ for test or analysis and request that a report on the result of the test or analysis may be supplied to the undersigned.

(1) Distinguishing No. on the container and other covering \_\_\_\_\_

(2) Matter on which opinion required \_\_\_\_\_

2. A fees of {Rs. 1000} for analysis of the sample is enclosed vide Demand Draft for {Rs.. 1000} drawn in favour of the Pay and Account Officer, Central Food Laboratory, Directorate General of Health Services, Calcutta payable at Bank of Baroda, 4, India Exchange Place, Calcutta-700001. The Director, Central Food Laboratories, on receipt of the Demand Draft from the Court shall immediately send the same of the central Food Laboratory, 3 Kyd Street, Calcutta-700016 for deposition in respective Receipt Head.

3. A Copy of the memorandum and the specimen impression of the seal used to seal container and the cover are sent separately by Registered Post.

Customs Collector/Authorised Officer  
(Seal)

FORM II

[See Rule 4(5)]

CERTIFICATE OF TEST OR ANALYSIS BY THE CENTRAL FOOD LABORATORY

Certificate No. \_\_\_\_\_

Certified that the sample(s), bearing number \_\_\_\_\_ purporting to be a sample/samples of \_\_\_\_\_ was received on \_\_\_\_\_ with Memorandum No. \_\_\_\_\_ dated \_\_\_\_\_ from \_\_\_\_\_ (name of the court) for analysis .

The condition of seals on the container and the outer covering on receipt was as follows.

I \_\_\_\_\_ (name of the Director) \_\_\_\_\_ found the sample to be \_\_\_\_\_ (category of the food sample) \_\_\_\_\_ falling under item No. \_\_\_\_\_ of Appendix B of Prevention of Food Adulteration Rules, 1955/ proprietary food. The sample was in a condition fit for analysis and has been analysed on \_\_\_\_\_ (Give Date of starting and completion of analysis ) \_\_\_\_\_ and the result of its analysis is given below /was not in a condition fit for analysis for the reason given below:-

Reasons :-

Analysis Report:

(i) SampleDescription:-

(ii) PhysicalAppearance

(iii) Label:-

S.NO	Quality Characteristics	Name of Method of test used	Result	Prescribed Standards as Per: (a) Item ___ Appendix B (b) As per Label Declaration for Proprietary foods (c) As per Provision of the Act and Rules for both above
1				
2				
3				
4				
56				

Opinion:-

(Signature)

Director

Central Food Laboratory (Seal)

Place:

Date:

FORM III

[See Rule 7(3)]  
REPORT BY THE PUBLIC ANALYST

Report No: \_\_\_\_\_

Certify that I, \_\_\_\_\_(name of the Public Analyst)\_\_\_\_ duly Appointed as Public Analyst under the provision of the Prevention of Food Adulteration Act, 1954 for \_\_\_\_\_(name of the local area) \_\_\_\_\_received from \_\_\_\_\_ A sample of \_\_\_\_\_ bearing code number and serial number \_\_\_\_\_ of Local (Health) Authority on \_\_\_\_\_(Date of receipt of sample) \_\_\_\_\_for analysis.

The condition of seals on the container and the outer covering on receipt was as follows:\_\_\_\_\_

I found the sample to be \_\_\_\_\_(category of the food sample) \_\_\_\_\_falling under item no \_\_\_\_\_ of Appendix B of Prevention of Food Adulteration Rules 1955 /proprietary food . The Sample was in a condition fit for analysis and has been analysed on \_\_\_\_\_(Give Date of starting and completion of analysis)\_\_\_\_\_ and the result of its analysis are given below/ was not in a condition fit for analysis for the reason given below:

Reasons :-

Analysis Report:

(i)Sample \_\_\_\_\_ Description:-

(ii)Physical \_\_\_\_\_ Appearance \_\_\_\_\_ :

(iii)Label:- \_\_\_\_\_

S.NO	Quality Characteristics	Name of Method of test used	Result	Prescribed Standards as Per: (a) Item A___ of Appendix B (b) As per Label Declaration for Proprietary foods (c ) As per Provision of the Act and Rules for both above
1				
2				
3				

Opinion

Signed this \_\_\_\_\_ day of \_\_\_\_\_ 20

Address \_\_\_\_\_

(Signature)  
Public Analyst (Seal)

FORM IV

(See Rule 10)

To

(Name and address of the vendor)

\_\_\_\_\_  
\_\_\_\_\_

Whereas \_\_\_\_\_intended for food which is in your possession appears to me to be adulterated/misbranded.

Now therefore under sub-section(4) of section 10 of the prevention of Food Adulteration Act, 1954 (37 of 1954). I hereby direct you to keep in your safe custody the said sealed stock subject to such orders as may be issued subsequently in relation thereto.

Place  
Date

Food Inspector  
Area\_\_\_\_\_

**FORM IV -A**

**(See Rule 10)**

**BOND OF SURETY**

Know all men by these presents that we (i) \_\_\_\_\_ son of \_\_\_\_\_ resident of \_\_\_\_\_ and (ii) \_\_\_\_\_ son of \_\_\_\_\_ resident of \_\_\_\_\_ proprietors/ partners of Messrs \_\_\_\_\_ hereinafter called the vendor(s) and (iii) \_\_\_\_\_ son of \_\_\_\_\_ resident of \_\_\_\_\_ and (iv) \_\_\_\_\_ son of \_\_\_\_\_ resident of \_\_\_\_\_ hereinafter called the surety/sureties are held and firmly borne up to the President of India/Governor of \_\_\_\_\_ hereinafter called the Government of the sum of \_\_\_\_\_ rupees to be paid to the Government , for which payment will and truly to be made. We firmly bind ourselves jointly and severally by these presents.

Signed this \_\_\_\_\_ day of \_\_\_\_\_ one thousand nine hundred and \_\_\_\_\_

Whereas Shri \_\_\_\_\_ Food Inspector has seized \_\_\_\_\_ (Here insert the description of materials together with number/quantity and total price) hereinafter referred to as the said article) from \_\_\_\_\_ (specify the place).

And whereas on the request of the vendor(s) the Government agreed to keep the said article in the safe custody of the Vendor(s) on the condition of the Vendor(s) Executing a bond in the terms hereinafter contained and supported by surety / two sureties which the vendor(s) has/have agreed to do \_\_\_\_\_ Now the condition of the above written obligation is such that if in the event of the Vendor(s) failure to produce intact the said article before such court or authority and on such date(s) as may be specified by the said Food Inspector from time to time the Vendor(s) and/or the surety/sureties forthwith pay to the Government on demand and without a demur sum of \_\_\_\_\_ rupees the said bond will be void and of no effect. Otherwise the same shall be and remain in full force and virtue.

These presents further witness as follows:

- (i) The liability of the surety/sureties hereunder shall not be impaired or discharged by reason of time being granted by or any forbearance, act or omission of the Government whether with or without the knowledge or consent of the sureties or either of them in respect of or in relation to all or any of the obligations or conditions to be performed or discharged by the Vendor(s). Nor shall it be necessary for the Government to sue the Vendor(s) before suing the sureties or either of them for the amount due hereunder.



FORM V

(See Rule 11)

To

(Name and address of the Vendor)

\_\_\_\_\_

The stock of articles of food detailed below has this day been seized by me under the provisions of sub-section (4) of section 10 of the Prevention of Food Adulteration Act, 1954, (37 of 1954), from the premises of \_\_\_\_\_ situated at \_\_\_\_\_

Details of article of food seized.

Place

Food Inspector

Date

Area \_\_\_\_\_

FORM VI  
(See Rule 12)

To

\_\_\_\_\_

\_\_\_\_\_

I have this day taken from the premises of \_\_\_\_\_ situated at \_\_\_\_\_ samples of the food specified below to have the same analysed by the public analyst, for \_\_\_\_\_

Details of food:

[Code Number and Serial Number of Local (Health) Authority.]

Place

Food Inspector

Date

Area \_\_\_\_\_

FORM VI-A  
(See Rule 12-A)

FORM OF WARRANTY

Invoice No.:  
Form:

Place  
Dated:

To

Date of Sale	Name and quality of article/ Brand Name, if any	Batch No. or Code No.	Quantity	Price
1	2	3	4	5

I/We hereby certify that Food/foods mentioned in the invoice is/are warranted to be of the nature and quality which it/these purports/purport to be.

(Signature of Manufacturer/  
Distributor/Dealer)

Name and Address of  
Manufacturer/Packer  
In case of packed article.

Licence No:-----  
(wherever applicable)

FORM VI-B  
(See Rule 44-B)

DECLARATION

I/We on behalf of \_\_\_\_\_ solemnly declare that ghee sold by me/us on behalf of \_\_\_\_\_  
ghee used by me/us on behalf of \_\_\_\_\_ in the preparation of \_\_\_\_\_ Confectionery  
(including sweetmeats) is/was from a tin containing ghee of \_\_\_\_\_ origin and having "AGMARK"  
seal. The said tin pertains to batch number \_\_\_\_\_ -and was purchased by me/us on behalf  
of \_\_\_\_\_ from Shri/Shrimati/Kumari/Sarvsri \_\_\_\_\_ on the \_\_\_\_\_ as per  
invoice/cash/credit memo no. \_\_\_\_\_ dated \_\_\_\_\_

Signature of trader/traders.

Date:  
Place:

FORM VII

(See rule 17)

Memorandum to Public Analyst

From

\_\_\_\_\_  
\_\_\_\_\_

To

The Public Analyst,

\_\_\_\_\_  
\_\_\_\_\_

No. \_\_\_\_\_ Dated the \_\_\_\_\_

**MEMORANDUM**

The sample described below is sent herewith for analysis under section (b) of sub-section (1) of Section 10 and/or clause (c ) (ii) of Sub-section (1) of section 11 of the Prevention of Food Adulteration Act.

1. Code Number and Serial No of Local (Health) Authority.
2. Date and place of collection.
3. Nature of article submitted for analysis.
4. Nature and quantity of preservative, if any, added to the sample

A copy of this memo, and specimen impression of the seal used to seal the packet of sample is being sent separately by post/hand.

Specimen of seal used

Food Inspector  
Area-----

FORM VIII  
(See Rule 12-B)

NOMINATION OF PERSONS BY A COMPANY

Notice is hereby given that Shri/Smt. \_\_\_\_\_ Director / Manager of the \_\_\_\_\_ (name of the company) has been nominated by the Company by a Resolution passed at their meeting held on \_\_\_\_\_ at \_\_\_\_\_ to be incharge of , and responsible to, the said company for the conduct of the business of the said company or \_\_\_\_\_ establishment/branch/until thereof and authorised to exercises all such powers and take all such steps as may be necessary or expedient to prevent the commission by the said company of any offence under the Prevention of Food Arbitration Act, 1954.

A Certified copy of the said Resolution is enclosed.

Place \_\_\_\_\_  
Date \_\_\_\_\_

Managing Director/Secretary of  
\_\_\_\_\_  
(name of the company)

Note-Score out the portion which is not applicable.

I accept the above nomination in pursuance of sub-section (2) of section 17 of the Prevention of Food Adulteration Act,.1954 and Rule 12-B of the rules made thereunder.

Place \_\_\_\_\_

Signature of Director/Manager

Date

I hereby acknowledge receipt of the above nomination.

Place \_\_\_\_\_  
Date \_\_\_\_\_

Signature of Local (Health) Authority

## APPENDIX B

(See Rule 5)

### DEFINITIONS AND STANDARDS OF QUALITY

#### A.01 BEVERAGES – NON-ALCOHOLIC

**A.01.01—‘CARBONATED WATER’** means potable water impregnated with carbon dioxide under pressure and may contain any of the following singly or in combination.

Sugar, liquid glucose, dextrose monohydrate, invert sugar, fructose, honey, fruits and vegetables extractives and permitted flavouring, colouring matter, preservatives, emulsifying and stabilising agents, citric acid, ascorbic acid, fumaric acid and sorbitol, tartaric acid, phosphoric acid, lactic acid, ascorbic acid, malic acid, edible gums such as guar, karaya, arabic, carobean, furcellaran, tragacanth, gum ghatti, edible gelatin, albumin, licorice and its derivatives, salts of sodium, calcium and magnesium, vitamins caffeine not exceeding 200 parts per million, estergum (Glycerol ester of wood rosin not exceeding 100 parts per million, and } quinine salts not exceeding 100 parts per million (expressed as quinine sulphate. It may also contain Saccharin Sodium not exceeding 100 PPM or Acesulfame-K not exceeding 300 PPM, or Aspartame (methyl ester) not exceeding 700 PPM }

Provided that the quantity of added sugar shall be declared on the container/bottle and if no sugar is added that also shall be declared on the container/bottle as laid down in sub-clause (1) and (12) of sub-rule (ZZZ) of rule 42. In case of returnable bottles, which are recycled or refilling the declaration of quantity of added sugar and no sugar added may be given on the crown.

Provided also that the declaration of 'no sugar added' shall not be applicable for 'carbonated water (plain soda)'

Provided also that the products which contain aspartame, acesulfame or any other artificial sweetener for which special labeling provisions have been provided under rules 42,47 or any other rules under PFA Rules, 1955, shall not be packed, stored, distributed or sold in returnable containers.

It shall conform to the following requirements, namely:-

(1)	Total plate count per ml.	Not more than 50
(2)	Coliform count in 100 ml.	0
(3)	Yeast and mould count per ml.	not more than 2

Provided further that estergum used in carbonated water shall have the following standards, namely:-

“Glycerol esters of wood rosins commonly known as Estergum is hard yellow to pale amber coloured solid. It is a complex mixture of tri and diglycerol esters of rosin acids from wood rosin. It is produced by the esterification of pale wood rosin with food grade glycerol. It is composed of approximately 90 per cent resin acids and 10 per cent, neutrals ( non-acidic compounds). The resin acid fraction is a complex mixture of isomeric diterpenoid monocarboxylic acids having the typical molecular formula of  $C_{20}H_{30}O_2$  chiefly abietic acid. The substance is purified by steam stripping or by counter-current steam distillation.

Identification

Solubility

Insoluble in water, soluble in acetone and in Benzene.

Intra Red Spectrum Obtain the infra-red spectrum of a thin film of the sample deposited on a potassium bromide plate- Scan between 600 and 4000 wave numbers. Compare with typical spectrum obtained from pure Estergum.

Test for absence of Tall Oil Rosin (Sulfur test) Pass the test as given below:  
When sulphur containing organic compounds are heated in the presence of sodium formate, the sulphur is converted to hydrogen sulphide which can readily be detected by the use of lead acetate paper. A positive test indicates the use of tall oil rosin instead of wood rosin.

Apparatus- Test Tube: Use a standard, 10x75mm, heatresistant, glass test tube-Burner, Bunsen: A small size burner of the microflame type is preferred.

Reagents-Sodium Formate Solution : Dissolve 20g of reagent grade sodium formate, NaOOCH, in 100 ml of distilled water.

Lead Acetate Test Paper- Commercially available from most chemical supply houses.

Procedure – Weigh 40-50 mg of sample into a test tube add 1- 2 drops of sodium formate solution. Place a strip of lead acetate test paper over the mouth of the test tube. Heat the tube in the burner flame until fumes are formed that contact the test paper. Continue heating for 2-5 minutes. There must be no formation of a black spot of lead sulphide indicating the presence of sulphur containing compounds. Detection Limit: 50 mg/kg sulphur.

Drop softening point	Between 88 0 C and 96 0 C
Arsenic	Not more than 3 ppm.
Lead	Not more than 10 ppm
Heavy metals (as lead)	Not more than 40 ppm
Acid value	Between 3 and 9
Hydroxyl number	Between 15 and 45.

**A.02- 'BAKING POWDER '** means a combination capable, under conditions of baking, of yielding carbon dioxide, and consists of sodium bicarbonate, and acid-reacting material, starch or other neutral material.

The acid-reacting material of baking powder shall be-

- (a) tartaric acid or its salts, or both,
- (b) acid salts of phosphoric acid, or
- (c) acid compounds of aluminium, or
- (d) any combination of the foregoing

When tested, baking powder shall yield not less than 10 per cent of its weight of carbon dioxide.

### **A.03. STARCHY FOODS:**

**A.03.01- 'ARROWROOT'** means the separated and purified starch from the rhizomes of the plants known as *Maranta arundinacea* or from *Curcuma augustifolia*.

**A.03.02- SAGO** shall mean small hard globules or pearls made from either the starch of the Sago palm or the tubers or tapioca (*manihot utilissima*) and shall be free from any extraneous matter (including natural colours)

It shall conform to the following standards, namely:-

- (i) total ash (on dry basis) shall not be more than 0.4 per cent;
- (ii) ash insoluble in dilute hydrochloric acid (on dry basis) shall not exceed 0.1 per cent

**A.04 ASAFOETIDA (Hing or Hingra)** means the oleo-gum-resin obtained from the rhizome and roots of *Ferula alliaces*. *Ferula rubricaulis* and other species of *Ferula*. It shall not contain any colophony resin, galbanum resin, ammoniacum-resin, or any other foreign resin. Hing shall conform to the following standards, namely:-

- (1) Total ash content shall not exceed 15 per cent by weight.
- (2) Ash insoluble in dilute hydrochloric acid shall not exceed 2.5 per cent by weight
- (3) The alcoholic extract (with 90 percent alcohol) shall not be less than 12 per cent as estimated by the U.S.P 1936 method.
- (4) Starch shall not exceed 1 per cent by weight.

Hingra shall conform to the following standards, namely:-

- (1) The total ash content shall not exceed 20 per cent by weight.
- (2) Ash insoluble in dilute hydrochloric acid shall not exceed 8 per cent by weight.
- (3) The alcoholic extract (with 90 per cent alcohol ) shall not be less than 50 per cent as estimated by U.S.P 1936 method.
- (4) Starch shall not exceed 1 per cent by weight.

compounded asafetida or Bandhani Hing is composed of one or more varieties of asafetida (Irani or Pathani Hing or both) and gum arabic, (edible starches or edible cereal flour.

It shall not contain-

- (a) colophony resin,
- (b) galbanum resin,
- (c) ammoniacum-resin,
- (d) any other foreign resin,
- (e) coal-tar dyes,
- (f) mineral pigment,
- (g) more than 10 per cent total ash content,
- (h) more than 1.5 per cent ash insoluble in dilute hydrochloric acid,
- (i) less than 5 per cent alcoholic extract (with 90 per cent of alcohol), as estimated by the U.S.P, 1936 method

## A.05 SPICES AND CONDIMENTS:

**Note-** See Note regarding extraneous matters after item A.05.23.

**A.05.01 CARAWAY (Siahjira) Whole** means the dried seed of the plant *Carum carvi* (L). Extraneous matter including foreign edible seeds, chaff, stem, straw, dust, dirt, stones and lumps of earth shall not exceed 5 per cent by weight.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation- The term insect damaged matter means spices that are partially or wholly bored by insects

**A.05.01.01-CARAWAY (Siahjira) POWDER** means the powder obtained from the dried seeds of *Carum carvi* (L). It may be in the form of small pieces of the seeds or in finely ground form. It shall conform to the following standards:

Moisture-----Not more than 13.0 per cent by weight

Total ash-----Not more than 8.0 per cent by weight

Ash insoluble in dilute HCL-----Not more than 1.5 per cent by weight

It shall be free from added colouring matter

**A.05.02- CARAWAY BLACK** (*Carum bulbocastanum*) (Siahjeera) means the dried seeds of *Carum bulbocastanum*. It shall conform to the following standards.

Foreign edible seeds-----Not more than 5.0 per cent by weight

Total ash-----Not more than 9.0 per cent by weight

Ash insoluble in dilute HCL-----Not more than 1.5 per cent by weight

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation – the term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.03- CARDAMOM (Chhotti elachi) WHOLE** means the dried, nearly ripe fruits of *Elettaria cardamomum* (L). The percentage of extraneous matter shall not exceed 5.0 per cent by weight. The cardamom seeds obtained from the capsules shall contain not less than 3.0 per cent (v/w) of volatile oil.

The amount of insect damaged matter shall not exceed 5 percent by weight.

It shall be free from added colouring matter.

Explanation-The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.03.01- CARDAMOM(Chhotti Elachi) SEEDS** means the seeds obtained by separating the seeds from the capsules of *Elettaria cardamomum* (L). The percentage of extraneous matter in the seeds shall not exceed 2.0 per cent by weight. The seeds shall contain not less than 3.0 per cent (v/w) of volatile oil.

The amount of insect damaged matter shall not exceed 5 per cent by weight

It shall be free from added colouring matter

Explanation-The term insect damaged matter means spices that are partially or wholly bored by insects.

**A.05.03.02- CARDAMOM (Chhotti Elachi) Powder** means the powder obtained from the seeds separated from the capsules of *Elettaria cardamomum* (L). It may be in the form of small pieces of the seeds or in finely ground form. It shall conform to the following standards:

Moisture-----Not more than 14.0 per cent by weight  
Total ash-----Not more than 8.0 per cent by weight  
Volatile oil-----Not less than 3.0 per cent (V/W)  
Ash insoluble in dilute HCL-----Not more than 3.0 per cent by weight

It shall be free from added colouring matter

**A.05.04—CARADMOM AMOMUM (Badi Elachi) WHOLE** means the dried, nearly ripe fruit of *Amomum subulatum* Roxb, in the form of capsules. The proportion of calyx pieces, stalk bits and other extraneous matter shall not exceed 5.0 per cent by weight. The cardamom amomum seeds obtained from the capsules shall contain not less than 1.0 per cent (v/w) of volatile oil.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation- The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.04.01- CARDAMOM AMOMUM (Badi Elachi) SEEDS** means the seeds obtained by separating the seeds from the cardamom amomum capsules of *Amomum subulatum* Roxb. The percentage of extraneous matter in the seeds shall not exceeds 2.0 per cent. Weight. The seeds shall contain not less than 1.0 per cent (v/w) of volatile oil.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation-The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.04.02 – CARDAMOM AMOMUM (Badi Elachi) POWDER** means the powder obtained from the seeds separated from the capsules of *Amomum subulatum* Roxb. It may be in the form of small pieces of the seeds or in finely ground form. It shall conform to the following standards:

Moisture-----Not more than 14.0 per cent by weight  
Total ash-----Not more than 8.0 per cent by weight  
Volatile oil-----Not less than 1.0 per cent (V/W)  
Ash insoluble in dilute HCL-----Not more than 3.0 per cent by weight

It shall be free from added colouring matter.

**A.05.05- CHILLIES (Lal Mirchi) [WHOLE]** means the dried ripe fruits or pods of *Capsicum annum* / *Capsicum frutescens* (L). The proportion of extraneous matter including calyx pieces, loose tops, dirt

lumps of earth , stones shall not exceed 5.0 per cent by weight. The pods shall be free from extraneous colouring matter, coating of mineral oil and other harmful substances.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

Explanation-The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.05.01- CHILLIES (Lal mirchi) POWDER** means the powder obtained by grinding clean dried chilli pods of *Capsicum frutescens L/Capsicum annum*. The chilli powder shall be dry, free from dirt, mould growth , insect infestation, extraneous matter, added colouring matter and flavouring matter. The chilli powder may contain any edible oil to a maximum limit of 2 per cent by weight under a label declaration for the amount and the nature of oil used. The chilli powder shall conform to the following standards :

Moisture-----Not more than 12.0 per cent by weight.  
Total ash-----Not more than 8.0 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 1.3 per cent by weight.  
Non-volatile ether extract-----Not less than 12.0 per cent by weight.  
Crude fibre-----Not more than 30.0 per cent by weight.

**A.05.06 --- CINNAMON (Dalchini) WHOLE** means the dried pieces of the inner bark of *Cinnamomum zeylanicum Blume*. It shall not contain any other foreign vegetable matter of colouring matter. It shall contain not less than 0.5 per cent (v/w) of volatile oil.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

Explanation – The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.06.01- CINNAMON (Dalchini) POWDER** means the powder obtained by grinding the dried inner bark of *Cinnamomum zeylanicum Blume*. The cinnamon powder shall conform to the following standards:

Moisture-----Not more than 12.0 per cent by weight.  
Total ash-----Not more than 8.0 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 2.0 per cent by weight.  
Volatile oil-----Not less than 0.5 per cent (v/w)

It shall be free from added colouring matter.

**A.05.06.02—CASSIA (Taj) WHOLE** means the dried piece of bark of *Cinnamomum Cassia Blume*. Syn. *Cinnamomum aromaticum*. Nees (Chinese Cinnamon, or *Cassia lignea*). It shall not contain any other foreign vegetable matter or colouring matter.

**A.05.07- CLOVES(Laung) WHOLE** means the dried, unopened flower buds of *Eugenia Carryophyllus (C.Sprengel) Bullock and Harrison*. The inorganic extraneous matter shall not exceed 0.5 per cent by weight and the organic extraneous matter, which includes vegetable matter of plants other than cloves, tendril cloves (peduncle), mother cloves or other matters of plants of cloves , shall not exceed two per cent by weight. (Headless cloves shall not be considered as extraneous matter). The amount of insect damaged clove shall not exceed 1.0 per cent by weight.

The clove (on dry basis) shall contain not less than 15.0 per cent (v/w) of volatile oil. It shall be free from added colouring matter.

Explanation—

- (i) The term ‘insect damaged clove’ means the cloves that are partially or wholly bored by insects.
- (ii) The term “headless cloves” means the cloves constituted only by the receptacle and sepals.

**A.05.07.01—CLOVES (Laung) POWDER** means the powder obtained by grinding the dried unopened flowers buds of *Eugenia Caryophyllus* (C.SPRENGEL) BULLOCK and HARRISON. The cloves powder shall conform to the following standards :

Moisture-----Not more than 12.0 per cent by weight.  
Total ash-----Not more than 7.0 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 1.5 per cent by weight.  
Volatile oil-----Not less than 15.0 per cent (V/W).

It shall be free from added colouring matter.

**A.05.08---CORIANDER (Dhania) WHOLE** means the dried mature fruits (seeds) of *Coriandrum sativum* (L). The proportion of extraneous matter including dust, dirt, stones, lumps of earth, chaff, stalk, stem or straw, edible seeds of fruits other than coriander and insect damaged seeds shall not exceed 8.0 per cent by weight.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation – The term ‘insect damaged matter ‘ means spices that are partially or wholly bored by insects.

**A.05.08.01—CORIANDER (Dhania) POWDER** means the powder obtained by grinding clean dried coriander fruits of *Coriandrum sativum* (L). It shall be in the form of a rough or fine powder. It shall conform to the following standards :

Moisture-----Not more than 12.0 per cent by weight.  
Total ash-----Not more than 7.0 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 1.5 per cent by weight.

It shall be free from added colouring matter.

**A.05.09—CUMIN (Safed Jeera) WHOLE** means the dried seeds of *Cuminum cyminum* (L). The proportion of extraneous matter including dust, stones, lumps, of earth, chaff, stem or straw shall not exceed 7.0 per cent by weight. The proportion of edible seeds other than cumin seeds shall not exceed 5.0 per cent by weight.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation - The term ‘insect damaged matter’ means the spices that are partially or wholly bored by insects.

**A.05.09.01—CUMIN(Safed jeera) POWDER** means the powder obtained by grinding the dried seeds of *Cuminum cyminum* (L). The powder shall conform to the following standards.

Moisture-----Not more than 12.0 per cent by weight.  
Total ash-----Not more than 9.5 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 1.5 per cent by weight.

It shall be free from added colouring matter.

**A.05.10—CUMIN BLACK (Kalonji) WHOLE** means the dried seeds of *Nigella sativa*L. The proportion of extraneous matter including dust, dirt, stones, lumps of earth, chaff, stem or straw shall not exceed 7.0 per cent by weight. The proportion of edible seeds other than cumin black shall not exceed 5.0 per cent by weight.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter

Explanation – The term ‘insect damaged matter’ means the spices that are partially or wholly bored by insects.

**A.05.10.01---CUMIN BLACK (KALONJI) POWDER** means the powder obtained by grinding the dried seeds of *Nigella sativa* L. The powder shall conform to the following standards:

Moisture-----Not more than 12.0 per cent by weight.  
Total ash-----Not more than 7.0 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 1.5 per cent by weight.  
Volatile oil-----Not less than. 0.5 per cent (V/W)

It shall be free from added colouring matter.

**A.05.11—FENNEL (Saunf) WHOLE** means the dried ripe fruits of *Foeniculum vulgare* Mill. The proportion of extraneous matter including dust, dirt, stones, lumps of earth, chaff, stem or straw shall not exceed 5.0 per cent by weight. The proportion of edible seeds other than fennel shall not exceed 5.0 per cent by weight.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation---- The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.11.01---FENNEL (SAUNF) POWDER** means the powder obtained by grinding the dried ripe fruits of *Foeniculum vulgare* Mill. The powder shall conform to the following standards:

Moisture-----Not more than 12.0 per cent by weight.  
Total ash-----Not more than 9.0 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 2.0 per cent by weight.  
Volatile oil-----Not less than 1.0 per cent (v/w).

It shall be free from added colouring matter.

**A.05.12—FENUGREEK (Methi) WHOLE** means the dried ripe seeds of *Trigonella faonum-groecum* (L). The proportion of extraneous matter including dust, dirt, stones, lumps of earth, chaff, stem or straw shall not exceed 5.0 per cent by weight. The proportion of edible seeds other than fenugreek shall not exceed 5.0 per cent by weight.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation- The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.12.01—FENUGREEK (Methi) POWDER** means the powder obtained by grinding the dried ripe seeds of *Trigonella foenum graecum* L. The powder shall conform to the following standards:

Moisture-----Not more than 10.0 per cent by weight.  
Total ash-----Not more than 7.0 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 2.0 per cent by weight.  
Cold water soluble extract-----Not less than 30.0 per cent by weight.

It shall be free from added colouring matter.

**A.05.13--- GINGER(SONTH,ADRAK) WHOLE** means the rhizomes of *Zingiber officinale* Rose in pieces irregular in shape and size with peel not entirely removed, washed and dried in the sun. The proportion of extraneous matter shall not exceed 2.0 per cent by weight. It shall contain on dry basis not less than 1.0 per cent (v/w) of volatile oil. If the ginger is limited, the lime (Calcium Oxide) content shall not exceed 4.0 per cent by weight on dry basis.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation ----The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.13.01 ----GINGER (SONTH, ADRAK) POWDER** means the powder obtained by grinding (*Zingiber officinale* Rose) whole . The powder shall conform to the following standards :

Moisture-----Not more than 13.0 per cent by weight.  
Total ash-----Not more than 8.0 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 1.0 per cent by weight.  
Water soluble ash-----Not less than 1.7 per cent by weight.  
Cold water soluble extract-----Not less than 10.0 per cent by weight.  
Calcium (as CaO)-----Not more than 4.0 per cent by weight on dry basis.  
Alcohol (90 per cent v/w)-----Not less than 4.5 per cent by weight.  
Soluble extract  
Volatile oil-----Not less than 1.0 per cent (v/w).

It shall be free from added colouring matter.

**A.05.14-----MACE (Jaepatri) WHOLE** means the dried coat or arilus of the seed of *Myristica Frangrans* Houtt. It shall not contain the arilus of any other variety of *Myristica Nalabarica* of Fatua (Bombay mace) and *Myristica argentea* (Wild mace). The proportion of extraneous matter shall not exceed 3.0 per cent by weight.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation---The term 'insect damaged matter' means spices that are partially or wholly bored by insects.

**A.05.14.01---MACE(JAEPATRI) POWDER** means the powder obtained by grinding the dried coat or arilus of the seed *Myristica fragrans* Houtt. The powder shall conform to the following standards :

Moisture-----Not more than 10.0 per cent by weight.  
Total ash-----Not more than 3.0 per cent by weight.  
Ash insoluble in dilute HCL-----Not more than 1.0 per cent by weight.  
Crude fibre-----Not more than 10.0 per cent by weight.  
Non-volatile ether extract-----Not less than 20.0 and not more than 30.0.  
Per cent by weight.

It shall be free from added colouring matter.

**A.05.15- MUSTARD (Rai, Sarson) WHOLE** means the dried seeds of *Brassica alba* (L) Boiss (Safed rai), *Brassica compestris* L. var. *dichotoma* (Kali Sarson), *Brassica Compestris* L.Var. yellow Sarson, Syn,*Brassica compestris* L, var, *glauca* (Pili Sarson), *Brassica compestris* L. var. *toria*(Toriam), *Brassica Juncea* (L) Coss, et Czern (Rai Lotni) and *Brassica nigra* (L) Koch (Banarasi rai). The proportion of extraneous matter which includes dust, dirt, stones lumps of earth, chaff, stem,straw, edible foodgrains, edible oilseeds of any other variety or any other impurity shall not exceed 7.0 per cent by weight. It shall be free from seeds of *Argemone Mexicana* Linn.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation – The term 'insect damaged matter' means spices that are partially or wholly bored by insects.

**A.05.15.01- MUSTARD (RAI, SARSON) POWDER** means the powder obtained by grinding the dried seeds of *Brassica alba*(L) Boiss (Safed rai), *Brassica compestris* L.Var. *Dichotoma* (Kali Sarson), *Brassica compestris* L.var. (Yellow sarson), Syn, *Brassica compestris* L.var *glauca* (Pili Sarson), *Brassica compestris* L. var, *tosia* (Toriam), *Brassica juncea* (L) Coss et Czern (Rai, Lotni) and *Brassica nigra* (L.) Koch ( Benarasi rai). The powder shall conform to the following standards :

Moisture----- Not more than 7.0 per cent by weight.  
Total ash----- - Not more than 8.0 per cent by weight.  
Volatile oil----- Not less than 0.25 per cent (V/W).  
Non-volatile ether extract---- - Not more than 22.0 per cent by weight.  
Ash insoluble in dilute HCI----- Not more than 2.0 per cent by weight.  
Crude fibre-----Not more than 8.0 per cent by weight.  
Starch-----Not more than 15.0 per cent by weight.

The test for argemone oil shall be negative.

It shall be free from added colouring matter.

**A.05.16—NUTMEG(JAIPHAL) WHOLE** means the dried seeds of *Myristica fragrans* Houtt. The proportion of extraneous matter and infestation shall not exceed 3.0 per cent by weight.

It shall be free from added colouring matter.

**A.05.16.01---NUTMEG (JAIPHAL) POWDER** means the powder obtained by grinding the dried seeds of *Myristica fragrans* Houtt. The powder shall conform to the following standards:

Moisture-----Not more than 8.0 per cent by weight.  
Total ash-----Not more than 5.0 per cent by weight.  
Ash insoluble in dilute HCl----- Not more than 0.5 per cent by weight.  
Non-volatile ether extract---- Not less than 25.0 per cent by weight.  
Crude fibre-----Not more than 10.0 per cent by weight.

It shall be free from added colouring matter.

**A.05.17---PEPPER BLACK(KALIMIRCH) WHOLE** means the dried berries of *Piper nigrum* L. brown to black in colour with wrinkled surface. The proportion of extraneous matter including dust, stalks, leafy matter and other foreign matter shall not exceed 3.0 per cent by weight. The proportion by weight of light berries and pinhead shall not exceed 10.0 per cent and 4.0 per cent respectively.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation—The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.17.01---PEPPER BLACK (KALIMIRCH) POWDER** means the powder obtained by grinding the dried berries of *Piper nigrum* L. and shall be without the addition of any other matter. The powder shall conform to the following standards:

Moisture-----Not more than 12.5 per cent by weight.  
Total ash-----Not more than 8.0 per cent by weight.  
Ash insoluble in dilute HCl----- Not more than 1.2 per cent by weight.  
Non-volatile ether extract---- Not less than 5.5 per cent by weight.  
Crude fibre----- Not more than 18.0 per cent by weight.

