Notice calling for suggestions, views, comments etc from WTO-SPS Committee Members within a period of 60 days on the proposed standards for Milk and Milk Products

(1) In the Food Safety and Standards (Prohibition and Restrictions on Sale) Regulations, 2011, in relation to 2.1.1 (1) of 2.1 "Sale of certain admixtures prohibited" following contents shall be substituted namely:-

> "cream which has not been prepared exclusively from milk or which contains less than 20 per cent milk fat".

Notice calling for suggestions, views, comments etc from WTO-SPS Committee Members within a period of 60 days on the proposed standards for Milk and Milk Products

1. In the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 herein after referred to as the said regulations -

(a) in regulation 1.2 relating to "Definition", the clauses 1, 3, 6, 10, 11, 12, 15, 16, 19, 20, 21 and 24 shall be omitted.

(b) in regulation 2.1 relating to "DAIRY PRODUCTS AND ANALOGUES", the following sub-regulations shall be omitted, namely:-

2.1.1 Milk;
2.1.2 Cream;
2.1.3 Malai;
2.1.4 Dahi or Curd;
2.1.5 Chhana or Paneer;
2.1.6 Cheese;
2.1.7 Dairy based desserts or confection;
2.1.8 Evaporated or condensed milk and milk products;
2.1.10 Butter, Ghee and Milk Fats;
2.1.11 Chakka and Shrikhand;
2.1.12 Fermented Milk Products;
2.1.13 Whey Products;
2.1.14 Edible Casein Products;

(c) in regulation 2.1 relating to "DAIRY PRODUCTS AND ANALOGUES", the following sub-regulations shall be inserted, namely :-

"2.1.1 General Standard for Milk and Milk Products.-

This General Standard provides over-arching definitions for milk and milk products and guidance on the use of dairy terms in relation to foods to be offered to the consumer or for further processing.

1. Definitions.-

1.1 "Milk" means the normal mammary secretion derived from complete milking of healthy milch animal, without either addition thereto or extraction therefrom, unless otherwise provided and it shall be free from colostrum.

1.2 "Milk Product" means a product obtained by any processing of milk, which may contain food additives and other ingredients functionally necessary for the milk product as permitted in these regulations. Examples of milk products are given below:

- Cream;
- Malai;
- Curd, skimmed milk curd, dahi;
- Yoghurt;
- Chhanna, skimmed-milk chhanna, paneer;
- Cheese;
- Processed cheese;
- Ice-cream;
- Milk ices, milk lollies, kulfi;
- Condensed milk - sweetened and unsweetened;
- Condensed skimmed milk - sweetened and unsweetened;
- Milk powder, skimmed milk powder, partly skimmed milk powder;
- Khoa, or Khoya;
- Infant milk food;
- Table butter and white butter;
- Ghee, butter oil, or
- Milk derivatives such as whey, casein, lactose etc.,
- Any other product as may be declared in these regulations.

Milk products shall not contain any substance not found in milk unless specified in these regulations.

1.3 **"Composite milk product"** means a product of which the milk, milk products or milk constituents are an essential part in terms of quantity in the final product, as consumed provided that the constituents not derived from milk are not intended to take the place in part or in whole of any milk constituent. Some examples of composite milk products are:

- *Shrikhand,*
- ice cream containing fruits etc.,
- flavoured fermented milks.

1.4 **"Reconstituted milk or milk product"** means a product resulting from the addition of potable water to the dried or concentrated form of milk or milk product in the amount necessary to re-establish the appropriate water-to-solids ratio to achieve similar end product characteristics and appropriate milk product composition as per the Food Safety and Sstandard for that product.

1.5 **"Recombined milk or milk product"** means a product resulting from the combining of milkfat and milk-solids-non-fat in their preserved forms with or without the addition of potable water to achieve similar end product characteristics and appropriate milk product composition as per the Standard for that product and case of recombined milk, the source of milk-solids-non-fat shall be dried or concentrated milks only.

1.6 **"Dairy terms"** means names, designations, symbols, pictorial or other devices which refer to or are suggestive, directly or indirectly, of milk or milk products.

1.7 **"Heat treatment"** means pasteurization, sterilization, ultra high temperature sterilization or boiling.

1.8 **"Pasteurization, Pasteurized and similar terms",** means (a) when used in association with milk, shall be taken to refer to the process of heating every particle of milk of different classes to at least 63°C and holding at such temperature continuously for at least thirty minutes or heating it to at least 72ºC and holding at such temperature continuously for at least fifteen seconds, or an approved temperature-time combination that will serve to give a negative Phosphatase Test performed as per the procedure in the Manual of Methods of Analysis of Foods – Milk and Milk Products published by the Food Safety and Standards Authority of India, and cooling it immediately to a temperature of 7ºC, or less.

(b) Pasteurization, Pasteurized and similar terms**,** when used in association with liquid milk products other than milk, shall be taken to refer to the process of subjecting every particle of that product to a temperature–time combination that has been validated to make that product safe for consumption.

1.9 **"Boiling, boiled and similar terms"** means when used in association with milk, shall be taken to refer to the process of heating milk continuously to bring it to boil at atmospheric pressure.

1.10 **"Sterilisation, sterilized and similar terms",** means when used in association with milk or milk products, shall be taken to refer to the process of heating milk or milk product in sealed container continuously to at least 115ºC for fifteen minutes to ensure preservation at room temperature for a period not less than thirty days from the date of manufacture.

1.11 **Ultra High Temperature (UHT) Sterilization, Ultra High Temprature sterilized or similar terms,** means when used in association with milk or milk product, shall be taken to refer to the process of heating milk or milk product to at least 135ºC for a period of one second or more in a continuous flow and then packing under aseptic condition in hermetically sealed containers to ensure preservation at room temperature for a period not less than fifteen days from the date of manufacture.

2 **General Principles ,-**Foods shall be described or presented in such a manner as to ensure the correct use of dairy terms intended for milk and milk products, to protect consumers from being confused or misled and to ensure fair practices in the food trade.

3 Application of Dairy Terms.-

3.1 General requirements.-

3.1.1 The name of the food shall be declared in accordance with the relevant Food Safety

and standards Standard.

3.2 Use of the term milk

3.2.1 Only a food complying with the definition in regulation 1.1 may be named "milk".

3.2.2 Milk which is adjusted for fat or Solid Not Fat content or both, may also be named "milk" provided that the minimum and maximum limits of fat and Solid Not Fat content (as the case may be) of the adjusted milk are as specified in the Standard for Milk.

3.3 Use of the names of milk products in food standards

3.3.1 Only a product complying with the provisions for a milk product in a Food Safety and Standards may be named as specified in the FSS standard for the product concerned.

3.3.2 Notwithstanding the provisions of Sub Regulation 3.3.1 of this Standard, a milk product may be named as specified in the Food Safety Standard for the relevant milk product when manufactured from milk, the fat or protein content, or both, of which has been adjusted, provided that the compositional criteria in the relevant standard are met.

1.3.3 Products that are modified through the addition or withdrawal of milk constituents may be named with the name of the relevant milk product in association with a clear description of the modification to which the milk product has been subjected:

Provided that the essential product characteristics are maintained and that the limits of such compositional modifications have been provided for in the standards concerned as appropriate (for example 'lactose reduced' milk or milk products, 'cholesterol free' ghee etc.).

3.4 Use of terms for reconstituted and recombined milk and milk products. - Milk and milk products may be named as specified in the product standard for the relevant milk product when made from recombined or reconstituted milk or from recombination or reconstitution of milk products.

3.5 Use of dairy terms for composite milk products. - A product complying with the description in sub regulation 1.3 may be named with the term "milk" or the name specified for a milk product as appropriate, provided that a clear description of the other characterizing ingredient(s) (such as flavouring foods, spices, herbs and flavours) is given in close proximity to the name.

3.6 Use of dairy terms for other foods

3.6.1 The names referred to in sub regulations 3.2 to 3.5 may only be used as names or in the labelling of milk, milk products or composite milk products.

3.6.2 In respect of a product which is not milk, a milk product or a composite milk

product, no label, commercial document, publicity material or any form of point of sale presentation shall be used which claims, implies or suggests that the product is milk, a milk product or a composite milk product, or which refers to one or more of these products.

3.6.3 Provided that with regard to products referred to in sub regulation 3.6.2, which contain milk or a milk product, or milk constituents, which are an essential part in terms of characterization of the product, the term "milk", or the name of a milk product may be used in the description of the true nature of the product, provided that the constituents not derived from milk are not intended to take the place, in part or in whole, of any milk constituent:

Provided further that if the final product is intended to substitute milk, a milk product or composite milk product, dairy terms shall not be used.