It shall be free from added colouring matter.

**A.05.17.02---LIGHT BLACK PEPPER**-Light black Pepper means the dried berries of *Piper nigrum* L. dark brown to dark black in colour. It shall be well dried and free from mould or insects and shall not contain more than 6 per cent extraneous matter including dust, stone lump of earth, stalks, leafy matters and other foreign edible seeds and 10 per cent pinheads.

It shall be free from added colouring matter.

**A.05.17.03- PINHEADS-** Pinheads shall be wholly derived from the spikes of *Piper nigrum*. They shall be reasonably dry and free from insects. The colour shall be from dark brown to black. The extraneous matter shall not exceed 6 per cent.

It shall be free from added colouring matter.

**A.05.18—POPPY (KHAS-KHAS) WHOLE** means the dried seeds of the ripe fruit of *Papaver Somniferum* L. The seed may be white or greyish in colour. The proportion of extraneous matter shall not exceed [5.0] per cent by weight. It shall contain not less than the 40.0 per cent by weight of non-volatile ether extract.

It shall be free from added colouring matter.

**A.05.19—SAFFRON (KESAR) WHOLE** means the dried stigmata or tops of styles of *Crocus sativus* L. It shall not contain any foreign colouring matter or any other extraneous matter. It shall conform to the following standards:

Total ash-----Not more than 8.0 per cent by weight.  
Ash insoluble in dilute HCl----- Not more than 1.5 per cent by weight.  
Volatile matter at 103  $0 \pm 1$   
degree C. ----- Not more than 14.0 per cent by weight  
Aqueous extract----- Not less than 55 per cent by weight  
Total Nitrogen (on dry weight basis)-----Not less than 2 per cent by weight  
Foreign matter such as sand,  
earth, dust, leaf, stem, chaff  
and vegetable matter-----Not more than 1 per cent  
Floral waste defined as yellow  
filaments, pollen, stamens, parts  
of ovary and other parts of  
flowers of *Crocus sativus* Linn-----Not more than 15 per cent

Saffron shall be free from living insects, moulds and shall be partially free from dead insects, insect-fragments and rodent contamination visible to naked eye.

**A.05.20---TURMERIC(HALDI) WHOLE** means the dried rhizome or bulbous roots of the plant of *Curcuma longa* L. It shall be free from lead chromate and other artificial colouring matter. The proportion of extraneous matter shall not exceed 2.0 per cent by weight.

The amount of insect damaged matter shall not exceed 5 per cent by weight.

Explanation – The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A05.20.01-TURMERIC (HALDI) POWDER** means the powder obtained by grinding the dried rhizomes or bulbous roots of the plant of *Curcuma longa* L. It shall be free from artificial colouring matter. The powder shall conform to the following standards

Moisture-----Not more than 13.0 per cent by weight.  
Total ash-----Not more than 9.0 per cent by weight.  
Ash insoluble in dilute HCl----- Not more than 1.5 per cent by weight.

Test for lead chromate-----Negative.  
Total starch per cent by weight-----Not more than 60.0 per cent.

**A.05.21---CURRY POWDER** means the powder obtained from grinding clean, dried and sound spices belonging to the group of aromatic herbs and seeds such as black pepper, cinnamon, cloves, coriander, cardamom, chillies, cumin seeds, fenugreek, garlic, ginger, mustard, poppy seeds, turmeric, mace nutmeg, curry leaves, white pepper, saffron and aniseeds. The material may contain added starch and edible common salt. The proportion of spices used in the preparation of curry powder shall be not less than 85.0 per cent by weight. The powder shall be free from dirt, mould growth and insect infestation. It shall be free from any added colouring matter and preservatives other than edible common salt. The curry powder shall also conform to the following standards:

Moisture----- Not more than 14.0 per cent by weight.  
Volatile oil----- Not less than 0.25 per cent (V/W) on dry basis.  
Non-volatile ether extract---- Not less than 7.5 per cent by weight on dry basis.  
Edible common salt-----Not more than 5.0 per cent by weight on dry basis.  
Ash insoluble in dilute HCl----- Not more than 2.0 per cent by weight on dry basis.  
Crude fibre-----Not more than 15.0 per cent by weight on dry basis.  
Lead-----Not more than 10.0 p.p.m. on dry basis.

**A.05.21.01—MIXED MASALA (WHOLE)** means a mixture of clean, dried and sound aromatic herbs and spices. It may also contain dried vegetables and/or fruits, oilseeds, garlic, ginger, poppy seeds and curry leaves. It shall be free from added colouring matter. It shall be free from mould growth and insect infestation. The proportion of extraneous matter shall not exceed five per cent by weight, out of which the proportion of organic matter including foreign edible seeds, and inorganic matter shall not exceed three per cent and two per cent, respectively.

**A.05.22- ANISEED or Saunf** imported means the dried ripe fruit of *Pimpinella anisum*. Foreign edible seeds or matter shall not exceed 5.0 per cent by weight. It shall conform to the following standards :

Total ash-----Not more than 9.0 per cent by weight  
Ash insoluble in dilute HCl----- Not more than 1.5 per cent by weight  
Volatile oil-----Not less than 1.0 per cent by (v/w)

The amount of insect damaged matter shall not exceed 5 per cent by weight.

It shall be free from added colouring matter.

Explanation – The term ‘insect damaged matter’ means spices that are partially or wholly bored by insects.

**A.05.23---AJOWAN (BISHOP’S WEED)** means the dried ripe seeds of *Trachyspermum ammi* (Linn) Sprague. The proportion of organic and inorganic extraneous matter shall not exceed 3 per cent and 2 per cent respectively. The seeds shall be free from living insects, insect fragments and rodent contamination visible to the eyes.

It shall be free from added colouring matter.

**A.05.24- DRIED MANGO SLICES** means the dried wholesome, edible part of raw mango fruit with or without the outer skin. It shall be free from fungus, moulds and insect infestation, rodent contamination, added colouring flavouring matter. It shall also be free from deleterious substances injurious to health. It shall not contain any preservative except edible common salt which may be added to the extent of 5 per

cent by weight on dry basis. It shall have characteristic taste and flavour. The proportion of extraneous substance shall not exceed 4 per cent by weight out of which inorganic matter shall not exceed 2 per cent by weight .

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

Moisture-----Not more than 12 per cent by weight.  
Damaged Slices----- Not more than 5 per cent by weight.  
Seed Coatings----- Not more than 6 per cent by weight.

Explanation:

- (i) Seed coatings shall be exterior covering of the seed.
- (ii) Damaged slices mean the slices that are eaten by weevils or other insects and includes slices internally damaged by fungus , moisture or heating:

**A.05.25- Dried Mango Powder (Amchur)** means the powder obtained by grinding clean and dried mango slices have characteristic taste and flavour. It shall be free from musty odour and objectionable flavour, rodent contamination, mould, fungus and insect infestation, extraneous matter and added colouring, flavouring matter. It shall also be free from deleterious substances injurious to health. It shall not contain any preservative except edible common salt which may be added to the extent of 5 per cent by weight on dry basis.

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

Moisture-----Not more than 12 per cent by weight.  
Total ash(Salt-free basis) -----Not more than 6 per cent by weight.  
Ash insoluble in dilute HCl----- Not more than 1.5 per cent by weight.  
Crude fibre----- Not more than 6 per cent by weight.  
Acidity ash anhyd tartaric Not less than 12.0 per cent and not more.  
Acid-----than 26.0 per cent by weight.

Note---- (1) The extraneous matter wherever prescribed under this item shall be classified as follows :

- (a) Organic extraneous matter such as chaff, stems , straw.
- (b) Inorganic extraneous matter such as dust, dirt, stones and lumps of earth.

(2) Of the permitted extraneous matters in terms A.05.01, A.05.03, A.05.04, A.05.05, A.05.08, A.05.09, A.05.10, A.05.11, A.05.12, A.05.14, A.05.15, A.05.16 A.05.17 and A.05.18 the inorganic extraneous matter shall not exceed 2 per cent by weight.

**A.05.26----Pepper White Whole** means the dried berries of piper nigrum linnacus from which outer pericarp has been removed. The berries will be light brown to white in colour with smooth surface. The proportion of extraneous matter including dust, stalks, leafy matter and other foreign matter shall not exceed 1 per cent, by weight. Proportion of black berries whole shall not exceed 5 per cent by weight. Bulk density for determining proportion of while light berries shall not be less than 600 gm per litre.

The amount of insect damaged matter shall not exceed 5 per cent by weight it shall be free from added colouring matter.

Explanation – The term “insect damaged matter” means spices that are partially or wholly bored by insects.

**A.05.26.01—Pepper White Powder** means the powder obtained by grinding the white pepper whole and shall be without the addition of any other foreign matter. It shall conform to the following standards, namely:-

- (i) Moisture ----- -Not more than 14.0 per cent , by weight
- (ii) Total Ash(on dry basis)----- Not more than 3.5 per cent , by weight
- (iii) Ash insoluble in dilute HCL----- Not more than 0.3 per cent , by weight  
(on dry basis)
- (iv) Non-volatile ether extract----- Not less than 6.5 per cent , by weight  
(on dry basis)
- (v) Piperine Content (on dry basis)----- Not less than 4.0 per cent , by weight
- (vi) Crude fibre insoluble index----- Not more than 6.5 per cent , by weight  
(on dry basis)

It shall be free from added colouring matter.

**A.06---Bean means** dry kidney shaped or flattened seeds of the leguminous varieties used as food, either whole or prepared as dall. It shall not contain hydrocyanic acid exceeding 20 parts per million as determined by A.O.A.C Maceration method.

**A.07—SWEETENING AGENTS:**

**A.07.01----**“**PLANTATION WHITE SUGAR**” (commonly known as sugar) means the crystallised product obtained from sugarcane or sugar beet. It shall be free from dirt, filth, iron fillings and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards, namely:-

- (a) Moisture (when heated at 105  $0 \pm 1$  degree C for 3 hours) Not more than 0.5 per cent by weight.
- (b) Sucrose Not less than 98 per cent by weight.

Sulphur dioxide shall not exceed 70 parts per million.

**A.07.01.01—MISRI** means the product made in the form of candy obtained from any kind of sugar or palmyrah juice. 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, namely:-

- (a) Total ash Not more than 0.4 per cent by weight.
- (b) Total sugar (called known or expressed as Sucrose) Not less than 98.0 per cent by weight.

Sulphur dioxide shall not exceed 70 parts per million.

**A.07.01.02----**“**REFINED SUGAR**” means the white crystallised sugar obtained by refining of plantation white 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 confirm to the following standard, namely:-

- (a) Moisture (when heated at 105 degree  $\pm 1$  degree C for 3 hours) Not more than 0.5 per cent by weight.
- (b) Sucrose Not less than 99.5 per cent by weight.

**A.07.02----**“KAHANDSARI SUGAR” obtained from sugarcane juice by open pan process may be of two varieties, namely:-

- (i) Khandsari Sugar Desi; and
- (ii) Khandsari Sugar (Sulphur) all 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:-

	Khandsari Sugar (Sulphur Sugar)	Khandsari Sugar (Desi)
(1) Moisture (when heated at 105 degree $\pm$ 1 degree C for 3 hours)	Not more than 1.5 Per cent by weight	Not more than 1.5 Per cent by weight
(ii) Ash insoluble in dilute hydrochloric acid	Not more than 0.5 per cent by weight	Not more than 0.7 per cent by weight
(iii) Surcose	Not less than 96.5 per cent by weight.	Not less than 93.0 per cent by weight.
(iv) Sulphur Dioxide	Not more than 150 parts per million	Absent

Note-Khandsari sugar can be distinguished from plantation white sugar on the following characteristics, namely:-

	Khandsari Sugar	Sugar
(a) Conductivity (10 <sup>-6</sup> mho/cm <sup>2</sup> )	100-300 in 5% solution at 30 degree C.	Not more than 100 in 5% solution at 30 degree C
(b) Calcium oxide (mg/100gm )	Not more than 100	Not more than 50

**A.07.02.01—“BURA SUGAR”** means the fine grain size product made out of 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, namely:-

- (a) Sucrose Not less than 90.0 per cent by weight.
- (b) Ash insoluble in dilute Hydrochloric acid. Not more than 0.7 per cent by weight.

Sulphur dioxide, shall not exceed 150 parts per million.

**A.07.03—HONEY** means the natural sweet substance produced by honey bees from the nectar of blossoms or from secretions of plants which honey bees collect, transform store in honey combs for ripening.

When visually inspected, the honey shall be free from any foreign matter such as mould, dirt, scum, pieces of beeswax, the fragments of bees and other insects and from any other extraneous matter.

The colour of honey vary from light to dark brown.

Honey shall conform the following standards, namely:-

(a)	Specific gravity at 27 degree C	Not less than 1.35 percent by mass
(b)	Moisture	Not less than 25 percent by mass
(c)	Total reducing sugar	Not less than 65 percent by mass
(c)	(i) for Cardia colossa and Honey dew	Not less than 60 percent by mass
(d)	Sucrose	Not less than 5.0 percent by mass
(d)	(i) for carbia colossa and Honey dew	Not less than 1.0 percent by mass
(e)	Fructose -glucose ration	Not less than 0.95 percent by mass
(f)	Ash	Not less than 0.5 percent by mass
(g)	Acidity (Expressed as formic acid)	Not less than 0.2 percent by mass
(h)	Fiehe's test	Negative
(i)	Hydroxy methyl furfural (HMF), mg/kg	Not more than 80

If Fiehe's test is positive and hydroxy methyl furfural (HMF) content is more than 80 milligram/kilogram then fructose glucose ration should be 1.0 or more.

**A.07.04---** “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. It may also contain permitted stabilizers and / or emulsifiers not exceeding 0.5 per cent by weight. It shall not contain any artificial sweetner.

**A.07.04.01---**ICE CANDY means the frozen ice produce which may contain fruit, fruit juices, cocoa, nuts, citric acids, permitted flavours and colours. It may also contain permitted stabilizers and / or emulsifiers not exceeding 0.5 per cent by weight . The Total sugar expressed as sucrose shall not be less than 10 per cent. by weight. It shall not contain any artificial sweetner.

**A.07.05---** GUR OR JAGGERY means the product obtained by boiling or processing juice pressed out of sugarcane or extracted from palmyra palm, date palm or coconut palm. It shall be free from substances deleterious to health and shall conform to the following analytical standards on dry weight basis:

- (i) total sugars expressed as invert sugar not less than 90 per cent and sucrose not less than 60 per cent.
- (ii) extraneous matter insoluble in water not more than 2 per cent.
- (iii) total ash not more than 6 per cent.
- (iv) ash insoluble in hydrochloric acid (HCl) not more than 0.5 per cent.

Gur or jaggery other than that of the liquid or semi-liquid variety shall not contain more than 10 per cent moisture.

Gur or jaggery may contain sulphur dioxide in concentration not exceeding 70 parts per million. Sodium bicarbonate, if used, for clarification purposes, shall be of Food Grade Quality.

**A.07.06---**CUBESUGAR means the sugar in the form of cube or cuboid blocks manufactured from refined crystallised sugar. It shall be white in colour , free from dirt and other extraneous contamination. It shall conform to the following standards :

(a)	Surcrose	Not less than 99.7 per cent by weight.
(b)	Moisture	Not more than 0.25 per cent by weight.
(c)	Total ash	Not more than 0.03 per cent by weight.
(d)	Sulphur dioxide	Not more than 70 p.p.m.

**A.07.07---DEXTROSE** is a white or light cream granular powder, odourless and having a sweet taste.

When heated with potassium cupritartrate solution it shall produce a copious precipitate of cuprous oxide. It shall conform to the following standards:-

Sulphated ash	Not more than 0.1 per cent on dry basis
Acidity	0.5 gm. Dissolved in 50 ml. of freshly boiled and cooled water requires for neutralisation not more than 0.20 ml. of N/10 sodium hydroxide to phenolphthalein indicator,
Glucose	Not less than 99.0 per cent on dry basis.
Sulphur dioxide content	shall not exceed 70 p.p.m.

**A.07.08-----GOLDEN SYRUP** means the syrup obtained by inversion of sugar. It shall be golden yellow in colour , pleasant in taste and free from any crystallisation. It shall conform to the following standards:-

Moisture	Not more than 25.0 per cent by weight.
Total ash	Not more than 2.5 per cent by weight.
Total Sugar as invert sugar	Not less than 72.0 per cent by weight.
Sulphur dioxide content	shall not exceed 70.0 p.p.m.

Sodium bicarbonate, if used, for clarification purposes, shall be of Food Grade Quality.

**A.07.08.1---SYNTHETIC SYRUP OR SHARBAT** means the syrup obtained by blending syrup made from sugar, dextrose or liquid glucose.

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

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

**A.07.09—ICING SUGAR** means the sugar manufactured by pulverizing refined sugar or vacuum pan (plantation white), sugar with or without edible starch. Edible starch , if added , shall be uniformly extended in the sugar . It shall be in form of white powder, free from dust, or any other extraneous matter. It shall conform to the following standards:-

(a) Total starch and sucrose (moisture free)	Not less than 99.0 per cent by weight.
(b) Moisture	Not more than 0.80 per cent by weight.
(C) Starch	Not more than 4.0 per cent by weight on dry basis.

**A.07.10—SACCHARIN SODIUM** commonly known as soluble saccharin having an empirical formula as  $C_7H_4NNAO_3S \cdot 2H_2O$  and molecular weight as 241.2 shall be the material which is soluble at 20 degree C in 1.5 parts of water and 50 parts of alcohol (95 per cent ), and shall contain not less than 98.0 per cent and not more than the equivalent of 100.5 per cent of  $C_7H_4O_3NSNa$  calculated with reference to the substance dried to constant at 105 degree C , assay being carried out as presented in Indian Pharmacopoeia, It shall not contain more than 2 p.p.m. of arsenic and 10 p.p.m of lead. The melting point of Saccharin isolated from the material as per Indian Pharmacopoeia method, shall be between 226

degree C and 230 degree C. The loss on drying of the material at 105 degree C shall not be less than 12.0 per cent and not more than 16.0 per cent of its weight.

The material shall satisfy the tests of identification and shall conform to the limit tests for free acid or alkali, ammonium compounds and parasulpha moylbenzoate as mentioned in the Indian Pharmacopoeia.

**A.07.11--- DRIED GLUCOSE SYRUP** means the material in the form of coarse or fine white to creamish white powder, sweet to taste, bland in flavour and somewhat hygroscopic . It shall be free from fermentation, evidence of mould growth, dirt or other extraneous matter, or added sweetening or flavouring agent.

It shall also not contain any added natural or coaltar food colour. It shall conform to the following standards:-

(a) Total solid content	Not less than 93.0 per cent by weight.
(b) Reducing sugar content	Not less than 20.0 per cent by weight.
(c) Sulphated ash	Not more than 1.0 per cent by weight.
(d) Sulphur dioxide	Not more than 4.0 p.p.m. Sulphurdioxide may be present in an amount not exceed-ing 150 p.p.m. If the product is intended for manufacture of confectionery to be sold under a label as specified under Rule 42(X).

**A.07.12—Aspartyl phenyl alanin methyl ester** commonly known as Aspartame, having empirical formula as  $C_{14}H_{18}N_2O_5$  and molecular weight as 294.31, shall be the material which is slightly soluble in water and Methanol. It shall contain not less than 98 per cent and not more than 102 per cent of Aspartame on dried basis. It shall not contain more than 3 p.p.m. of Arsenic and 10 p.p.m of Lead.

The loss on drying of the material at 105 degree C for 4 hours shall not be more than 4.3 per cent of its weight. The sulphate ash shall not be more than 0.2 per cent. It shall not contain more than 1 per cent of diketo-piper-zinc.

**A.07.13- Acesulfame Potassium** commonly known as Acesulfame-K, having empirical formula  $C_4H_4KNO_4S$ , molecular weight as 201.24 shall be the material which is odourless, white crystalline powder having intensely sweet taste and is very slightly soluble in ethanol but freely soluble in water. It shall contain not less than 99 per cent and not more than 101 per cent of Acesulfame-K on dried basis. It shall not contain more than 3ppm Flouride. Heavy metals content shall not be more than 10 ppm. The loss on drying of material at 105 degree centigrade for two hours shall not be more than 1 per cent of its weight.

## **A.08---COFFEE**

**A.08.01—(1) Coffee (green, raw or unroasted)** means the seed of Coffee arabica, Coffee liberica, Coffea excelsa or Coffea robusta freed from all but a small portion of its spermoderm by decortication.

(2) Roasted coffee means properly cleaned green coffee which has been roasted to a brown colour and has developed its characteristic aroma.

(3) Ground coffee means the powdered product obtained from 'roasted coffee' only and shall be free from husk.

(4) Coffee (green , raw or unroasted), ‘roasted coffee’ and ‘ground coffee’ shall be free from any artificial colouring, flavouring, facing, extraneous matter or glazing substance and shall be in sound, dry and fresh condition free from rancid or obnoxious flavour.

(5) ‘Roasted coffee’, and ‘ground coffee’ shall conform to the following analytical standards:

(i) Total ash (determined on the sample dried to constant weight at 100 degree C), shall be feathery white or bluish-white in colour and shall be not less than 3.0 per cent and not more than 7.0 per cent by weight of which not less than 65 per cent shall be soluble in boiling distilled water. The ash insoluble in hot dilute HCl shall not be more than 0.1 per cent.

(ii) The alkalinity of the soluble ash per gram of dried coffee shall be equivalent to not less than 3.5 ml. and not more than 5.0 ml. of N/10 acid.

(iii) The caffeine content as obtained by standard methods, shall be not less than 1.0 per cent.

(iv) The aqueous extract (determined by extraction of 2 grams of the sample dried to constant weight at 100 degree C with 100 ml. of boiling water for one hour under reflux) shall be not less than 26.0 per cent and not more than 35.0 per cent.

**A.08.02----****CHICORY** means the roasted chicory powder obtained by roasting the cleaned and dried roots of *Chicorium intybus* Lin with or without the addition of edible fats and oils or sugar like glucose or sucrose in proportion not exceeding 2.0 per cent by weight in aggregate. It shall be free from any artificial colouring and flavouring matter.

It shall conform to the following standards:

Total ash	Not less than 3.5 per cent and not more Than 10.0 per cent (on dry basis)
Ash insoluble in dilute HCl	Not more than 2.5 per cent on dry basis.
Water soluble matter	Not less than 50.0 per cent on dry basis.

**A.08.03---COFFEE - CHICORY MIXTURE** means the product prepared by mixing roasted and ground coffee and roasted and ground chicory and shall be in a sound, dry and dust free condition with no rancid or anbnxious flavour. It shall be in the form of a free flowing powder having the colour, taste and flavour characteristic of coffee-chicory powder. It shall be free from any impurities and shall not contain any other added substance. The coffee content in the mixture shall not be less than 51 percent by mass. The percentage of coffee and chicory used shall be marked on the label as provided in clause (I of sub-rule (A) of rule 42.

It shall conform to the following standards, namely:-

(a)	Moisture	Not more than 5.0 per cent
(b)	Total ash on dry basis	Not more than 7.50 per cent
(c)	Acid insoluble ash on dry basis	Not more than 0.6 per cent
(d)	Caffeine (anhydrous) on dry basis	Not more than 0.6 per cent
(e)	Aqueous extracts	Not more than 50 per cent

**A.08.04.----SOLUBLE COFFEE POWDER** means coffee powder, obtained from freshly roasted and ground pure coffee beans. It shall be in the form of free flowing powder, having the colour, taste and flavour characteristics of coffee. It shall be free from impurities and shall not contain chicory or any other added substance. It shall conform to the following standards:

(a)	Moisture	Not more than 4.0 per cent
(b)	Total ash (on dry basis)	Not more than 12.0 per cent.
(c)	Caffeine content	Not less than 2.8 per cent on dry basis
(d)	Solubility in boiling water	Dissolves readily in 30 seconds with moderate stirring.
(e)	Solubility in cold water at 16 ± 2 degree C	Soluble with moderate stirring in 3 minutes.

**A.08.05-----INSTANT COFFEE - CHICORY MIXTURE** means the product manufactured from roasted and ground coffee and roasted and ground chicory. It shall be in sound, dry and dust free condition with no rancid or obnoxious flavour. It shall be in the form of a free flowing powder or shall be in the agglomerated (granules) from having the colour, taste and flavour characteristics of coffee-chicory powder. It shall be free from any impurities and shall not contain any other added substance. The coffee content in the mixture shall not be less than 51 per cent by mass on dry basis. The percentage of coffee and chicory used shall be marked on the container as provided in clause (ii) of sub-rule (A) of Rule 42.

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

(i)	Moisture	Not more than 4.0 per cent by weight.
(ii)	Total ash on dry basis	Not more than 10.0 per cent
(iii)	Acid insoluble ash on dry basis	Not more than 0.6 per cent
(iv)	Caffeine (anhydrous) on dry basis	Not less than 1.4 per cent .
(v)	solubility in boiling water.	Dissolves readily in 30 seconds with moderate stirring.
(vi)	Solubility in cold water at 16 ± 2 degree C	Soluble with moderate stirring in 3 minutes.

**A.09----Omitted.**

**A.10----EDIBLE FAT**

**A 10.01 –BEEF FAT** or suet means fat obtained from a beef carcass. It shall have a saponification value varying from 193 to 200 and an iodine value from 35 to 46.

**A 10.02---MUTTON FAT** means fat obtained from the carcass of sheep. It shall have a saponification value varying from 192 to 195 and an Iodine value from 35 to 46.

**A 10.03---GOAT FAT** means the rendered fat from goat. It shall have a Saponification value varying from 193 to 196 and an Iodine value from 36 to 45.

**A.10.04---LARD** means the rendered fat from hogs and shall not contain more than one per cent of substances other than fatty acids and fat. It shall have a Saponification value varying from 192 to 198 and an Iodine value from 52 to 65.

**A.10.05—COCOA BUTTER** means that fat obtained by expression from the nibs of the beans of Theobroma cocoa L. It shall be free from other oils and fats, mineral oil and added colours.

It shall conform to the following standards:

Percentage of free fatty acids (calculated as oleic acid)	Not more than 1.5
Iodine value	32 to 42

Melting point	29 degree C to 34 degree C
Butyro-refractometer reading at 40 degree C or	40.9 degree C to 48.degree C
Refractive Index at 40 degree C	1.4530 – 1.4580
Saponification value	185 to 200

**A.10.06 – LOW AND HIGH FAT COCOA POWDER** means the powder which is the partially defatted product derived from the cocoa bean, the seed of *Theobroma cocoa* L. It may be subjected to treatments during manufacture with alkali and /or magnesium carbonate, bicarbonate and with tartaric, citric or phosphoric acids. It shall be free from rancidity, dirt, filth, insects and insect fragments or fungus infestations.

It shall conform to the following standards :

Total Ash	Not more than 14.0 per cent (on moisture and fat free basis).
Ash insoluble in dilute HCl	Not more than 1.0 per cent on (on moisture and fat free basis)
Alkalinity of total ash	Not more than 6.0 per cent as K <sub>2</sub> O (on moisture and fat free basis).
Cocoa butter-	
(i) for low fat	Not less than 10.0 per cent ( on moisture free basis).
(ii) for high fat	Not less than 20.0 per cent (on moisture free basis).

**A.10.07--- REFINED SALSEED FAT** means the fat obtained from seed kernels of Sal trees, *Shorea robusta* Gaertn. F.(N.O. Dipterocarpaceae) which has been neutralized with alkali, bleached with bleaching earth or activated carbon or both, and deodorized with steam, no other chemical agents being used. Alternatively, deacidification, bleaching and deodorization may be done by physical means. The material shall be clear on melting and free from adulterants, sediment, suspended or other foreign matter, separated water or added colouring substance. There shall be no turbidity after keeping the filtered sample at 40 degree C for 24 hours. It shall conform to the following standards :-

(i) Moisture	Not more than 0.1 per cent.
(ii) Butyro-refractometer reading at 40 degree C or	36.7—51.0
Refractive Index at 40 degree C	1.4500-1.4600
(iii) Iodine value (Wijs' method)	31-45
(iv) Saponification value	180-195
(v) Unsaponifiable matter	Not more than 2.5 per cent by weight.
(vi) Free fatty acids (expressed as Oleic acid) or	Not more than 0.25 per cent by weight.
Acid value	Not more than 0.5
(vii) 9,10 epoxy and 9,10 Dihydroxy stearic acid	Not more than 3.0 per cent by weight.
(viii) Flash point (Pensky Marten closed method)	Not less than 250 degree C

Test for argemone oil shall be negative.

**A.10.08--- CAROB POWDER** means the powder obtained from the roasted pods of carob (fibbled carob) of *Ceratonia Siliqua* (L.) Taub. (Fam. Leguminosae) and shall be free from husk. It shall be free from any artificial colouring, flavouring, extraneous matter or glazing substance and shall be in sound dry and fresh condition free from rancid or obnoxious flavours.

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

(i)	Total Ash	Not more than 1.2 per cent by weight
(ii)	Acid insoluble matter	Not more than 5 per cent by weight.
(iii)	Tannin content	Not less than 0.1 per cent and not more than 0.15 per cent.

**A.10.09- KOKUM FAT** means the fat obtained from clean and sound kernels of kokum (*Garcinia indica choisy*) also known as kokam, by process of expression or by a process of solvent expression or by a process of solvent extraction from cake or kernel. It shall be refined. The fat shall be clear on melting and free from rancidity, adulterants, sediment, suspended or other foreign matter, separated water, added colouring and flavouring matters and mineral oil.

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

(a)	Butyro-refractometer reading at 40 degree C or Refractive Index at 40 degree C.	45.9---47.3 1.4565 to 1.4575
(b)	Saponification value	187-191.7
(c)	Unsaponifiable matters	Not more than 1.5 per cent by weight.
(d)	Iodine value (Wijs')	32-40
(e)	Acid value	Not more than 0.5
(f)	Flash Point Pensky-Martens (closed) method	Not less than 250 degree C.

Test for argemone oil shall be negative.

**A.10.10—MANGO KERNEL FAT** means that fat obtained from clean and sound kernels of Mango (*Mangifera Indica* Linn) by process of expression or by a process of solvent extraction from cake of kernel. It shall be refined. The fat shall be clear on melting and free from rancidity, adulterants, sediment suspended or other foreign matter, separated water, added colouring and flavouring matters and mineral oil.

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

(a)	Butyro-refractometer reading at 40 degree C. or Refractive Index at 40 degree C.	43.7—51.6 1.4550 to 1.4604
(b)	Saponification Value	185-198
(c)	Unsaponifiable matter	Not more than 1.5 per cent by weight.
(d)	Iodine value(wij's)	32-57
(e)	Acid value	Not more than 0.5
(f)	Flash Point Pensky-Martens (closed) method	Not less than 250 C

Test for argemone oil shall be negative.

**A.10.11—DHUPA FAT** means the fat obtained from clean and sound seed kernels of Dhupa, also known as Indian Copal (*Vateria Indica* Linn) tree by process of expression or by a process of solvent extraction from cake or kernel. It shall be refined. The fat shall be clear on melting and free from rancidity, adulterants, sediment, suspended or other foreign matter, separated water, added colouring and flavouring matter and mineral oil.

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

(a)	Butyro-refractometer reading at 40 degree C. or Refractive Index at 40 degree C.	47.5—49.5 1.4576 to 1.4590
(b)	Saponification Value	187-192
(c)	Unsaponifiable matter	Not more than 1.5 per cent by weight.
(d)	Iodine value(wijs')	36-43
(e)	Acid value	Not more than 0.5
(f)	Flash Point Pensky-Martens (closed) method	Not less than 250 degree C

Test for argemone oil shall be negative.

**A.10.12 –PHULWARA FAT** means the fat obtained from clean and sound seed kernels of Phulwara (variously named *Aisandra Butyrace* (Roxb) *Baelni*, *Madhuca Butyracea* or *Bassia Butyracea*) by a process of expression or by a process of solvent extraction from cake or kernel. It shall be refined. The fat shall be clear on melting and shall be free from rancidity, adulterants, sediments, suspended or other foreign matters, separated water, added colouring and flavouring substances and mineral oil.

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

(a)	Butyro-refractometer reading at 40 degree C. or Refractive Index at 40 degree C.	48.6—51.0 1.4584 to 1.4600
(b)	Saponification Value	192.5-199.4
(c)	Unsaponifiable matter	Not more than 1.5 per cent by weight.
(d)	Iodine value(wijs')	43.8-47.4
(e)	Acid value	Not more than 0.5
(f)	Flash Point Pensky-Martens (closed) method	Not less than 250 degree C

Test for argemone oil shall be negative.

## **A.11. MILK AND MILK PRODUCTS**

### **A.11.01.---Definitions**

**A.11.01.01—MILK** is the normal mammary secretion derived from complete milking of healthy animal without either addition thereto or extraction therefrom. It shall be free from colostrum. Milk of different classes and of different designations shall conform to the standards laid down in the Table below item A.11.01.11.

**A.11.01.02---PASTEURISATION** –The term pasteurisation, when used in association with Milk of different classes, means heating milk of different classes by a heat treatment as mentioned below and cooling to a suitable temperature before distribution. Pasteurised milk of different classes shall show a negative phosphatase Test.

The terms “Pasteurisation”, “Pasteurised” and similar terms shall be taken to refer to process of heating every practice of milk of different classes to at least 63 degree C, and holding at such temperature continuously for at least 30 minutes, or heating it to at least 71.5degree C, and holding at such temperature continuously for at least 15 seconds or an approved temperature-time combination that will serve to give a negative Phosphate Test.

All pasteurised milk of different classes shall be cooled immediately to a temperature of 10 degree C or less

**A.11.01.03---STERILISATION---** The term “sterilisation when used in association with milk, means heating milk in sealed container continuously to a temperature of either 115 degree C for 15 minutes or at least 130 degree C for a period of one second or more in a continuous flow and then packed under aseptic condition in hermetically sealed containers to ensure preservation at room temperature for a period not less than 15 days from the date of manufacture.

**A.11.01.04---BOILED MILK** means milk which has been brought to boil.

**A.11.01.05---FLAVOURED MILK** by whatever name called, may contain nuts (whole, fragmented or ground) chocolate, coffee or any other edible flavour, edible food colours, and cane sugar. Flavoured milk shall be pasteurised, sterilised or boiled. The type of milk shall be pasteurised, sterilised or boiled. The type of milk shall be mentioned on the label.

**A.11.01.05A---MIXED MILK** means a combination of milk of cow, buffalo, sheep, goat or any other milch animal and may be a combination of any of these milk which has been made and conforms to the standards given in the table below item A.11.01.11.

**A.11.01.06---STANDARDISED MILK** means cow milk or buffalo milk or sheep milk or goat milk or a combination of any of these milk that has been standardised to fat and solids-not-fat percentage given in the table below Item A.11.01.11 by adjustment of milk solids Standardised milk shall be pasteurised and shall show a negative Phosphatase Test.

**A.11.01.07---RECOMBINED MILK** means the homogenised product prepared from milk fat, non-fat-milk solids and water. Recombined milk shall be pasteurised and shall show a negative Phosphatase Test.

**A.11.01.08---TONED MILK** means the product prepared by admixture of cow or buffalo milk or both with fresh skimmed milk; or by admixture of cow or buffalo milk or both that has been standardised to fat and solids-not-fat percentage given in the Table below item A.11.01.11 by adjustment of milk solids. It shall be pasteurised and shall show a negative Phosphatase Test. When fat or dry non-fat-milk solids are used, it shall be ensured that the product remains homogeneous and no deposition of solids takes place on standing.

**A.11.01.09---DOUBLE TONED MILK** means the product prepared by admixture of cow or buffalo milk or both with fresh skimmed milk, or by admixture of cow or buffalo milk or both that has been standardised to fat and solids-not-fat percentage given in the Table below item A.11.01.11 by adjustment of milk solids.

It shall be pasteurised and shall show a negative Phosphatase Test. When fat or dry non-fat-milk solids are used. It shall be ensured that the product remains homogeneous and no deposition or solids takes place on standing.

**A.11.01.10—SKIMMED MILK** means the product prepared from milk from which almost all the milk fat has been removed mechanically.

**A.11.01.10A. FULL CREAM MILK** means milk or a combination of buffalo or cow milk or a product prepared by combination of both that has been standardised to fat and solids-not-fat percentage, given, under item A.11.01.11 by, adjustment/addition of milk solids. Full cream Milk shall be pasteurised. It shall show a negative phosphatase test. It shall be packed in clean, sound and sanitary containers properly sealed so as to prevent contamination;

**A.11.01.11** ---The standards of different classes and designations of milk shall be as given in the table below. Milk shall conform to both the parameters for milk fat and milk solids, not fat independently, as prescribed in columns (4) and (5) of the said table:--

Class of Milk	Designations	Locality	Minimum per cent Milk Fat	Minimum per cent Milk solids non-fat
1	2	3	4	5
Buffalo Milk	Raw, Pasteurised, Boiled Flavoured and Sterilised	Assam	6.0	9.0
		Bihar		
		Chandigarh		
		Delhi		
		Gujarat		
		Haryana		
		Maharashtra		
		Meghalaya		
		Punjab		
		Sikkim		
		Uttar Pradesh		
		West Bengal		
		Andaman and Nicobar	5.0	9.0
		Andhra Pradesh		
		Arunachal Pradesh		
		Dadra and Nagar Haveli		
		Goa, Daman and Diu		
		Himanchal Pradesh		
		Jammu and Kashmir		
		Karnataka		
Kerala,				
Laccadive, Minicoy and Amindive Islands				
Madhya Pradesh	5.0	9.0		
Manipur				
Mizoram				
Nagaland				
Orissa				
Pondicherry				
Rajasthan				
Tamil Nadu				
Tripura				

Cow Milk	Raw, Pasteurised, Boiled Flavoured and Sterilised	Chandigarh	4.0	8.5		
		Haryana				
		Punjab				
		Andaman and Nicobar				
		Andhra Pradesh				
		Arunachal Pradesh				
		Assam				
		Bihar				
		Dadra and Nagar Haveli				
		Delhi				
		Goa, Daman and Diu				
		Gujarat				
		Himachal Pradesh				
		Jammu and Kashmir				
		Karnataka				
		Kerala				
		Laccadive, minicoy and Amindive Islands			3.5	8.5
		Madhya Pradesh				
		Meghalaya				
		Nagaland				
Pondicherry						
Rajasthan						
Sikkim						
Tamil Nadu						
Tripura						
Uttar Pradesh						
West Bengal						
Mizoram, Orissa	3.0	8.5				
Goat or Sheep Milk	Raw, Pasteurised, Boiled Flavoured and Sterilised	Chandigarh	3.5	9.0		
		Haryana				
		Kerala				
		Madhya Pradesh				
		Maharashtra				
		Punjab				
		Uttar Pradesh				
		Andaman and Nicobar Islands				
		Andhra Pradesh				
		Arunachal Pradesh				
		Assam				
		Bihar				
		Dadra and Nagar Haveli				
		Delhi				
		Goa, Daman and Diu				
		Gujarat				
		Himachal Pradesh				
		Jammu and Kashmir				
		Karnataka				
		Laccadive, minicoy and Amindive Islands			3.0	9.0

Manipur  
Meghalaya,  
Mizoram  
Nagaland  
Orissa  
Pondicherry  
Rajasthan  
Sikkim, Tamil Nadu  
Tripura  
West Bengal

All India

Mixed Milk	Raw, Pasteurised, Boiled Flavoured and Sterilised	All India	4.5	8.5
Standardised Milk	Pasteurised, Flavoured and Sterilised	All India	4.5	8.5
Recombined Milk	Pasteurised, Flavoured and Sterilised		3.0	8.5
Toned Milk	Pasteurised, Flavoured and Sterilised	All India	3.0	8.5
Double Toned Milk	Pasteurised, Flavoured and Sterilised	All India	1.5	9.0
Skimmed Milk	Raw, Pasteurised, Boiled, Flavoured and Sterilised	All India	Not more than 0.5 per cent	8.7 6.0
Full cream Milk	Pasteurised & Sterilised	All India	6.0	9.0

Note---(I) When milk is offered for sale without indication of the class, the standards prescribed for buffalo milk shall apply.

(ii) The heat treatment for the various designated milk shall be as follows.

Designation	Heat treatment
Raw	Nil
Pasteurised	Pasteurisation
Boiled	Boiling
Flavoured	Pasteurisation or Sterilisation
Sterilised	Sterilisation

**A.11.02--- MILK PRODUCTS** means the products obtained from milk such as cream malai, curd, skimmed milk curd , chhanna , skimmed milk chhanna, cheese, processed cheese, ice cream , milk ices, condensed milk swetened and unsweetened, condensed skimmed milk sweetened and unsweetened, milk powder, skimmed milk powder , partly skimmed milk powder, khoa, infant milk food, table butter and deshi butter.

**A.11.02.01—MILK PRODUCT** specified in Appendix B shall not contain any substance not found in milk unless specified in the standards.

**A.11.02.02---Cream** including sterilized cream means the product of cow or buffalo milk or a combination thereof. It shall be free from starch and other ingredients foreign to milk. It may be of following three categories, namely:-

1. Low fat cream – containing milk fat not less than 25.0 per cent by weight.
2. Medium fat cream – containing milk fat not less than 40.0 per cent by weight.
3. High fat cream – containing milk fat not less than 60.0 per cent by weight.

Note – Cream sold without any indication about milk fat content shall be treated as high fat cream.

**A.11.02.03--- MALAI** means the product rich in butter fat prepared by boiling and cooling cow or buffalo milk or a combination thereof . It shall contain not less than 25.0 per cent milk fat.

**A.11.02.04—DAHI OR CURD** means the product obtained from pasteurised or boiled milk by souring, natural or otherwise, by a harmless lactic acid or other bacterial culture. Dahi may contain added cane sugar. Dahi shall have the same minimum percentage of milk fat and milk solids-not-fat as the milk from which it is prepared.

Where dahi or curd is sold or offered for sale without any indication of class of milk, the standards prescribed for dahi prepared from buffalo milk shall apply.

Milk solids may also be used in preparation of this product

**A.11.02.05----CHHANNA OR PANEER** means the product obtained from cow or buffalo milk or a combination thereof by precipitation with sour milk, lactic acid or citric acid. It shall not contain more than 70.0 per cent moisture, and the milk fat content shall not be less than 50.0 per cent of the dry matter.

Milk solids may also be used in preparation of this product

**A.11.02.07—CHEESE (HARD)** means the product obtained by draining after coagulation of milk with a harmless milk coagulation agent under the influence of harmless bacterial culture. It shall not contain any ingredients not found in milk, except coagulating agent, sodium chloride, calcium chloride (anhydrous salt) not exceeding 0.02 per cent by weight, annatto or carotene colour, and may contain emulsifiers and/or stabilizers, namely citric acid, sodium citrate or sodium citrate or sodium salts or orthophosphoric acid and polyphosphoric acid (as linear phosphate ) not exceeding 0.2 per cent by weight. Wax used for covering the outer surface shall not contain any thing harmful to health. In case the wax is coloured, only permitted food colour shall be used. Hard cheese shall contain not more than 43.0 per cent, moisture and not less than 42.0 per cent milk fat of the dry matters. Hard cheese may contain up to 3000 parts per million sorbic acid, or its sodium, potassium or calcium salts calculated as sorbic acid, and / or 12.5 parts per million nisin either singly or in combination.

Natamycin may be used for surface treatment only , subject to the following conditions, namely:-

- (i) Maximum level of application shall not exceed 2 mg/dm<sup>3</sup> of cheese surface.
- (ii) The penetration depth shall not exceed 2 mm.
- (iii) The maximum residue level in the finished product shall not exceed 1 mg/dm<sup>3</sup>.

**A.11.02.07.01----** **PROCESSED CHEESE** means the product obtained by heating one or more types of hard cheeses with permitted emulsifiers and /or stabilizers namely, citric acid, sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear polyphosphate ) with or without added condiments, and acidifying agents, namely vinegar, lactic acid , acetic acid, citric acid and phosphoric acid. Processed cheese may contain not more than 4.0 per cent of anhydrous permitted emulsifiers and /or stabilizers, provided that the content of anhydrous inorganic agents shall in no case exceed 3.0 per cent of the finished product. It shall not contain more than 47.0 per cent moisture. Processed cheese chiplets (packed sliced cheese) when sold in a package other than tin, shall not contain more than 50.0 per cent moisture. The milk fat content shall not be less than 40.0 per cent of the dry matter. Processed cheese may contain upto 3000 parts per million sorbic acid or its sodium, potassium or calcium salts (calculated as sorbic acid) and/or 12.5 parts per million nisin either singly or in combination. It may contain calcium chloride (anhydrous) not exceeding 0.02 per cent by weight.

**A.11.02.07.02---****PROCESSED CHEESE SPREAD** means a product obtained by comminuting and mixing one or more type of cheeses into a homogenous mass with the aid of heat. It may or may not contain butter, cream , butter oil, milk skimmed milk, milk powder, cheese whey, butter milk or one or more of these or any of these from which part of water has been removed. It may also contain permitted emulsifying and stabilising agents. It may also contain one or more of the sodium potassium salts of citric acid, phosphoric acid , tartaric acid, lactic acid in such quantities that mass of the solids of such emulsifying agents is not more than 4 per cent of mass of the processed cheese spread. It may contain sequestering and buffering agents, namely, lactic acid, acetic acid, citric acid and phosphoric acid.

It may contain vegetable colouring matter such as annatto, carotene, permitted flavouring agents and milk coagulating enzymes with or without purified calcium chloride (anhydrous salt) not exceeding 0.02 per cent and sodium citrate not exceeding 0.02 per cent may be added. It may contain natural sweetening agents, namely, sugar, dextrose, cane sugar, corn syrup, honey, corn syrup solids, maltose, malt syrup, and hydrolysed lactose in a quantity necessary for seasoning and spices and condiments. It may contain sodium chloride not exceeding 3 per cent by weight. Processed cheese spread may contain up to 3000 parts per million sorbic acid or its sodium, potassium or calcium salts (calculated as sorbic acid) and/ or 12.5 parts per million nisin. It shall not contain more than 60 per cent moisture and milk fat content (on dry basis) shall not be less than 40 per cent by weight.

**A.11.02.08---****ICE CREAM, KULFI AND CHOCOLATE ICE CREAM** means the frozen product obtained from cow or buffalo milk or a combination thereof or from cream, and/or other milk products, with or without the addition of cane sugar, dextrose, liquid glucose and dried liquid glucose, Malto dextrin, eggs, fruits, fruit juices, preserved fruits, nuts chocolate, edible flavours and permitted food colours. It may contain permitted stabilizers and emulsifiers not exceeding 0.5 per cent by weight. The mixture shall be suitably heated before freezing. The product shall contain not less than 10.0 per cent milk fat, 3.5 per cent protein and 36.0 per cent total solids

Starch may be added to a maximum extent of 5.0 per cent under a declaration on a label as specified in sub-rule (2) of Rule 43.

The standards for ice-cream shall also apply to softy ice-cream.

In case of ice-cream, where the chocolate or like covering portion forms a separate layer, only the ice-cream portion shall conform to the standards of ice-cream.

**A.11.02.08.01—“DRIED ICE CREAM MIX”** shall be the material prepared by spray or roller drying of ice-cream mix . It shall contain milk solids, sources or corn syrup or refined sugar. It may contain permitted colours and flavours. It may contain stabilisers and emulsifiers not exceeding 1.25 per cent by weight. The product shall contain not less than 27.0 percent milk fat and 9.5 per cent protein and moisture shall not be more than 40 per cent by weight. The sucrose content shall not be more than 40 per cent by weight.

The process of drying shall be mentioned on the label. It shall be packed in hermetically sealed clean sound containers.

**A.11.02.09--- MILK ICES OR MILK LOLLIES** means the frozen product obtained from milk, skimmed milk, or milk product with or without the addition of cane sugar dextrose, liquid, glucose and dried liquid glucose, eggs, fruits, juices, nuts, chocolate , edible flavours and permitted food colours. It may contain permitted stabilizers not exceeding 0.5 per cent of the product. The mixture shall be suitably heat – treated before freezing. The product shall contain not more than 2.0 per cent milk fat, not less than 3.5 per cent proteins and not less than 20. per cent total solids.

**A.11.02.10----CONDENSED MILK UNSWEETENED (EVAPORATED MILK)** means the product obtained from cow or buffalo milk or a combination thereof or from standardised milk, by the partial removal of water . It may contain added calcium chloride., citric acid and sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate ) not exceeding 0.3 per cent by weight of the finished product. Such additions need not be declared on the label. Condensed milk unsweetened shall contain not less than 8.0 per cent milk fat and not less than 26.0 per cent milk solids.

If the product is subjected to Ultra High Temperature (UHT) treatment by heating it at a temperature of not less than 140 degree C for a minimum period of 3 seconds followed by aseptic packaging, it shall be designated as UHT and labelled as specified under clause (ddd) of sub- rule (B) of Rule 42.

**A.11.02.11 – CONDENSED MILK SWEETENED** means the product obtained from cow or buffalo milk or a combination thereof or from standardised milk, by the partial removal of water and after addition of cane sugar. It may contain added refined lactose, permitted flavour, calcium, chloride, citric acid, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate ) not exceeding 0.3 per cent by weight of the finished product. Such addition need not be declared on the label. Condensed milk sweetened shall contain not less than 9.0 per cent milk fat not, less than 31.0 per cent total milk solids and not less than 40.0 per cent cane sugar. The total acidity expressed as lactic acid shall not be more than 0.35 per cent.

**A.11.02.12---CONDENSED SKIMMED MILK UNSWEETENED (EVAPORATED SKIMMED MILK)** means the product obtained from cow or buffalo skimmed milk or a combination thereof by the partial removal of water. It may contain added calcium chloride, citric acid and sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate ) not exceeding 0.3 per cent by weight of the finished product. Such addition need not be declared on the label. Condensed skimmed milk unsweetened shall contain not less than 20.0 per cent total milk solids. The fat content shall not exceed 0.5 per cent by weight.

If the product is subjected of Ultra High Temperature (UHT) treatment by heating it at a temperature of not less than 140 degree C for a minimum period of 3 seconds followed by aseptic packaging, it shall be designated as UHT and labelled as specified under clause (ddd) or sub-rule (B) or Rule 42.

**A.11.02.13 --- CONDENSED SKIMMED MILK SWEETENED** means the product obtained from cow or buffalo skimmed milk or a combination thereof by the partial removal of water and after addition of

cane sugar. It may contain added refined lactose, calcium chloride, citric acid and sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate ) not exceeding 0.3 per cent by weight of the finished product. Such addition need not be declared on the label . Condensed skimmed milk sweetened shall contain not less than 26.0 per cent of total milk solids and not less than 40.0 per cent cane sugar. The fat content shall not exceed 0.5 per cent by weight. The total acidity expressed as lactic acid shall not be more than 0.35 per cent.

**A.11.02.13.01—PARTLY SKIMMED SWEETENED CONDENSED MILK** means the product obtained from partly skimmed cow or buffalo milk or a combination thereof by the partial removal of water and after addition of cane sugar. It may contain added refined lactose, calcium chloride, citric acid, sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate) not exceeding 0.3 per cent by weight of the finished product . Such addition need not be declared on the label.

Partly skimmed sweetened condensed milk shall contain not less than 28.0 per cent of total milk solids and not less than 40.0 per cent cane sugar . The fat content shall not be less than 3.0 per cent and more than 9.0 per cent by weight The total acidity expressed as lactic acid shall not be more than 0.35 per cent .

**A.11.02.14---MILK POWDER** means the product prepared by spray drying of standardised milk obtained from fresh cow milk or buffalo milk or a mixture thereof. It may contain calcium chloride, citric acid and sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate) not exceeding 0.3 per cent by weight of the finished product and 0.01 per cent of butylated hydroxyanisole (BHA) by weight of the finished product. Such addition need not be declared on the label. For improving dispersibility, it may contain lecithin to a maximum limit of 0.5 per cent under lable declaration as per Rule 42(ee). Milk powder shall contain not more than 4.0 per cent moisture, not less than 26.0 percent milk fat, not less than 96.0 percent total solids and not more than 7.3 per cent total ash on dry basis. The total acidity expressed as lactic acid shall not be more than 1.2 per cent. The plate count shall not exceed 40,000 per gram. Coliform count and coagulase positive staphylococcus aureus shall be absent in 0.1 gram of the powder. Salmonella and shigella shall be absent in 25 grams of the powder. The insolubility index shall not be more than 2.0 ml. The spray-dried product shall be packed in Nitrogen or mixture of Nitrogen and carbondioxide in) hermetically sealed containers.

Provided that the spray-dried milk powder meant for reconstitution into liquid milk and not for direct consumption as such may also be packed in bags of food grade poly-ethylene of minimum thickness 0.050 mm, encased with multiwalled kraft paper bags, or packs made out of kraft paper sandwich laminated to high density polyethylene woven fabric. The product shall be stored below 20 degree centigrade and a statement of this effect shall be made on the package, alongwith the date of manufacture. In addition to compliance with the labelling provision contained in Rule 32, such bags shall also be clearly labelled as “Not for direct consumption” and “To be used before---  
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Provided further that if the spray dried milk powder meant for reconstitution into liquid milk and not for direct consumption and packed in above manner, cannot be stored at or below 20 degree centigrade, such product shall not contain moisture more than 3.5 percent by weight and shall be clearly labelled as “To be used within five months from the date of packing “ and “Not for direct consumption”.]

Rescinded.

**A.11.02.15---SKIMMED MILK POWDER** means the product obtained from cow or buffalo milk or a combination thereof by the removal of water. It may contain added calcium chloride, citric acid and sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate) not

exceeding 0.3 per cent by weight of the finished product. Such addition need not be declared on the label. Skimmed milk powder shall not contain more than 1.5 per cent milk fat and moisture shall not exceed 5.0 per cent. The total acidity expressed as lactic shall not exceed 1.5 per cent. The plate count shall not exceed 50,000 per gram and Coliform shall be absent in 0.1 gram of the powder.

Insolubility Index (Maximum )	Roller dried 15.0 ml	Spray dried 1.5ml
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The total solids shall not be less than 95.0 per cent and total ash (on dry basis) shall not be more than 8.2 per cent.

The process of drying shall be mentioned on the label.

**A.11.02.16--- PARTLY SKIMMED MILK POWDER** means the product obtained from partly skimmed cow or buffalo milk or a combination thereof by the removal of water. It may contain added calcium chloride, citric acid and sodium citrate, sodium salts of orthophosphoric acid and polyphosphoric acid (as linear phosphate) not exceeding 0.3 per cent by weight of the finished product. Such addition need not be declared on the label. Partly Skimmed milk powder shall not contain more than 5.0 per cent moisture and fat content of the product shall be more than 1.5 and less than 26.0 per cent.

Butylated hydroxyanisole (BHA) not exceeding 0.01 per cent by weight of the finished product may be added. The exact fat content shall be indicated on the label.

Insolubility Index (Maximum) dried	Roller dried  15.0 ml	Spray
1.5ml		

The total solids shall not be less than 95.0 per cent and total ash (on dry basis) shall not be more than 8.2 per cent. The acidity expressed as lactic acid shall not be more than 1.5 per cent.

The process of drying shall be mentioned on the label. The spray-dried product shall be packed in hermetically sealed containers.

**A.11.02.17.---KHOYA BY WHATEVER VARIETY OF NAMES IT IS SOLD SUCH AS PINDI, DANEDAR, DHAP,MAWA OR KAVA** means the product obtained from cow or buffalo or goat or sheep milk or milk solid or a combination thereof by rapid drying. The milk fat content shall not be less than 30 per cent on dry weight basis of the finished product.

It may contain citric acid not more than 0.1 per cent by weight.

It shall be free from starch , added sugar and added colouring matter.

**A.11.02.18 – INFANT MILK FOOD** ---The material prepared by spray drying or by roller drying of the milk of cow or buffalo or a mixture thereof. The milk may be modified by the partial removal/substitution of different milk solids, carbohydrates, such as sucrose, dextrose and dextrans , maltose and lactose, slats like phosphates and citrates, vitamins A,D,E,B Group, Vitamin C and other vitamins; and minerals like iron, copper, zinc and iodine. The source of iron may be selected from ----

“Ferrous sulphate	Ferrous citrate.
Ferrous fumerate	Ferrous succinate.
Ferric ammonium citrate,	Ferric pyrophosphate”

It shall be free from starch and added anti-oxidants. It shall also be free from dirt and extraneous matter, preservatives and added colour and flavour and from any material which is harmful to human health. It shall not have rancid taste or musty odour. It shall also conform to the following standards, namely:

1.	Moisture, per cent by weight (not more than)	-4.5
2.	Total milk protein, per cent by weight (not less than)	-12.0
3.	Milk fat, per cent by weight (not less than)	-18.0
4.	Total ash, per cent by weight (not more than)	-8.5
5.	Ash insoluble in dilute Hydrochloric acid, per cent by weight (not more than)	-0.1
6.	Solubility--	
	(a) Solubility Index maximum---	
	(if roller dried)	15.0 ml
	(if spray dried)	2.0 ml
	(b) Solubility per cent by weight (not less than)	
	(if roller dried)	-85.0
	(if spray dried)	-98.5
7.	Vitamin A (as retinol) meg. Per 100 g . (not less than)	-350
8.	Added Vitamin D (expressed as Cholecalciferol) I.U. per 100 g. (not less than)	-180
9.	Iron, mg per 100 g. (not less than)	-5.0
10.	Thiamine, meg per 100 g . (not less than)	-185
11.	Nicotinamide, mcg per 100 g (not less than)	-1160
12.	Riboflavin , mcg per 100 g. (not less than)	-275
13.	Vitamin B6 mcg per 100 g. (not less than)	-160
14.	Vitamin B12 mcg per 100 g. (not less than)	-0.7
15.	Folic acid, mcg per 100 g. (not less than)	-20
16.	Pantothenic acid, mg per 100g. (not less than)	-1.4
17.	Biotin, mcg per 100g. (not less than)	-7.0
18.	Vitamin C, mg per 100g . (not less than)	-35
19.	Vitamin K, meg per 100g. (not less than)	-18
20.	Copper mcg per 100 g. (not less than)	-280
21.	Iodine mcg per 100g (not less than)	-20
22.	Manganese (Mn) mcg per 100 g. (not less than)	-20
23.	Zinc, mg per 100 g (not less than)	-2.5
24.	Sodium (Na), mg per 100 g (not less than)	-90
25.	Potassium (K), mg per 100g (not less than)	-370
26.	Chloride (Cl), mg per 100g (not less than)	-250
27.	Phosphorus (P), mg per 100g. (not less than)	-115
28.	Magnesium (Mg), mg per 100g. (not less than)	-22
29.	Calcium (Ca), mg per 100g (not less than)	-230
30.	Choline, mg per 100 g. (not less than)	-32
31.	Bacterial count, per g .(not more than)	-40,000
32.	Coliform count	-absent in 0.1gm.
33.	Yeast and mould count	-absent in 0.1gm.
34.	Salmonella and Shigella	-absent in 0.1gm.
35.	E. Coli	-absent in 0.1gm.
36.	Vibrio cholera and V paraheamolyticus	-absent in 0.1gm.
37.	Faecal streptococci and Staphylococcus aureas	-absent in 0.1gm.

It shall be packed in hermetically sealed, clean and sound containers or in flexible pack made from film or combination or any of the substrate made of Board paper, polyethylene, polyester metallized film or aluminium foil in such a way to protect from deterioration.

It shall be packed in nitrogen or a mixture of nitrogen and carbondioxide

The product shall be packed in nitrogen or mixture of nitrogen and carbondioxide in hermetically sealed containers and the label shall bear the date by which the product is to be consumed.

**A.11.02.18.01** –Infant formula means the product prepared by spray drying or roller drying of the milk of cow or buffalo or a mixture thereof. The milk may be modified by the partial removal /substitution of milk fat with vegetable oils rich in poly-unsaturated fatty acids and/or by different milk solids; carbohydrates such as sucrose, dextrose and dextrans, maltose and lactose; salts such as phosphates and citrates; vitamins A,D,E,B and C Group and other vitamins, minerals such as iron, copper, zinc and iodine and others. The source of iron may be selected from-

“Ferrous sulfate                      Ferrous citrate  
 Ferrous fumerate                      Ferrous succinate  
 Ferric Ammonium citrate              Ferric pyrophosphate”.

It shall be free from added starch, added colour and added flavour. It shall not have rancid taste and musty odour. Vegetable oils rich in polyunsaturated fatty acids shall be added to partially substituted milk fat to an extent that the product shall contain a minimum of 12 per cent by weight of milk fat and a minimum of linoleate content of 1.398 g. per 100 g. of the product.

The product shall also contain a minimum of 0.70I.U . of Vitamin E per 100K. Cal.

It shall conform to the following standard, namely-----

1.	Moisture, per cent by weight (not more than)	-4.5
2.	Total milk protein, per cent by weight(not less than)	-10.0
	not more than	-16.0
3.	Total fat, per cent by weight (not less than)	-18.0
4.	Total ash, per cent by weight(not more than)	-8.5
5.	Ash insolute in dilute Hydrochloric acid, per cent by weight (not more than)	-0.1
6.	Solubility-	
	(a) Solubility Index maximum----	
	(if roller dried)	-15.0 ml
	(if spray dried)	-2.0 ml
	(b) Solubility per cent by weight (not less than)	
	(if roller dried)	-85.0
	(if spray dried)	-98.0
7.	Vitamin A (as retinol), mcg. Per 100 g. (not less than)	-350
8.	Added Vitamin D (expressed as Cholecalciferol) I.U. per 100 g. (not less than)	-180
9.	Iron, mg. Per 100g. (not less than)	-5.0
10.	Thiamine ,meg per 100 g. (not less than)	-185
11.	Riboflavin, meg per 100 g. (not less than)	-275
12.	Nicotinamide, meg per 100 g. (not less than)	-1160

13.	Vitamin B6 meg per 100 g. (not less than)	-160
14.	Vitamin B12 meg per 100 g. (not less than)	-0.7
15.	Folic acid, mcg per 100g. (not less than)	-20
16.	Pantothenic acid, mg per 100 g. (not less than)	-1.4
17.	Biotin , mcg per 100 g. (not less than)	-7.0
18.	Vitamin C, mg per 100 g. (not less than)	-35
19.	Vitamin K, mcg per 100 g. (not less than)	-18
20.	Copper, mcg per 100 g. (not less than)	-280
21.	Iodine, mcg per 100 g. (not less than)	-20
22.	Manganese mcg per 100 g. (not less than)	-20
23.	Zinc, mg per 100 g. (not less than)	-2.5
24.	Sodium (Na), mg per 100 g. (not less than)	-90
25.	Potassium (K), mg per 100 g. (not less than)	-370
26.	Chloride (Cl), mg per 100 g. (not less than)	-250
27.	Phosphorus (P), mg per 100 g. (not less than)	- 115
28.	Magnesium (Mg), mg per 100 g. (not less than)	-22
29.	Calcium (Ca), mg per 100 g. (not less than)	-230
30.	Choline , mg per 100 g. (not less than)	-32
31.	Bacterial count, per g. (not less than)	-40,000
32.	Coliform count	-absent in 0.1gm.
33.	Yeast and mould count	-absent in 0.1gm.
34.	Salmonella and Shigella	-absent in 0.1gm.
35.	E. Coli	-absent in 0.1gm.
36.	Vibrio cholera and V paraheamolyticus	-absent in 0.1gm.
37.	Faecal streptococci and Staphylococcus aureas	-absent in 0.1gm.

It shall be packed in hermetically sealed , clean and sound containers or in flexible pack made from film or combination or any of the substrate made of Board paper, polyethylene, polyester metallized film or aluminium foil in such a way to protect from deterioration.

It shall be packed in nitrogen or a mixture of nitrogen and carbondioxide.

Provided that the low birth weight infant milk substitutes shall also meet the following requirement in addition to the above requirements:

- (i) Protein shall be in range of 2.25-2.75 grams per 100 K . Cal/Joules;
- (ii) Mineral contents shall not be less than 0.5 gram per 100 K. Cal. The Calcium Phosphorous ratio shall be 2:1. The Sodium , Potassium and Chloride combined together shall not be less than 40 milli equivalent per Litre.
- (iii) Whey : Casein ratio shall be 60:40. Essential amino acids should include cystine, tyrosine and histidine.

**A.11.02.18.02- MILK CEREAL BASED WEANING FOODS:** Milk cereal based weaning foods are obtained from a variety of cereals, vegetable oil and proteins, milk solid different carbohydrates such as sucrose, dextrose, dextrans, maltose and lactose, iron and calcium salts; phosphates and citrates and other nutritionally significant minerals and vitamins. It may also contain fungal-alfaamylase upto a maximum extent of 0.025 per cent, by weight, fruits, vegetables, egg or egg products. It shall be in the form of powder, small granules or flakes, free from lumps, and shall be uniform in appearance. The source of iron shall be selected from----

“Ferrous sulphate,  
Ferrous fumarate,  
Ferric Ammonium Citrate

Ferrous citrate.  
Ferrous succinate.  
Ferric pyrophosphate”.

It shall be free from dirt and extraneous matters and free from preservatives, added colour, flavour, and antioxidants. It shall be free from any material which is harmful to human health. It shall contain a minimum of 20 per cent milk solids by weight of the product of which milk fat shall be a minimum of 5 per cent by weight.

It shall conform to the following standards, namely:-

1.	Mosisture, per cent by weight (not more than)	-5.0
2.	Total milk protein per cent by weight (not less than)	-12.0
3.	Fat, per cent by weight (not less than)	-7.5
4.	Total Carbohydrates per cent by weight (not less than)	-55.0
5.	Total ash, per cent by weight (not less than)	-5.0
6.	Ash insoluble in dilute hydrochloric acid, per cent By weight (not less than)	-0.1
7.	Crude fibre (on dry basis, per cent by weight ) not more than	-1.0
8.	Vitamin A (as retinol) , mcg per 100 g. (not less than)	-350
9.	Vitamin C, mg per 100 g. (not less than)	-25
10	Added Vitamin D, mcg per 100 g. (expressed as cholecalciferol)	-5
11	Bacterial count per g. (not less than)	-40,000
12	Coliform count	-absent in 0.1 gm.
13	Yeast and mould count	-absent in 0.1 gm.
14	Salmonella and Shigella	-absent in 0.1 gm.
15	E. Coli	-absent in 0.1 gm.
16	Vibrio cholera and V. Paraheamolyticus	-absent in 0.1 gm.
17	Faecal Streptococci and Staphylococcus aureas	-absent in 0.1 gm.

It shall also contain the following:-

1.	Thiamine (as hydrochloride), mg per 100g . (not less than)	-0.5
2	Riboflavin mg per 100 g. (not less than)	-0.3
3.	Nicotinic acid, mg. Per 100g. (not less than)	-3
4.	Iron, mg per 100 g . (not less than)	-5

It shall be packed in hermetically sealed, clean and sound containers or in flexible pack made from film or combination or any of the substrate made of Board paper, polyethylene polyester metallised film or aluminium foil in such a way to protect from deterioration.

**A.11.02.18.03- PROCESSED CEREAL BASED WEANING FOOD** Processed cereal based weaning food commonly called as weaning food or supplementary food are obtained from a variety of food grains. They may contain vegetable oils, soya isolates proteins, milk solids, various carbohydrates (such as sucrose, dextrose, dextrans, maltose, lactose, honey corn syrup), fruits, vegetables, eggs iron and calcium salts, phosphates and citrates and other nutritionally significant minerals and vitamins. It shall be in the form of powder, small granules or flakes free from lumps and shall be uniform in appearance. It shall be free from dirt and extraneous matter and free from preservatives, added colour, flavour and antioxidants. It shall be free from any material which is harmful to human health.

It shall conform to the following standards, namely:-

1.	Moisture, percent by weight (not more than)	4.0
2.	Total Protein, percent by weight (not less than)	6.0
3.	Total ash, percent by weight (not more than)	5.0
4.	Total carbohydrates, percent by weight (not less than)	55.0
5.	Acid insoluble ash, per cent by weight (not more than)	0.1
6.	Crude fibre (on dry basis) percent by weight (not more than)	1.0
7.	Iron, mg/100 gram (not less than)	5.0
8.	Vitamin A (as retinol) mcg. Per 100 gram (not less than)	350.0
9.	Vitamin C, mg /100 gram (not less than)	25.0
10.	Added vitamin D, mcg. Per 100 gram (expressed as cholecaliferol)	5.0
11.	Thiamine (as hydrochloride) (mg./100 gram, not less than)	0.5
12.	Riboflavin, mg./100 gram (not less than)	0.3
13.	Nicotinic acid, mg./100 gram (not less than)	3.0
14.	Bacterial count per gram (not more than)	40,000.0
15.	Coliform count absent in	0.1 gram.
16.	Yeast and mould count	-absent in 0.1 gm.
17.	Salmonella and Shigella	-absent in 0.1 gm.
18.	E. Coli	-absent in 0.1 gm.
19.	Vibrio cholera and V. Paraheamolyticus	-absent in 0.1 gm.
20.	Faecal Streptococci and Staphylococcus aureas	-absent in 0.1 gm.

The source of iron shall be selected from the ferrous sulphate, ferrous citrate, ferrous fumarate, ferrous succinate, ferric ammonium citrate and ferric pyrophosphate.

It shall be packed in hermetically sealed clean and sound containers or in flexible pack made from film or combination of any of the substrate made of board paper, polyethylene, polyester, metallised film or aluminium foil in such a way to protect from deterioration.

**A.11.02.19----- TABLE (CREAMERY) BUTTER** means the product obtained from cow or buffalo milk or a combination thereof or from cream or curd obtained from cow or buffalo milk or a combination thereof with or without the addition of common salt and annatto or carotene as colouring matter. It shall be free from other animal fats, wax and mineral oils, vegetable oils and fats . No preservative except common salt and no colouring matter except annatto or carotene shall be added. It shall contain not less than 80.0 per cent by weight of milk fats, not more than 1.5 per cent by weight of curd and not more than 3.0 per cent by weight of common salt. Diacetyl may be added as flavouring agent but, if so used, the total diacetyl content shall not exceed 4.0 parts per million. Calcium hydroxide, sodium bicarbonate, sodium carbonate, sodium polyphosphate, (as liner phosphate) may be added for regulating the hydrogen ion concentration in the finished products not exceeding 0.2 per cent by weight of butter as a whole.