For products referred to in sub regulation 3.6.2, which contain milk, or a milk product, or milk constituents, which are not an essential part in terms of characterization of the product, dairy terms can only be used in the list of ingredients. For these products, dairy terms cannot be used for other purposes.

4 Addition of Essential Nutrients.- Milk and milk products may be enriched with essential nutrients such as vitamins, minerals etc. subject to other relevant regulations including labelling requirements.

5 Labelling of Prepackaged Foods.- Pre-packaged milk, milk products and composite milk products shall be labeled in accordance with the said regulation, except to the extent otherwise expressly provided in clause 3 of this standard.

6 For the use of probiotics in dairy products; the 'Indian Council Medical Research Guidelines for Evaluation of Probiotics in Food' shall be followed.

2.1.2 Standard for Milk.-This Standard applies to milk as defined in clause 1*.

1. Description.-

1.1 "Species identified milk" means milk as defined under the General Standard for Milk and Milk Products. The fat and SNF content of milk from buffalo, cow, goat, sheep and camel shall conform to the respective composition given in sub-regulation 2 and product may be subjected to pasteurization, boiling, sterilization or UHT sterilization.

1.2 "Mixed Milk" means any combination of cow milk, buffalo milk, sheep milk, goat milk, or milk of any other milch animal. The fat and SNF content of mixed milk shall conform to the standards given in in the table under Sub Regulation 2 below. The product may be subjected to pasteurization, boiling, sterilization or UHT sterilization.

* This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk or milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

1.3 **"Full Cream Milk, Standardized Milk, Toned Milk, Double Toned Milk, or Skimmed Milk"** mean the product prepared from cow milk, buffalo milk, goat milk, sheep milk, reconstituted milk, recombined milk, or any combination of these, with or without dried or concentrated milks or milk fat that has been standardised to the respective fat and solids-not-fat percentage given in sub-regulation 2. It shall remain homogeneous and no deposition of solids shall take place on standing. The product shall be subjected to pasteurization, sterilization, Ultra High Temprature sterilization or boiling.

2. Essential Composition and Quality Factors.-

2.1 Raw Material

Raw material used shall be as per the respective definitions in Sub-regulation 1.

2.2 Composition.-

The milks of different classes shall conform to the requirements for milk fat and milk solids-not-fat, independently, as specified in columns (3) and (4) of the Table given below:

Table

Class of Milk	**Locality or State or Area**	**Minimum Milk Fat (per cent, m/m)**	**Minimum Milk Solids not Fat (SNF) (per cent, m/m)**
(1)	(2)	(3)	(4)
Buffalo Milk	Assam. Bihar. Chandigarh. Delhi. Gujarat. Haryana. Jharkhand. Maharashtra. Meghalaya. Punjab. Sikkim. Uttar Pradesh. Uttarakhand. West Bengal.	6.0	9.0
Buffalo Milk	Andaman and Nicobar Islands. Andhra Pradesh. Arunachal Pradesh. Chhatisgarh. Dadra and Nagar Haveli. Goa. Daman and Diu. Himachal Pradesh. Jammu and Kashmir. Karnataka.	5.0	9.0

Class of Milk	Locality or State or Area	Minimum Milk Fat (per cent, m/m)	Minimum Milk Solids not Fat (SNF) (per cent, m/m)
	Kerala. Lakshadweep. Madhya Pradesh Manipur. Mizoram. Nagaland. Odisha. Puducherry. Rajasthan. Tamil Nadu. Telangana Tripura.		
Cow Milk	Mizoram Odisha .	3.0	8.5
	Rest of India	3.5	8.5
Goat or Sheep Milk	Chandigarh . Haryana. Kerala. Madhya Pradesh. Maharashtra. Punjab. Uttar Pradesh. Uttarakhand.	3.5	9.0
Goat or Sheep Milk	Andaman and Nicobar Islands. Andhra Pradesh. Arunachal Pradesh. Assam. Bihar. Chhattisgarh. Dadra and Nagar. Haveli. Delhi. Goa. Daman and Diu. Gujarat. Himachal Pradesh. Jammu and Kashmir. Jharkhand. Karnataka. Lakshadweep. Manipur. Meghalaya. Mizoram. Nagaland. Odisha. Puducherry. Rajasthan. Sikkim.	3.0	9.0

Class of Milk	Locality or State or Area	Minimum Milk Fat (per cent, m/m)	Minimum Milk Solids not Fat (SNF) (per cent, m/m)
	Tamil Nadu. Telangana Tripura. West Bengal.		
Camel Milk	All India	3.0	6.5
Mixed Milk	All India	4.5	8.5
Standardized milk	All India	4.5	8.5
Toned Milk	All India	3.0	8.5
Double Toned Milk	All India	1.5	9.0
Skimmed Milk	All India	0.5 Max.	8.7
Full Cream Milk	All India	6.0	9.0

NOTE: When any class of milk is offered for sale in contravention of the requirements specified under sub-regulation 2 of this Standard, the standards prescribed for buffalo milk shall apply.

3 Food Additives

3.1 The milk product shall not contain any food additives:

Provided that the products specified under sub-regulation 1.3 of this regulation may contain carry over food additives as prescribed in the Food Safety and Standards (Food Products Standards and Food Additives), Regulation, 2011.

Provided further that the sterilized milk may contain the additives classes as indicated in the table below;

Additive (Functional Class)	Sterilized Milk	UHT Treated Milk
Emulsifiers	√	X
Acidity Regulator	√	X

√ The use of additives belonging to the class is technologically justified.
X The use of additives belonging to the class is not technologically justified.

3.2 Within each food additive class, the specific food additives permitted in Appendix 'A' of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 may be used in the products complying with this standard and only within the limits specified.

4 Contaminants, Toxins and Residues.-

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

4.2 The total urea content in the product shall not be more than 700 ppm.

5 Hygiene.-

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

5.2 The product shall conform to the microbiological requirements given in Table 2 of Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

6 Labelling.-

6.1 The following details shall be declared on the label of pre-packaged milk or otherwise if the milk is not pre-packaged, in respect of the milk offered for sale to the consumer, such declaration given on the container from which milk will be offered for sale to the consumer:

(i) the class of milk as per sub- regulation 2,

(ii) the heat treatment, as per the General Standard for Milk and Milk Products to which product has been subjected to.

6.2 If the Milk from any milch animal, mixed milk or skimmed milk is offered for sale to the consumer without any heat treatment, the name of the milk shall be declared on the label of prepackaged milk; or otherwise if the milk is not prepackaged, the name of the milk shall be declared and mentioned on the container from which milk shall be offered for sale to the consumer, it shall be preceded with the term '**Raw**'.

6.3 All other provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011, shall also apply to the pre-packaged milk:

Provided that the list of ingredients may not be declared in descending order of usage since the proportion of ingredients used may require change on a daily basis:

Provided further that where 'reconstituted' or 'recombined' milk is declared in the list of ingredients, their components need not be declared seperately. However the ingredients ratio shall be mentioned.

7 Method of Sampling and Analysis.-

As provided in the Food Safety Standards Authority India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.3 Standard for Flavoured Milk

This Standard applies to Flavoured Milk as defined in sub-regulation 1 of this Standard. *

* This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk/ milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

1. Description.-

"Flavoured Milk" means the product prepared from milk or other products derived from milk, or both, with the addition of sugar and with or without addition of other non-dairy ingredients like nuts (whole, fragmented or ground), chocolate, coffee etc and includes other edible flavour, stabilisers and edible food colours. Flavoured milk shall be subjected to a heat treatment as defined in the General Standard for Milk and Milk Products.

2. Essential Composition and Quality Factors

2.1 Raw Material.-

- Milk
- Concentrated and dried milks
- Cream, butter and butter oil
- Potable water for use in reconstitution or recombination

2.2 Ingredients:

- Sugar
- Other non-dairy ingredients like nuts (whole, fragmented or ground), cocoa solids, chocolate, coffee, fruits and vegetables as well as juices, purees, pulps, preparations and preserves derived there from, cereals, honey, spices, condiments, salt, and other harmless natural flavouring foods and flavours.
- Potable Water.

2.3 Composition.-

Flavoured Milk shall have the same minimum percentage of milk fat and milk solids-not-fat as that of the milk, as provided for in the Standard for Milk, from which it is prepared.

3. Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	Flavoured Milk
Stabilizers	√
Emulsifiers	√
Colours	√

√ The use of additives belonging to the class is technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 should be used.