**A.11.02.20---DESHI (COOKING) BUTTER** means the product obtained from cow or buffalo milk or a combination thereof or curd obtained from cow or buffalo milk/or a combination thereof without the addition of any preservative including common salt, any added colouring matter or any added flavouring agent. It shall be free from other animal fats, wax and mineral oils, vegetable oils and fats. It shall contain not less than 76.0 per cent of milk fat by weight.

Provided that where butter is sold or offered for sale without any indication as to whether it is table butter or deshi butter, the standards of quality prescribed for table butter shall apply.

**A.11.02.21----GHEE** means the pure clarified fat derived solely from milk or curd or from deshi (cooking) butter or from cream to which no colouring matter or preservative has been added. The standards of quality of ghee produced in a State or Union territory specified in Coloumn 2 of the Table below shall be as specified against the said State or Union Territory in the corresponding Columns 3,4,5 and 6 of the said Table:-

TABLE						
S.No	Name of State /Union Territory	Butyro refractometer reading at 40degree C	Minimum Reichert value	Percentage of FFA as Oleic acid (Max)	Percentage of Moisture (max)	
(1)	(2)	(3)	(4)	(5)	(6)	
1.	Andhra pradesh	40.0 to 43.0	24	3.0	0.5	
2.	Andaman and Nicobar Islands	41.0 to 44.0	24	3.0	0.5	
3	Arunachal Pradesh	40.0 to 43.0	26	3.0	0.5	
4	Assam	40.0 to 43.0	26	3.0	0.5	
5	Bihar	40.0 to 43.0	28	3.0	0.5	
6	Chandigarh	40.0 to 43.0	28	3.0	0.5	
7	Dadra and Nagar Haveli	40.0 to 43.0	24	3.0	0.5	
8	Delhi	40.0 to 43.0	28	3.0	0.5	
9	Goa	40.0 to 43.0	26	3.0	0.5	
	Daman and Diu	40.0 to 43.5	24	3.0	0.5	
10	Gujrat:					
	Areas other than cotton tract areas	40.0 to 43.5	24	3.0	0.5	
	Cotton tract areas	41.5 to 45.0	21	3.0	0.5	
11	Haryana:					
	Areas other than cotton tract areas	40.0 to 43.0	28	3.0	0.5	
	Cotton tract areas	40.0 to 43.0	26	3.0	0.5	
12	Himachal Pradesh	40.0 to 43.0	26	3.0	0.5	
13.	Jammu and Kashmir	40.0 to 43.0	26	3.0	0.5	
14	Karnataka:					
	Areas other than Belgaum District	40.0 to 43.0	24	3.0	0.5	
	Belgaum District	40.0 to 44.0	26	3.0	0.5	
15	Kerala	40.0 to 43.0	26	3.0	0.5	
16	Lakshadweep	40.0 to 43.0	26	3.0	0.5	
17	Madhya pradesh					
	(a)Areas other than cotton tract areas	40.0 to 44.0	26	3.0	0.5	
	(b) Cotton tract areas	41.5 to 45.0	21	3.0	0.5	
18	Maharashtra:					
	Areas other than cotton tract areas	40.0 to 43.0	26	3.0	0.5	
	(b) Cotton tract areas	41.5 to 45.0	21	3.0	0.5	
19	Manipur	40.0 to 43.0	26	3.0	0.5	
20	Meghalaya	40.0 to 43.0	26	3.0	0.5	
21	Mizoram	40.0 to 43.0	26	3.0	0.5	

22	Nagaland	40.0 to 43.0	26	3.0	0.5
23	Orissa	40.0 to 43.0	26	3.0	0.5
24	Pondicherry	40.0 to 44.0	26	3.0	0.5
25	Punjab	40.0 to 43.0	28	3.0	0.5
26	Rajasthan				
	Areas other than Jodhpur Dn.	40.0 to 43.0	26	3.0	0.5
	Jodhpur Dn.	41.5 to 45.0	21	3.0	0.5
27	Tamil nadu	41.0 to 44.0	24	3.0	0.5
28	Tripura	40.0 to 43.0	26	3.0	0.5
29	Uttar Pradesh	40.0 to 43.0	26	3.0	0.5
30	West Bengal				
	Area other than Bishnupur Sub-Division	40.0 to 43.0	28	3.0	0.5
	(b) Bishnapur Sub-Divison	41.5 to 45.0	21	3.0	0.5
31	Sikkim	40.0 to 43.0	28	3.0	0.5

Baudouin test shall be negative.

Explanation – By cotton tract is meant the areas in the States where cotton seed is extensively fed to the cattle and so notified by the State Government concerned.

**A.11.02.21.01—BUTTER OIL OR BUTTER FAT**—are products exclusively obtained from butter or cream and resulting from the removal of practically the entire water and solids-not-fat contents.

It may contain permitted anti-oxidants not exceeding 0.02 per cent by weight except gallate which shall not exceed 0.01 per cent by weight. It shall conform to standards of quality of ghee laid down in item A.11.02.21 except Butyro refractometer reading which shall be 40.0–44.0 at 40 degree C. In case of imported butter oil, Reichert value shall not be less than 24.

**A.11.02.22 ---CHAKKA---** means a white to pale yellow semi-solid product of good texture and uniform consistency obtained by draining off the whey from the Yoghurt obtained by the lactic fermentation of cow's milk buffalo's milk skimmed milk and recombined or standardised milk which has been subjected to minimum heat treatment equivalent to that of pasteurisation. It shall have pleasant Yoghurt/Dahi like flavour. It shall not contain any ingredient foreign to milk. It shall be free from mouldiness and free from signs of fat or water seepage or both. It shall be smooth and it shall not appear dry. It shall not contain extraneous colour and flavours. It shall conform to the following requirements, namely:-

	Chakka	Skimmed milk Chakka
(i) Total solids, per cent by weight	Min. 30	Min. 20
(ii) Milk fat (on dry basis) per cent by weight	Min. 33	Max. 5
(iii) Milk Protein (on dry basis) per cent by weight	Min 30	Min. 60
(iv) Titrable acidity (as lactic acid) per cent by weight	Max. 2.5	Max 2.5
(v) Total ash (on dry basis) per cent by weight	Max 3.5	Max 5.0

Chakka when sold without any indication shall conform to the standards of Chakka.

**A.11.02.22.01—SHRIKHAND**—means the product obtained from Chakka or Skimmed Milk Chakka to which milk fat is added. It may contain fruit, nuts, sugar, cardamom, saffron and other spices. It shall not contain any added colouring and artificial flavouring substances. It shall conform to the following specifications, namely:-

(i)	Total solids, per cent by weight	Not less than 58
(ii)	Milk fat (on dry basis) per cent by weight	Not less than 8.5
(iii)	Milk Protein (on dry basis) per cent by weight	Not less than 9
(iv)	Titration acidity (as lactic acid) per cent by weight	Not more than 1.4
(v)	Sugar (Sucrose) (on dry basis) per cent by weight	Not more than 72.5
(vi)	Total ash(on dry basis) per cent by weight	Not more than 0.9

In case of Fruits Shrikhand it shall contain Milk fat (on dry basis) per cent by weight----Not less than 7.0 and Milk Protein (on dry basis) per cent by weight----Not less than 9.0.

**A.11.02.23--- Yoghurt** means a coagulated product obtained from toned milk, pasteurised or boiled milk by lactic acid fermentation through *Lactobacillus bulgaricus delbruckii var bulgaricus* and *Streptococcus thermophilus*. It may also contain cultures of *Bifidobacterium bifidus* and *Lactobacillus acidophilus* and if added, the declaration to this effect shall be made on the label. The product shall have smooth body and custard like consistency with no whey separation. It may also contain:-

- (i) milk powder, skimmed milk powder, whey proteins, water soluble milk proteins, caseinates manufactured from pasteurised product and lactase enzyme preparation;
- (ii) Sugar, corn-syrup or glucose syrup in case of sweetened, flavoured and fruit yoghurt only;
- (iii) Fruits, fruit pulp, jam, fruit syrup, fruit juice etc. in flavoured and fruit yoghurt only; Permitted colours and flavours in flavoured and fruit yoghurt only.
- (iv) Permitted colours and flavours in flavoured and fruit yoghurt only.

It may contain permitted stabilisers upto a maximum limit of 0.5 per cent, by weight. It shall also conform to the following standard, namely:-

	Yoghurt plain	Yoghurt Skimmed	Yoghurt Sweetened and/of flavoured	Fruit yoghurt	
(i)	Total Milk fat, solids, per cent by weight, not less than	13.5	11.0	13.5	10.00
(ii)	Milk fat, percent by weight	Not less than 3.0	Not more than 0.5	Not less than 3.0	Not less than 1.5
(iii)	Sugar, per cent by weight not less than	-----	-----	6.0	6.0
(iv)	Protein, per cent by weight, Not less than	3.2	3.2	3.2	2.6

Titration acidity of the product shall be from 0.8 to 1.2 per cent by weight (as lactic acid). The specific lactic acid bacterial count per gram of the product shall not be less than 10,00,000 and Escherichia Coli shall be absent in the product.

The type of yoghurt shall be clearly indicated on the label ; otherwise standard of plain Yoghurt shall apply.

Note---- The yoghurt subjected to heat treatment after fermentation at temperature not less than 65 degree C shall be labelled as "Thermised or Heat Treated Yoghurt" and shall conform to the above parameters except the minimum requirement of specific lactic acid bacterial count per gm.;

**A.12.----TABLE MARGARINE** means an emulsion of edible oils and fats with water. It shall be free from rancidity, mineral oil and animal body fats. It may contain common salt not exceeding 2.5 per cent skimmed milk powder not exceeding 2 per cent, permitted emulsifying and stabilizing agents and butylated- hydroxy anisole (BHA) up to a maximum limit of 0.02 per cent. It shall conform to the following specifications, namely:-

1. Fat	Not less than 80 per cent mass/mass
2. Moisture	Not less than 12 per cent and not more than 16 per cent mass/mass.
3. Vitamin A	Not less than 30 I.U. per gram of the product at the time of sale.
4. Melting point of extracted fat	31 degree C to 37 degree C (Capillary Slip method).
5. Unsaponifiable matter of extracted fat.	Not more than 1.5 per cent by weight
6. Free fatty acids (as oleic acid)	Not more than 0.25 per cent weight acid) of extracted fat
or Acid value	Not more than 0.5

It shall contain not less than 5 per cent of its weight of Til oil but sufficient to ensure that when separated fat is mixed with refined groundnut oil in the proportion of 20 : 80, the red colour produced by the Baudouin test shall not be lighter than 2.5 red units in 1 cm. Cell on a Lovibond scale.

It may contain Annatto or Carotene as colouring matter. It may also contain Lactic Acid, Butyric Acid, Valeric Acid, Cinnamon Oil, Ethyl Butyrate as flavouring agents upto 0.08 ppm m /m and Diacetyl as a flavouring agent upto a maximum limit of 4.0 ppm.

Provided that such coloured and flavoured margarine shall also contain starch not less than 100 ppm and not more than 150 ppm.

Provided further that such coloured and flavoured margarine shall only be sold in sealed packages weighing not more than 500 gms.

Test for argemone oil shall be negative.

**A.12.01 – BAKERY AND INDUSTRIAL MARGARINE** means an emulsion of vegetable oil product with water. It shall be free from added colour and flavour, rancidity, mineral oil and animal body fats. It may contain common salt not exceeding 2.5 per cent, permitted emulsifying and stabilising agents and Butylated hydroxy anisole (BHA) or Tertiary butyl hydro Quinone (TBHQ) up to a maximum limit of 0.02 per cent. It shall conform to the following standards namely:-

Fat	Not less than 80 per cent m/m.
Moisture	Not less than 12 per cent and not more than 16 Per cent m/m.

The separated fat of the product shall conform to the following:-

- |   |   |
|---|---|
| (i) Vitamin A   | Not less than 30 IU per gram at the time of packing and shall show a positive test for Vitamin 'A' when tested by Antimony trichloride (carr price) reagents (as per IS 5886-1970).   |
| (ii) Melting point by Capillary slip method.                | 31degree C – 41 degree C  |
| (iii) Unsaponifiable matter                                 | Not exceeding 2.0 per cent but in case of the product where proportion of Rice bran oil is more than 30 per cent by wt. The unsap matter shall be not more than 2.5 per cent by wt. Provided quantity of Rice bran oil is declared on the label of such product as laid down in Rule. 42.ZZZ(10). |
| (iv) Free Fatty Acid calculated as Oleic acid or Acid value | Not more than 0.25 per cent<br>Not more than 0.5  |

It shall contain raw or refined sesame oil (Til oil) in sufficient quantity so that when the product is mixed with refined groundnut oil in the proportion of 20:80, the colour produced by the Boudouin test shall not be lighter than 2.0 red unit in a 1 cm cell on a Lovibond scale.

Note—For the purpose of the standard, the “vegetable oil product” shall have the meaning assigned to it in Vegetable oil product Control order, 1947.

Test for argemone oil shall be negative.

A.13. Omitted.

**A.14---TEA** means tea, other than Kangra tea derived exclusively from the leaves, buds and tender stems of plants of the Camellia genus and the species and included (i) leaf, (ii) broken (iii) fanning and (iv) dust. It shall conform to the following specifications:

- |   |  |
|---|--|
| (a) Total ash determined on tea dried to a constant weight at 100 degree C  | 4.0 to 8.0 per cent by weight                      |
| (b) Total ash soluble in boiling distilled water.   | Not less than 40.0 per cent of total ash.          |
| (c) Ash insoluble in dilute hydrochloric acid   | Not more than 1.0 per cent by weight on dry basis. |
| (d) Extract obtained by boiling dry tea (dried to constant weight at 100 degree C) with 100 parts of distilled water for one hour under reflux. | Not less than 32 per cent.                         |

- |     |  |   |
|-----|--|---|
| (e) | Alkalinity of solubal ash  | Not less than 1.0 per cent and not mor than 2.2 per cent expressed as K2O on dry basis. |
| (f) | Crude fibre determined on tea dried to constant weight at 100 degree C | Not more than 17 per cent.  |

It shall not contain any added colouring matter It may also contain 0.2 per cent pectinase enzyme.

Provided that tea may contain Natural Flavours and Natural Flavouring Substances which are flavour preparations and single substance respectively, acceptable for human consumption, obtained exclusively by physical process from materials of plant origin either in their natural slate or after processing for human consumption.

Provided further that such tea containing added flavour shall bear proper label declaration as provided in sub-rule (YY) of rule 42.

Provided also that the tea used in the manufacture of flavoured tea shall conform to the standards of tea.

Provided also that flavoured Tea manufacturers shall register themselves with the Tea Board before marketing Flavoured Tea.

**A.14.01---KANGRA TEA** means tea derived exclusively from the leaves, buds and tender stems of plants of the Camellia sinesis of Camellia tea grown in Kangra and Mandi valleys of Himachal Pradesh. It shall conform to the following specifications, namely:-

- |     |   |  |
|-----|---|--|
| (a) | Total ash determined on tea dried to a constant weight at 100 degree C  | 4.5 to 9.0 per cent by weight  |
| (b) | Total ash soluble in boiling distilled water  | Not less than 34 per cent of total ash.  |
| (c) | Ash insoluble in dilute hydrochloric acid   | Not more than 1.2 per cent by weight on dry basis.                                       |
| (d) | Extract obtained by boiling dried tea (dried to constant weight at 100 degree C) with 100 parts of distilled water for one hour under reflux. | Not less than 23 per cent.   |
| (e) | Alkalinity of soluble ash   | Not less than 1.0 per cent and not more than 2.2 per cent expressed at K2O on dry basis. |
| (f) | Crude fibre determined on tea dried to a constant weight at 100 degree C.   | Not more than 18.5 per cent.   |

It shall not contain any added colouring matter It may also contain 0.2 per cent pectinase enzyme.

Provided that tea may contain Natural Flavours and Natural Flavouring Substances which are flavour preparations and single substance respectively, acceptable for human consumption, obtained exclusively by physical processing from materials of plant origin either in their raw state or after processing for human consumption:

Provided further that such tea containing added flavour shall bear proper label declaration as provided in sub-rule (YY) of the rule 42.

Provided also that tea used in the manufacture of flavoured tea shall conform to the standard of tea.

Provided that if tea is sold or offered for sale without any indication as to whether it is Kangra tea or not. The standards of quality of tea prescribed in item A.14 shall apply.

Provided also that flavoured tea manufacturers shall register themselves with the Tea Board before marketing Flavoured Tea.

**A.15.—EDIBLE COMMON SALT** means a crystalline solid, white, pale pink or light grey in colour free from visible contamination with clay, grit and/or light grey in colour free from contamination with clay, grit and other extraneous adulterant and impurities. It shall not contain moisture in excess of six per cent of the weight of the undried sample. The sodium chloride content (as NaCl) and the matter soluble in water other than sodium chloride on dry weight basis shall be as specified in columns (2) and (3) of the Table below against the period of validity mentioned in corresponding entry in column (1) of the said Table. The matter insoluble in water shall not exceed 1.0 per cent by weight on dry weight basis.

TABLE

Period of Validity	Minimum percentage of Sodium chloride content As NaCl (on dry basis)	Maximum percentage of matter soluble in water other than sodium chloride (on dry Basis)
(1)	(2)	(3)
Upto 31.3.82	94.0	5.0
From 1.4.82 to 31.3.83	94.5	4.5
From 1.4.83 to 31.3.84	95.0	4.0
From 1.4.84 to 31.3.85	95.5	3.5
From 1.4.85 onwards	96.0	3.0

Provided that table salt may contain permitted anticaking agents as provided in rule 62 of these rules.

TABLE

Flavours	Per cent by weight (Max.)
Cardamom	2.8
Ginger	1.0
Bergamot	2.0
Lemon	1.6
Cinnamon	2.0
Mixture of above flavours With each other	The level of each individual flavour shall not exceed the quantity given above.”

Provided further that the total matter insoluble in water in such cases shall not exceed 2.2 per cent and the sodium chloride content on dry basis shall not be less than 97.0 per cent by weight.

**A.15.01--IODISED SALT** means a crystalline solid, white or pale, pink or light grey in colour , free from contamination with clay, grit and other extraneous adulterants and impurities. It shall conform to the following standards, namely:-

Moisture	Not more than 6.0 per cent by Weight of the undried sample.
Sodium Chloride (NaCl)	Not less than 96.0 per cent by Weight on dry basis.
Matter insoluble in water	Not more than 1.0 per cent by Weight on dry basis.
Matter soluble in water other than sodium chloride.	Not more than 3.0 per cent by weight on dry basis.

Iodine content at-

(a) Manufactureres level	Not less than 30 parts per million on dry weight basis.
(b) Distribution channel including retail level	Not less than 15 parts per million on dry weight basis.

Provided that iodised salt may contain permitted anticaking agents as provided in rule 62 of these rules.

Provided further that the total matter insoluble in water in such cases shall not exceed 2.2 per cent and sodium chloride content on dry basis shall not be less than 97.0 per cent by weight.

**A.15.01.01- POTASSIUM IODATE** means a crystalline powder, white in colour free from impurities. It shall confirm the following standards, namely:-

1. Potassium Iodate (as KIO <sub>3</sub> )	Per cent by weight not less than 99.8
2. Solubility	Soluble in 30 Parts of water
3. Iodide (as I) per cent by weight not more than	0.002
4. Sulphate (as SO <sub>4</sub> ) per cent by weight not more than	0.002
5. Bromate, bromide, chlorate and chloride per cent by Weight not more than	0.01
6. Matter insoluble in water per cent by weight not More than	0.10
7. Less on drying per cent by weight not more than	0.1
8. pH (5 per cent solution)	Neutral
9. Heavymetal (as Pb) ppm not more than	10

- |                                       |     |
|---------------------------------------|-----|
| 10. Arsenic (as As) ppm not more than | 3   |
| 11. Iron (as Fe) ppm not more than    | 10. |

**A.15.02—IRON FORTIFIED COMMON SALT** means a crystalline solid, white or pale, pink or light grey in colour, free from visible contamination with clay and other extraneous adulterants and impurities. It shall conform to the following standards, namely:-

- |  |   |
|--|---|
| 1. Moisture  | Not more than 5.0 per cent by weight.   |
| 2. Water insoluble matter                              | Not more than 1.0 per cent on dry weight basis.   |
| 3. Chloride content (as NaCl)                          | Not less than 96.5 per cent by weight on dry weight basis   |
| 4. Matter insoluble in dilute hydrochloric acid        | Not more than 0.3 per cent by weight on dry weight basis (to be determined by the method specified in IS 253-1970). |
| 5. Matter soluble in water other than Sodium Chloride. | Not more than 2.5 per cent on dry weight basis.   |
| 6. Iron content (as Fe)                                | 850-1100 parts per million.   |
| 7. Phosphorus as inorganic (PO <sub>4</sub> )          | 1500-2000 parts per million.  |
| 8. Sulphate as (SO <sub>4</sub> )                      | Not more than 1.1 per cent by weight.   |
| 9. Magnesium as (Mg) water soluble                     | Not more than 0.10 per cent by weight.  |
| 10. pH value in 5 per cent solution in water.          | 2 to 3.5  |

Provided that Iron Fortified Common Salt may contain aluminium silicate as an anti-caking agent to a maximum extent of 2.0 per cent and in such a case the total matter insoluble in water shall not exceed 2.2 per cent on dry weight basis.

Provided that Iron fortified salt may contain permitted anticaking agents as provided in rule 62 of these rules and in such a case the total matter insoluble in water shall not exceed 2.2 percent on dry weight basis.

## **A.16—FRUIT PRODUCTS**

**A.16.01---FRUIT JUICE** means the unfermented and unconcentrated liquid expressed from sound, ripe fresh fruit, and with or without:-

- (a) sugar, dextrose, invert sugar, or liquid glucose, either singly or in combination;
- (b) Water pre-oil, fruit essences and flavour, common salt, ascorbic acid, citric acid, tartaric acid and malic acid and preservatives.

The acidity of the finished product calculated as citric acid shall not be less than 4 per cent in the case of pure lemon juice or pulp and not less than 5 per cent in the case of pure lime juice but shall not exceed 3.5 per cent in the case of other juices.

The total soluble solids for sweetened fruit juice (except tomato juice) shall not be less than 10 per cent.

It may also contain permitted emulsifying and stabilising agents as prescribed in Rule 61-C.

It may also contain fumaric acid (food grade) or Quick Dissolving Fumaric Acid certified by Bureau of Indian Standards to the extent of 0.3 per cent by weight.

**A.16.02 -----TOMATO JUICE** means canned or bottled, unconcentrated pasteurized juice expressed from tomato with a proportion of the pulp, expressed with or without the application of heat by any method that does not add water to such juice from whole, ripe tomatoes from which all stems and objectionable portions have been removed and with or without.---

- (a) salt,
- (b) sugar or dextrose or both added in dry form,
- (c) citric acid, malic acid or ascorbic acid,
- (d) Permitted colours.

Provided that canned tomato juice may also contain extraneous permitted colours.

The total soluble solids w/w shall not be less than 5 per cent free of salt.

It may also contain permitted emulsifying and stabilising agents as prescribed in Rule 61-C. It may also contain fumaric acid (food grade) or Quick Dissolving Fumaric Acid certified by the Bureau of Indian Standards to the extent of 0.3 per cent by weight.

**A.16.03---FRUIT SYRUP** means sweetened fruit juice containing sugar, dextrose, invert sugar or liquid glucose either singly or in combination with or without-

- (a) water, peel-oil, fruit essences and flavours common salt;
- (b) citric acid, ascorbic acid,
- (c) permitted preservative and colours.

The total soluble solid w/w shall be not less than 65 per cent

The minimum percentage of fruit juice in the final product shall be not less than 25.0 per cent w/w.

It may also contain permitted emulsifying any stabilising agents as prescribed in Rule 61-C. It may also contain fumaric acid (food grade) certified by the Bureau of Indian Standards to the extent of 0.3 per cent by weight.

**A.16.04----FRUIT SQUASH** means the expressed juice of the sound, ripe fruit with the pulp containing sugar, dextrose, invert sugar or liquid glucose either singly or in combination and with or without---

- (a) water, peel-oil, fruit essences and flavours, common salt,
- (b) citric acid, ascorbic acid;
- (c) permitted preservative and colours.

The total soluble w/w in the finished product shall be not less than 40 per cent.

The minimum percentage of fruit juice in the final product shall be not less than 25.0 per cent w/w.

It may also contain permitted emulsifying and stabilising agents as prescribed in Rule 61-C.

Provided that when additional sodium potassium salt is added, it shall be declared on the label as laid down in clause ZZZ (8) or Rule 42 of the said rules.

**A.16.05---FRUIT BEVERAGE OR FRUIT DRINKS** means any beverage or drink which is purported to be prepared from fruit juice and water or carbonated water, and containing sugar, dextrose, invert sugar or liquid glucose either singly or in combination and with or without-

- (a) Water, peel-oil, fruit essences and flavours,
- (b) citric acid, ascorbic acid,
- (c) permitted preservative and colours.

The total soluble solids w/w in the final product shall be not less than 10 per cent.

The minimum percentage of fruit juice in the final product shall be not less than 5.0 per cent w/w.

It may also contain permitted emulsifying and stabilising agents as prescribed in Rule 61-C. It may also contain fumeric acid (food grade) certified by Bureau of Indian Standards to the extent of 0.3 per cent by weight.

**A.16.06---TOMATO SAUCE, TOMATO KETCHUP, TOMATO RELISH** or any other expression conveying the meaning that the product so designated is a form of tomato sauce, shall be a preparation of sound and ripe tomatoes with or without-

- (a) sugar , salt, vinegar, acetic acid, onions, garlic, spices or condiments;
- (b) citric acid, ascorbic acid;
- (c) permitted preservative

The product shall be free from skins and seeds. The product shall show no sign of fermentation when incubated at 37 degree C for 15 days . The mould count shall not exceed 40 per cent of the fields examined. The yeast and spores shall not exceed 125 per 1/60 c.m.m. The bacterial count shall not exceed 100 million per cc.

Total acidity in terms of acetic acid shall be not less than 1.0 per cent. and the total soluble solids w/w not less than 25 per cent. It shall not contain any other vegetable substance.

It may contain permitted emulsifying and stabilising agents as prescribed in Rule 61-C.

It may also contain fumeric acid(food grade) or Quick Dissolving Fumeric Acid certified by the Bureau of Indian Standards to the extent of 0.3 per cent by weight.

**A.16.07---JAM** means the product obtained by processing fresh fruit, canned fruit, dried fruit or fruit pulp with water, sugar, dextrose, invert sugar or liquid glucose either singly or in combination by boiling to a suitable consistency and with or without----

- (a) citric, malic, ascorbic acid,
- (b) permitted preservative and colours;
- (c) pectin derived from any fruit.

The minimum soluble solids w/w shall be 68 per cent Jam shall not contain---

- (a) less than 45 per cent of fruit except where fruit is strawberry or

- raspberry where it shall contain not less than 25 per cent,
- (b) sweetening agent other than specified above,
- (c) apple or rhubar, but it may contain in an amount that reasonably compensates for any deficiency in the natural acidity or pectin content of the fruit used in its preparation.
- (d) tartaric acid, or
- (e) agar or gelatin.

It shall be free from mould growth. When dry fruit is used it shall be clearly declared on the label.

It may also contain permitted emulsifying and stabilising agents as prescribed in Rule 61-C. It may also contain fumaric acid (food grade) or Quick Dissolving Fumaric Acid certified by the Bureau of Indian Standards to the extent of 0.3 per cent by weight.

**A.16.09—MARMALADE** means the product made from any combination of peel, pulp and juice of the named citrus fruit by boiling with water, sugar, dextrose, invert sugar, liquid glucose either singly or in combination to a suitable consistency and with or without an acid ingredient in an amount that reasonably compensates for any deficiency in the natural acidity of the fruit used in its preparation consisting of---

- (a) citric, tartaric or ascorbic acid,
- (b) lemon or lime juice,

It may contain permitted preservatives, colour or pectin derived from any fruit.

It shall not contain less than 45 per cent of the named fruit.

Total soluble solids w/w shall be not less than 65 per cent.

Fumaric acid may be used up to a maximum limit of 0.5 per cent.

It may also contain permitted emulsifying and stabilising agents as prescribed in Rule 61-C. It may also contain fumaric acid (food grade) or Quick Dissolving Fumaric Acid} certified by Bureau of Indian Standards to the extent of 0.3 per cent by weight.

**A.16.11.---FRUIT CHUTNEY** means a preparation made from sound fruits with spices, salt, onion, garlic, sugar, vinegar or acetic acid, and shall not less than 50 per cent of total soluble solids w/w and may contain permitted preservative.

The minimum percentage of fruit in the final product shall not be less than 40.0. The percentage acidity of the product expressed as acetic acid by weight shall be not less than 0.75 and not more than 2.0. The ash content shall not exceed 5.0 per cent.

It may also contain permitted emulsifying and stabilising agents as prescribed in Rule 61-C.

**A.16.12.---SAUCE** shall be the product derived from any suitable kind and variety of fruit and vegetable which are wholesome and which shall be practically free from insect or fungal attack or blemish affecting the quality of the fruit or vegetable. The only substances that may be added are fruit, vegetable their pulp, juice dried fruit, sugar, spices, salt, vinegar, acetic acid, citric acid, malic acid, onion, garlic, flavouring material and permitted preservatives. It shall not contain any coal tar dye.

Fumaric acid may be used up to a maximum limit of 0.5 per cent.

The minimum total soluble solids shall not be less than 15 per cent.

The total acidity in terms of acetic acid shall not be less than 1.0 per cent.

It may also contain permitted emulsifying and stabilising agents as prescribed in Rule 61-C.. It may also contain fumeric acid(food grade) certified by Bureau of Indian Standards to the extent of 0.3 per cent by weight.

**A.16.12.01—SOYABEAN SAUCE** shall be the product derived from any suitable variety of sound and wholesome soyabean, free from insect or fungal or any other blemish affecting the quantity of Soyabean, The only substance that may be added are spices, salt, sugar, vinegar, acetic acid, onion, garlic, wheat molasses and permitted preservatives. It shall not contain any other fruit or vegetable substance. It shall show no sign of fermentation when incubated at 28 degree C –30 degree C and 37 degree C for three days.

It shall not contain any added colour except cramel.

The minimum total soluble solids shall not be less than 25 per cent, mass/mass determined by refractometers at 20 degree C. uncorrected for acidity.

The total acitivity in terms of acetic acid shall not be less than 0.6 per cent mass/mass.

Mould count shall not be more than 40 per cent of the fields examined.

Yeast spores shall not be more than 125 per 1/60 c.m.m. Bacteria shall not be more than 100 million per c.c.

**A.16.13---SPICES BASED SAUCE**-Spices based sauce like chillies sauce shall be the product derived from any suitable variety of spices or condiments, singly or in combination. Such spices shall be wholesome and practically free from fungal or insect attack. The only substance that may be added are spices-fresh or dried, sugar, salt, vinegar, acetic acid, citric acid, fumeric acid, onion, garlic, flavouring agents , permitted preservatives, permitted stabilizers and emulsifiers. It may contain caramel, but shall not contain any coal tar food colour. It may also contain small quantities of vegetable fruit pulp or juice.

The total acidity in terms of acetic acid shall not be less than 1.0 per cent and total soluble solids shall not be less than 10.0 per cent by weight.

**A.16.14- TOMATO PUREE or TOMATO PASTE** or any other expression conveying the meaning that the product so designated is a from of Tomato Puree or Tomato Paste, shall be a preparation of sound and ripe tomatoes with or without.

- (a) salt, spices and condiments;
- (b) citric acid, matic acid, tartaric acid, lactic acid and L-ascorbic acid; and
- (c) permitted preservatives.

The product shall be free from skin and seeds. It shall be free from added colouring matter. The product shall show no sign of fermentation action when incubated at 37 degree C for seven days.

Tomato Puree shall contain not less than 9 per cent total solube solids by weight whereas Tomato Paste shall contain not less than 25 per cent , total soluble solids by weight.

**A.16.15.-FRUIT JELLY** means the product prepared by boiling the fruit or its pieces or other fruit parts with or without water, expressing and straining, mixing the strined fruit extract with sugar and boiling the mixture to such a consistency the gellatinisation takes place on cooling.

Jelly may contain sugar, dextrose, invert sugar or liquid glucose, honey fruit essence and flavours, ascorbic acid, citric acids, pectin, permitted natural flavours, permitted food colours and preservatives. It shall be free from artificial sweetening agents; it shall show no sign of fermentation. It shall not contain less than 45 per cent of the fruit extract. Total soluble solids shall not be less than 65 per cent by weight. It shall be free from extraneous plant materials.

**A.16.16---PICKLE** means the preparation made from sound, clean, raw or sufficiently mature fruits or vegetables or a combination of both free from insect damage of fungus attack preserved in salt acid, sugar or any combination of the three. The pickle may contain onion, garlic, ginger, sugar, jaggery, edible oils, spices, spice extract or oil of turmeric, pepper, chillies, fenugreek, mustardseed or powder, vegetable ingredients, asafoetida, bengal gram, lime juice, lemon juice, green chillies, vinegar or acetic acid, dry fruit including raisins and fruits nuts.

Pickles shall be free from added synthetic Food colours.

Combination of pickles may be:

(i) Pickles in citrus juice or brine: The percentage of salt in covering liquid shall not be less than 10 per cent when salt is used as major preserving agent. When packed in citrus juice, acidity of the covering liquid shall be not less than 1.2 per cent calculated as citric acid. Soluble calcium salt and permitted preservatives may be used in Soluble calcium salt and permitted preservatives may be used in such type of pickles. Pickles shall be free from copper, alum and

(ii) Pickles in oil. The fruit or vegetable percentage in the final product shall not be less than 60 per cent. The pickle shall be covered with oil so as to form a layer of not less than 0.5 cm above the contents or the percentage of oil in pickle shall be not less than 10 per cent.

Pickle shall be free from copper, alum and mineral acid. It may contain rapeseed (rai) ajwain, saunf, black pepper and like spices, etc. Permitted preservatives may be used in Pickles.

(iii) Pickles in vinegar: Pickles in vinegar mean the preparation from sound, clean, raw or sufficiently matured fruits or vegetables free from insect damage or fungus attack, which have been cured in brine or dry salt or salted and dried stock with or without natural fermentation. It shall contain vinegar or acetic acid and the percentage of acid in the fluid portion shall not be less than 2 per cent w/w calculated as acetic acid. It may contain sugar, whole or ground or semi-ground spices, dried fruits, green and red chillies, ginger, etc, dry fruit. Citric acid may also be added in such type of pickles. Spice extract or essences may also be used. The drained weight of the product shall not be less than 60 per cent. Pickles shall be free from copper, mineral acid, alum synthetic colours and shall show no sign of fermentation. The product shall be reasonably free from sediments. Permitted preservatives may be used in pickles.

## **A.17---EDIBLE OILS**

**A.17.01.—COCONUT OIL** (Naryal ka tel) means the oil expressed from copra obtained from the kernel of *Cocos mucifera* nuts. It shall be clear and free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards:-

(a)	Butyro refractometer reading at 40 degree C . or Refractive Index at 40 degree C.	34.0 to 35.5 1.4481 –1.4491
(b)	Saponification value	Not less than 250
(c)	Iodine value	7.5 to 10.0

- |     |                       |                             |
|-----|-----------------------|-----------------------------|
| (d) | Polenske value        | Not less than 13.0          |
| (e) | Acid value            | Not more than 6.0           |
| (f) | Unsaponifiable matter | Not more than 1.0 per cent. |

Test for argemone oil shall be negative.

**A.17.02---COTTON SEED OIL** (Binola ka tel) means the oil extracted from clean, sound, delinted and decorticated cotton seeds (genus *Gossypium*). It shall be refined. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oils. It shall conform to the following standards:-

- |     |   |                                 |
|-----|---|---------------------------------|
| (a) | Butyro refractometer reading at 40 degree C<br>or Refractive Index at 40 degree C | 55.6 to 60.2<br>1.4630 – 1.4660 |
| (b) | Saponification value  | 190-198                         |
| (c) | Iodine value  | 98 to 112                       |
| (d) | Unsaponifiable matter   | Not more than 1.5 per cent.     |
| (e) | Acid value  | Not more than 0.50              |
| (f) | There shall be no turbidity after<br>keeping the filtered sample at               | 30 degree C for 24 hours.       |
| (g) | Bellier test (Turbidity temperature<br>Acetic acid test)                          | 19 degree to 23 degree C        |

Test for argemone oil shall be negative.

**A.17.03—GROUNDNUT OIL (MOONGHPHALI-KA -TEL) MEANS THE OIL EXPRESSED** from clean and sound groundnuts (*Arachis hypogoes*). It shall be clear, free from rancidity, suspended or other foreign matter, separated water added colouring or flavouring, or mineral oil. It shall conform to the following standards:-

- |     |   |                               |
|-----|---|-------------------------------|
| (a) | Butyro-refractometer reading at 40 degree C.<br>Or Refractive Index at 40 degree C. | 54.0 to 57.1<br>1.4620-1.4640 |
| (b) | Saponification value  | 188 to 196                    |
| (c) | Iodine Value  | 85 to 99                      |
| (d) | Unsaponifiable matter   | Not more than 1.0 per cent.   |
| (e) | Acid Value  | Not more than 6.0             |
| (f) | Bellier test Turbidity temperature<br>Acetic acid method.                           | 39 degree C to 41 degree C    |

Test for argemone oil shall be negative.

**A.17.04-LINSEED OIL** (Tisi ka tel) means the oil obtained by process of expressing clean and sound linseed (*Linum usitatissimum*). It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards:-

- |     |   |                               |
|-----|---|-------------------------------|
| (a) | Butyro-refractometer reading at 40 degree C.<br>Or Refractive Index at 40 degree C. | 69.5 to 74.3<br>1.4720-1.4750 |
| (b) | Saponification value  | 188 to 195                    |
| (c) | Iodine Value  | Not less than 170             |
| (d) | Unsaponifiable matter   | Not more than 1.5 per cent    |
| (e) | Acid Value  | Not more than 4.0             |

Test for argemone oil shall be negative.

**A.17.05. MAHUA OIL** means the oil expressed from clean and sound seeds or nuts of *Madhuca* (*Bassia latifolia* or *B. longifolia* or a mixtur of both). It shall be clear and shall be free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil.

It shall be refined and shall conform to the following standards:

(a)	Butyro-refractometer reading at 40 degree C.	49.5 to 52.7
	Or Refractive Index at 40 degree C.	1.4590 - 1.4611
(b)	Saponification value	187 to 196
(c)	Iodine Value	58 to 70
(d)	Unsaponifiable matter	Not more than 2.0 per cent.
(e)	Acid Value	Not more than 0.50

Test for argemone oil shall be negative.

**A.17.06---RAPE-SEED OIL (Toria oil), MUSTARD OIL** (*Sarson ka tel*) means the oil expressed from clean and sound mustard seeds, belonging to the *compestris*, *juncea* or *napus* varieties of *Brassica*. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards :

(a)	Butyro-refractometer reading at 40 degree C.	58.0 to 60.5
	Or Refractive Index at 40 degree C.	1.4646 -1.4662
(b)	Saponification value	168 to 177
(c)	Iodine Value	96 to 12 polybromide test shall be negative
(d)	Unsaponifiable matter	Not more than 1.2 per cent by weight
(e)	Acid Value	Not more than 6.0
(f)	Bellier test Turbidity temperature Acetic acid method.	23.0 degree C to 27.5 degree C
(g)	Test for agremonie oil	Negative
(h)	Test for Hydrocyanic acid	Negative.

Test for argemone oil shall be negative.

**A.17.07.—OLIVE OIL** means the oil expressed from the ripe olive fruit (*Olea europea*). It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards :

(a)	Butyro-refractometer reading at 40 degree C.	53.0 to 56.0
	Or Refractive Index at 40 degree C.	1.4613 -1.4633
(b)	Saponification value	185 to 196
(c)	Iodine Value	79 to 90
(d)	Unsaponifiable matter	Not more than 1.0 per cent
(e)	Acid Value	Not more than 6.0

Test for argemone oil shall be negative.

**A.17.08. POPPY SEED OIL** means the oil expressed from poppy seeds (*Papaver somniferum*). It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards:

(a) Butyro-refractometer reading at 40 degree C.	60.0 to 64.0
Or Refractive Index at 40 degree C.	1.4659 -1.4685
(b) Saponification value	186 to 194
(c) Iodine Value	133 to 143
(d) Unsaponifiable matter	Not more than 1.0 per cent
(e) Acid Value	Not more than 6.0

Test for argemone oil shall be negative.

**A.17.09.----SAFFLOWER SEED OIL..** (*barrey ka tel*) means the oil expressed from the seeds of *Carthamus tinctorius*. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards :

(a) Butyro-refractometer reading at 40 degree C.	62.4 to 64.7
Or Refractive Index at 40 degree C.	1.4674 - 1.4689
(b) Saponification value	186 to 196
(c) Iodine Value	135 to 48
(d) Unsaponifiable matter	Not more than 1.0 per cent
(e) Acid Value	Not more than 6.0
(f) Bellier test Turbidity temperature Acetic acid method.	Not more than 16 degree C

Test for argemone oil shall be negative.

**A.17.10.---- TARAMIRA OIL** means the oil expressed from clean and sound seeds of Taramira (*Eruca sativa*). It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards:

(a) Butyro-refractometer reading at 40 degree C.	58.0 to 60.0
Or Refractive Index at 40 degree C.	1.4646 -1.4659
(b) Saponification value	174 to 177
(c) Iodine Value	99 to 105
(d) Unsaponifiable matter	Not more than 1.0 per cent
(e) Acid Value	Not more than 6.0

Test for argemone oil shall be negative.

**A.17.11.---- TIL OIL** (*Gingelly or sesame oil*) means the oil expressed from clean and sound seeds of Til (*Sesamum indicum*), black, brown, white or mixed. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards :

(a) Butyro-refractometer reading at 40 degree C.	58.0 to 61.0
Or Refractive Index at 40 degree C.	1.4646 -1.4665
(b) Saponification value	188 to 193
(c) Iodine Value	103 to 120
(d) Unsaponifiable matter	Not more than 1.5 per cent

- |   |                           |
|---|---------------------------|
| (e) Acid Value  | Not more than 6.0         |
| (f) Bellier test (Turbidity temperature<br>Acetic acid method.) | Not more than 22 degree C |

Provided that the oil obtained from white sesame seeds grown in Tripura, Assam and West Bengal shall conform to the following standards:

- |   |                                |
|---|--------------------------------|
| (a) Butyro-refractometer reading at 40 degree C.<br>Or Refractive Index at 40 degree C. | 60.5 to 65.4<br>1.4662 -1.4694 |
| (b) Saponification value  | 185 to 190                     |
| (c) Iodine Value  | 115 to 120                     |
| (d) Unsaponifiable matter   | Not more than 2.5 per cent     |
| (e) Acid Value  | Not more than 6.0              |
| (f) Bellier test (Turbidity temperature<br>Acetic acid method.)                         | Not more than 22 degree C      |

Test for argemone oil shall be negative.

**A.17.12—NIGER SEED OIL** (Sargiya ka tel) means the edible oil obtained by process of expressing clean and sound seeds of *Guizotia abyssinica*. It shall be clear and free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances mineral or other oil. It shall conform to the following standards :

- |   |                               |
|---|-------------------------------|
| (a) Butyro-refractometer reading at 40 degree C.<br>Or Refractive Index at 40 degree C. | 61.0 to 65.0<br>1.4665-1.4691 |
| (b) Saponification value  | 188 to 193                    |
| (c) Iodine Value  | 110 to 135                    |
| (d) Unsaponifiable matter   | Not more than 1.0 per cent    |
| (e) Acid Value  | Not more than 6.0             |
| (f) Bellier test (Turbidity temperature<br>Acetic acid method.)                         | 25 degree to 29degree C       |

Test for argemone oil shall be negative.

**A.17.13.--- SOYABEAN OIL** means the expressed from clean and sound soyabeans (*Soja max*) from which the major portion of the gums naturally present have been removed by hydration and mechanical or physical separation. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil.

It shall conform to the following standards :

- |   |                               |
|---|-------------------------------|
| (a) Butyro-refractometer reading at 40 degree C.<br>Or Refractive Index at 40 degree C. | 58.5 to 68.0<br>1.4649-1.4710 |
| (b) Saponification value  | 189 to 195                    |
| (c) Iodine Value  | 120 to 141                    |
| (d) Unsaponifiable matter   | Not more than 1.5per cent     |
| (e) Acid Value  | Not more than 2.5             |
| (f) Phosphorus  | Not more than 0.02 per cent   |

Test for argemone oil shall be negative.

**A.17.14.---MAIZE (Corn) OIL** means the oil, extracted from the gram of clean and sound seeds of *Zea mays* Linn. Fam Graminae, refined. It shall be free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards:

(a)	Butyro-refractometer reading at 40 degree C.	56.7 to 62.5
	Or Refractive Index at 40 degree C.	1.4637 - 1.4675
(b)	Saponification value	187 to 195
(c)	Iodine Value	103 to 128
(d)	Unsaponifiable matter	Not more than 1.5 per cent.
(e)	Acid Value	Not more than 0.50

Test for argemone oil shall be negative.

**A.17.15.--- REFINED VEGETABLE OIL** means any vegetable oil which is obtained by expression or solvent extraction of vegetable oil bearing materials, deacidified with alkali and/or physical refining and /or by miscella refining using permitted food grade solvents followed by bleaching with absorbent earth and/or carbon and deodourised with steam. No other chemical agent shall be used. The name of the vegetable oil from which the refined oil has been manufactured shall be clearly specified on the label of the container. In addition to the under-mentioned standards, to which refined vegetable oils shall conform to the standards prescribed in these rules for the specified edible oil shall also apply except for acid value which shall be not more than 0.5. Moisture shall not exceed 0.10 per cent by weight.

Test for argemone oil shall be negative.

**A.17.15.01.--- INTERESTERIFIED VEGETABLE FAT** means an edible fatty material that has been so treated as to bring about a rearrangement of fatty acid positions within the glyceride entities and hence a change in the physical properties like melting point, viscosity, specific gravity and the like with very little change in the constitution of the fatty acids themselves by a process of interesterification of the essentially neutral edible oil or fat, singly or in mixtures generally through the use of alkaline catalysts exemplified by sodium or potassium metals, or their ethoxides or hydroxides in the form either of anhydrous powders or in anhydrous glycerol medium followed by such post-process steps as washing, bleaching and deodorisation, the last of which can be omitted if the interesterified fat is to be incorporated as part of the raw material for further processing in edible fat products.

The interesterified fat shall be clear, free from soap, flavouring substances, rancidity, suspended or other foreign matters, separated water and mineral oil. It shall conform to the following standards, namely :-

- (i) It shall not contain any harmful colouring, flavouring or any other matter deleterious to health;
- (ii) No colour shall be added to interesterified fat unless so authorised by Government, but in no event any colour resembling the colour of ghee shall be added.
- (iii) If any flavour is used, it shall be distinct from that of ghee in accordance with a list of permissible flavours and in such quantities as may be prescribed by Government.

Provided that diacetyl to the extent of not more than 4.0 ppm may be added to interesterified fat exclusively meant for consumption by the Armed Forces;

- (iv) It shall not have moisture exceeding 0.25 per cent;

- (v) The melting point as determined by capillary slip method shall be from 31 degree C to 41 degree C both inclusive;
- (vi) The Butyro-refractometer reading at 40 degree C, shall not be less than 48; or Refractive Index at 40 degree shall not be less than 1.4580.
- (vii) It shall not have unsaponifiable matter exceeding 2.0 per cent;
- (viii) It shall not have free fatty acids (calculated as Oleic acid) exceeding 0.25 per cent.
- (ix) The product on melting shall be clear in appearance and shall be free from staleness or rancidity, and pleasant to taste and smell;
- (x) It shall contain raw or refined sesame (til) oil not less than 5 per cent by weight, but sufficient so that when it is mixed with refined groundnut oil in the proportion of 20:80, the colour produced by the Baudouin Test shall not be lighter than 2.0 red units in a 1 cm, cell on a Lavibond scale;
- (xi) It shall contain not less than 25 I.U. of synthetic Vitamin 'A' per gram at the time of packing and shall show a positive test for Vitamin 'A' when tested by Antimony. Trichloride ( Carr-Price ) reagent (as per IS: 5886-1970);
- (xii) No anti-oxidant, synergist, emulsifier or any other such substance shall be added to it except with the prior sanction of the Government.

Test for argemone oil shall be negative.

**A.17.16—ALMOND OIL** means the expressed from the seeds of *Prunus amygdalus* Batach, var, *dulcis* Koehne (sweet almond) or of *Prunus amygdalus* Batach, var, *Amara* Focke (bitter almond) without the application of heat. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substance or mineral oil. It shall conform to the following standards:-

Butyro-refractometer reading at 40 degree C	54.0 to 57.0
or Refractive Index at 40 degree C	1.4620 - 1.4639
Saponification value	186 to 195
Iodine value	90 to 109
Acid value	Not more than 6.0
Bellier's test (Turbidity temperature --- Acetic acid method)	Not more than 60 degree C

Test for argemone oil shall be negative.

**A.17.17.—WATER-MELON SEED OIL** means the oil extracted from the clean, sound seeds of the fruit of water-Melon (*Citrullus vulgaris* Schard) (Family:Cucurbitaceae). It shall be clear, free from rancidity, adulterants, sediments, suspended and other foreign matter, separated water, added colouring and flavouring substances and mineral oil. It shall conform to the following standards:-

(a) Moisture and volatile matter.	Not more than 0.25 per cent.
(b) Butyro-refractometer reading at 40 degree C	55.6 to 61.7
or Refractive Index at 40 degree C	1.4630- 1.4670
(c) Saponification value	190 to 198
(d) Iodine value	115-125

- |     |                       |                             |
|-----|-----------------------|-----------------------------|
| (e) | Acid value            | Not more than 6.0           |
| (f) | Unsaponifiable matter | Not more than 1.5 per cent. |

Test for argemone oil shall be negative.

**A.17.18.--- IMPORTED RAPESEED OIL-** (Torika-Tel) means-

- (a) the oils obtained from clean and sound rapeseed grown abroad belonging to compestris, Juncea, or napus varieties of Brassica by the method of expression or solvent extraction and imported into India or,
- (b) the oil produced in India obtained from clean and sound rapeseed belonging to compestris, Juncea, or napus varieties of Brassica by the method of expression or solvent extraction

It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards namely;-

- |     |  |                                 |
|-----|--|---------------------------------|
| (a) | Butyro-refractometer reading at 40 degree C<br>or<br>Refractive Index at 40 degree C | 51.0-64.8<br><br>1.4600- 1.4690 |
| (b) | Iodine value (Wij's method)  | 94-126                          |
| (c) | Saponification value   | 166 to 198                      |
| (d) | Unsaponifiable matter  | Not more than 2.0 per cent.     |
| (e) | Test for argemone oil  | Negative                        |
| (f) | Test for Hydrocyanic acid<br>(Ferric-Chloride test)                                  | Passes the test                 |
| (g) | Acid value   | Not more than 6.0               |
| (h) | Bellier test (Turbidity temperature ---<br>Acetic acid method)                       | Not more than 19.0 degree C.    |

Rapessed oil imported into India or rapessed oil obtained by solvent extraction shall be supplied for human consumption only if it is refined and it shall conform to the standards laid down under item A.17.15 except for free fatty acid content which shall not be more than 0.3 per cent (Acid value being not more than 0.6) Additionally , it shall have Flash point (Pensky Marten closed method) not less than 250 degree C.

**A.17.19.---PALM OIL** – Palm oil means the oil obtained from fleshy mesocarp of fruits of the oil palm (Elaeis Guineensis) tree by the method of expression or solvent extraction. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring and flavouring substances or mineral oil. It shall conform to the following standards, namely:-

- |     |  |                                |
|-----|--|--------------------------------|
| (a) | Butyro-refractometer reading at 50 degree C<br>or<br>Refractive Index at 50 degree C | 35.5-44.0<br><br>1.4491-1.4552 |
| (b) | Melting point (capillary slip method)  | Not more than 37 degree C.     |
| (c) | Iodine value (Wij's method)  | 45-56                          |
| (d) | Saponification value   | 195-205                        |
| (e) | Unsaponifiable matter  | Not more than 1.2 per cent.    |
| (g) | Acid value   | Not more than 10.0             |

Indigenously produced Raw Palm Oil obtained by method of expression may be supplied for human consumption as such provided acid value is not more than 6.0. But palm oil imported into the country or produced by solvent extraction shall be refined before it is supplied for human consumption and it shall conform to the standards laid down under A.17.15. Additionally, it shall have Flash Point (Pensky-Marten closed method)—Not less than 250 degree C.

Test for argemone oil shall be negative.

**A.17.20---PALMOLEIN.**- Palmolein means the liquid fraction obtained by fractionation of palm oil obtained from fleshy mesocarp of fruits of oil palm (*Elaeis guineensis*) tree by the method of expression or solvent extraction. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring and flavouring substances or mineral oils. It shall conform to the following standards, namely:-

(a)	Butyro-refractometer reading at 40 degree C	43.7-52.5
	or	
	Refractive Index at 40 degree C	1.4550-1.4610
(b)	Iodine value (Wij's method)	54-62.
(c)	Saponification value	195-205
(d)	Cloud point	Not more than 18 degree C.
(e)	Unsaponifiable matter	Not more than 1.2 per cent.
	Acid value	Not more than 6.0

Further , if the palmolein is obtained from solvent extracted plam oil, it shall be refined before it is supplied for human consumption and it shall conform to the standards laid down under item A.17.15. Additionally, it shall have Flash Point (Pensky Marten closed method)- not less than 250 degree C.

Test for argemone oil shall be negative.

**A.17.21.--- PALM KERNEL OIL** means the oil obtained from sound palm kernel of the fruits of oil palm (*Elaeis Guineensis* ) tree by the method of expression or solvent extraction. It shall be clear , free from rancidity, suspended or other foreign matter, separated water, added colouring and flavouring substance or mineral oil. It shall conform to the following standards, namely:-

(a)	Butyro-refractometer reading at 40 degree C	35.3-39.5
	or	
	Refractive Index at 40 degree C	1.4494—1.4520
(b)	Iodine value (Wij's method)	10-23
(c)	Saponification value	237-255
(d)	Unsaponifiable matter	Not more than 1.2 per cent.
	Acid value	Not more than 6.0

Further, if the oil is obtained by the method of solvent extraction, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under item A.17.15. Additionally it shall have Flash Point (Pensky Marten closed method)-not less than 250 degree C.

Test for argemone oil shall be negative.

**A.17.22—SUNFLOWER SEED OIL** means the oil obtained from clear and sound sunflower seeds or cake from the plants. *Helianthus annuus* Linn (Family; Composite) by the method of expression or solvent extraction. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards, namely:-

(a)	Butyro-refractometer reading at 40 degree C	57.1 --- 65.0
	or	
	Refractive Index at 40 degree C	1.4640--1.4691
(b)	Iodine value (Wij's method)	100-145
(c)	Saponification value	181-194
(d)	Unsaponifiable matter	Not more than 1.5 per cent.
	Acid value	Not more than 6.0

Further, if the oil is obtained by the method of solvent extraction, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under Item A.17.15. Additionally, it shall have Flash point (Pensky Marten closed method)-not less than 250 degree C.

Test for argemone oil shall be negative.

**A.17.23---RICE BRAN OIL** means the oil obtained from the layer around the endosperm of rice obtained from paddy of *Oryza Sativa* Linn. Fam., Gramineae, which is removed during the process of rice milling and is generally known as rice bran.

Refined Rice Bran Oil shall be obtained from solvent extracted oil, neutralised with alkali, bleached each or activated carbon or both and deodorised with steam. Alternatively deacidification, bleaching and deodorisation may be done by physical means.

The oil shall be clear and free from rancidity, adulterants, sediments, suspended and other foreign matters, separated water and added colouring and flavouring substances. The clarity of the oil shall be judged by the absence of turbidity after keeping the filtered sample at 35 degree C for 24 hours. Rice Bran oil shall be sold for human consumption only after refining. It shall conform to the following standards, namely:-

(i)	Moisture and volatile matter	Not more than 0.1 per cent by weight.
(ii)	Refractive Index at 40 degree C	1.4600 to 1.4700
	or	
	Butyro-refractometer reading at 40 degree C	51.0 to 66.4
(iii)	Saponification value	180-195
(iv)	Iodine value (Wij's method)	90—105
	Acid value	Not more than 0.5 per cent
(vi)	Unsaponifiable matter	Not more than 3.5 per cent.
(vii)	Flash point (Penske Marten closed method)	Not less than 250 degree C.

Test for argemone oil shall be negative.

**A.17.24---BLENDED EDIBLE VEGETABLE OIL** means an admixture of any two edible vegetable oils where the proportion by weight of any edible vegetable oil used in the admixture is not less than 20 per cent. The individual oils in the blend shall conform to the respective standards prescribed by these rules. The blend shall be clear, free from rancidity, suspended or insoluble matter or any other foreign

matter, separated water, added colouring matter, flavouring substances, mineral oil, or any other animal and non-edible oils, or fats, argemone oils, hydrocyanic acid, castor oil and tricresyl phosphate. It shall also conform to the following standards, namely:-

- (a) Moisture and volatile matter Not more than 0.2 per cent by weight.  
 (b) Acid value:-

Nature of oils (1)	Acid value (2)
(1) Both raw edible vegetable oils in the Blend	Not more than 6.0
(2) One raw edible vegetable oil and one refined edible vegetable oil in the Blend	Not more than 5.0
(3) Both refined edible vegetable oils in the Blend	Not more than 0.5
(c) Unsaponifiable matter----	
(i) Blend with rice bran oil	Not more than 3.0 per cent by weight.
(ii) Blend with other edible Vegetable oils.	Not more than 1.50 per cent by weight.
(d) Flash point (Penske-Martin closed method)	Not less than 250 degree C

Test for argemone oil shall be negative.

**A.17.25. PARTIALLY HYDROGENATED AND WINTERISED SOYABEAN OIL**---Partially Hydrogenated and winterised soyabean oil means deodourised product obtained by light (mild or “Brush”) hydrogenation of degummed ,deacidified, decolourised and winterised soyabean oil. The oil shall be degummed by water with or without a food grade additive, deacidified by either neutralisation with alkali or steam distillation (physical refining ) or miscella refining using permitted for food grade solvent, decolourised with bleaching earth and/ or carbon, partially hydrogenated using nickel catalyst, winterised with or without the use of a food grade solvent, filtered in a suitable filter press and deodourised with steam.

The product shall be clear, free from rancidity , suspended or other foreign matter, separated water, added colouring or flavouring substances, castor oil, mineral oil and other vegetable and animal fats. Antioxidants TBHQ up to 0.02 per cent and citric acid up to 0.02 per cent may be added and shall be so stated on the label. It shall conform to the following standards:

(1) Moisture	Not more than 0.1 per cent by weight.
(3) Refractive Index at 40 degree C or Butyro-refractometer reading at 40 degree C	1.4630 to 1.4690 55.6---64.8
(4) Saponification value	189---195
(5) Iodine value	107-120
(6) Acid value	Not more than 0.50
(7) Unsaponifiable matter	Not more than 1.5 per cent by weight.
(8) Linolenic acid (c 18:3)	Not more than 3 per cent by weight.
(9) Cloud Point degree C	Not less than 10 degree C.
11 Flash point (Penske Marten closed method)	Not less than 250 degree C.

Test for argemone oil shall be negative.

**A.17.26--- PARTIALLY HYDROGENATED SOYABIN OIL** -- Partially Hydrogenated soyabean oil means deodourised product obtained by light (mild or "brush") hydrogenation of degummed, deacidified and decolourised soyabean oil. The oil shall be degummed by water with or without a food grade additive, deacidified by either neutralisation with alkali or steam distillation (physical refining ) or miscella refining using permitted food grade solvent, decolourised with bleaching earth and /or carbon and partially hydrogenated using nickel catalyst. The product shall again be deacidified, bleached and deodourised with steam.

The product shall be clear liquid at 35 degree C. It shall be clear on melting, free from rancidity suspended or other foreign matter, separated water, added colouring or flavouring substances, castor oil, mineral oil or other vegetable and animal oils and fats. Antioxidants TBHQ upto 0.02 per cent and citric acid up to 0.02 per cent may be added and shall be so stated on the label. It shall conform to the following standards :

(1)	Moisture	Not more than 0.1 per cent by weight.
(3)	Refractive Index at 40 degree C or Butyro-refractometer reading at 40 degree C	1.4630 to 1.4670 55.6---61.7
(4)	Saponification value	189---195
(5)	Iodine value	95-110
(6)	Acid value	Not more than 0.50
(7)	Unsaponifiable matter	Not more than 1.5 per cent by weight.
(8)	Linolenic acid (c 18:3)	Not more than 3 per cent by weight.
(9)	Cloud Point	Not less than 25 degree C.
11	Flash point (Penske Marten closed method)	Not less than 250 degree C.

Note:- The edible oils prescribed under item A.17 shall be free from Castor oil.

Test for argemone oil shall be negative.

## **A.18.—CEREALS**

**A.18.01.---ATTA OR RESULTANT ATTA** means the coarse product obtained by milling or grinding clean wheat free from rodent hair and excreta. It shall conform to the following standards:-

(a)	Moisture (when determined by heating at 130-133 degree C for 2 hours).	Not more than 14.0 per cent,
(b)	Total ash (on dry weight basis).	Not more than 2.0 per cent.
(c)	Ash insoluble in dilute HCl (on dry weight basis).	Not more than 0.15 per cent.
(d)	Gluten (on dry weight basis)	Not less than 6.0 per cent.
(e)	Alcoholic acidity (with 90 per cent alcohol) expressed as H <sub>2</sub> SO <sub>4</sub> (on dry weight basis)	Not more than 0.18 per cent.

It shall be free from Rodent hair and excreta.

**A.18.01.01--- FORTIFIED ATTA** means the product obtained by adding one or more of the following materials to atta, namely----

- (a) Calcium carbonate (prepared chalk, popularly known as Creta preparata);
- (b) Iron;
- (c) Thiamine;
- (d) Riboflavin; and
- (e) Niacin.

The calcium carbonate powder, if added for fortification shall be in such amount that 100 parts by weight of fortified atta shall contain not less than 0.30 and not more than 0.35 parts by weight of calcium carbonate. It shall be free from Rodent hair and excreta.

**A.18.01.02---PROTEIN RICH (PAUSHTIK) ATTA** means the product obtained by mixing wheat atta with groundnut flour or Soya flour or a combination of both up to an extent of 10.0 per cent Soya flour which is a solvent extracted soya flour used in such mix shall conform to the standards of Soya flour laid down under item A.18.15. It shall be free from insect or fungus infestation, odour and rancid taste. It shall not contain added flavouring and colouring agents or any other extraneous matter.

It shall conform to the following standards :-

Moisture	Not more than 14.0 per cent on dry basis.
Total ash	Not more than 2.75 per cent. on dry basis.
Ash insoluble in dilute HCl	Not more than 0.1 per cent on dry basis.
Total protein (N x 6.25)	Not less than 12.5 per cent on dry basis.
Crude fibre	Not more than 2.5 per cent on dry basis.
Alcoholic acidity (with 90 per cent alcohol)-expressed as H <sub>2</sub> SO <sub>4</sub>	Not more than 0.12 per cent.

It shall be free from Rodent hair and excreta.

**A.18.02.--MAIDA** means the fine product made by milling or grinding clean wheat free from rodent hair and excreta and bolting or dressing the resulting wheat meal. It shall conform to the following standards:-

- (a) Moisture (when determined by heating at 130-133 degree C for 2 hours). Not more than 14.0 per cent.
- (b) Total ash (on dry weight basis) Not more than 1.0 per cent.
- (c) Ash insoluble in dilute HCl (on dry weight basis) Not more than 0.1 per cent.
- (d) Gluten (on dry weight basis) Not less than 7.5 per cent.
- (e) Alcoholic acidity ( with 90 per cent alcohol ) expressed as H<sub>2</sub>SO<sub>4</sub> (on dry weight basis) Not more than 0.12 per cent.

It shall be free from Rodent hair and excreta.

If the product is to be used for bakery purposes, the following flour treatment agents in the quantities mentioned against each may be used, namely:-

- (i) Benzoyl peroxide (Max.) 40 p.p.m.

- |       |                          |            |
|-------|--------------------------|------------|
| (ii)  | Potassium bromate (Max.) | 20 p.p.m.  |
| (iii) | Ascorbic acid (Max.)     | 200 p.p.m. |

**A.18.02.01.-- FORTIFIED MAIDA** means the product obtained by adding one or more of the following materials to maida, namely:-

- (a) Calcium carbonate (prepared chalk popularly known as Creta preparata),
- (b) Iron,
- (c) Thiamine,
- (d) Riboflavin, and
- (e) Niacin.

The calcium carbonate powder, if added for fortification, shall be in such amount that 100 parts by weight of fortified maida shall contain not less than 0.30 and not more than 0.35 parts by weight of calcium carbonate. It shall be free from Rodent hair and excreta.

**A.18.02.02----PROTEIN RICH (PAUSHTIK) MAIDA** means the product obtained by mixing maida (wheat flour) with groundnut flour or Soya flour or combination of both up to an extent of 10.0 per cent. Soya flour which is a solvent extracted flour used in such mix shall conform to the standards of soya flour laid down under Solvent Extracted Oil, Deoiled Meal and Edible Flour (Control) Order, 1967. It shall be free from insect or fungus infestation, odour and rancid taste. It shall not contain added flavouring and colouring agents or any other extraneous matters. It shall conform to the following standards :-

Moisture	Not more than 14.0 per cent.
Total Ash	Not more than 1.4 per cent.
Ash insoluble in dilute HCl	Not more than 0.1 per cent on dry basis.
Total protein (N x 6.25)	Not less than 12.5 per cent on dry basis.
Crude fibre	Not more than 0.53 per cent on dry basis.
Alcoholic acidity (with 90 Per cent alcohol) expressed As H <sub>2</sub> SO <sub>4</sub>	Not more than 0.12 per cent.
Gluten	Not less than 7.0 per cent on dry basis.

It shall be free from Rodent hair and excreta.

**A.18.03.----SEMOLINA (SUJI or RAWA)** means the product prepared from clean wheat free from rodent hair and excreta by process of grinding and bolting. It shall be free from musty smell and off-odour and shall be creamy yellow in colour. It shall conform to the following standards:-

- |     |  |                              |
|-----|--|------------------------------|
| (a) | Moisture (when determined by hearing at 130-133 degree C for 2 hours).   | Not more than 14.5 per cent. |
| (b) | Total ash (on dry weight basis)  | Not more than 1.0 per cent.  |
| (c) | Ash insoluble in dilute HCl (on dry weight basis)-   | Not more than 0.1 per cent.  |
| (d) | Gluten (on dry weight basis)   | Not less than 6.0 per cent.  |
| (e) | Alcoholic acidity (with 90 per cent Alcohol) expressed as H <sub>2</sub> SO <sub>4</sub> (on dry weight basis) | Not more than 0.18 per cent. |

It shall be free from Rodent hair and excreta.

**A.18.04---BESAN** means the product obtained by grinding dehusked Bengal gram (*Cicer arietinum*) and shall not contain any added colouring matter on any other foreign ingredient.

Besan shall conform to the following standards:-

- |     |   |                             |
|-----|---|-----------------------------|
| (a) | Total ash                                 | Not more than 5 per cent.   |
| (b) | Ash insoluble in dilute Hydrochloric acid | Not more than 0.5 per cent. |

**A.18.05.---PEARL BARLEY or BARLEY (JAU)** shall be 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 foodgrains more than 1 per cent by weight.

Barley powder shall be the product obtained by grinding clean and sound dehusked barely (*Hordeum vulgare* or *Hordeum distichon*) grains. Barley starches shall not be less than 98.0 per cent by weight.

Barley powder shall also conform to the following standards, namely:-

- |       |  |                              |
|-------|--|------------------------------|
| (i)   | Total ash (on dry basis)   | Not more than 1.0 per cent;  |
| (ii)  | Ash insoluble in dilute hydrochloric acid(on dry basis)                        | Not more than 0.1 per cent;  |
| (iii) | Crude fibre (on dry basis)   | Not more than 0.5 per cent;  |
| (iv)  | Alcoholic acidity (as H <sub>2</sub> SO <sub>4</sub> with 90 per cent alcohol) | Not more than 0.10 per cent. |

**A.18.05.01---WHOLE MEAL BARLEY POWDER OR BARLEY FLOUR OR CHOKER** yukt Jau ka Churan means the product obtained by grinding clean and sound dehusked barley (*Hordeum vulgare* or *Hordeum distichun*) grains free from rodent hair and excreta. It shall conform to the following standards:-

- |     |   |                              |
|-----|---|------------------------------|
| (a) | Moisture (when determined by heating at 130 degree-133 degree C for 2 hours)                                    | Not more than 14.0 per cent  |
| (b) | Total ash (on dry weight basis)   | Not more than 3.0 per cent.  |
| (c) | Ash insoluble in dilute (HCl) (on dry weight basis)   | Not more than 0.5 per cent.  |
| (d) | Alcoholic acidity (with 90 per cent alcohol) expressed as H <sub>2</sub> SO <sub>4</sub> (on drZy weight basis) | Not more than 0.17 per cent. |

**A.18.06.—FOODGRAINS** means for human consumption shall be whole or broken kernels of cereals, millets and pulses. In addition to the undermentioned standards to which foodgrains shall conform they shall be free from argemone maxicana and kesari in any form. They shall be free from added colouring matter. The foodgrains shall not contain any insecticide residues other than those specified in coloumn (2) of the table of Rule 65 and the amount of insecticide residue in the foodgrains shall not exceed the limits specified in column (4) of the said Table.

The foodgrains meant from grinding/processing shall be clean, free from all impurities including foreign matter(extraneous matter).