4. Contaminants, Toxins and Residues.-

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

5. Hygiene.-

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

5.2 The product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

6. Labelling.-

6.1 The name of the product shall be 'Flavoured Milk'.

6.2 The following details shall be always declared, on the label of prepackaged product or otherwise if the product is not prepackaged, in respect of the product offered for sale:

- The class of milk as per General Standard for Milk and Milk Products from which it is prepared.
- the heat treatment, as per the General Standard for Milk and Milk Products, to which product has been subjected to.

6.3 The provisions lay down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011, shall apply.

7. Method of Sampling and Analysis.-

As provided in the Food Safety and Standard Authority of India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.4 Standard for Evaporated or Concentrated Milk

This Standard applies to evaporated milks as defined in Sub-regulation 1 of this Standard*.

1. Description.-

Evaporated Milk means the product obtained by partial removal of water from milk by heat or any other process which leads to a product of the same composition and characteristics. The fat and protein content of the milk may be adjusted, only to comply with the compositional requirements in Sub-Regulation 3 of this Standard, by addition or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted.

2. Essential Composition and Quality Factors.-

2.1 Raw materials-

Milk and milk powders, cream and cream powders, milkfat products.

* This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk/ milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

The following milk products are allowed for protein adjustment purposes, only in product covered by sub-regulation 1.1:

- **"Milk retentate"** is the product obtained by concentrating milk protein by ultrafiltration of milk, partly skimmed milk, or skimmed milk;
- **"Milk permeate"** is the product obtained by removing milk proteins and milkfat from milk, partly skimmed milk, or skimmed milk by ultrafiltration; and
- Lactose.

2.2 Permitted ingredients-

- Potable water
- Sodium chloride

2.3 Composition-

Parameter		Evaporated milk	Evaporated partly skimmed milk	Evaporated skimmed milk	Evaporated high fat milk
Milk fat, (m/m)	Min.	7.5%	1%	1%	15%
	Max.	--	7.5%	--	--
Milk solids, (m/m)	Min.	25%	20%	20%	27%
	Max.	--	--	-	--
Milk protein in milk solids not fat, min. (m/m)		34%	34%	34%	34%

3. Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	Evaporated milk	Evaporated partly skimmed milk	Evaporated skimmed milk	Evaporated high fat milk
Stabilizers	√	√	√	√
Emulsifiers	√	√	√	√
Thickeners	√	√	√	√
Acidity regulators	X	X	X	X

√ The use of additives belonging to the class is technologically justified.

X The use of additives belonging to the class is not technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 should be used.

4 Contaminants, Toxins and Residues.-

The Product shall comply with the limits stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues), Regulations, 2011.

5 Hygiene.-

A The product shall be prepared and handled in accordance with the guidance provided in the Schedule 4, Part II & III of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standard Act, 2006.

B The Product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 (34 of 2006).

6 Labelling.-

6.1 According to the definitions in sub-regulation 1.0 and composition in Sub-regulation 2.3, the name of the food shall be:

A. Evaporated milk, or
B. Evaporated partly skimmed milk, or
C. Evaporated skimmed milk, or
D. Evaporated high fat milk, and
as appropriate:

Provided that the "Evaporated partly skimmed milk" may be designated "Evaporated semi-skimmed milk" provided the content of milk fat is between 4.0 - 4.5 % (m/m) and minimum milk solids is 24% (m/m).

6.2 For the products covered by sub-regulation 1.0, the equivalent amount of milk and its type shall always be declared on the label, as appropriate, as follows or as permitted under the food regulations:

6.2.1 In the case of evaporated milk:

EVAPORATED MILK *This package contains the equivalent of (x)..... litres of toned milk having..... per cent milk fat*

6.2.2 In the case of evaporated partly skimmed milk:

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

6.2.3 In the case of evaporated skimmed milk:

EVAPORATED SKIMMED MILK *This package contains the equivalent of (x)..... litres of skimmed milk having..... per cent milk fat.*

6.2.4 In the case of evaporated high fat milk:

EVAPORATED HIGH FAT MILK *This package contains the equivalent of (x)..... litres of milk having..... per cent milk fat.*

Note: The declaration in the sub-regulation 6.2.1 to 6.2.4 shall in each case be completed by *inserting* at (x) the appropriate number in words and in figures, for example, "one and a half (1½)", any fraction being expressed as [eight] quarters or a half, as the case may be.

6.3 In the case of evaporated milks which have been sterilized by Ultra High Temperature treatment, the following declaration shall be made on the label:

This has been sterilized by UHT Process

6.4 The labelling provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011, shall also apply to the pre-packaged product.

7 Method of Sampling and Analysis

As provided in the Food Safety Standards Authority India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.5 Standard for Sweetened Condensed Milk

This Standard applies to sweetened condensed milks as defined in Sub-Regulation 1 of this Standard. *

1. Description

Sweetened Condensed Milk means the product obtained by partial removal of water from milk with the addition of sugar or a combination of sucrose with other sugars, or by any other process which leads to a product of the same composition and characteristics. The fat or protein content of the milk may be adjusted, only to comply with the compositional requirements in Sub-regulation 2 of this Standard, by addition or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted.

2. Essential Composition and Quality Factors.-

* This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk/ milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

2.1 Raw materials.-

Milk and milk powders, cream and cream powders, milkfat products.

The following milk products are allowed for protein adjustment purposes:

- Milk retentate: Milk retentate is the product obtained by concentrating milk protein by processes like ultrafiltration of milk, partly skimmed milk, or skimmed milk;
- Milk permeate: Milk permeate is the product obtained by removing milk proteins and milk fat from milk, partly skimmed milk, or skimmed milk by processes like ultrafiltration; and
- Lactose (also for seeding purposes).

2.2 Permitted ingredients.-

- Potable water;
- Sugar (In this product, sugar is generally considered to be sucrose, but a combination of sucrose with other sugars, consistent with Good Manufacturing Practice, may be used); and
- Sodium chloride.

2.3 Composition.-

Parameter		**Sweetened condensed milk**	**Sweetened condensed partly skimmed milk**	**Sweetened condensed skimmed milk**	**Sweetened condensed high fat milk**
Milk fat, % (m/m)	Min.	8	1	--	16
	Max.	--	Less than 8	1	--
Milk solids, min. %, (m/m)		28	24	24	--
Milk solid not fat, min. %, (m/m)		-	20	-	14
Milk protein in milk solids not fat, min. % (m/m)		34	34	34	34

3 Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	**Sweetened condensed milk**	**Sweetened condensed partly skimmed milk**	**Sweetened condensed skimmed milk**	**Sweetened condensed high fat milk**
Stabilizers	√	√	√	√
Emulsifiers	√	√	√	√

√ The use of additives belonging to the class is technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 shall be used.

4 Contaminants, Toxins and Residues.-

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

5 Hygiene.-

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

The Product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulation, 2011.

6 Labelling

6.1 According to the definitions in sub-regulation 2.0 and composition in Sub-regulation 2.3, the name of the food shall be:
Sweetened condensed milk, or
Sweetened condensed partly skimmed milk, or
Sweetened condensed skimmed milk, or
Sweetened condensed high fat milk, as appropriate.

Provided that the "Sweetened condensed partly skimmed milk" may be designated "Sweetened condensed semi-skimmed milk" provided if the content of milkfat is between 4.0 - 4.5 % (m/m) and minimum milk solids is 28 % (m/m).

6.2 The equivalent amount of milk and its type shall always be declared on the label, as appropriate, as follows:

6.2.1 In the case of sweetened condensed milk:

SWEETENED CONDENSED MILK This package contains the equivalent of (x)..... litres of toned milk with added sugar.

6.2.2 In the case of sweetened condensed partly skimmed milk:

SWEETENED CONDENSED PARTLY SKIMMED MILK This package contains the equivalent of (x)..... litres of partly skimmed milk having..... per cent milk fat with added sugar.

6.2.3 In the case of sweetened condensed skimmed milk:

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

6.2.4 In the case of sweetened condensed high fat milk:

SWEETENED CONDENSED HIGH FAT MILK *This package contains the equivalent of (x)..... litres of milk having..... per cent milk fat with added sugar*

The declaration in the sub regulation 6.2.1 to 6.2.4 shall in each case be completed by inserting at (x) the appropriate number in words and in figures, for example, "one and a half (1½)", any fraction being expressed as [eight] quarters or a half, as the case may be.

NOT TO BE USED FOR INFANTS BELOW SIX MONTHS.