**A.18.06.01.----WHEAT**

Description---Wheat shall be the dried mature grains of *Triticum aestivum* Linn. or *Triticum vulgare* Vill., *Triticum durum* Desf., *Triticum sphaerococcum* Perc., *Triticum dicoccum* Schubl., *Triticum Compactum* Host. It shall be sweet, clean and wholesome. It shall also conform to the following standards, namely:-

- (i) Moisture-Not more than 14 per cent by weight (obtained by heating the pulverised grains at 130 degree C-133 degree C for two hours.)
- (ii) Foreign matter (Extraneous matter) – Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Other edible grains --- Not more than 6 per cent by weight.
- (iv) Damaged grains- Not more than 6.0 per cent by weight including kernel bunt affected grains and ergot affected grains. The limit of kernel bunt affected grains, ergot affected grains shall not exceed 3.0 per cent and 0.05 per cent by weight, respectively.
- (v) Weevilled grains—Not more than 10 per cent by count.
- (vi) Uric acid- Not more than 100 mg. per kg.
- (vii) Aflatoxin – Not more than 30 micrograms per kilogram.

Deoxynivalenol (DON)—Not more than 1000 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 12 per cent by weight.

#### **A.18.06.02-----MAIZE**

Maize shall be the dried mature grains of *Zea mays* Linn. It shall be sweet, hard, clean and wholesome . It shall also conform to the following standards, namely:-

- (i) Moisture—Not more than 16.0 per cent by weight (obtained by heating the pulverised grains at 130 degree C –133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter)—Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Other edible grains---Not more than 3 per cent by weight.
- (iv) Damaged grains---Not more than 5 per cent by weight.
- (v) Weevilled grains- Not more than 10 per cent by count.
- (vi) Uric acid-Not more than 100 mg per kg.
- (vii) Aflatoxin-Not more than 30 micrograms per kilogram.

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

#### **A.18.06.03- JAWAR AND BAJRA**

Jawar and Bajra shall be the dried mature grains of *Sorghum Volgare* Pers, and *Pennisetum-typhoideum* Rich respectively. These shall be sweet, hard, clean and wholesome. These shall also conform to the following standards, namely:-

- (i) Moisture—Not more than 16.0 per cent by weight (obtained by heating the pulverised grains at 130 degree C –133 degree C for two hours).

- (ii) Foreign matter (Extraneous matter)—Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Other edible grains---Not more than 3 per cent by weight.
- (iv) Damaged grains---Not more than 6 per cent by weight out of which ergot affected grains shall not exceed 0.05 per cent by weight.
- (v) Weevilled grains- Not more than 6 per cent by weight.
- (vi) Uric acid-Not more than 100 mg per kg.
- (vii) Aflatoxin—Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 10 per cent by weight.

#### **A.18.06.04.-----RICE**

Rice shall be the mature kernels or pieces of kernels of *Oryza sativa* Linn obtained from paddy as raw or parboiled. It shall be dry , sweet, clean, wholesome and free from unwholesome poisonous substances. It shall also conform to the following standards, namely:-

- (i) Moisture—Not more than 16.0 per cent by weight (obtained by heating the pulverised grains at 130 degree C –133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter)—Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Damaged grains---Not more than 5 per cent by weight
- (iv) Weevilled grains- Not more than 10 per cent by count.
- (v) Uric acid-Not more than 100 mg per kg.
- (vi) Aflatoxin—Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter and damaged grains shall not exceed 6 per cent by weight.

#### **A.18.06.05----- MASUR WHOLE**

Masur whole shall consist of lentil (*Lens, culinaris* Medik or *Ervum lens* Linn, or *Lens esculenta* Moench). It shall be sound , dry , sweet, clean and wholesome . It shall conform to the following standards, namely:-

- (i) Moisture—Not more than 14 per cent by weight (obtained by heating the pulverised grains at 130 degree C –133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter)—Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Other edible grains---Not more than 3 per cent by weight.
- (iv) Damaged grains---Not more than 5 per cent by weight
- (v) Weevilled grains- Not more than 6 per cent by count.
- (vi) Uric acid-Not more than 100 mg per kg.
- (vii) Aflatoxin—Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 8 per cent by weight.

#### **A.18.06.06.----URD WHOLE**

Urd whole shall consist of seeds of the pulses (*Phaseolus Mungo* Linn). It shall be sound, dry, sweet and wholesome. It shall also conform to the following standards, namely:-

- (i) Moisture—Not more than 14 per cent by weight (obtained by heating the pulverised grains at 130 degree C –133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter)—Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Other edible grains---Not more than 4 per cent by weight.
- (iv) Weevilled grains- Not more than 6 per cent by count.
- (v) Damaged grains---Not more than 5 per cent by weight
- (vi) Uric acid-Not more than 100 mg per kg.
- (vii) Aflatoxin—Not more than 30 micrograms per kilogram.

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

#### **A.18.06.07--- MOONG WHOLE**

Moong whole shall consist of seeds of green gram (*Phaseolus aurues* Roxb, *Phaseolus radiatus* Roxb). It shall be sound, dry, sweet and wholesome and free from admixture of unwholesome substances. It shall also conform to the following standards, namely:-

- (i) Moisture—Not more than 14 per cent by weight (obtained by heating the pulverised pulses at 130 degree C –133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter)—Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Other edible grains---Not more than 4 per cent by weight.
- (iv) Damaged grains---Not more than 5 per cent by weight
- (v) Weevilled grains- Not more than 6 per cent by count.
- (vi) Uric acid-Not more than 100 mg per kg.
- (vii) Aflatoxin—Not more than 30 micrograms per kilogram.

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

#### **A.18.06.08.---- CHANA WHOLE**

Chana whole shall be the dried grains of gram (*Cicer arietinum* Linn). It shall be sound, clean, sweet, wholesome and free from unwholesome substances. It shall also conform to the following standards, namely:-

- (i) Moisture—Not more than 16 per cent by weight (obtained by heating the pulverised grains at 130 degree C –133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter)—Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Other edible grains---Not more than 4 per cent by weight.
- (iv) Damaged grains---Not more than 5 per cent by weight

- (v) Weevilled grains- Not more than 10 per cent by count.
- (vi) Uric acid-Not more than 100 mg per kg.
- (vii) Aflatoxin—Not more than 30 micrograms per kilogram.

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

#### **A.18.06.09--- SPLIT PULSE (DAL) ARHAR**

Dal arhar shall consist of husk and split seeds of red gram *Cajanus cajan* (L) Millsp. It shall be sound, clean, sweet, dry, wholesome and free from admixture of unwholesome substance. It shall also conform to the following standards, namely:-

- (i) Moisture—Not more than 14 per cent by weight (obtained by heating the pulverised grains at 130 degree C –133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter)—Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Other edible grains---Not more than 0.5 per cent by weight.
- (iv) Damaged grains---Not more than 5 per cent by weight
- (v) Weevilled grains- Not more than 3 per cent by count.
- (vi) Uric acid-Not more than 100 mg per kg.
- (vii) Aflatoxin—Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 6 per cent by weight.

#### **A.18.06.10.---SPLIT PULSE (DAL) MOONG**

Dal Moong shall consist of split seeds of green grams (*Phaseolus aureus* Roxb, *Phaseolus radiatus* Roxb). It shall be sound, clean, sweet, wholesome and free from unwholesome substances. It shall also conform to the following standards, namely:-

- (i) Moisture—Not more than 14 per cent by weight (obtained by heating the pulverised grains at 130 degree C –133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter)—Not more than 1 per cent by weight of which not more than 0.25 per cent by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
- (iii) Other edible grains---Not more than 4 per cent by weight.
- (iv) Damaged grains---Not more than 5 per cent by weight
- (v) Weevilled grains- Not more than 3 per cent by count.
- (vi) Uric acid-Not more than 100 mg per kg.
- (vii) Aflatoxin—Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 8 per cent by weight.

#### **A-18.06.11. - SPLIT PULSE (DAL) URD**

Dal Urd shall consist of split seeds of pulse (*Phaseolus mungo* Linn). It shall be sound, dry, sweet, wholesome and free from admixture of unwholesome substances. It shall also conform to the following standards, namely:-

- (i) Moisture - Not more than 14 percent by weight (obtained by heating the pulverised pulses at 130 degree C -133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter) - Not more than 1 percent by weight of which not more than 0.25 percent by weight shall be mineral matter and not more than 0.10 percent by weight shall be impurities of animal origin.
- (iii) Other edible grains - Not more than 4 percent by weight.
- (iv) Damaged grains - Not more than 5 percent by weight.
- (v) Weevilled grains - Not more than 3 percent by count.
- (vi) Uric acid - Not more than 100 mg per kg.
- (vii) Aflatoxin - Not more than 30 micrograms per kilogram.

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

#### **A.18.06.12. - DAL CHANA**

Dal Chana shall consist of split grains of gram (*Cicer arietinum* Linn). It shall be sound, clean, dry, sweet, wholesome and free from admixture of unwholesome substances. It shall also conform to the following standards, namely:-

- (i) Moisture - Not more than 16 percent by weight (obtained by heating the pulverised pulses at 130 degree C -133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter) - Not more than 1 percent by weight of which not more than 0.25 percent by weight shall be mineral matter and not more than 0.10 percent by weight shall be impurities of animal origin.
- (iii) Other edible grains - Not more than 2 percent by weight.
- (iv) Damaged grains - Not more than 5 percent by weight.
- (v) Weevilled grains - Not more than 3 percent by count.
- (vi) Uric acid - Not more than 100 mg per kg.
- (vii) Aflatoxin - Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 7 percent by weight.

#### **A.18.06.13. - SPLIT PULSE (DAL) MASUR**

Dal Masur shall consist of dehusked whole and split seed of the lentil (*Lens esculenta* Moench or *Lens culinaris* Medik or *Ervum lens* Linn). It shall be sound, clean, dry, sweet, wholesome and free from admixture of unwholesome substances. It shall also conform to the following standards, namely:-

- (i) Moisture - Not more than 14 percent by weight (obtained by heating the pulverised pulses at 130 degree C -133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter) - Not more than 1 percent by weight of which not more than 0.25 percent by weight shall be mineral matter and not more than 0.10 percent by weight shall be impurities of animal origin.
- (iii) Other edible grains - Not more than 2 percent by weight.
- (iv) Damaged grains - Not more than 5 percent by weight.
- (v) Weevilled grains - Not more than 3 percent by count.
- (vi) Uric acid - Not more than 100 mg per kg.
- (vii) Aflatoxin - Not more than 30 micrograms per kilogram.

Provided that total of foreign matter, other edible grains and damaged grains shall not exceed 7 percent by weight.

**A.18.06.14. - ANY OTHER FOODGRAINS** not specified above shall conform to the following standards, namely:-

- (i) Moisture - Not more than 16 percent by weight (obtained by heating the pulverised pulses at 130 degree C -133 degree C for two hours).
- (ii) Foreign matter (Extraneous matter) - Not more than 1 percent by weight of which not more than 0.25 percent by weight shall be mineral matter and not more than 0.10 percent by weight shall be impurities of animal origin.
- (iii) Other edible grains - Not more than 6 percent by weight.
- (iv) Weevilled grains - Not more than 10 percent by count.
- (v) Damaged grains - Not more than 5 percent by weight.
- (vi) Uric acid - Not more than 100 mg per kg.
- (vii) Aflatoxin - Not more than 30 micrograms per kilogram.

Provided that total of foreign matter, other edible grains and damaged grains shall exceed 12.0 percent by weight.

Explanation - For the purposes of Items 18.06 to 18.06.14:-

- (a) "foreign matter" means any extraneous matter other than foodgrains comprising of -
  - (i) 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 mudsticking on the surface of the rice, and

- (ii) organic matter consisting of husk, straws weedseeds and other inedible grains and also paddy in the case of rice.
- (b) "Poisonous, toxic and /or harmful seeds" means any seeds which if present in quantities above permissible limit may have damaging or dangerous effect on health, organoleptic properties or technological performance such as dhatura (*D.fastuosa* linn and *D. stramonium* linn), corm cokle (*Agrostemma githago* L, *Machai Lallium remulenum* linn), Akra (*Vicia* species).
- (c) "Damaged grains" means kernels or pieces of kernels that are sprouted or internally damaged as a result of heat, microbe, moisture or weather, viz., ergot affected grain and kernel bunt grains.
- (d) "Weevilled grains" means kernels that are partially or wholly bored by insects injurious to grains but does not include germ eaten grains and egg spotted grains.
- (e) "Other edible grains" means any edible grains (including oil seeds) other than the one which is under consideration.

**A.18.07. - BISCUITS INCLUDING WAFER BISCUITS** shall be made from maida, vanaspati or refined edible oil or table butter or deshi butter or margarine or ghee or their mixture. It may contain any one or more of the following ingredients, namely:-

Edible common salt; permitted anti-oxidants; emulsifying and stabilizing agents; permitted preservatives and colours; leavening agents such as baking powder; ammonium bicarbonate; ammonium carbonate; butter milk powder; cereals and their products; cheese; citric acid; cocoa; coffee extract; edible desiccated coconut; dextrose; fruits and fruit products; dry fruit and nuts; egg; edible vegetable products; amylases and other enzymes; permitted flavouring agents; flavour improvers and fixers; flour improvers; ginger; gluten; groundnut flour milk and milk products; honey; jellyfying agents; liquid glucose; malt products edible oilseeds; flour and meals; spices and condiments; edible starches such as potato starch and edible flour; sugar and sugar products; invert sugar; jaggery, protein concentrates and other nutrients; sodium bisulphites, sodium metabisulphite and other dough conditioners; vitamins; calcium and ferrous salts; potassium iodide, malic and lactic acids; tartaric acid; vinegar and acetic acid; yeast. Biscuits shall conform to the following standards, namely:-

- (a) Ash insoluble in dilute hydrochloric acid (on dry basis) shall not be more than 0.1 percent.
- (b) Acidity of extracted fat (as oleic acid) shall not exceed 1.5 percent.

**A.18.08 - Cornflour(Maize starch)** means the starch obtained from maize (*Zea mays* L). It shall contain no added colour, flavours or other chemicals. It shall be free from dirt, insects, larvae and impurities or other extraneous matter.

It shall conform to the following standards:-

Moisture	Not more than 12.5 percent.
Total ash	Not more than 0.5 percent on dry basis.
Ash insoluble in dilute HCl	Not more than 0.1 percent, on dry basis.
Alcoholic acidity (with 90 percent alcohol)	Shall be equivalent to not more than 2.0 ml. of NNaOH per 100 g. of dried starch.

**A.18.09. - CORN FLAKES** means the product obtained from dehulled, degermed and cook corn (*Zea mays* L.) by flaking, partially drying and toasting. It shall be in the form of crisp flakes or reasonably uniform size and golden brown in colour. It shall be free from dirt, insects, larvae and impurities and any other extraneous matter.

It shall conform to the following standards:-

Moisture	Not more than 7.5 percent.
Total ash excluding salt	Not more than 1.0 percent on dry basis.
Ash insoluble in dilute HCl	Not more than 0.1 percent on dry basis.
Alcoholic acidity (with 90 percent alcohol)	Shall be equivalent to not more than 2.0ml. of N NaOH per 100 g. of dried substance.

**A.18.10 - CUSTARD POWDER** means the product obtained from maize (*Zea mays* L.) or sago/tapioca with or without the addition of small quantities of edible starches obtained from arrowroot, potato or jawar (*sorghum vulgare*) and with or without the addition of edible common salt, milk and albuminous matter. It may contain permitted colours and flavours. It shall be free from any other foreign matter. It shall be in the form of fine powder, free from rancidity, fermented and musty odour.

It shall conform to the following standards, namely:-

Moisture	Not more than 12.5 percent.
Total ash excluding added Common salt(on dry basis)	Not more than 0.5 percent.
Ash insoluble in dilute Hydrochloric acid(on dry basis)	Not more than 0.1 percent.

**A.18.11. - MACARONI PRODUCTS** - (Macaroni, spaghetti, vermicelli) means the products obtained from suji or maida with or without addition of ingredients like edible groundnut flour, tapioca flour, soya flour, milk powder, spices, vitamins, minerals by kneading the dough and extending it. It shall be free from added colour, dirt, insects, larvae and impurities or any other extraneous matter.

It shall conform to the following standards:-

Moisture	Not more than 12.5 percent.
Total ash	Not more than 1.0 percent on dry basis.
Ash insoluble in dilute HCl	Not more than 0.1 percent on dry basis.
Nitrogen	Not less than 1.7 percent on dry basis.

**A.18.12.- MALTED MILK FOOD** means the product obtained by mixing whole milk, partly skimmed milk or milk powder with the wort separately from a mash of ground barley malt, any other malted-cereal grain and wheat flour or any other cereal flour or malt extract with or without addition of flavouring agents and spices, emulsifying agent, eggs, protein isolates, edible common salt, sodium or potassium bicarbonate, minerals and vitamins and without added sugar in such a manner as to secure complete hydrolysis of starchy material and prepared in a powder or granule or flake form by roller drying, spray drying, vacuum drying or by any other process. It may contain cocoa powder. It shall be free from dirt and other extraneous matter. It shall not contain any added starch (except starch natural to cocoa powder) and added non-milk fat. It shall not contain any preservative or added colour. Malted milk food containing cocoa powder may contain in added sugar.

Malted milk food shall also conform to the following standard, namely:-

(a) Moisture	Malted Milk food without cocoa powder Not more than 5 percent by weight.	Malted Milk food with cocoa powder Not more than 5 percent by weight.
(b) Total protein (Nx 6.25)	Not less than 12.5 percent By weight.	Not less than 11.25 percent By weight.
(c) Total fat (on dry basis)	Not less than 7.5 percent by weight	Not less than 6 percent by weight
(d) Total ash (on dry basis)	Not more than 5 percent by weight	Not more than 5 percent by weight
(e) Acid insoluble ash (on dry basis) (in dilute HCl)	Not more than 0.1 percent by weight	Not more than 0.1 percent by weight
(f) Solubility	Not less than 85 percent by weight	Not less than 80 percent by weight
(g) Cocoa powder (on dry basis)	---	Not less than 5.0 percent by weight
(h) Test for starch	Negative	---
(i) Bacterial Count	Not more than 50,000 per gram	Not more than 50,000 per gram
(j) Coliform Count	Not more than 10 per gram	Not more than 10 per gram
(k) Yeast and mould count	Absent in 0.1 gm.	
(l) Salmonella and Shigella	Absent in 0.1 gm.	
(m) E.coli	Absent in 0.1 gm.	
(n) Vibrio cholera and V.Parahaemolyticus	Absent in 0.1 gm.	
(o) Faecal streptococci and Staphylococcus aureas	Absent in 0.1 gm.	

**A.18.12.01 - MALT BASED FOODS (MALT FOOD)** means the product obtained by mixing malt (wort or flour or malt extract) of any kind obtained by controlled germination of seeds (cereals and/or grain legumes), involving mainly steeping germination and kiln drying processes with other cereal and legume flour with or without whole milk or milk powder, flavouring agents, spices emulsifying agents, eggs, egg powder, protein isolates, protein hydolysates, edible common salt, liquid glucose, sodium or potassium bicarbonate minerals, amino acids and vitamins. It may contain added sugar and /or cocoa powder and processed in such a manner to secure partial or complete hydrolysis of starchy material in the form of powder or granules or flakes by drying or by dry mixing of the ingredients. The grains, legumes and their products used in preparation of malt shall be sound uninfested and free from insect fragments, rat excreta, fungal infested grains or any other type of insect or fungal damage.

It shall also conform to the following standards, namely:

(a) Moisture	Not more than 5 percent, by weight
(b) Total Protein (Nx6.25) (on dry basis)	Not more than 7.0 percent by weight
(c) Total ash (on dry basis)	Not more than 5 percent by weight
(d) Acid insoluble ash (in dilute HCl)	Not more than 0.1 percent, by weight
(e) Total plate count	Not more than 50,000 per gram
(f) Coliform count	Not more than 10 per gram.
(g) Yeast and Mould count	Not more than 100 per gram.
(h) E. Coli	Absent in 10 gram.
(i) Salmonella and Shingella	Absent in 25 gram.

(j)	Alcoholic Acidity (expressed as H <sub>2</sub> SO <sub>4</sub> ) with 90 percent alcohol (on dry weight basis)	Not more than 0.30 percent
(k)	Vibrio cholera and V.Parahaemolyticus	absent in 0.1 gm
(l)	Faecal streptococci and Staphylococcus aureas	absent in 0.1 gm

**A.18.13. - ROLLED OATS** (Quick-cooking oats) means the product made from sound hulled oats (*Avena sativa*). It shall be free from added colours, rancidity and flavouring agents. It shall be in form of thin flakes of uniform size having a light cream colour. It shall be free from dirt, insects and insect fragments.

It shall conform to the following standards:-

Moisture	Not more than 10.0 percent.
Total ash	Not more than 2.0 percent on dry basis.
Ash insoluble in dilute HCl	Not more than 0.1 percent on dry basis.
Nitrogen	Not less than 1.8 percent on dry basis.
Crude fibre	Not more than 2.0 percent on dry basis.
Alcoholic acidity (with 90 Percent alcohol)	Shall be equivalent to not more than 8.0 ml. N NaOH per 100 g. of dried substance.

**A.18.14 - BREAD** - Wheat-meal break (brown bread) and white bread means the products prepared from a mixture of wheat atta, maida, water, salt, yeast or other fermentive medium. It may also contain one or more of the following ingredients, namely:-

Condensed milk, milk powder (whole or skimmed), whey and curd, gluten, sugar gur, laggery, bura, khandsari honey, liquid glucose malt products, edible starches, edible groundnut flour edible soya flour, vanaspati or refined edible oil of suitable type or butter or ghee or their mixture, lecithin, glycerine, glyceryl monosterate, diacetylene tartaric acid ester or mono and diglycerides, albumin lime water, lysine and sorbitol.

It may contain the improvers given below:-

Ammonium persulphate	Not more than 0.25 percent
Calcium phosphate	Not more than 0.25 percent
Calcium carbonate	Not more than 0.5 percent
Potassium bromate	Not more than 0.005 percent
Ammonium chloride	Not more than 0.05 percent
Fungal alpha amylase	Not more than 0.01 percent
sodium steroyl-2 lactylate	
Calcium steroyl-2 lactylate (singly or in combination)	Not more than 0.5 percent
L - Cystein monoro hydro-choloride	Not more than 9 p.p.m. by wieght

It may contain one or more of the following mould inhibitors:-

Calcium or sodium propionate	Not more than 0.5 percent
Sorbic acid or its Sodium Potassium Or calcium salts	Not more than 0.1 percent
Acetic acid or lactic acid	Not more than 0.25 percent

Vinegar	Not more than 0.5 percent
Acid calcium Phosphate	Not more than 1.0 percent
Sodium diacetate	Not more than 0.4 percent
Acid sodium pyrophosphate	Not more than 0.5 percent

It shall be free from dirt, insect fragments, larvae, rodent hairs and maggots. It shall be free from added colouring matter. It shall conform to the following standards:-

Alcoholic acidity (with 90 percent Alcohol)	Shall be not more than the equivalent Of 7.5 ml. N NaOH per 100g. of Dried substance.
Ash insoluble in dilute HCl	Not more than 0.1 percent on dry Basis.

Crude fibre, on dry weight basis:-

(i) Wheat meal bread (brown bread)	Not more than 1.8 percent
(ii) White bread	Not more than 0.5 percent.

It may contain Gur-Gum up to a maximum limit of 0.15 percent by weight.

**A.18.15- SOLVENT EXTRACT SOYA FLOUR** means the product obtained from clean, sound, healthy soyabeans by a process of cracking, dehulling, solvent extraction with food grade hexane and grinding. It shall be in the form of coarse or fine power 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 conform to the following standards, namely:-

(a) Moisture	Not more than 9.0 percent by weight.
(b) Total ash	Not more than 7.2 percent by weight on dry basis.
(c) Ash insoluble in dilute HCl	Not more than 0.4 percent by weight on dry basis.
(d) Protein (Nx6.25)	Not less than 48 percent by weight on dry basis.
(e) Crude fibre	Not more than 4.2 percent by weight on dry basis.
(f) Fat	Not more than 1.5 percent by weight on dry basis.
(g) Total bacterial Count	Not more than 50,000 per gm.
(h) Coliform bacteria	Not more than 10 per gm.
(i) Salmonella bacteria	Nil in 25 gm.
(j) Hexane (Food grade)	Not more than 10.00 ppm.

**A.18.15.01 - SOLVENT EXTRACTED GROUNDNUT FLOUR** means the product obtained from fresh, clean, degermed groundnut kernels which have been decuticled after mild roasting. The kernels shall be first expelled followed by solvent extraction with food grade hexane or by direct extraction of kernels. It shall be whitish to light brown in colour of uniform composition and shall be free from rancid and objectionable odour, extraneous matter, insect, fungus, rodent hair and excreta. It shall be free from added colour and flavour. It shall conform to the following standards namely:-

(a) Moisture	Not more than 8.0 percent by weight.
(b) Total ash	Not more than 5.0 percent by weight on dry basis.
(c) Ash insoluble in dilute HCl	Not more than 0.38 percent by weight on dry basis.
(d) Protein (Nx6.25)	Not less than 48 percent by weight on dry basis.
(e) Crude fibre	Not more than 5.0 percent by weight on dry basis.
(f) Fat	Not more than 1.5 percent by weight on dry basis.
(g) Total bacterial Count	Not more than 50,000 per gm.

- |     |                     |                          |
|-----|---------------------|--------------------------|
| (h) | Coliform bacteria   | Not more than 10 per gm. |
| (i) | Salmonella bacteria | Nil in 25 gm.            |
| (j) | Hexane (Food grade) | Not more than 10.00 ppm. |

**A.18.15.02 - SOLVENT EXTRACTED SESAME FLOUR** means the product obtained by pressing, clean, sound, healthy and decuticled sesame seeds followed by solvent extraction with food grade hexane or by direct extraction of kernels. It shall be in the form of flour of white or pale creamy white colour, of uniform composition and free from rancid and objectionable odour, extraneous matter, insects, fungus, rodent hair and excreta. It shall be free from added colour and flavour. It shall conform to the following standards, namely:-

- |     |                             |  |
|-----|-----------------------------|--|
| (a) | Moisture                    | Not more than 9.0 percent by weight.               |
| (b) | Total ash                   | Not more than 6.0 percent by weight on dry basis.  |
| (c) | Ash insoluble in dilute HCl | Not more than 0.15 percent by weight on dry basis. |
| (d) | Protein (Nx6.25)            | Not less than 47 percent by weight on dry basis.   |
| (e) | Crude fibre                 | Not more than 6.0 percent by weight on dry basis.  |
| (f) | Fat                         | Not more than 1.5 percent by weight on dry basis.  |
| (g) | Total bacterial Count       | Not more than 50,000 per gm.                       |
| (h) | Coliform bacteria           | Not more than 10 per gm.                           |
| (i) | Salmonella bacteria         | Nil in 25 gm.                                      |
| (j) | Oxalic Acid content         | Not more than 0.5 percent by weight on dry basis.  |
| (k) | Hexane (Food grade)         | Not more than 10.00 ppm.                           |

**A.18.15.03 - SOLVENT EXTRACTED COCONUT FLOUR** means the product obtained from fresh coconut kernels or dried coconut copra of good quality and free from mould. Food grade hexane shall be used for extraction of the oil. It shall be of white or pale brownish yellow colour, of uniform composition and free from rancid and objectionable odour, extraneous matter, insects, fungus, rodent hair and excreta. It shall be free from added colour and flavour. It shall conform to the following standards, namely:-

- |     |                             |  |
|-----|-----------------------------|--|
| (a) | Moisture                    | Not more than 9.0 percent by weight.               |
| (b) | Total ash                   | Not more than 6.0 percent by weight on dry basis.  |
| (c) | Ash insoluble in dilute HCl | Not more than 0.35 percent by weight on dry basis. |
| (d) | Protein (Nx6.25)            | Not less than 22.0 percent by weight on dry basis. |
| (e) | Crude fibre                 | Not more than 9.0 percent by weight on dry basis.  |
| (f) | Fat                         | Not more than 1.5 percent by weight on dry basis.  |
| (g) | Total bacterial Count       | Not more than 50,000 per gm.                       |
| (h) | Coliform bacteria           | Not more than 10 per gm.                           |
| (i) | Salmonella bacteria         | Nil in 25 gm.                                      |
| (j) | Hexane (Food grade)         | Not more than 10.00 ppm.                           |

**A.18.15.04 - SOLVENT EXTRACTED COTTON SEED FLOUR** means the product obtained by solvent extraction of oil with food grade hexane from oil cake immediately following the single pressing, from cotton seed of good quality which have been pre-cleaned and are free from infected or otherwise damaged materials and extraneous matter. It shall be in the form of flour of white or pale brownish colour, of uniform composition and free from rancid and objectionable odour, extraneous matter, insect, fungus, rodent hair and excreta. It shall be free from added colours and flavours. It shall conform to the following standards, namely:-

- |     |                             |  |
|-----|-----------------------------|--|
| (a) | Moisture                    | Not more than 8.0 percent by weight.               |
| (b) | Total ash                   | Not more than 5.0 percent by weight on dry basis.  |
| (c) | Ash insoluble in dilute HCl | Not more than 0.35 percent by weight on dry basis. |
| (d) | Crude Protein (Nx6.25)      | Not less than 47 percent by weight on dry basis.   |

(e)	Available lysine	Not less than 3.6 g. per 100 g. of crude protein.
(f)	Crude fibre	Not more than 5.0 percent by weight on dry basis.
(g)	Free gossypol	Not more than 0.06 percent by weight on dry basis.
(h)	Total gossypol	Not more than 1.2 percent by weight on dry basis.
(i)	Fat	Not more than 1.5 percent by weight on dry basis.
(j)	Total bacterial Count	Not more than 50,000 per gm.
(k)	Coliform bacteria	Not more than 10 per gm.
(l)	Salmonella bacteria	Nil in 25 gm.
(m)	Hexane (Food grade)	Not more than 10.00 ppm.

A.19 VANASPATI means any refined edible vegetable oil or oils, subjected to a process of hydrogenation in any form.. It shall be prepared by hydrogenation from groundnut oil, cotton seed oil and sesame oil or mixture thereof or any other harmless vegetable oils allowed by the Government for the purpose.

Refined sal seed fat, if used, shall not be more than 10 percent of the total oil mix.

It shall conform to the standards specified below:-

- (i) It shall not contain any harmful colouring, flavouring or any other matter deleterious to health.
- (ii) No colour shall be added to hydrogenated vegetable oil unless so authorised by Government, but in no event any colour resembling the colour of ghee shall be added.
- (iii) If any flavour is used, it shall be distinct from that of ghee, in accordance with a list of permissible flavours and in such quantities as may be prescribed by Government.  
Provided that diacetyl to the extent of not more than 4.0 p.p.m. may be added to Vanaspati exclusively meant for consumption by the Armed Forces.
- (iv) It shall not have moisture exceeding 0.25 percent.
- (v) The melting point as determined by capillary slip method shall be from 31 degree C to 41 degree C both inclusive.
- (vi) It shall not have unsaponifiable matter exceeding 2.0 percent but in case of vanaspati where proportion of rice bran oil is more than 30 percent by weight, the unsaponifiable matter shall be not more than 2.5 percent by weight provided quantity of rice bran oil is declared on the level of such vanaspati as laid down in clause (zzz)(4) of Rule 42.
- (vii) It shall not have free fatty acids (calculated as Oleic acid) exceeding 0.25 percent.
- (viii) The product on melting shall be clear in appearance and shall be free from staleness or rancidity, and pleasant to taste and smell.
- (ix) It shall contain raw or refined sesame (til) oil in sufficient quantity so that when the vanaspati is mixed with refined groundnut oil in the proportion of 20:80, the colour produced by the Baudouin test shall not be lighter than 2.0 red units in a 1 cm. cell on a Lovibond scale.
- (x) It shall contain not less than 25 I.U. of synthetic Vitamin 'A' per gram at the time of packing and shall show a positive test for Vitamin 'A' when tested by Antimony Trichloride (Carr-Price) reagent (as per IS - 5886-1970).
- (xi) No anti-oxidant, synergist-emulsifier or any other such substance shall be added to it except with the prior sanction of the Government.
- (xii) It shall not have nickel exceeding 1.5 p.p.m.

Test for argemone oil shall be negative.

**A.19.01.- BAKERY SHORTENING** means vanaspati conforming to standards prescribed in items A.19 except that -

- (a) the melting point as determined by the capillary slip method shall not exceed 41 degree C.
- (b) if aerated, only nitrogen, air or any other inert gas shall be used for the purpose and the quantity of such gas incorporated in the product shall not exceed 12 percent by volume thereof;
- (c) it may contain added mono-glycerides and diglycerides as emulsifying agents.

Test for argemone oil shall be negative.

**A.20 .- VINEGAR** means a liquid derived from alcoholic and acetous fermentation of any suitable medium such as fruits, malt, molasses, sugarcane juice, etc.

Vinegar shall conform to the following standards:-

1. It shall contain at least 3.75 grammes of acetic acid per 100 ml.
2. It shall contain at least 1.5 percent w/v of total solids and 0.18 percent of ash.
3. It shall not contain (I) sulphuric acid or any other mineral acids, (ii) lead or copper, (iii) arsenic in amounts exceeding 1.5 parts per million, and (iv) any foreign substance or colouring matter except caramel.
4. Malt vinegar in addition, shall have at least 0.05 percent of phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>) and 0.04 percent of nitrogen.

Brewed vinegar shall not be fortified with acetic acid.

**A.20.01.- SYNTHETIC VINEGAR** means the product prepared from acetic acid. It shall contain not less than 3.75 grammes of acetic acid per 100 ml.

It shall not contain -

- (a) sulphuric or any other mineral acid
- (b) lead or copper
- (c) arsenic in amounts exceeding 1.5 parts per million
- (d) any colouring matter, except caramel.

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

**A.21.- CATECHU (Edible)** shall be the dried aqueous extract prepared from the heart-wood of Acacia catechu. It shall be free from infestation, sand, earth or other dirt and shall conform to the following standards :

- (a) 5 ml. of 1 percent aqueous solution, and 0.1 percent solution of ferric ammonium sulphate shall give a dark green colour, which on the addition of sodium hydroxide solution shall change to purple.
- (b) When dried to constant weight at 100 degree C, it shall not lose more than 16 percent of its weight.
- (c) Water insoluble residue (dried at 100 degree C) shall not be more than 25 percent by weight.

- Water insoluble matter shall be determined by boiling water.
- (d) Alcohol insoluble residue in 90 percent alcohol dried at 100 degree C - not more than 30 percent by weight.
  - (e) Total ash on dry basis - Not more than 8 percent by weight.
  - (f) Ash insoluble in HCl - Not more than 0.5 percent on dry weight basis.

Provided that in case of Bhatti Katha, the ash insoluble in dilute hydrochloric acid on dry basis shall not be more than 1.5 percent. The Bhatti Katha be marked as required in sub-rule (12) or Rule 49.

**A.22 GELATIN** shall be purified product obtained by partial hydrolysis of collagen, derived from the skin, white connective tissues and bones of animals. It shall be colourless or pale yellowish and translucent in the form of sheets, flakes, shreds or coarse to fine powder. It shall have very slight odour and taste but not objectionable which is characteristic and boullion llike. It is stable in air when dry but is subject to microbial decomposition when moist or in solution. It shall not contain -

- (a) more than 1.5 percent moisture;
- (b) more than 3.0 percent of total ash;
- (c) more than 1000 parats per million of sulphur dioxide;
- (d) less than 15 percent of nitrogen on dry weight basis.

Gelatin meant for human consumption should be labelled as "Gelatine food Grade".