6.4 Sweetened condensed milks which are not suitable for infant feeding shall not contain any instruction of modifying them for infant feeding.

6.5 The labelling provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011 shall apply.

7. Method of Sampling and Analysis

As provided in the Food Safety and Standards Authority of India Manual of Method of Analysis of Food 2014- Milk and Milk Products.

2.1.6 Standard for *Khoya*

This Standard applies to Khoya as defined in sub-regulation 1 of this Standard. *

1. Definitions.-

1.1 *Khoya* by a whatever names it is sold such as *Khoa* or *Mawa* or any other region specific popular name means the product obtained by partial removal of water from any variant of milk† with or without added milk solids by heating under controlled conditions.

2. Essential Composition and Quality Factors:

2.1 **Raw materials**

* This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk or milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

Milk and milk powders, cream and cream powder and milk fat products.

2.2 **Composition.-**

Parameter	*Khoya*
Total solids % (m/m),	55
Milk fat, % (m/m), minimum dry weight basis	37
Total ash% (m/m), maximum	6
Titratable acidity as (%lactic acid), maximum	0.9 %

It shall be free from added starch and added sugar.

The extracted fat from khoya shall meet the standards for Reichert Meissl value, Polenske value and Butyro-refractometer reading as prescribed for Ghee.

3. Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	*Khoya*
Acidity regulators	√
Preservatives	√

√ The use of additives belonging to the class is technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 should be used.

4. Contaminants.-

The Product shall comply with the limits stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues), Regulations, 2011.

5. Hygiene

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

The Product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011.

6. Labelling.-

6.1 The name of the food shall be '*Khoya'* 'Khoa' or '*Mawa'* .
6.2 The labelling provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011 shall apply.

7. Method of Sampling and Analysis As provided in the Food Safety and Standards Authority of India Manual of Method of Analysis of Food 2014- Milk and Milk Products.

2.1.7 Standard for Cream and *Malai.-*

This Standard applies to Cream and *Malai* as defined in sub regulation 1 of this Standard. *

1. Description.-

1.1 "Cream" means the fluid (capable of pouring at temperatures above freezing) product comparatively rich in fat, in the form of an emulsion of fat-in-skimmed milk, obtained by physical separation from milk of cow or buffalo milk or a combination thereof.

1.2 "Reconstituted cream" is cream obtained by reconstituting milk products with or without the addition of potable water and with the same end product characteristics as the product described in sub regulation 2.1.

1.3 "Recombined cream" is cream obtained by recombining milk products with or without the addition of potable water and with the same end product characteristics as the product described in sub regulation 2.1.

1.4 "Prepared creams" are the milk products obtained by subjecting cream, reconstituted cream or recombined cream or any combination of these, to suitable treatments and processes to obtain the characteristic properties as specified below.

1.4.1 "**Prepackaged liquid cream"** is the fluid (capable of pouring at temperatures above freezing) milk product obtained by preparing and packaging cream, reconstituted cream or recombined cream, or any combination of these for direct consumption or for direct use as such.

1.4.2 "**Whipping cream"** is the fluid (capable of pouring at temperatures above freezing) cream, reconstituted cream and recombined cream or any combination of these, that is intended for whipping. When cream is intended for use by the final consumer the cream should have been prepared in a way that facilitates the whipping process.

1.4.3 "**Cream packed under pressure"** is the fluid (capable of pouring at temperatures above freezing) cream, reconstituted cream and recombined

Note * This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk/ milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

cream or any combination of these that is packed with a propellant gas in a pressure-propulsion container and which becomes Whipped Cream when removed from that container.

1.4.4 "**Whipped cream"** is the fluid (capable of pouring at temperatures above freezing) cream, reconstituted cream or recombined cream in to which air or inert gas has been incorporated without reversing the fat-in-skimmed milk emulsion.

1.4.5 **Fermented cream** is the milk product obtained by fermentation of cream, reconstituted cream or recombined cream, by the action of suitable micro-organisms that results in reduction of pH with or without coagulation. Where the content of (a) specific microorganism(s) is(are) indicated, directly or indirectly, in the labeling or otherwise indicated by content claims in connection with sale, these shall be present, viable, active and abundant in the product to the date of minimum durability. If the product is heat treated after fermentation the requirement for viable micro-organisms does not apply.

1.4.6 "**Acidified cream"** is the milk product obtained by acidifying cream, reconstituted cream or recombined cream, or any combination of these, by the action of acidity regulators, or both to achieve a reduction of pH with or without coagulation.

1.5 "***Malai"*** means the product rich in milk fat prepared by boiling and cooling cow or buffalo milk or a combination thereof. It is characterized by presence of insoluble mass, principally fat and denatured protein, formed on heating and cooling of milk.

2. Essential Composition and Quality Factors

2.1 Raw Material:-

All creams, prepared creams and malai:

- Milk, which may have been subjected to mechanical and physical treatments prior to cream processing.

- *Additionally, for creams made by reconstitution or recombination:*
  Butter, milk fat products, milk powders, cream powders, and potable water. The milk product should conform to the relevant Food Safety Standards or Regulations.

- *Additionally, for prepared creams described in sub regulation 1.4.2 through to Sub-regulation 1.4.6:*

The product that remains after the removal of milk fat by churning milk and cream to manufacture butter and milk fat products (often referred to as buttermilk) and that may have been concentrated or dried.

2.2 Permitted ingredients

Only those ingredients listed below may be used for the purposes and product categories specified, and only within the limitations specified. The product shall be free from any ingredient foreign to milk except otherwise provided in this standard.

For use in products only for which stabilizers or thickeners, or both, are justified (see table in Sub Regulation 3):

– Products derived exclusively from milk or whey and containing 35% (m/m) or more of milk protein of any type (including casein and whey protein products and concentrates and any combinations thereof) and milk powders: These products can be used in the same function as thickeners and stabilizers, provided they are added only in amounts functionally necessary not exceeding 20 g/kg, taking into account any use of the stabilizers and thickeners permitted as per the Food Safety and Standards (Food Products Standards and Food Additives), Regulation, 2011.

Additionally, for use in fermented cream, only:

– Starter cultures of harmless micro-organisms.

Additionally, for use in fermented cream and acidified cream, only:

– Non-animal rennet and other safe and suitable coagulating enzymes to improve texture without achieving enzymatic coagulation.
– Sodium chloride.

2.3 Composition.-

The product shall contain minimum 20 percent (m/m) milk fat Acidity of the finished products , other than fermented and acidified creams, should not be more than 0.15 % (as lactic acid),

3. Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	**Pre-packaged Liquid Cream (2.2.1)**	**Whipping Cream (2.2.2)**	**Cream Packed Under Pressure (2.2.3)**	**Whipped Cream (2.2.4)**	**Fermented Cream (2.2.5)**	**Acidified Cream (2.2.6)**	***Malai* (2.3)**	***Cream (Plain) and Pasteurized cream (plain)***
Stabilizers*	√	√	√	√	√	√	X	X
Acidity regulators*	√	√	√	√	√	√	X	X
Thickeners and Emulsifiers *	√	√	√	√	√	√	X	X
Packaging gases and Propellants	X	X	√	√	X	X	X	X

√ The use of additives belonging to the class is technologically justified.

X The use of additives belonging to the class is not technologically justified.

* These additives may be used when needed to ensure product stability and integrity of the emulsion, taking into consideration the fat content and durability of the product. With regard to the durability, special consideration should be given to the level of heat treatment applied since some minimally pasteurized products do not require the use of certain additives.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 should be used.

4. Contaminants, Toxins and Residues.-

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

5. Hygiene.-

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

The Product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives), Regulation, 2011.

6. Labelling.-

6.1 The name of the food shall be as specified in sub regulation 2 of this Standard, as appropriate. However, "prepackaged liquid cream" may be designated as "cream" and "cream packed under pressure" may be designated by another descriptive term that refers to its nature or intended use or as "Whipped Cream". The term "prepared cream" should not apply as a designation. The type of cream and the fat content in cream shall be always indicated on the label or in case of non-prepackaged product, such declaration to be given on the container from which product will be offered for sale to the consumer. Creams which have been manufactured by the recombination or reconstitution of dairy ingredients shall be qualified with the term "Recombined" or "Reconstituted" as appropriate.

6.2 Labels on packages of fermented creams may include reference to the starter culture used for fermentation.

6.3 The heat treatment, as per the General Standards for Milk and Milk Products, to which product has been subjected to, shall be declared on the label.

6.4 If the product conforms to the description in sub regulation 2.3, the name of the product shall be '*Malai'.*

6.5 The provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011, shall also apply to the pre-packaged product.

7. **Method of Sampling and Analysis.-** As provided in the FSSAI Manual of Method of Analysis of Food 2014- Milk and Milk Products.

2.1.8 Standard for MilkFat Products.-

This Standard applies to milkfats including Anhydrous Milk Fat, Anhydrous Butter Oil, Butter Oil and Ghee as defined in sub-regulation 1 of this standard*.

1. Definitions

Milkfat, *Ghee,* Butter Oil, Anhydrous Milk Fat and Anhydrous Butter Oil are fatty products derived exclusively from milk and or or products obtained from milk, or both, by means of processes which result in almost total removal of water and milk solids- not- fat.

Ghee has especially developed flavour and physical structure as a result of its method of manufacturing.

2. Essential Composition and Quality Factors

2.1 Raw Material

Milk and products obtained from milk. The raw material used shall be free from added flavour, colour or preservative.

2.2 Composition

2.2.1 **Milk Fat, Butter Oil, Anhydrous Milk Fat, Anhydrous Butter Oil and Ghee**
The standards of quality of Milk Fat, Butter Oil, Anhydrous Milk Fat, Anhydrous Butter Oil and Ghee shall conform to the following:

Parameter	**Milk Fat, Butter Oil**	**Anhydrous Milk Fat, Anhydrous Butter Oil**	**Ghee**
Moisture, maximum, m/m, %	0.4	0.1	0.4
Milk fat, minimum, m/m, %	99.6	99.8	99.6
Butyro-refractometer Reading at 40 ^{0}C	40 to 44	40 to 44	As per table below (3.2.2)
Reichert Meissl Value, minimum	28	28	
Polenske Value	1-2	1-2	
FFA as Oleic Acid, maximum, %	0.4	0.3	3.0
Peroxide Value (Milli-equivalent of Oxygen/Kg fat),	0.6	0.3	0.6

Note * This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk or milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

Parameter	Milk Fat, Butter Oil	Anhydrous Milk Fat, Anhydrous Butter Oil	Ghee
maximum			
Baudouin Test	Negative	Negative	Negative

It shall be free from animal body fat, vegetable oil and fat, mineral oil, added colour, flavour, preservatives and any other substance foreign to milk.

2.2.2 ***Ghee.-***

The Butyro- refractometer reading and Reichert Meissl value of ghee produced in a State or Union Territory specified in column 1 of the Table below shall be as specified against the said State or Union Territory in the corresponding Columns 2 and 3, of the said Table.

Name of State or Union Territory	Butyro- refractometer reading at 40 ^{0}C	Minimum Reichert Meissl value	Minimum Polenske Value
(1)	**(2)**	**(3)**	**(4)**
Andhra Pradesh/ Telangana	40 to 43	24	1-2
Andaman and Nicobar Islands.	41 to 44	24	1-2
Arunachal Pradesh.	40 to 43	26	1-2
Assam.	40 to 43	26	1-2
Bihar.	40 to 43	28	1-2
Chandigarh.	40 to 43	28	1-2
Chattisgarh.	40 to 44	26	1-2
Dadra and Nagar Haveli	40 to 43	24	1-2
Delhi.	40 to 43	28	1-2
Goa.	40 to 43	26	1-2
Daman and Diu.	40 to 43.5	24	1-2
Gujarat (a) Areas other than cotton tract areas.	40 to 43.5	24	1-2 0.5-1.0

Name of State or Union Territory	Butyro- refractometer reading at 40 ^{0}C	Minimum Reichert Meissl value	Minimum Polenske Value
(1)	**(2)**	**(3)**	**(4)**
(b) Cotton tract areas.	41.5 to 45	21	
Haryana (a) Areas other than cotton tract areas. (b) Cotton tract areas.	 40 to 43 40 to 43	 28 26	 1-2 0.5-1.0
Himachal Pradesh.	40 to 43	26	1-2
Jammu & Kashmir.	40 to 43	26	1-2
Jharkhand.	40 to 43	28	1-2
Karnataka- (a) Areas other than Belgaum district (b) Belgaum district	 40 to 43 40 to 44	 24 26	 1-2 1-2
Kerela.	40 to 43	26	1-2
Lakshwadeep.	40 to 43	26	1-2
Madhya Pradesh- (a) Areas other than cotton tract areas. (b) Cotton tract areas.	 40 to 44 41.5 to 45	 26 21	 1-2 0.5-1.2
Maharashtra- (a) Areas other than cotton tract areas. (b) Cotton tract areas.	 40 to 43 41.5 to 45	 26 21	1-2 0.5-1.2
Manipur.	40 to 43	26	1-2
Meghalya.	40 to 43	26	1-2
Mizoram.	40 to 43	26	1-2
Nagaland.	40 to 43	26	1-2
Odisha.	40 to 43	26	1-2

Name of State or Union Territory	Butyro- refractometer reading at 40 ^{0}C	Minimum Reichert Meissl value	Minimum Polenske Value
(1)	(2)	(3)	(4)
Pudducherry.	40 to 44	26	1-2
Punjab.	40 to 43	28	1-2
Rajasthan- a) Areas other than Jodhpur District. b) Jodhpur district.	 40 to 43 41.5 to 45	 26 21	 1-2
Tamil Nadu.	41 to 44	24	1-2
Tripura.	40 to 43	26	1-2
Uttar Pradesh.	40 to 43	26	1-2
Uttarakhand.	40 to 43	26	1-2
West Bengal- a) Areas other than Bishnupur sub division. b) Bishnupur sub division.	 40 to 43 41.5 to 45	 28 21	 1-2 1-2
Sikkim.	40 to 43	28	1-2

Note: 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.

3. Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	*Ghee*	Milk Fat or Butter Oil Anhydrous Milk Fat or Anhydrous Butter Oil
Antioxidant	√	√
Antioxidant synergist	X	√

√ The use of additives belonging to the class is technologically justified.

X The use of additives belonging to the class is not technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 shall be used.

4 Contaminants, Toxins and Residues.-

The product shall comply with the limits stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues), Regulations, 2011.

5 Hygiene.-

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

6 Labelling.-

The provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011, shall apply.

7 Method of Sampling and Analysis.-

As provided in the Food Safety and Standards Authority of India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.9 Standard for Butter

This Standard applies to Butter as defined in Sub-Regulation 2 of this Standard. *

1. Definition

"Butter" means the fatty product principally in the form of an emulsion of the type water-in-oil derived exclusively from milk or milk fat products, or both, which have been suitably pasteurised to ensure microbial safety.

2. Raw Material, Ingredients and Composition

2.1 Raw material

Milk and milk fat based products.

2.2 Permitted ingredients.-

- Sodium chloride and food grade salt *(only in Table butter)*
- Starter cultures of harmless lactic acid and flavour producing bacteria
- Potable water

Note* This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk/ milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

2.3 Composition

Parameter	Table butter	White butter
Moisture, maximum, % (m/m)	16	--
Milk fat, minimum, % (m/m)	80	76
Milk solids not fat, maximum, % (m/m)	1.5	--
Common salt, maximum, % (m/m)	3.0	--

Note: Where butter is sold or offered for sale without any indication as to whether it is table or white butter, the standards of table butter shall apply.

It shall be free from animal body fat, vegetable oil and fat, mineral oil and added flavour.

3. Food Additives.-

4.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	Table butter	White butter
Acidity regulators	√	√
Colours	√	X

√ The use of additives belonging to the class is technologically justified.

X The use of additives belonging to the class is not technologically justified.

4.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 should be used.

4. Contaminants.-

The milk used in manufacture of the products covered by this standard, and the product, shall comply with the limits for contaminants, toxins and residues stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues), Regulations, 2011.

5. Hygiene.-

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

The product shall conform to the microbiological requirement given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives), Regulation, 2011.

6. Labelling.-

6.1 The name of the product shall be "Pasteurized Table butter" or "Pasteurised White butter", as appropriate, in conformance to the composition specified in sub-regulation 3.3.

6.2 The provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011 shall apply.

7. Method of Sampling And Analysis.-

As provided in the Food Safety and Standards Authority of India Manual of Method of Analysis of Food 2014- Milk and Milk Products.

2.1.10 Standard for Milk Powders and Cream Powder.-

This Standard applies to cream powder and milk powders as defined in Sub-regulation 1 of this Standard. *

1. Definition.-

Milk powders and cream powder are milk products which can be obtained by partial removal of water from milk or cream. The fat or protein content, or both, of the milk or cream may be adjusted, only to comply with the compositional requirements in sub-regulation 2 of this Standard, by addition or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk or cream being adjusted. Product shall be free from whey and whey preparations.