A.23 and 24. Omitted.

#### **A.25 SWEETS AND CONFECTIONERY :**

**A.25.01.- SUGAR BOILED CONFECTIONERY** whether sold as hard boiled sugar confectionery or pan goods confectionery or toffee or milk toffee or modified toffee or lacto-bon-bon or by any other name shall mean a processed composite food article made from sugar with or without doctoring agents such as cream of tartar, by process of boiling whether panned or not. It may contain centre filling, or otherwise, which may be in the form of liquid semi-solid or solids with or without coating of sugar or chocolate or both. It may also contain any of the following:-

- (i) sweetening agents such as sugar invert sugar, jaggery, lactose, gur, bura sugar, khandsari, sorbitol, honey, liquid glucose;
- (ii) milk and milk products;
- (iii) edible molasses
- (iv) malt extracts
- (v) edible starches
- (vi) edible oils and fats
- (vii) edible common salt
- (viii) fruit and fruit products and nut and nut products
- (ix) tea extract, coffee extract, chocolate, cocoa;
- (x) Vitamins and minerals
- (xi) Shellac (food grade) not exceeding 0.4 percent by weight bee wax (food grade), paraffin wax (food grade), carnuba wax (food grade), and other food grade wax or any combination therefor of;
- (xii) Edible desiccated coconut
- (xiii) Spices and condiments and their extracts
- (xiv) Candied peels
- (xv) Enzymes
- (xvi) Sodium bicarbonate

- (xvii) Lubricants such as calcium, magnesium or sodium salts of stearic acid, talc (not exceeding 0.2 percent), icing sugar, or food grade mineral oil (not exceeding 0.2 percent by weight), stearic acid (food grade) glycerine (food grade)
- (xviii) Permitted anti-oxidants
- (xix) Permitted colouring matter
- (xx) Permitted stabilizing and emulsifying agents
- (xxi) Flavouring agents
- (xxii) Acidulants, such as citric acid, tartaric acid malic acid (food grade)
- (xxiii) Jellifying agent, such as gelatine (food grade) agar-agar, sodium carboxymethyl cellulose
- (xxiv) Permitted preservatives
- (xxv) Edible foodgrain, edible seeds
- (xxvi) Calcium bicarbonate, calcium carbonate
- (xxvii) Baking powder
- (xxviii) Gulkand, gulabana fsha, mulathi
- (xxix) Puffed rice
- (xxx) China grass
- (xxxi) Eucalyptus oil camphor, menthol oil crystals, pepper mint oil
- (xxxii) Thymol
- (xxxiii) Edible oil seed flour and protein isolates
- (xxxiv) Gum arabic and other edible gum

It shall not contain artificial sweeteners.

Mineral oil (food grade) if used as a lubricant, shall not exceed 0.2 percent by weight.

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

- (i) Ash sulphated (on salt free basis) - Not more than 2.5 percent by weight.  
 Provided that in case of sugar boiled confectionery where spices are used as centre filling, the ash sulphated shall not be more than 3 percent by weight.
- (ii) Ash insoluble (in dilute Hydrochloric acid) - Not more than 0.2 percent by weight.  
 Provided that in case of sugar boiled confectionery where spices are used as centre filling, the ash insoluble in dilute Hydrochloric acid shall not be more than 0.4 percent.

Where the sugar boiled confectionery is sold under the name of milk toffee, and butter toffee, it shall conform to the following additional requirements as shown against each.

- (1) Milk toffee -
  - (i) Total protein (N X 6.25) shall not be less than 3 percent by weight on dry basis.
  - (ii) Fat content shall not be less than 4 percent by weight on dry basis.
- (2) Butter toffee - fat content shall not be less than 4 percent by weight on dry basis.  
 It may contain sulphur dioxide in concentration not exceeding 350 parts per million;

**A.25.02.LOZENGES:** Lozenges shall mean confections made mainly out of pulverised sugar, or icing sugar with binding materials such as edible gums, edible gelatine, liquid glucose or dextrin and generally made from cold mixing which does not require primary boiling or cooking of the ingredients. It may contain any of the following:-

- (i) sweetening agents such as dextrose, dextrose-monohydrate, honey, invert sugar, sugar, jaggery, bura sugar, khandsari, sorbitol, liquid glucose;
- (ii) milk and milk products;
- (iii) nuts and nuts products;
- (iv) malt syrup;
- (v) edible starches;
- (vi) edible common salt;
- (vii) ginger powder or extracts;
- (viii) cinnamon powder or extracts;
- (ix) aniseed powder or extracts;
- (x) caraway powder or extracts;
- (xi) cardamom powder or extracts;
- (xii) cocoa powder or extracts;
- (xiii) protein isolates;
- (xiv) coffee extracts or its flavour;
- (xv) permitted flavouring agents;
- (xvi) acidulants such as tartaric acid, malic acid and citric acid (food grade);
- (xvii) permitted colouring matter;
- (xviii) permitted colouring matter;
- (xix) vitamins and minerals;
- (xx) sodium bicarbonate;
- (xxi) lubricants such as calcium, magnesium or sodium salts of stearic acid talc (not exceeding 0.2 percent) icing sugar, mineral oil (food grade), stearic acid (food grade), glycerine (food grade).

It shall not contain artificial sweeteners.

Mineral oil (food grade), if used as lubricant, shall not exceed 0.2 percent by weight.

It shall also conform to the following standards:-

- (i) Sucrose content - Not less than 85.0 percent by weight.
- (ii) Ash sulphated (Salt free basis) - Not more than 3.0 percent by weight.
- (iii) Insoluble in dilute Hydrochloric acid - Not more than 0.2 percent by weight.

It may contain sulphur dioxide in concentration not exceeding 350 parts per million.

**A.25.02.01. - CHEWING GUM AND BUBBLE GUM** shall be prepared from chewing gum base of bubble gum base, natural or synthetic, non-toxic; cane sugar and liquid glucose (corn syrup).

The following sources of gum base may be used:-

- (1) Babul, Kikar (Gum Arabic)
- (2) KHAIR
- (3) Jhingan (Jael)
- (4) Ghatti

- (5) Chiku (Sapota)
- (6) Natural rubber latex
- (7) Synthetic rubber latex
- (8) Glycerol ester of wood rosin
- (9) Glycerol ester of gum rosin
- (10) Synthetic resin
- (11) Glycerol ester of partially hydrogenated gum or wood rosin
- (12) Natural resin
- (13) Polyvinyl acetate
- (14) Agar (food grade)

It may also contain any of the following ingredients, namely:-

- (a) Glycerine
- (b) Malt
- (c) Milk powder
- (d) Chocolate
- (e) Coffee
- (f) Gelatin, food grade
- (g) Permitted Flavours;
- (h) Permitted Colours;
- (i) Permitted anti-oxidants
- (j) Permitted Preservatives
- (k) Permitted Emulsifiers
- (l) Sorbitol
- (m) Lubricants such as starch, talc, stearic acid, icing sugar, paraffin wax or liquid paraffin, food grade, or other food grade mineral oil
- (n) Water, potable
- (o) Acidulants food grade
- (p) Nutrients like vitamins, minerals, proteins
- (q) Titanium dioxide, food grade (Maximum 1 percent by weight)
- (r) Calcium carbonate
- (s) Magnesium carbonate
- (t) Phosphated starch

It shall be free from dirt, filth, adulterants and harmful ingredients. It shall also conform to the following standards, namely:-

Ingredients	Chewing gum	Bubble gum
Gum	Not less than 12.5 percent by weight	Not less than 14.0 percent by weight
Moisture	Not more than 3.5 percent by weight	Not more than 3.5 percent by weight
Sulphated Ash	Not more than 9.5 percent by weight	Not more than 11.5 percent by weight
Acid insoluble Ash	Not more than 2.0 percent by weight	Not more than 3.5 percent by weight
Reducing sugars (calculated as dextrose)	Not less than 4.5 percent by weight	Not less than 5.5 percent by weight
Sucrose	Not more than 70.0 percent by weight	Not more than 60.0 percent by weight

**A.25.03.- CHOCOLATE** - Chocolate means a homogeneous product obtained by an adequate process of manufacture from a mixture of one or more of the ingredients, namely, cocoa (cocoa) beans, cocoa

(cocoa)nib, cocoa (cocoa)mass, cocoa press cake and cocoa dust (cocoa fines/powder), including fat reduced cocoa powder with or without addition of sugars, cocoa butter, milk solids including milk fat and non-prohibited flavouring agents. The chocolates shall not contain any vegetable fat other than cocoa butter.

The material shall be free from rancidity or other off odour, insect and fungus infestation, filth, added colouring matter, adulterants and any harmful or injurious matter. Provided that filled chocolate may contain permitted food colours.

The chocolates shall be of the following types:-

Milk chocolate is obtained from one or more of cocoa nib, cocoa mass, cocoa press cake, cocoa powder including low-fat cocoa powder with sugar and milk solids including milk fat and cocoa butter.

Milk covering Chocolate - as defined above, but suitable for covering purposes.

Plain Chocolate is obtained from one or more of cocoa nib, cocoa mass, cocoa press cake, cocoa powder including low fat cocoa powder with sugar and cocoa butter.

Plain covering Chocolate - same as plain chocolate but suitable for covering purposes.

Blended Chocolate means the blend of milk and plain chocolates in varying proportions.

White Chocolate is obtained from cocoa butter, milk solids, including milk fat and sugar.

Filled Chocolate means a product having an external coating of chocolate with a centre clearly distinct through its composition from the external coating, but does not include flour confectionery, pastry and biscuit products. The coating shall be of chocolate that meets the requirements of one or more of the chocolate types mentioned above. The amount of chocolate component of the coating shall not be less than 25 percent of the total mass of the finished product.

Composite chocolate - means a product containing at least 60 percent of chocolate by weight and edible wholesome substances such as fruits, nuts. It shall contain one or more edible wholesome substances which shall not be less than 10 percent of the total mass of finished product.

In addition to the ingredients mentioned above, the chocolate may contain one or more of the substances as outlined below under different brands of chocolates:-

1.Milk Chocolate, Plain Chocolates, Blended Chocolates, white Chocolates and Composite Chocolates:-

- (a) edible salt,
- (b) non-prohibited flavouring agents,
- (c) permitted emulsifying agents
- (d) spices and condiments.

2.Filled Chocolates:-

- (a) permitted antioxidants,
- (b) permitted emulsifying and stabilising agents,
- (c) permitted preservatives,
- (d) permitted food colours and non-prohibited flavouring agents
- (e) permitted sequestering and buffering agents,
- (f) permitted acidulants such as citric acid, tartaric acid, malic acid (food grade)

Chocolate shall also conform to the following standards, namely:-

S.No.	Characteristics	Requirement for					
		Milk Chocolate	Milk Covering Chocolate	Plain Chocolate	Plain Covering Chocolate	White Chocolate	Blended Chocolate
1.	Total fat (on dry basis) percent by weight. Not less than	25	25	25	25	25	25
2.	Milk fat (on dry basis) percent by weight. Not less than	2	2	--	--	2	--
3.	Cocoa solids (on moisture-free and fat-free basis) percent by weight. Not less than	2.5	2.5	12	12	--	3.0
4.	Milk solids (on moisture free and fat-free basis) percent by weight. Not less than/ Not more than	10.5	10.5	--	--	10.5	1
5.	Acid insoluble ash (on moisture fat and sugar free basis) percent by weight. Not more than	--	--	--	--	--	9
		0.2	0.2	0.2	0.2	0.2	0.2

## A.26.- FOOD COLOURS:

### A.26.01.- TARTRAZINE

Common Name	tartrazine
Synonyms	FD and C Yellow No.5 E.E.C. serial No. E-102, L-Gebb 2, C.I. Food Yellow 4.
Colour of the 0.1 percent (M/V) solution in distilled water.	Yellow
Colour Index Number (1975)	No. 19140
Class	Monoazo
Chemical Name	Trisodium salt of 5-hydroxy-1-p-sulphophenyl 1-4 (p-sulpho-phe-nylazo) pyrazol-3-carboxylic acid.
Empirical Formula	C <sub>16</sub> H <sub>9</sub> N <sub>4</sub> O <sub>9</sub> S <sub>2</sub> Na <sub>3</sub>
Molecular Weight	534.37
Solubility	Soluble in water. Sparingly soluble in ethanol.
General Requirements	The material shall conform to the requirements prescribed in Table below:-

**TABLE**

S.NO.	Characteristic	Requirement
1.	2	3
1.	Total dye content, corrected for Sample dried at 105 ± 1 deg C for 2 hours, percent by mass, Min.	87
2.	Loss on drying at 135 deg C and Chlorides and	13

	Sulphates expressed	
3.	Water insoluble matter, percent by mass, Max.	0.2
4.	Combined ether extracts, percent by mass, Max.	0.2
5.	Subsidiary dyes, percent by mass, Max.	1.0
6.	Dye intermediates, percent by mass, Max.	0.5
7.	Lead, mg/kg, Max.	10
8.	Arsenic, mg/kg. Max.	3
9.	Heavy metals, mg/kg Max.	40

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

#### A.26.02. - SUNSET YELLOW

Common Name	Sunset Yellow
Synonyms	FD and C Yellow No.6, Janus Orange S, C.I. Food yellow 3,- Orange 2, Janune soil, EEC Serial No. E.10
Colour of the 0.1 percent (M/V) solution in distilled water.	Orange
Colour Index Number (1975)	No. 15985
Class	Monoazo
Chemical Name	Disodium salt of 1(4-sulphophenylazo)-2-naphtho 1-6-sulphonic acid
Empirical Formula	C <sub>20</sub> H <sub>6</sub> O <sub>5</sub> I <sub>4</sub> NO <sub>2</sub>
Molecular Weight	452.37
Solubility	Soluble in water. Sparingly soluble in ethanol.
General Requirements	The material shall conform to the requirements prescribed in Table below:-

**TABLE**

S.NO.	Characteristic	Requirement
1	2	3
1.	Total dye content, corrected for Sample at 105 ± 1 deg C for 2 hours, percent by mass, Min.	87
2.	Loss on drying to 135 deg C percent by mass and Chlorides and Sulphates expressed as sodium salt, percent by mass, max	13
3.	Water insoluble matter, percent by mass, Max.	0.2
4.	Combined ether extracts, percent by mass, Max.	0.2
5.	Subsidiary dyes( lower sulphonated dyes including traces of orange II) percent by mass, Max.	3.0
6.	Dye intermediates, percent by mass, Max.	0.5
7.	Lead, mg/kg, Max.	10
8.	Arsenic, mg/kg. Max.	3
9.	Heavy metals, mg/kg Max.	40

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

#### A.26.04.- ERYTHROSINE

Common Name	Erythrosine
Synonyms	FD and C Red No.3 C.I. Food Red 14, LB-Rot-I
Colour of the 0.1 percent (M/V) solution in distilled water.	Red
Colour Index Number (1975)	No. 45430
Class	Xanthene
Chemical Name	Disodium or dipotassium salt of 2',4',5',7', tetraiodo-fluorescein
Empirical Formula	C <sub>20</sub> H <sub>6</sub> O <sub>5</sub> I <sub>4</sub> NO <sub>2</sub>
Molecular Weight	879.87 (Disodium Salt)
Solubility	Soluble in water. Soluble in ethanol.
General Requirements	The material shall conform to the requirements prescribed in Table below:-

**TABLE**

S.NO.	Characteristic	Requirement
1	2	3
1.	Total dye content, corrected for Sample dried at 105 degree $\pm$ 1 deg C for 2 hours, percent by mass, Min.	87
2.	Loss on drying at 135 deg C, percent by mass and Chlorides and Sulphates expressed as sodium salt, percent by mass, Max.	13
3.	Water insoluble matter, percent by mass, Max.	0.2
4.	Ether extractable matter, (alkaline), percent by mass, Max.	0.2
5.	Inorganic Iodide, percent by by mass as sodium iodide, Max.	0.1
6.	Subsidiary colouring matters except fluorescein, percent by mass, Max.	4
7.	Fluorescein, mg/kg, Max.	20
8.	Organic compounds other than colouring matter	0.2
	(a) Tri-iodoresorcinol, percent by mass, max.	0.2
	(b) 2(2,4-dihydroxy-3, 5-di-iodobenzoyl) benzoic acid, percent by mass, Max.	
9.	Lead, mg/kg, Max.	10
10.	Arsenic, mg/kg. Max.	3
11.	Zinc, mg/kg, Max	50
12.	Heavy metals, mg/kg Max.	40

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

#### A.26.05. - INDIGO CARMINE

Common Name	Indigo carmine
Synonyms	Indigotine, FD and C Blue no.2, CI Food Blue 1, EEC serial No.E 132 L-Blue 2
Colour of the 0.1 percent	Blue

(M/V) solution in distilled water.	
Colour Index Number (1975)	No. 73015
Class	Indigoid
Chemical Name	Disodium salt of indigotine-5, 5'-Disulphonic Acid
Empirical Formula	C <sub>16</sub> H <sub>8</sub> N <sub>2</sub> O <sub>8</sub> S <sub>2</sub> Na <sub>3</sub>
Molecular Weight	466.36
Solubility	Soluble in water. Sparingly soluble in ethanol.
General Requirements	The material shall conform to the requirements prescribed in Table below:-

**TABLE  
REQUIREMENT FOR INDIGO CARMINE**

S.NO.	Characteristic	Requirement
1	2	3
1.	Total dye content, corrected for Sample dried at 105 ± 1 deg C for 2 hours, percent by mass, Min.	85
2.	Loss on drying at 135 deg C, percent by mass and Chlorides and Sulphates expressed as sodium salt, percent by mass, Max.	15
3.	Water insoluble matter, percent by mass, Max.	0.4
4.	Combined ether extracts, percent by mass, Max.	0.4
5.	Subsidiary dyes, percent by mass, Max.	3.0
6.	Isatin sulphonic acid, percent by mass, Max.	1
7.	Lead, mg/kg, Max.	10
8.	Arsenic, mg/kg. Max.	3
9.	Heavy metals, mg/kg Max.	40

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

#### A.26.06.- Byta -CAROTENE.

Byta-Carotene is obtained as dark violet hexagonal prisms when crystallised from benzene methanol solution; or as red rhombic, almost quadractic plates, from petroleum ether.

Synonyms	C.I. natural yellow 26.
Colour Index number	(1956) - No.75130
Class	Carotenoids
Chemical Name	All trans Byta-carotene.
Empirical Formula	C <sub>40</sub> H <sub>56</sub>
Molecular weight	536.89
Melting point	183 deg.±1 deg C.

*Solubility* - Soluble in carbon, disulphide, benzene and chloroform, moderately soluble in normal hexane, cyclohexane ether, petroleum ether and oils; practically insoluble in methanol and ethanol; insoluble in water.

*Spectrophotometric Requirement* - The wave lengths of absorption maxima of all trans byta-Carotene in cyclohexane (0.2 mg per 100 ml. approximately) and in 1-cm cell shall be 456 mu to 484 mu region. There shall be no cis-peak in the 330 mu to 355 mu region.

A solution of Byta-carotene in chloroform on addition of antimony trichloride solution shall give a dark blue colour having maximum absorption at a wave length of 590 mu.

*Colour Reaction* - When 2 ml. of concentrated sulphuric acid is added to 2 ml. of 0.2 percent solution of Byta-carotene in chloroform, the acid layer shall turn blue.

The material shall have a minimum purity of 96.0 percent.

Maximum limit of metallic impurities shall be:

Arsenic (as As)	5 p.p.m.
Lead (as Pb)	20 p.p.m.

**A.26.07. - CHLOROPHYLL** - Chlorophyll, the green pigment of plants, is extracted and widely used as a colouring matter for various food items.

Synonyms	C.I. natural Green 3; Lebensmittel Green No.1.
Colour	Green
Colour Index number	(1956) - No.75810 (1924) - No.12499
Class	Phorbin (dihydrophorbin)
Chemical Name	Chlorophyll a-magnesium complex of 1,3,5,8,- Tetramethyl 4-ethyl-2vinyl-9-keto-10-carbomethoxyphorbinphytyl- 7- Propionate. Chlorophyll b-Magnesium complex Of 1,5,8,- trimethy 1-3-formy 1- 4- Ethyl-2-vinyl 1-9-keto-10-carobo-methoxy-phorbinphyty 1-7 propionate.
Empirical Formula	Chlorophyll a - C <sub>55</sub> H <sub>72</sub> O <sub>5</sub> N <sub>4</sub> Mg Chlorophyll b - C <sub>55</sub> H <sub>70</sub> O <sub>6</sub> N <sub>4</sub> Mg
Molecular weight	Chlorophyll a - 893.54 Chlorophyll b - 907.52

*General* - The material shall be an intensely dark green, aqueous, ethanolic, or oily solution of chlorophyll degradation products. It shall be soluble in ethanol, ether, chloroform and benzene. It shall be insoluble in water.

*Identification test* - A solution of chlorophyll in ethanol shall be blue with deep red fluorescence.

*Brown-phase Reaction* - When green ether or petroleum ether solution of chlorophyll is treated with a small quantity of a 10 percent solution of potassium hydroxide in methanol, the colour shall become brown quickly returning to green.

Note - This test is applicable only when chlorophyll has not been treated with alkalis.

Maximum limits for metallic impurities shall be:

Arsenic (as As)	5 p.p.m.
-----------------	----------

Lead (as Pb)	20 p.p.m.
Copper (as Cu)	30 p.p.m.
Zinc (as Zn)	50 p.p.m.

**A.26.08.- CARMEL** - Caramel shall be prepared from the food grade carbohydrates or their combinations in the presence of food grade acids, alkalis or salts. It shall be of four types, namely:-

Type-I - Plain Caramel - It shall be prepared by heating carbohydrates with or without acids or alkalis, or their salts; No ammonium or sulphite compounds are used.

Type-II - Caustic Sulphite Caramel - It shall be prepared by heating carbohydrates with or without acids or alkalis or their salts in the presence of sulphite compounds; no ammonium compounds are used.

Type-III - Ammonia Process Caramel - It shall be prepared by heating carbohydrate with or without acids or alkalis or their salts in the presence of ammonium compound; no sulphites are used.

Type-IV - Ammonia Sulphite Caramel - It shall be prepared by heating carbohydrates with or without acids or alkalis or their salts in the presence of both sulphite and ammonium compounds.

## RAW MATERIALS

1.Carbohydrates - Caramel shall be prepared from the following carbohydrates or their mixtures:-

Sucrose, glucose, fructose, invert sugar, lactose, malt syrup, molasses, starch hydrolysates and fractions thereof and/or polymer thereof.

2.Acids and alkalis - The acids used are sulphuric acid, phosphoric acid, acetic acid, or citric acid and the alkalis used are sodium, potassium or calcium hydroxide or mixture thereof.

Where the ammonium compounds are used, they are one or more of the following:-

Sulphurous acid, Potassium, Sodium or Ammonium sulphite or Bisulphite  
 Ammonium Hydroxide  
 Ammonium Carbonate and Bicarbonate  
 Ammonium Phosphate  
 Ammonium Sulphate  
 Ammonium Sulphate, Bisulphite, Metasulphite.

Where the sulphite compounds are used, they are one or more of the following:-

It shall be a dark brown to black liquid or solid materials having the characteristic odour of burnt sugar and a pleasant, bitter taste. Its solution, when spread in a thin layer on a glass plate should appear homogeneous, transparent and have reddish-brown colour. It shall be miscible with water. It shall be free from any other extraneous colouring matter. It may contain permitted emulsifying and stabilising agents.

It shall conform to the requirements prescribed in Table 1 below. All requirements shall be on solid basis, except metallic impurities.

**TABLE I - ROUTINE TEST REQUIREMENTS FOR CARMEL**

S.NO.	Characteristics	Type-I	Type II	Type III	Type IV
		Plain	Caustic Sulphite	Ammonia Process	Sulphite Ammonia

1	2	3	4	5	6
1.	Solid content, percent by mass	62-77	65-72	53-83	40-75
2.	Colour intensity, percent by mass	0.01-0.12	0.06-0.10	0.08-0.36	0.10-0.60
3.	Ammoniacal nitrogen percent by mass, Max.	0.01	0.01	0.4	0.5
4.	4 - Methylimidazole	--	--	Max. 300 mg/kg & Max. 200 mg/kg on equivalent Colour basis	Max.1000 mg/kg & Max. 250 mg/kg on equivalent Colour basis
5.	Lead (as Pb),mg/kg, Max.	5	5	5	5
6.	Arsenic (as AS) mg/Kg	3	3	3	3

**Note** - Requirement of ammoniacal nitrogen is based on a product colour having a minimum colour intensity prescribed at Sl.No.(2) proportionately higher values of ammoniacal nitrogen apply for products of higher colour intensity.

#### TYPE TEST -

The material shall also conform to the requirements prescribed in Table 2 below.

All requirements shall be on solid basis except metallic impurities.

**TABLE II - ROUTINE TEST REQUIREMENTS FOR CARMEL**

S.NO.	Characteristics	Type-I Plain	Type II Caustic Sulphite	Type III Ammonia Process	Type IV Sulphite Ammonia
1	2	3	4	5	6
1.	Total sulphur per cent by mass	Max. 0.3	1.3-2.5	Max.0.3	1.4-10.0
2.	Sulphur dioxide (as SO <sub>2</sub> )	-	Max.0.2%	-	Max. 0.5%
3.	Total nitrogen, per cent by mass	Max. 0.1	Max.0.2	1.3-6.8	0.5-7.5
4.	Heavy metals, mg/kg(max)	25	25	25	25
5.	2-Acetyl-4-tetrahydroxy butylimidazole(THI)	-	-	Max. 40mg/kg & Max. 25 mg/kg on an equivalent colour basis	-
6.	Mercury (as Hg)mg/kg (Max)	0.1	0.1	0.1	0.1
7.	Copper(as Cu)mg/kg (Max)	20	20	20	20

The material shall be filled in amber coloured glass or high density polythylene containers or any other well closed suitable containers with as little air space as possible. The containers shall be such as to preclude contamination of the contents with metals or other impurities.

#### **A.26.09.- SNNATTO**

Class	Carotenoids	
Code Number	C-1 (1975) No.75120	
	C-1 (1975) Natural Orange 4 EEC No.E-160 b	
Chemical Name	Annatto extract in oil contains several coloured components, the Major single one being bixin which may be present in both Cis and Transforms. Thermal degradation products of bixin may also be present.	
Solubility	Water soluble annatto contains norbixin, the hydrolysis product of bixin, in the form of sodium or potassium salt, as the major colouring principle. Both Cis and Transforms may be present.	
Chemical Formula	Bixin	C <sub>25</sub> H <sub>30</sub> O <sub>4</sub>
	Norbixin	C <sub>24</sub> H <sub>28</sub> O <sub>4</sub>
Molecular Weight	Bixin	394.50
	Norbixin	380.48

The material shall be of the following two types:

- (a) Solution in oil for use in butter and other food products, and
- (b) Solution in water for use in cheese and other food products.

#### **GENERAL:**

The material shall be derived only from the plant *Bixa orellana* L. and shall not contain any extraneous colouring matter. It shall be processed, packed, stored and distributed under hygienic conditions in licensed premises.

- (i) Solution of Annatto Colour in Oil for Use in Butter and Other Food Products:-

Annatto extract in oil, as solution or suspension, is prepared by extraction of the outer coating of seeds with vegetable oils. In the preparation of the solution of annatto colour in oil, only the edible vegetable oils shall be used, either singly or in a mixture.

The solution of annatto colour in oils shall be clear and shall remain so on storage in suitable containers at 15 deg. C except for a slight deposit of stearine or shall be in the form of a suspension. The suspension on dilution with hot oil to bring the bixin content to 0.24 percent shall be a clear solution.

#### **COLOUR:**

The colour of solution in amyl acetate at a dilution of 1:1000 (m/v), when measured in a Lovibond Tintometer with a 1 cm Cell Spectrophotometrically/Calorimetrically shall be not less than the following:

Yellow units	5.0
Red units	0.4

Or be not less than the colour of the following inorganic solution at a liquid depth of one centimetre which may be employed for matching the stated dilution in a plunger type colorimeter using incident light closely approximating the normal daylight:

Potassium Bichromate	0.320 g
Cobalt ammonium sulphate (CoSO <sub>4</sub> (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> , 6H <sub>2</sub> O)	2.02 g
Sulphuric acid, Sp-gr 1,84	2 ml
Distilled water	To make solution to one litre

These reagents shall be of the analytical reagent grade. Although the solution retains its tinctorial value for a considerable time, after prolonged storage, its optical clarity shall be examined before use, to ensure that no alteration has taken place.

Note 1 - Diluted solution of annatto colour in amyl acetate is not stable in colour quality, particularly if exposed to light, and measurement shall be carried out on the diluted solution without undue delay.

(ii) Solution of Annatto Colour in Water for use in Cheese and other Food Products:

Water soluble annatto colour is prepared by extraction of the outer coating of the seeds with aqueous alkali (sodium or potassium hydroxide). In the preparation of the solution, potable water shall be used. A little quantity (0.5 to 3 percent) of alkali may be added.

The solution shall be clear and shall remain so on storage in suitable containers at a temperature of 15 deg. C.

COLOUR:-

The colour of the solution in 0.1 N sodium hydroxide or potassium hydroxide at a dilution of 1:1000(m/v) measured in a 1 cm shall be the same as that specified in (i) above.

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

**TABLE  
REQUIREMENTS FOR ANNATTO**

S.No.	Characteristic	Requirement
1.	Carotenoid	
	(a) Annatto extract in oil, expressed as bixin, percent by mass, Min.	0.24
	(b) Water soluble annatto, expressed as norbixin, percent by mass, Min.	0.24
2.	Arsenic, mg/kg, Max.	3
3.	Lead, mg/kg, Max.	10
4.	Copper, mg/kg, Max.	30
5.	Heavy metals, mg/kg, Max.	40

**A.26.10. - RIBOFLAVIN** : Riboflavin is a yellow to orange-yellow crystalline powder. Melting point about 280 deg. C. with decomposition.

Solubility - Slightly soluble in water, more soluble in saline solution and in a 10 percent (w/v) solution of urea, sparingly soluble in alcohol, practically insoluble in chloroform and in solvent ether, and soluble in dilute solution of alkali hydroxides.

Synonyms

Vitamin B<sub>2</sub>, lactoflavin and Lactoflavine

Colour	Yellow to orange-yellow
Class	isoalloxazine
Chemical name	6:7 - dimethyl-9-(d-1-ribityl) - isoalloxazine
Empirical Formula	C <sub>17</sub> H <sub>20</sub> ON <sub>4</sub> O <sub>6</sub>
Molecular weight	376.38

Identification - A solution of 1 mg of Riboflavin in 100 ml water is pale greenish yellow in transmitted light, and has an intense yellowish green fluorescence which disappears on the addition of sodium dithionite and mineral acids or alkalis.

Spectrophotometry - Absorption maxima of aqueous solution shall be at 220 to 225, 226, 371 and 444 mm.

Specific Rotation - It shall be determined in a 0.5 percent w/v solution in a mixture of 1.5 ml of 0.1 N alcoholic solution of potassium hydroxide (free from carbonate) and sufficient freshly boiled and cooled water to produce 10 ml. The specific rotation, when calculated with reference to the substance dried to constant weight in the dark at 105 deg C, shall be - 122 deg. C.

The material shall have minimum purity of 97.0 percent.

Maximum limit of metallic impurities shall be:

Arsenic as (As)	05 p.p.m.
Lead as (Pb)	20 p.p.m.

#### A.26.11.- PONCEAU 4R

Common Name	Ponceau 4R
Synonyms	CI Food Red 7, L-Rot No.4, Coccine Nouvelle, Cochineal Red A; EEC serial no.E124.
Colour of 0.1 percent (m/v) Solution in distilled water.	Red
Colour Index Number (1975)	No.16255
Class	Monoazo
Chemical Name	Trisodium salt of 1-(4-sulpho-1-naphthylazo) - naphthol-6, 8-disul-phonic acid
Empirical Formula	C <sub>20</sub> H <sub>11</sub> N <sub>2</sub> O <sub>10</sub> S <sub>3</sub> Na <sub>3</sub>
Molecular weight	604.5
Solubility	Soluble in water. Sparingly soluble in ethanol

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

**TABLE**  
**REQUIREMENTS FOR PONCEAU 4R**

S.NO.	Characteristic	Requirement
1	2	3
1.	Total dye content, corrected for Sample dried at 105 ± 1 deg C for 2 hours, percent by mass, Min.	82
2.	Loss on drying at 135 deg C, percent by mass max. and Chlorides and Sulphates expressed as sodium salt, percent by mass, Max.	18
3.	Water insoluble matter, percent by mass, Max.	0.4

4.	Combined ether extracts, percent by mass, Max.	0.4
5.	Subsidiary dyes, percent by mass, Max.	1.0
6.	Dye intermediates, percent by mass, Max.	0.5
7.	Lead, mg/kg, Max.	10
8.	Arsenic, mg/kg. Max.	3
9.	Heavy metals, mg/kg Max.	40

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

#### A-26.12. - CARMOISINE:

Common Name	Carmoisine
Synonyms	Azorubine, CI Food Red 3, EEC serial no.E122.
Colour of 0.1 percent (m/v)	Red
Solution in distilled water.	
Colour Index Number	(1956)-No.14720
Class	Monoazo
Chemical Name	Disodium salt of 2-(4-sulpho-1-naphthylazo) -1-hydroxy-Naphthylazo)-4-sulphonic acid.
Empirical Formula	C <sub>20</sub> H <sub>12</sub> N <sub>2</sub> O <sub>7</sub> S <sub>2</sub> Na <sub>2</sub>
Molecular weight	502.44
General requirements chromium	The material shall be free from mercury, selenium and chromium in any form, aromatic amines, aromatic-nitro compounds, aromatic hydrocarbons and any cyanides.

Carmoisine shall also comply with requirements prescribed in Table below:-

**TABLE**

S.NO.	Characteristic	Requirement
1	2	3
1.	Total dye content, corrected for Sample dried at 105 ± 1 deg C for 2 hours, percent by mass, Min.	87
2.	Loss on drying at 135 deg C, percent by mass max and Chlorides and Sulphates expressed as sodium salt, percent by mass, Max.	13
3.	Water insoluble matter, percent by mass, Max.	0.2
4.	Combined ether extracts, percent by mass, Max.	0.2
5.	Subsidiary dyes, percent by mass, Max.	1.0
6.	Dye intermediates, percent by mass, Max.	0.5
7.	Lead, mg/kg, Max.	10
8.	Arsenic, mg/kg. Max.	3
9.	Heavy metals, mg/kg Max.	40

A.26.13. - Fast Red E

A.26.14. - SYNTHETIC FOOD COLOUR - Preparation and Mixtures.

#### COLOUR PREPARATION:

A preparation containing one or more of the permitted synthetic food colour conforming to the prescribed standard alongwith diluents and /or filler materials and meant to be used imparting colour to food. It may contain permitted preservatives and stabilizers.

The colour preparation would be either in the form of a liquid or powder. Powder preparations shall be reasonably free from lumps and any visible extraneous foreign matter. Liquid preparations shall be free from sediments.

Only the following diluents or filler materials shall be permitted to be used in colour preparations conforming to the prescribed standards:-

2. Potable water
3. Edible common salt
4. Sugar
5. Dextrose Monohydrate
6. Liquid glucose
7. Sodium sulphate
8. Tartaric acid
9. Glycerine
10. Propylene glycol
11. Acetic acid, dilute
12. Sorbitol
13. Citric acid
14. Sodium carbonate and sodium hydrogen carbonate
15. Lactose
16. Ammonium, sodium and potassium alginates
17. Dextrins
18. Ethyl acetate
19. Starches
20. Diethyl ether
21. Ethanol
22. Glycerol mono, di and tri acetate
23. Edible oils and fats
24. Isopropyl alcohol
24. Bees wax
25. Sodium and ammonium hydroxide
26. Lactic acid
27. Carragenan and gum arabic
28. Gelatin
29. Pectin

### **COLOUR MIXTURES:**

A mixtures of two or more permitted synthetic food colour conforming to prescribed standards without diluents and filler material and meant to be used for imparting Colour to food.

It may contain permitted preservatives and stabilizers.

**GENERAL REQUIREMENTS - For Colour Preparation & Colour Mixture -** The total synthetic dye content, percent by mass (m/v) in the colour preparation or in the mixture shall be declared on the label of the container. In powder preparations the declared value shall be on moisture free basis and in case of

liquid preparations on as in basis. The total dye content shall be within the tolerance limits given below on the declared value:

- |     |                     |                   |
|-----|---------------------|-------------------|
| (a) | Liquid preparations | +15percent        |
|     |                     | -5 percent        |
| (b) | Solid preparations  | $\pm 7.5$ percent |

The limits of impurities shall be as prescribed in Table below:-

**TABLE  
LIMITS FOR IMPURITIES**

1.	Water insoluble matter, percent by mass, Max. (on dry basis), Max.	1.0
2.	Lead(as Pb), mg/kg, Max.	10
3.	Arsenic(as As), mg/kg. Max.	3.0
4.	Heavy metals, mg/kg Max.	40

It shall be free from mercury, copper and chromium in any form; aromatic amines, aromatic nitro compounds, aromatic hydrocarbons, polycyclic aromatic hydrocarbon, 2-naphthyl aminonbenzidine, amino-4-diphenyl (xenylamine) or their derivatives and cyanides.

#### **A.26.15.- BRILLIANT BLUE FCF**

Common Name	Brilliant Blue FCF
Synonyms	C.I. Food Blue, and C Blue No. 1 Blue brilliant FCF.
Class	Triarylmethane
Colour	Blue
Colour Index	(1975) No. 42900
Chemical Name	Disodium salt of alpha -(4-(N-ethyl-bita sulphobenzylamino)-
	Phenyl) alpha (-4-(ethyl-3-sulfonatobenzylimino) cyclohexa-2, 5-dienylidene) toluene-2-sulfonate.
Empirical Formula	C <sub>37</sub> H <sub>34</sub> N <sub>2</sub> Na <sub>2</sub> O <sub>9</sub> S <sub>3</sub>
Molecular weight	792.86
General requirements	The material shall conform to the requirement prescribed in
Table	below namely:-

**TABLE FOR BRILLIANT BLUE FCF**

S.NO.	Characteristic	Requirement
1.	2	3
1.	Total dye content, corrected for Sample dried at 105 $\pm$ 1 deg C for 2 hours, percent by mass, Min.	85
2.	Loss on drying at 135 deg C and Chlorides and Sulphates expressed as sodium salt, percent by mass, Max.	15
3.	Water insoluble matter, percent by mass, Max.	0.2
4.	Combined ether extracts, percent by mass, Max.	0.2
5.	Subsidiary dyes, percent by mass, Max.	3
6.	Dye intermediates, percent by mass, Max.	
	(a) O, sulpho-benzaldehyde, Maximum	1.5

	(b) N-N' ethyl-aniline-3-sulphonic acid, Maximum	0.3
	(c) Leuco base percent by mass, max.	5
7.	Heavy metals, (as Pb), mg/kg, Max	40
	- Lead, mg/kg, Max.	10
	- Arsenic, mg/kg, Max	3
	- Chromium, mg/kg, Max.	50

Note:- The material shall be free from aromatic amines, aromatic nitro compound aromatic hydrocarbons, and cyanides.

#### A. 26.16- FAST GREEN FCF

Fast Green FCF is hygroscopic in nature and its shade changes with different pH. Suitable precautions should, therefore, be taken in packing the colour.

Fast Green FCF is described below, namely:-

(4-	Common Name-	Fast Green FCF
	Synonyms-	C.I. Food Green 3, FD and C Green No. 3, Vert Solid FCF
	Class	Triarylmethane
	Colour	Green
	Colour Index	(1975) No. 42053
	Chemical Name	Disodium salt of 4-[4-(N-ethyl-p-sulfobenzylamino)-phenyl-
		hydroxy-2-sulphonumphenyl)-methylene]-(N-ethyl-N-p-
		sulphobenzyl 2,5-cyclohexadienimine).
	Chemical Formula	C <sub>37</sub> H <sub>34</sub> O <sub>10</sub> N <sub>2</sub> S <sub>2</sub> Na <sub>2</sub>
	Molecular Weight	808.86
Requirements	The material shall conform to the following requirements prescribed in the Table below, namely:-	

**TABLE FOR FAST GREEN FCF**

S.NO.	Characteristic	Requirement
1	2	3
1.	Total dye content, corrected for Sample dried at 105 ± 1 deg C for 2 hours, percent by mass, Min.	85
2.	Loss on drying at 135 deg C, percent by mass max and Chlorides and Sulphates expressed as sodium salt, percent by mass, Max.	13
3.	Water insoluble matter, percent by mass, Max.	0.2
4.	Combined ether extracts, percent by mass, Max.	0.2
5.	Subsidiary dyes, percent by mass, Max.	1.0
6.	Organic compound other than colouring matter uncombined intermediates and products of side reactions	
	(a) Sum of 2-, 3-, 4- formyl benzene sulphonic acid, sodium salts, percent by mass, Max	0.5
	(b) Sum of 3- and 4-(ethyl(4-sulfophenyl) amino) methyl benzene sulphonic acid, disodium salts, percent by mass, Max	0.3

(c)	2-formyl-5-hydroxybenzene sulphonic acid sodium salt, percent by Mass, Max	0.5
(d)	Leuco base, percent by Mass, Max	5.0
(e)	Unsulphonated primary aromatic amines(calculated as aniline), percent by Mass, Max	0.01
7.	- Lead, mg/kg, Max	10
8.	- Arsenic, mg/kg, max	3
9.	- Chromium, mg/kg, Max	50
10.	- Mercury, mg/kg, Max	Absent
11	- Heavy metals, mg/kg, Max	40

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

**A.26.17 - ALUMINIM LAKE OF SUNSET YELLOW FCF FOOD YELLOW NO. 5** Aluminium Lake is a fine orange yellow water soluble, odourless powder. It is prepared by percipating Sunset Yellow FCF (conforming to specification under A 26.02 of Appendix B to Prevention of food Adulteration Rules, 1955) on to a substratum of Alumina.

Chemical Name- Sunset Yellow FCF Aluminium Lake-6, hydroxy-5 (4-sulfophenlyazo) 2 Naphthalenesulphonic acid, Aluminium Lake.

Synonym-CI Pigment Yellow 104, FD and C Yellow No 6, Aluminium Lake (USA), Food Yellow No.5 Aluminium Lake (Japan).

- (1) Sunset yellow dye used in preparation of lake colour shall conform to specifications laid down under A.26.02 of Appendix B to the Prevention of Food Adulteration Rules, 1955.
- (2) Pure dye content of Aluminium Lake weight by weight not less than 17 percent.
- (3) Substratm of Aluminium oxide not more than 83 percent.
- (4) Aluminium content in the lake weight by weight not more than 44 percent
- (5) Sodium chlorides and sulfates (as sodium salts) not more than 2.0 percent
- (6) Inorganic matter (HCL insoluble) not more than 0.5 percent
- (7) Lead (as Pb) not more than 10 ppm
- (8) Arsenic (as As) not more than 3 ppm

Alumina used in colour shall conform to following namely:-

- (a) Identity - Alumina (dried as aluminium hydroxide) is a white odourless, tasteless, amorphous powder consisting essentially of Aluminium hydroxide ( $Al_2O_3 \times H_2O$ ).
- (b) Specifications - Alumina (dried aluminium hydroxide) shall conform to the following specifications, namely:-
  - (i) Acidity or alkalinity: Agitate 1 gm with 25ml of water and filter. The filtrate shall be neutral to litmus paper.
  - (ii) Lead (as Pb) not more than 10 parts per million.
  - (iii) Arsenic (as As) not more than 1 parts per million.
  - (iv) Mercury (as Hg) not more than 1 parts per million.
  - (v) Aluminium oxide ( $Al_2O_3$ ) not less than 50 percent.

Solubility- Lakes are insoluble in most solvents. They are also insoluble in water in pH range from 3.5-9.0 but outside this range and the lake substrate tends to dissolve releasing the captive dye.

**A.27.01- SILVER LEAF (Chandi-ka-warq)** - Food grade - shall be in the form of sheets, free from creases and folds and shall contain not less than 99.9 percent of silver

**A.28. - GROUNDNUT KERNEL** (deshelled) for direct human consumption commonly known as Mungphali are obtained from the plant *Arachis hypogols*. The kernels shall be free from non-edible seeds such as mahua, castor, neem or argemone, etc. It shall be free from colouring matter and preservatives. It shall be practically free from extraneous matter, such as stones, dirt clay, etc. The kernels shall conform to the following standards, namely:-

- |     |  |                                     |
|-----|--|-------------------------------------|
| (a) | Moisture   | Not more than 7.0 percent           |
| (b) | Damaged kernel including slightly damaged kernel | Not more than 5.0 percent by weight |
| (c) | Aflatoxin content                                | Not more than 30 parts per billion  |

### **A.29.BEVERAGES. - ALCOHOLIC**

**A.29.01.- TODDY** : Toddy means the sap from coconut, date, toddy palm tree or any other kind of palm tree which has undergone alcoholic fermentation. It shall be white cloudy in appearance which sediments on storage and shall possess characteristic flavour derived from the sap and fermentation without addition of extraneous alcohol. It shall be free from added colouring matter, dirt, other foreign matter or any other ingredient injurious to health. It shall also be free from chloral hydrate, paraldehyde, sedative tranquilizer and artificial sweetner.

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

- |     |   |
|-----|---|
| (a) | Alcoholic content - Not less than 5 percent(v/v).   |
| (b) | Total acid as tartaric acid (expressed in terms of 100 lt. of absolute alcohol) Not more than 400 grams.      |
| (c) | Volatile acid as acetic acids (expressed in terms of 100 litres of absolute alcohol) Not more than 100 grams. |

**A.30.- PAN MASALA** means the food generally taken as such or in conjunction with Pan, it may contain:-

Betelnut, lime, coconut, catechu, saffron, cardamom, dry fruits, mulethi, sabermusa, other aromatic herbs and spices, sugar, glycerine, glucose, permitted natural colours, menthol and non-prohibited flavours.

It shall be free from added coal tar colouring matter. and any other ingredient injurious to health.

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

- |   |  |
|---|--|
| Total ash                                 | Not more than 8.0 percent by weight (on dry basis) |
| Ash insoluble in dilute hydrochloric acid | Not more than 0.5 percent by weight (on dry basis) |

**A.31. - FAT SPREAD** means a product in the form of water in oil emulsion, or an aqueous phase and a fat phase of edible oils and fats excluding animal body fats. The individual oil and fat used in the spread shall conform to the respective standards prescribed by these rules.

Fat spread shall be classified into the following three groups:-

- (a) Milk fat spread      Fat content will be exclusively milk fat.
- (b) Mixed fat spread      Fat content will be a mixture of milk fat with any one or more of hydrogenated, unhydrogenated refined edible vegetable oils or interesterified fat.
- (c) Vegetable fat spread      Fat content will be a mixture of any two or more of hydrogenated, unhydrogenated, refined vegetable oils or interesterified fat.

The fat content shall be declared on the label. In mixed fat spread, the milk fat content shall also be declared on the label along with the total fat content.

The word 'butter' will not be associated while labelling the product.

It may contain edible common salt not exceeding 2 percent by weight in aqueous phase; milk solids-not-fat; lactic acid, butyric acid, valeric acid, cinnamon oil, and Ethyl butyrate may also be added as flavouring agent upto 0.08 percent m/ml, Diacetyl may be added as flavouring agents not exceeding 4.0 p.p.m., permitted emulsifiers and stabilizers' permitted antioxidants (BHA or TBHQ) not exceeding 0.02 percent of the fat content of the spread; permitted Class II preservatives namely sorbic acid including its sodium, potassium and calcium salts (calculated as sorbic acid) or benzoic acid and its sodium and potassium salts (calculated as benzoic acid) singly or in combination not exceeding 1000 parts per million by weight; and sequestering agents. It may contain annatto and/or carotene as colouring agents. It shall be free from animal body fat, mineral oil and wax. Vegetable fat spread shall contain raw or refined Sesame oil (Til oil) in sufficient quantity so that when separated fat is mixed with refined groundnut oil in the proportion of 20:80 the red colour produced by Baudouin test shall not be lighter than 2.5 red units in 1 cm. Cell on a Lovibond scale.

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

- (i) Fat      Not more than 80 percent and not less than 40 percent by weight.
- (ii) Moisture      Not more than 56 percent and not less than 16 percent by weight.
- (iii) Melting point of Extracted fat (capacity slip method) in case of vegetable fat spread.      Not more than 37 deg C.
- (iv) Unsaponifiable matter of extracted fat -
  - (a) In case of milk fat      Not more than 1 percent by weight.  
And mixed fat spread
  - (b) In case of vegetable fat spread      Not more than 1.5 percent
  - (c) Acid value of extracted fat      Not more than 0.5.

It shall be compulsorily sold in sealed packages weighing not more than 500 g. under Agmark Certification Mark.

- (vi) The vegetable fat spread shall contain not less than 25 IU synthetic vitamin 'A' per gram at the time of packing and shall show a positive test for vitamin 'A' when tested by Antimony Trichloride (Carr-Price) reagents (as per I.S. 5886-1970).

- (vii) It shall contain starch not less than 100 PPM and not more than 150 PPM.

## **A.32.MINERAL WATER**

1 Mineral water means includes all kinds of Mineral Water or Natural mineral water by whatever name it is called and sold.

2.Description and Types of Mineral water:

- (i) Natural mineral water is water clearly distinguished from ordinary drinking water because -
  - (a) it is characterized by its content of certain mineral salts and their relative proportions and the presence of trace elements or of other constituents,
  - (b) it is obtained directly from natural or drilled sources from underground water bearing strata and from Public water supply for which all possible precautions should be taken within the protected perimeters to avoid any pollution of, or external influence on, the chemical and physical qualities of natural mineral water.
  - (c) Of the constancy of its composition and the stability of its discharge and its temperature, due account being taken of the cycles of minor natural fluctuations;
  - (d) It is collected under conditions which guarantee the original micro-biological purity and chemical composition of essential components;
  - (e) It is packaged close to the point of emergence of the source with particular hygienic precautions;
  - (f) It is not subjected to any treatment other than those permitted by this standard;
- (ii) Naturally Carbonated Natural Mineral Water - A naturally carbonated natural mineral water is a natural mineral water which, after possible treatment as given hereunder and re-incorporation of gas from the same source and after packaging , taking into consideration usual technical tolerance, has the same content of carbondioxide spontaneously and visibly given off under normal conditions of temperature and pressure.
- (iii) Non-Carbonated Natural Mineral Water - A non-carbonated natural mineral water is a natural mineral water which, by nature and after possible treatment as given hereunder and after packaging taking into consideration usual technical tolerance, does not contain free carbon dioxide in excess of the amount necessary to keep the hydrogen carbonate salts present in the water dissolved.
- (iv) Decarbonated Natural Mineral Water - A decarbonated natural mineral is a natural mineral water which, after possible treatment as given hereunder and after packaging, has less carbon dioxide content than that at emergence and does not visibly and spontaneously give of carbon dioxide under normal conditions of temperature and pressure.
- (v) Natural Mineral Water Fortified with Carbon Dioxide from the Source - A natural mineral water fortified with carbon dioxide from the source is natural mineral water which, after possible treatment as given hereunder and after packaging, has more carbon dioxide content than that at emergence.
- (vi) Carbonated Natural Mineral Water - A carbonated natural mineral water is a natural mineral water which, after possible treatment as given hereunder and after packaging, has been made effervescent by the addition of carbon dioxide from another origin.

**3.Treatment and handling** - Treatment permitted include separation from unstable constituents,, such as compounds containing iron, manganese, sulphur or arsenic, by decantation and/or filtration, if necessary, accelerated by previous aeration.

The treatments provided may only be carried out on condition that the mineral content of the water is not modified in its essential constituents, which give the water its properties.

The transport of natural mineral waters in bulk containers for packaging or for any other process before packaging is prohibited. Natural Mineral water shall be packaged in clean and sterile containers.

The source or the point of emergence shall be protected against risks of pollution.

The installation intended for the production of natural mineral waters shall be such as to exclude any possibility of contamination. For this purpose, and in particular -

- (a) the installations for collection, the pipes and the reservoirs shall be made from materials suited to the water and in such a way as to prevent the introduction of foreign substances into the water,
- (b) the equipment and its use for production, especially installations for washing and packaging, shall meet hygienic requirements,
- (c) if, during production it is found that the water is polluted, the producer shall stop all operations until the cause of pollution is eliminated'

**3A Packaging materials**-It shall be packed in clean, hygienic , colourless, transparent and tamperproof bottles/containers made of polyethylene (PE) (conforming to IS:10146 or polyvinyl chloride (PVC) conforming to IS:10151 or polyalkylene terephthalate (PET and PBT) conforming to IS:12252 or polypropylene conforming to IS : 10910 or food grade polycarbonate or sterile glass bottles suitable for preventing possible adulteration or contamination of the water.

All packaging materials of plastic origin shall pass the prescribed overall migration and colour migration limits.

4.All Mineral water shall conform to the following standards, namely:-

S.No.	Characteristics	Requirements
1	2	3
1.	Colour, Hazen Unit/True Colour Unit	Not more than 2
2.	Odour	Agreeable
3.	Taste	Agreeable
4.	Turbidity	Nor more than 2 nephelometric turbidity unit (NTU)
5.	Total Dissolved solids	150-700 mg/litre
6.	PH	6.5-8.5
7.	Nitrates (as NO <sub>3</sub> )	Not more than 50 mg/litre
8.	Nitrites (as NO <sub>2</sub> )	Not more than 0.02 mg/litre
9.	Sulphide (as H <sub>2</sub> S)	Nore more than 0.05 mg/litre
10.	Mineral Oil	Absent
11.	Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH)	Absent
12.	Manganese (as Mn)	Not more than 2.0 mg.litre
13.	Copper (as Cu)	Not more than 1 mg/litre
14.	Zinc (as Zn)	Not more than 5 mg/litre
15.	Fluoride (as F)	Not more than 1 mg/litre
16.	Barium (as Ba)	Not more than 1.0 mg/liltre

17.	Antimony (as Sb)	Not more than 0.005 mg/litre
18.	Nickel (as Ni)	Not more than 0.02 mg/litre
19.	Borate (as B)	Not more than 5 mg/litre
20.	Surface active agents	Not detectable
21.	Silver (as Ag)	Not more than 0.01 mg/litre
22.	Chlorides (as Cl)	Not more than 200 mg/litre
23.	Sulphate (as SO <sub>4</sub> )	Not more than 200 mg/litre
24.	Magnesium (as Mg)	Not more than 50 mg/litre
25.	Calcium (as Ca)	Not more than 100 mg/litre
26.	Sodium (as Na)	Not more than 150 mg/litre
27.	Alkalinity (as HCO <sub>3</sub> )	75-400 mg/litre
28.	Arsenic (as As)	Not more than 0.05 mg/litre
29.	Cadmium (as Cd)	Not more than 0.003 mg/litre
30.	Cyanide (as CN)	Absent
31.	Chromium (as Cr)	Not more than 0.05 mg/litre
32.	Mercury (as Hg)	Not more than 0.001 mg/litre
33.	Lead (as Pb)	Not more than 0.01 mg/litre
34.	Selenium (as Se)	Not more than 0.05 mg/litre
35.	Poly nuclear aromatic Hydrocarbons	Not detectable
36.	Polychlorinated biphenyle (PCB)	Not detectable
37.	Pesticide Residue	Below detectable limits
38.	"Alpha" activity	Not more than 0.1 Bacquerel/litre(Bq)
39.	"Beta" activity	Not more than 1 pico curie/litre (pCi)
40.	Yeast and mould counts	Absent
41.	Salmonella and Shigella	Absent
42.	E.Coli or thermotolerant Coliforms 1 X 250 ml	Absent
43.	Total coliform bacteria A x 250 ml	Absent
44.	Fecal Streptococci and Staphylococcus Aureus 1 x 250 ml	Absent
45.	Pseudomonas aeruginosa 1 x250 ml	Absent
46.	Sulphite-reducing anaerobes 1x50 ml	Absent
47.	Vibrocholera 1 x 250 ml	Absent
48.	V Parahaemolyticus 1 x 250 ml	Absent

**5. Labelling Prohibitions** - No claims concerning medicinal (preventative, alleviative or curative) effects shall be made in respect of the properties of the product covered by the standard. Claims of other beneficial effects related to the health of the consumer shall not be made.

The name of the locality, hamlet or specified place may not form part of the trade name unless it refers to a natural mineral water collected at the place designated by that trade name.

The use of any statement or of any pictorial device which may create confusion in the mind of the public or in any way mislead the public about the nature, origin, composition and properties of natural mineral waters put on sale is prohibited.

### **A.33 PACKAGED DRINKING WATER (OTHER THAN MINERAL WATER)**

"Packaged drinking water" means water derived from any source of potable water which is subjected to treatments, namely, decantation, filtration, combination of filtration, aerations, filtration with membrane filter, depth filter, cartridge filter, activated carbon filtration, demineralisation, remineralisation reverse osmosis and packed. It may be disinfected to a level that will not lead to harmful contamination in

the drinking water. It may be disinfected by means of chemical agents and/or physical method of the number of micro-organism to a level that does not compromise food safety or suitability.

It shall be packed in clean, sterile, colourless, transparent and tamperproof bottles/containers made of polyethylene (PE) conforming to IS:10146 or polyvinyl chloride (PVC) conforming to IS:10151 or polyalkylene terephthalate (PET and PBT) conforming to IS:12252 or polypropylene conforming to IS:10910 or foodgrade polycarbonate or sterile glass bottles suitable for preventing possible adulteration or contamination of the water.

All packaging materials of plastic origin shall pass the overall migration and colour migration limits.

It shall conform to the following standards namely:-

S.No.	Characteristics	Requirements
1	2	3
1.	Colour	Not more than 2 Hazen units/ True colour units.
2.	Odour	Agreeable
3.	Taste	Agreeable
4.	Turbidity	Nor more than 2 nephelometric turbidity unit (NTU)
5.	Total Dissolved solids	Not more than 500 mg/litre
6.	PH	6.5-8.5
7.	Nitrates (as NO <sub>3</sub> )	Not more than 45 mg/litre
8.	Nitrites (as NO <sub>2</sub> )	Not more than 0.02 mg/litre
9.	Sulphide (as H <sub>2</sub> S)	Nore more than 0.05 mg/litre
10.	Mineral Oil	Not more than 0.01 mg/litre
11.	Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH)	Not more than 0.001 mg/litre
12.	Manganese (as Mn)	Not more than 0.1 mg/litre
13.	Copper (as Cu)	Not more than 0.05 mg/litre
14.	Zinc (as Zn)	Not more than 5 mg/litre
15.	Fluoride (as F)	Not more than 1.0 mg/litre
16.	Barium (as Ba)	Not more than 1.0 mg/liltre
17.	Antimony (as Sb)	Not more than 0.005 mg/litre
18.	Nickel (as Ni)	Not more than 0.02 mg/litre
19.	Borate (as B)	Not more than 5 mg/litre
20.	Anionic surface active agents (as MBAS)	Not more than 0.2 mg/litre
21.	Silver (as Ag)	Not more than 0.01 mg/litre
22.	Chlorides (as Cl)	Not more than 200 mg/litre
23.	Sulphate (as SO <sub>4</sub> )	Not more than 200 mg/litre
24.	Magnesium (as Mg)	Not more than 30 mg/litre
25.	Calcium (as Ca)	Not more than 75 mg/litre
26.	Sodium (as Na)	Not more than 200 mg/litre
27.	Alkalinity (as HCO <sub>3</sub> )	Not more than 200 mg/litre
28.	Arsenic (as As)	Not more than 0.05 mg/litre
29.	Cadmium (as Cd)	Not more than 0.01 mg/litre
30.	Cyanide (as CN)	Not more than 0.05 mg/litre
31.	Chromium (as Cr)	Not more than 0.05 mg/litre
32.	Mercury (as Hg)	Not more than 0.001 mg/litre
33.	Lead (as Pb)	Not more than 0.01 mg/litre

34.	Selenium (as Se)	Not more than 0.01 mg/litre
35.	Iron (as Fe)	Not more than 0.1 mg./litre
36.	Poly nuclear aromatic Hydrocarbons	Not detectable
37.	Polychlorinated biphenyle (PCB)	Not detectable
38.	Aluminium (as Al)	Not more than 0.03 mg/litre
39.	Residual free chlorine	Not more than 0.2 mg/litre
40.	Pesticide Residue	Below detectable limits
41.	"Alpha" activity	Not more than 0.1 Bacquerel/litre(Bq)
42.	"Beta" activity	Not more than 1 pico curie/litre (pCi)
43.	Yeast and mould counts 1 x 250 ml	Absent
44.	Salmonella and Shigella 1 x 250 ml	Absent
45.	E.Coli or thermotolerant bacteria 1 x 250ml	Absent
46.	Coliforma bacteria 1 x 250 ml	Absent
47.	Faecal Streptococci and Staphylococcus Aureus 1 x 250 ml	Absent
48.	Pseudomonas aeruginosa 1 x250 ml	Absent
49.	Sulphite-reducing anaerobes 1x50 ml	Absent
50.	Vibrio cholera and V Parahaemolyticus 1 x 250 ml	Absent
51.	Aerobic Microbial Count	The total viable colony count shall not exceed 100 per ml at 20 degree C. to 22 degree C in 72 h on agar - agar or on agar - gelatin mixture, and 20 per ml at 37 degree C in 24h on agar-agar.

### Labelling Prohibitions

No claims concerning medicinal (preventative, alleviative or curative) effects shall be made in respect of the properties of the product covered by the standard. Claims of other beneficial effects related to the health of the consumer shall not made.

The name of the locality, hamlet or specified place may not form part of the trade name unless it refers to packaged water collected at the place designated by that trade name.

The use of any statement or of any pictorial device which may create confusion in the mind of the public or in any way mislead the public about the nature, origin, composition, and properties of such waters put on sale is prohibited.

**Note--** Without prejudice to the standards laid down in this Appendix, whenever water is used in the manufacture or preparation of any article of food, such water shall be free from micro-organisms likely to cause disease also free from micro-organisms likely to cause disease and also free from chemical constituents which may impair health.

### A-34- MEAT AND MEAT PRODUCTS:

**A.34.01 - CORNED BEEF** means the product prepared from boneless meat of caracase of bovine animals including buffalo meat, which have been subjected to antimortem 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.

The product shall be packed in hermetically sealed containers and subjected to heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 35 degree C for 10 days and 55 degree C. for 5 days.

The product shall be in the form of a solid pack capable of being sliced.

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.

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

Sl.no	Characteristics	Requirements
(1)	(2)	(3)
(1)	Total Plate Count	1000/ gram maximum.
(2)	E-Coli	Absent in 25 gram.
(3)	Salmonella	Absent in 25 gram.
(4)	Staphylococcus aureus	Absent in 25 gram.
(5)	Clostridium perfringens and Clostridium Botulinum	Absent in 25 gram.

**A.34.02 - LUNCHEON MEAT** means the product prepared from edible portion of meat of mammalian animal, slaughtered in an abattoir, which have been subjected to antimortem and postmortem inspection and/or edible meat of poultry, birds, including chickens, turkeys, ducks, geese, guinea fowl or pigeons slaughtered in an abattoir.

The product shall be uniformly cured with edible common salt and sodium and/or potassium nitrite. The product may be with or without binders such as cereal flour/ starch, bread, biscuits or bakery products, milk powder, whey powder, egg protein, vegetable protein products glucose, invert sugar, dextrose, lactose, maltose, glucose syrup, including corn syrup, spices, seasoning and condiments and water soluble hydrolysed protein.

The product may be smoked and flavoured with natural and natural identical flavours and permitted flavour enhancer.

The product may contain ascorbic acid, isoascorbic acid and its sodium salts acid/sodium isoascorbate singly or in combination not exceeding 500 mg/kg. Expressed as ascorbic acid as antioxidant and sodium and/or potassium mono-dipolyphosphates singly or in combination not exceeding 3000mg/kg expressed as P2O3 as water retention agents.

The product shall be packed in hermetically sealed containers and subjected to heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 35 degree C. for 10 days and 55 degree C for 5 days.

The product shall be clean and substantially free from stains from the container and foreign matter and shall be capable of being sliced.

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

Sl.no	Characteristics	Requirements
(1)	(2)	(3)
(1)	Total Fat count a) Product without binder b) Product with binder	Not more than 30.0 percent. Not more than 35.0 percent
(2)	Total Plate Count	1000/ gram maximum
(3)	E.Coli	Absent in 25 gram.
(4)	Salmonella	Absent in 25 gram.
(5)	Staphylococcus aureus	Absent in 25 gram.
(6)	Clostridium perfringens and Clostridium Botulinum	Absent in 25 gram.

**A.34.03 - COOKED HAM** means the product prepared from the meat of pigs which have been subjected to antimortem and postmortem inspection. The product shall be free from bones, detached cartilage tendous, ligaments and may be with or without skin or fat. The product shall be uniformly cured with edible common salt and sodium and/or potassium nitrite.

The product may contain sucrose, invert sugar, dextrose, lactose, maltose and glucose syrup including corn syrup, honey, spices, seasoning and condiments water soluble hydrolysed protein and food grade gelatin. The Product may be smoked and flavoured with natural flavouring substances and nature identical flavours as well as permitted flavour enhancer. The product may contain ascorbic acid/ isoascorbic and its sodium salt singly or in combination not exceeding 500 mg/kg. Expressed as ascorbic acid, sodium and or potassium mono-dipolyphosphates singly or in combination not exceeding 3000 mg/kg expressed as P2O5 as antioxidant and water retention agents respectively. The product may also contain sodium/potassium alginate not exceeding 10 mg/kg and or agar, carrageenan and sodium citrate as emulsifying and stabilizing agents.

The product shall be packed in hermetically sealed containers and subjected to heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 35 degree C. for 10 days and 55 degree C for 5 days.

The product shall be free from any stains from the container/package, objectionable matter and shall be capable of being sliced.

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

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

Sl.no	Characteristics	Requirements
(1)	(2)	(3)
(1)	Total Plate Count	1000/ gram maximum
(2)	E.Coli	Absent in 25 gram.
(3)	Salmonella	Absent in 25 gram.
(4)	Staphylococcus aureus	Absent in 25 gram.
(5)	Clostridium perfringens and Clostridium Botulinum	Absent in 25 gram.

**A.34.04- CHOPPED MEAT** means the product prepared from edible portion of meat of mammalian animals slaughtered in an abattoir, which have been subjected to antimortem and postmortem inspection and/or edible meat of poultry birds including chickens turkeys, ducks, geese, slaughtered in an abattoir.

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, biscuits 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.

The product may be smoked and flavoured with natural and nature identical flavour and permitted flavour enhancer.

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 monodiphosphates singly or in combination not exceeding 3000mg/kg expressed as P2O5 as antioxidant and water retention agents respectively.

The product shall be packed in hermetically sealed containers and subjected to heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 35 degree C. for 10 days and 55 degree C for 5 days.

The product shall be clean and substantially free from stains from the container and foreign matter and shall be capable of being sliced.

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

Sl.no	Characteristics	Requirements
(1)	(2)	(3)
(1)	Total Fat count c) Product without binder d) Product with binder	Not more than 25.0 percent. Not more than 30.0 percent
(2)	Total Plate Count	1000/ gram maximum
(3)	E.Coli	Absent in 25 gram.
(4)	Salmonella	Absent in 25 gram.
(5)	Staphylococcus aureus	Absent in 25 gram.
(6)	Clostridium perfringens and Clostridium Botulinum	Absent in 25 gram.

**A.34.05- CANNED CHICKEN** means the product prepared from edible portion of meat of poultry birds , slaughtered in an abattoir, which have been subjected to antimortem 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. Tin product shall be free from added colour flavour and meat tenderized. The packing medium and other ingredients shall be of food grade quality.

The product shall be packed in hermetically sealed containers clean and sound tin containers and subjected to adequate heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 35 degree C. for 10 days and 55 degree C for 5 days.

The contents shall have the characteristic colour, free from objectionable odour, discoloration and excessive disintegration.

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

Sl.no	Characteristics	Requirements
(1)	(2)	(3)
(1)	Total Plate Count	1000/ gram maximum
(2)	E.Coli	Absent in 25 gram.
(3)	Salmonella	Absent in 25 gram.
(4)	Staphylococcus aureus	Absent in 25 gram.
(5)	Clostridium perfringens and Clostridium Botulinum	Absent in 25 gram.

**A.34.06 - CANNED MUTTON and GOAT MEAT** means the product prepared from edible portion of meat of Bovine animals slaughtered in an abattoir, which have been subjected to antimortem 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.

The product shall be cut into pieces of reasonably uniform size and cured with a mixture of edible salt and sodium nitrite and or 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.

The product shall be packed in hermetically sealed containers clean and sound tin containers and subjected to adequate heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 35 degree C. for 10 days and 55 degree C for 5 days.

The contents shall have the characteristic colour, free from objectionable odour, discoloration and excessive disintegration.

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

Sl.no	Characteristics	Requirements
(1)	(2)	(3)
(1)	Total Plate Count	1000/ gram maximum
(2)	E.Coli	Absent in 25 gram.
(3)	Salmonella	Absent in 25 gram.
(4)	Staphylococcus aureus	Absent in 25 gram.
(5)	Clostridium perfringens and Clostridium Botulinum	Absent in 25 gram.

**A.34.07- FROZEN MUTTON, GOAT BEEF AND BUFFALO MEAT** means the product prepared from edible portion of meat of Bovine animals including buffalo meat slaughtered in an abattoir, which have been subjected to antimortem and postmortem inspection.

The fresh meat meant for freezing shall be clean, free from any foreign matter, objectionable odour/flavour and evidence of deterioration. Meat shall be prepared by quickly freezing in an appropriate equipment in such a way that the range of temperature of maximum crystallization is passed quickly and the product attains a temperature -18degree C. or colder at the thermal centre after thermal stabilization. The product shall be kept deep frozen so as to maintain its quality during transportation, storage and sale.

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

Sl.no	Characteristics	Requirements
(1)	(2)	(3)
(1)	Total Plate Count	100000/ gram maximum
(2)	E.Coli	100/gram maximum
(3)	Staphylococcus aureus	100/gram maximum
(4)	Clostridium perfringens and Clostridium Botulinum	30/gram maximum
(5)	Yeast and mould count	1000/gram maximum
(6)	Salmonella	Absent in 25 gram.
(7)	Listeria monocytogenes	Absent in 25 gram.