2. Essential Composition and Quality Factors.-

2.1 Raw materials-

Milk and cream.-

The following milk products are allowed for protein adjustment purposes:

- Milk retentate: Milk retentate is the product obtained by concentrating milk protein by ultrafiltration of milk, partly skimmed milk, or skimmed milk;
- Milk permeate: Milk permeate is the product obtained by removing milk proteins and milkfat from milk, partly skimmed milk, or skimmed milk by ultrafiltration.

2.2 Composition.-

The product shall conform to the compositional specifications provided in the table below:

Note* This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk/ milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

Parameter		Whole Milk Powder	Partly Skimmed Milk Powder	Skimmed Milk Powder	Cream Powder
Moisture*, maximum, % (m/m)		5	5	5	5
Milk fat, % (m/m)	Minimum	26	1.5	--	42
	Maximum	--	26	1.5	--
Milk protein in milk solids not fat, minimum, % (m/m)		34	34	34	34
Titrable acidity, maximum (ml 0.1 NaOH for 10 gm solids not fat)		18	18	18	--
Insolubility Index, maximum, ml		1	1	1	--
Total ash, maximum (on dry weight basis)		7.3	8.2	8.2	--
Scorched particles		Disc B	Disc B	Disc B	Disc B

* The moisture content does not include water of crystallization of the lactose; the milk solids- not- fat content includes water of crystallization of the lactose.

It shall be free from vegetable oilor fat, mineral oil, thickening agents, added flavour and sweetening agents.

3. Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	Whole Milk Powder	Partly Skimmed Milk Powder	Skimmed Milk Powder	Cream Powder
Stabilizers	√	√	√	√
Emulsifiers	√	√	√	√
Antioxidants	√	√	X	√

√ The use of additives belonging to the class is technologically justified.

X The use of additives belonging to the class is not technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 should be used.

4. Contaminants.-

The product shall comply with the limits stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011.

5. Hygiene.-

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

The Product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

6. Labelling.-

6.1 According to the composition in sub regulation 2.2, the name of the food shall be:
Whole milk powder, or
Partly skimmed milk powder, or
Skimmed milk powder, or
Cream powder, as appropriate:

Provided that the "Partly skimmed milk powder" may be designated "Semi-skimmed milk powder" provided if the content of milkfat does not exceed 16% m/m and is not less than 14% m/m.

6.2 The equivalent amount of milk and its type shall always be declared on the label, as appropriate, as follows or as allowed by the State Government:

6.2.1 In the case of [whole] milk powder:

[WHOLE] MILK POWDER This package contains the equivalent of (x)..... litres of toned milk

6.2.2 In the case of partly skimmed milk powder :

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

6.2.3 In the case of skimmed milk powder:

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

6.2.4 In the case of cream powder:

CREAM POWDER This package contains the equivalent of (x)..... litres of cream having..... per cent milk fat]

The declaration in the sub regulation 6.2.1 to 6.2.4 shall in each case be completed by inserting at (x) the appropriate number in words and in figures, for example, "one and a half (1½)", any fraction being expressed as [eight] quarters or a half, as the case may be.

6.3 In the case of milk powders [or cream powder] which contains lecithin, the following declaration shall be made on the label:

[Insert product name here (MILK POWDER or CREAM POWDER)] IN THIS PACKAGE CONTAINS LECITHIN

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

6.5 There shall not be placed on any package containing the product covered under this standard any comment on, explanation of, or reference to either the statement of equivalence, contained in the prescribed declaration or on the words "machine skimmed" or "skimmed" [or "unsuitable for babies"] except instructions as to dilution as follows:

"To make a fluid not below the composition of (here insert type of milk - 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 product".

6.6 The labelling provisions laid down under Food Safety and Standards (Packaging and Labelling) Regulations, 2011 shall apply.

7. Method of Sampling and Analysis

As provided in the Food Safety and Standards Authority of India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.11 Standard for Dairy Whitener

This Standard applies to Dairy Whitener as defined in Sub-regulation 1 of this Standard. *

1. Description:

The product prepared by spray drying of cow milk, buffalo milk or a mixture thereof containing carbohydrates such as sucrose, dextrose and maltodextrin. The fat or

Note * This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk or milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

protein content, or both, of the milk may be adjusted by addition or withdrawal of milk constituents in such a way as not to alter the Whey Protein to Casein ratio of milk.

2. Essential Composition and Quality Factors

The product shall be white or light cream in colour, uniform in composition and free from lumps except those that break up readily under slight pressure and shall be reasonably free from scorched particles. The product shall be free from extraneous matters and added colours.

The flavour of the product before or after reconstitution shall be pleasant and sweet. It shall be free from off flavours. It is recommended that the flavor and taste may be judged on the basis of their sensory characteristics.

Sr. No.	Characteristics	Requirement			
		Skimmed Milk Dairy Whitener	Low Fat Dairy Whitener	Medium Fat Dairy Whitener	High Fat Dairy Whitener
1.	Moisture, % w/w, Max	4.0	4.0	4.0	4.0
2.	Milk Fat, % w/w	Not more than 1.5	More than 1.5- upto 10	More than 10- upto 20	More than 20 upto 26
3.	Milk protein % w/w, Min.	23	21	17	15
4.	Insolubility Index, ml, Max	1.5	1.5	1.5	1.5
5.	Total ash (on dry weight basis) **, % w/w, Max	6.1	6.1	5.3	4.5
6.	Acid Insoluble ash, , % w/w, Max	0.1	0.1	0.1	0.1
7.	***Added sugar (as sucrose), % w/w, Max	24.0	24.0	24.0	24.0
8.	Titratable acidity maximum, % (as lactic acid)	1.5	1.5	1.5	1.2

**Based on 24% sugar in the product. If sugar is replaced with Milk Solid Not Fat i.e. Skimmed Milk Powder, ash content will proportionally increase and may be calculated as follows:

- Calculated Ash Content: prescribed ash content + 8.2/100* (24-sugar % in the product).
- Calculation for protein: Milk Protein % w/w is calculated from the proposed added sugar (as sucrose) i.e. 24 % w/w.

*** Standard of 24% added Sugar shall be reduced to 18% after two years from the date of notification.

It shall also be free from vegetable oil, animal fat, mineral oil, thickening agents.

3. Food Additives

Only those additives permitted for Milk Powder as per Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 shall be used.

4. Hygiene

The products covered by this standard be prepared and handled in accordance with the appropriate provisions of the Schedule 4, Part II and III of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011.

The products covered under this standard shall confirm the Microbiological Requirements as Appendix B: Microbiological requirements for milk and Milk Products of the Food Safety and Standards) Regulations, 2011.

5. Contaminants

The products covered by this standard shall comply with the Maximum Levels for contaminants specified in the Regulation Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011.

6. Labelling

The products covered by this standard shall comply with the Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

7. Method of Sampling and Analysis

As provided in the Food Safety Standards Authority of India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.12 Standard for Whey Powder

This Standard applies to Whey Powders as defined in Section 2 of this Standard.*

1. Definition.-

Whey powders are milk products obtained by drying whey or acid whey.

Note* This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk/ milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

Whey is the fluid milk product obtained during the manufacture of cheese, casein or similar products by separation from the curd after coagulation of milk or of products obtained from milk, or both. Coagulation is obtained through the action of, principally, rennet (non-animal) type enzymes.

Acid whey is the fluid milk product obtained during the manufacture of cheese, casein or similar products by separation from the curd after coagulation of milk and of products obtained from milk. Coagulation is obtained, principally, by acidification.

2. Essential Composition and Quality Factors

2.1 Raw materials:

Whey or acid whey, as appropriate

2.2 Ingredients:

Seed lactose in the manufacture of pre-crystallized whey powder.

2.3 Composition:

Parameter		Whey Powder	Acid Whey Powder
Moisture[a], maximum, % (m/m)		5	4.5
Milk fat, % Maximum (m/m)		2.0	2.0
Milk protein[b], minimum, % (m/m)		10	7
Lactose content[c], as anhydrous lactose, minimum, % (m/m)		61.0	61.0
pH (in 10% solution)	Minimum	5.1[d]	--
	Maximum	--	5.1[e]
Total ash, maximum, % (m/m) (on dry matter basis)		9.5	15.0

Note(s):

(a) The water content does not include water of crystallization of the lactose.

(b) Protein content is 6.38 multiplied by the total Kjeldahl nitrogen determined.

(c) Although the powders may contain both anhydrous lactose and lactose monohydrates, the lactose content is expressed as anhydrous lactose. 100 parts of lactose monohydrate contain 95 parts of anhydrous lactose.

(d) Or titratable acidity (calculated as lactic acid) <0.35%.

(e) Or titratable acidity (calculated as lactic acid) ≥ 0.35%.

3. Food Additives.-

Only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 should be used.

4. Contaminants.-

The product shall comply with the limits stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011.

5. Hygiene.-

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

The product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulation, 2011.

6. Labelling.-

The provisions laid down under Food Safety and Standards (Packaging and Labelling) Regulations, 2011, shall apply.

7. Method of Sampling and Analysis

As provided in the Food Safety Standards Authority of India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.13 Standard for Fermented Milk Products

This Standard applies to fermented milks, including, heat-treated fermented milks, concentrated fermented milks and composite milk products based on these products in conformity with the definitions in sub-regulation 2 of this Standard. *

1. Description

1.1 Fermented Milk is a milk product obtained by fermentation of milk, which may have been manufactured using other raw material permitted, by the action of suitable microorganisms and resulting in lowering of pH with or without coagulation (iso-electric precipitation). Fermented milks may be heat treated after fermentation. The raw material used shall be subjected to a heat treatment as defined in the General Standard for Milk and Milk Products.

Certain fermented milks are characterized by specific starter culture(s) used for fermentation as follows:

Dahi:	Lactic acid bacteria
Yoghurt	Symbiotic cultures of *Streptococcus thermophiles* and *Lactobacillus delbrueckii* sub sp. *bulgaricus*
Alternate Culture Yoghurt	Cultures of *Streptococcus thermophiles* and *Lactobacillus species*
Acidophilus milk	*Lactobacillus acidophilus*.

Other harmless microorganisms than those constituting the specific starter cultures specified above may be added.

Note * This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk or milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

1.2 **Flavoured Fermented Milks** are composite milk products, as defined in the General Standard for Milk and Milk Products obtained from fermented milks and which contain a maximum of 50% (m/m) of permitted non-dairy ingredients and flavours. The non-dairy ingredients can be mixed in prior to or after fermentation:

Provided that flavoured *dahi* shall only be sold in pre-packaged form. Provided further that *dahi* to which only sugar has been added need not be sold in pre-packaged form.

1.3 **Drinks based on Fermented Milk** are composite milk products, as defined in the General Standard for Milk and Milk Products, obtained by mixing fermented milks as described in sub-regulation 2.1 with potable water with or without the addition of whey, other milk and milk products, other permitted non- dairy ingredients, and flavour*s*. Drinks Based on Fermented Milk contain a minimum of 40% (m/m) fermented milk. Other microorganisms than those constituting the specific starter cultures may be added. Drinks based on Fermented Milk include products such as *lassi, chhaas, buttermilk etc.*

1.4 **Concentrated Fermented Milk** is a Fermented milk, the protein of which has been increased prior to or after fermentation.

1.4.1 ***Chakka*** means the concentrated product obtained by (partial) removal of the whey from plain dahi or plain yoghurt. It shall have white to pale yellow colour and uniform semi-solid consistency. It shall not be moldy and shall be free from signs of free fat and water. It shall be smooth and it shall not appear dry. The milk from which dahi or yoghurt for manufacturing chakka is prepared shall be subjected to a heat treatment as defined in the General Standard for Milk and Milk Products.

1.4.2 ***Shrikhand*** means the concentrated composite milk product obtained from chakka, or skimmed milk chakka to which milk fat is added, with addition of sugar. It may also contain permitted non-dairy ingredients.

2. Essential composition and Quality Factors.-

2.1 Raw materials:

- Milk;
- Concentrated milk and dried milk;
- Cream, butter and butter oil;
- Potable water for use in reconstitution or recombination or drinks based on fermented milks.

2.2 Permitted ingredients

- Starter cultures of harmless microorganisms, including those specified in sub-regulation 2.1;
- Other suitable and harmless microorganisms;
- Salt;

- Sugar *(only in Flavoured Fermented Milks, Drinks based on Fermented Milks, Yoghurt, Dahi and Shrikhand)*;
- Nutritive sweeteners other than sugar *(only in Flavoured Fermented Milks, Drinks based on Fermented Milks, Yoghurt and pre-packaged Dahi)*;
- Non-dairy ingredients such as fruits and vegetables and their products thereof such as well as juices, purees, pulps, preparations and preserves derived therefrom, cereals, honey, chocolate, nuts, coffee, spices, condiments and other harmless natural flavouring foods *(only in Flavoured Fermented Milks, Drinks based on Fermented Milks and Shrikhand)*;
- Milk and milk products (*only in Drinks based on Fermented Milks*);
- Starch, only in following:
  - fermented milks heat-treated after fermentation;
  - flavoured fermented milk;
  - drinks based on fermented milk; and:

  provided it is added only in amounts functionally necessary as governed by Good Manufacturing Practice, taking into account any use of the stabilizersor thickeners listed in sub-regulation 3. Starch may be added either before or after adding the non-dairy ingredients.

2.3 Composition:

2.3.1 The starter microorganisms shall be viable, active and abundant in the product upto the date of minimum durability. The sum of microorganisms constituting the starter culture defined in sub-regulation 1.1 shall not be less than 10^7cfu/g. The labelled microorganisms, when specific microorganisms other than those specified in sub-regulation 2.1 are added and a content claim is made on label, shall not be less than 10^6cfu/g.If the product is heat treated after fermentation these requirements for viable microorganisms do not apply.

2.3.2 Fermented milks shall have a minimum milk protein content of 2.9 % (m/m) and minimum titrable acidity of 0.6% (m/m as lactic acid) unless otherwise specified. In case of Flavoured Fermented Milks and drinks based on fermented milks, these specifications apply to the fermented milk part unless otherwise specified.

2.3.3 Plain *dahi* shall have the same minimum percentage of milk fat and milk solids-not-fat as that of the milk, as provided for in the Standard for Milk, from which it is prepared. Where plain *dahi* is sold or offered for sale without any indication of class of milk, the standards prescribed for *dahi* prepared from buffalo milk shall apply.

2.3.4 Yoghurt (including flavoured yoghurt) and flavoured *dahi* shall conform to the following compositional specifications:

Parameter		Yoghurt and flavoured *dahi*	Partly skimmed yoghurt and flavoured partly skimmed *dahi*	Skimmed yoghurt and flavoured skimmed *dahi*
Milk Fat % ,	Minimum	Above 3	0.6	-

m/m	Maximum	15	3	0.5
Milk solids not fat, minimum, % , m/m		8.5	8.5	8.5
Milk protein, minimum, % , m/m		2.9	2.9	2.9
Titratable acidity, % lactic acid, m/m	Minimum	0.6	0.6	0.60
	Maximum			1.2

Note:

1. When sold without any indication, the product shall conform to the standards of 'Yoghurt' or flavoured *dahi,* as appropriate. The term 'flavoured' covers sweetened, flavoured and fruit variants, labelled in accordance with Sub-regulation 7.2. For the use of probiotics in dairy products; the 'Indian Council Medical Research Guidelines for Evaluation of Probiotics in Food' shall be followed.

It shall be free from animal body fat, vegetable oil and fat, mineral oil, added colour, flavour, preservatives and any other substance foreign to milk except for those as provided in Sub-Regulation 2.2.

2.3.5 Chakka shall conform to the following compositional specifications:

Parameter		**Chakka**	**Skimmed Milk Chakka**	**Full Cream Chakka**
1	Total solids, minimum, %, m/m	30	20	28
2	Milk fat, minimum, %, m/m (on dry basis)	33	5*	38
3	Milk protein, minimum, %, m/m (on dry basis)	30	60	30
4	Titratable acidity, maximum, %, m/m (as lactic acid)	2.5	2.5	2.5
5	Total Ash, maximum, %, m/m (on dry basis)	3.5	5	3.5

* Maximum (%, w/w; on dry basis).
Note: When sold without any indication, the product shall conform to the standards of 'Chakka'.

2.3.6 *Shrikhand* shall conform to the following compositional specifications:

Parameter	**Shrikhand**	**Full cream Shrikhand**	**Fruit Shrikhand**
Total solids, minimum, %, m/m	58	58	58
Milk fat, minimum, %, m/m (on dry basis)	8.5	10	7
Milk protein, minimum, %, m/m, (on dry basis)	9	7	9
Titratable acidity, maximum,	1.4	1.4	1.4

% lactic acid, m/m			
Sugar (sucrose), maximum, %, m/m (on dry basis)	72.5	72.5	72.5
Total Ash , maximum, %, m/m (on dry basis)	0.9	0.9	0.9

2.4 Essential manufacturing characteristic: Whey removal after fermentation is not permitted in the manufacture of fermented milks, unless provided otherwise.

3 Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	**Products not heat treated after fermentation**			**Products heat treated after fermentation**		
	All types of plain *dahi* and plain yoghurts	**All types of flavoured *dahi* and flavoured yoghurts**	**All types of *Chakka*, *Shrikhand***	**All types of plain *dahi* and plain yoghurts**	**All types of flavoured *dahi* and flavoured yoghurts**	**All types of *Chakka*, *Shrikhand***
Thickeners	X	√	**X**	X	√	**X**
Stabilizers	√*	√	X	√*	√	X
Emulsifiers	√*	√	X	√*	√	X
Colours	X	√	√	X	√	√

* Plain yoghurts only

√ The use of additives belonging to the class is technologically justified.

X The use of additives belonging to the class is not technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 should be used.

4. Contaminants, Toxins and Residues

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

5 Hygiene

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

The Product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011.

6. Labelling

6.1 Name of the food

6.1.1 The name of the products covered by sub regulation 1.1 and 1.2 shall be 'Fermented Milk':

Provided that the name 'Fermented Milk' may be replaced with designations *Dahi*, Curd and Yoghurt if the product complies with the relevant provisions of this standard.

The designation 'Yoghurt or *dahi*' may be used in connection with the term "frozen" provided (i) that the product submitted to freezing complies with the requirements in this Standard, (ii) that the specific starter cultures can be reactivated in the specified numbers by thawing, and (iii) that the frozen product is named as such and is sold for direct consumption, only.

6.1.2 Yoghurt or *dahi* containing non-dairy ingredients may be designated as 'Sweetened or Flavoured Yoghurt or *dahi',* as appropriate. Yoghurt or *dahi* containing fruits may be designated as 'Fruit Yoghurt or *dahi*', as appropriate.

The name of the products defined in sub-regulation 1.3 shall be '*Drinks based on Fermented Milk*' or may be designated with other recognized specific names like *lassi, chhaas* etc. When flavoured, the designation shall include the name of the principal flavouring substance(s) or flavour(s) added.

6.1.3 The name of the products covered by sub-regulation 1.4.1 shall be '*Chakka'*.

6.1.4 The name of the products covered by sub-regulation 1.4.2 shall be '*Shrikhand*'.

6.1.5 Products obtained from fermented milk(s) heat treated after fermentation shall be named "Heat Treated _____", the being blank replaced by the term "Fermented Milk" or another permitted designation or name as appropriate.

6.1.6 The designation of Flavoured Fermented Milks shall include the name of the principal flavouring substance(s) or flavour(s) added.

6.1.7 Fermented milks to which only nutritive carbohydrate sweeteners have been added, may be labeled as "sweetened _____", the blank being replaced by the term "Fermented Milk" or another permitted designation or name as appropriate.

6.2 The type of *dahi*, yoghurt, *chakka* or *shrikhand* shall be always declared on the label or otherwise if the product is not prepackaged such declaration to be given on the container from which product will be offered to the consumer.

6.3 When cultures of *Bifidobacterium bifidum* and *Lactobacillus acidophilus* and other cultures of suitable lactic acid producing harmless bacteria are added, a declaration to this effect shall be made on the label or otherwise if the product is not prepackaged.

6.4 The labelling provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011 shall apply.

7 Method of Sampling and Analysis

As provided in the Food Safety Standards Authority India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.14 Standard for Ice Cream, Kulfi, Chocolate Ice Cream, Softy Ice Cream, Milk Ice, Milk Lolly and Dried Ice Cream Mix

This Standard applies to Ice Cream and Kulfi and their variants, milk ice and milk lolly, and dried ice cream mix in cconformity with the definitions in sub-regulation 1 of this Standard.[*]

1. Definition.-

1.1. Ice Cream, Kulfi, Chocolate Ice Cream or Softy Ice Cream (hereafter referred to as the said product) means the product conforming to the composition specified in sub-regulation 2.3.1, obtained by freezing a pasteurized mix prepared from milk or other products derived from milk, or both, with or without addition of nutritive sweeteners and other permitted non-dairy ingredients. The said product may contain incorporated air and shall be frozen hard except in case of softy ice-cream where it can be frozen to a soft consistency.

1.2. Milk Ice or Milk Lolly (hereafter referred to as the said product) means the product conforming to the composition specified in sub-regulation 2.3.2, obtained by freezing a pasteurized mix prepared from milk or other products derived from milk with or without the addition of nutritive sweeteners and other permitted non-dairy ingredients. The said product shall be frozen hard.

1.3. Dried Ice Cream Mix (hereafter referred to as the said product) means the product in a powder form which on addition of prescribed amount of water and freezing shall result in a product similar in characteristics to the respective product described in the sub-regulation 1.1.

2. Essential Composition and Quality Factors

2.1. Raw Material

Milk and milk products.

2.2. Permitted ingredients:

Note [*] This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk or milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

- Sugar and other nutritive sweeteners (e.g. sugar, jaggery, dextrose, fructose, liquid glucose, dried liquid glucose, high maltose corn syrup, honey etc.);
- Potable water;
- Starch, provided it is added only in amounts functionally necessary as governed by Good Manufacturing Practice, taking into account any use of the stabilizers or thickeners listed in sub-regulation 3;
- Other non-dairy ingredients - fruit and fruit products, eggs and egg products, coffee, cocoa, chocolate, condiments, spices, ginger and nuts; bakery products such as cake or cookies as a separate layer or coating.

2.3. Composition:

2.3.1. Ice cream, Kulfi, , Chocolate Ice cream and Softy Ice Cream

Parameter				
		Ice cream or kulfi or chocolate ice cream or softy ice cream	Medium Fat Ice Cream or kulfi or chocolate ice cream or softy ice cream	Low Fat Ice Cream or kulfi or chocolate ice cream or softy ice cream
Total Solids, minimum, %, m/m		36	30	26
Weight minimum, gm/l		525	475	475
Milk Fat	Minimum, %, m/m	10	2.5	-
	Maximum, %, m/m	--	10	2.5
Milk Protein (N X6.38), minimum, %, m/m		3.5	3.5	3

Note(s):

(a) In case where coating, base or layer of non-dairy ingredients forms a separate part of the product, only the Ice Cream portion shall conform to the respective composition.

(b) When any type of ice cream, kulfi, chocolate ice cream or softy ice cream is offered for sale in contravention of the requirements of sub-regulation 6.2, the standards prescribed for the type ice cream, kulfi, chocolate ice cream or softy ice cream as per this sub-regulation shall apply.

2.3.2. Milk Ice or Milk Lolly:

Parameter	Milk ice or Milk lolly
Total Solids, minimum, %, m/m	20
Milk Fat, Maximum, %, m/m	2
Milk Protein (N X6.38), minimum, %, m/m	3.5

Note: In case where base or layer of non-dairy ingredients forms a separate part of the product, only the milk ice or milk lolly portion shall conform to the above composition.

2.3.3. Dried Ice Cream Mix

The said product on addition of water shall give a product conforming to the composition, except the 'weight', as specified in the sub-regulation 2.3.1 for the respective product described in the sub-regulation 1.1. The moisture content of the dried product shall not be more than 4.0 % (m/m).

3. Food Additives.-

3.1. Only those additives classes indicated in the table below may be used for the said product categories specified.

Additive (Functional Class)	All types of Ice cream, Kulfi, Chocolate Ice cream or Softy Ice Cream	Milk Ice or Milk Lolly	Dried Ice Cream Mix
Stabilizers	√	√	√
Emulsifiers	√	√	√
Thickeners	√	√	√
Acidity regulators	√	√	√
Colours	√	√	√
Flavourings	√	√	√
Humectants	√	√	√
Sweetener	√	√	√

√ The use of additives belonging to the class is technologically justified.

3.2. Within each food additive class, the specific food additives permitted in Appendix A, of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 may be used in the products complying with this standard and only within the limits specified.

3.3. The food additive use level specified in Appendix A, of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 shall apply to the product after reconstitution in respect of Dried Ice Cream Mix.

4. Contaminants.-

The said product shall comply with the limits stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues), Regulations, 2011.

5. Hygiene

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

The said product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011.

6. Labelling

6.1 Name of the Food

6.1.1 The name of the product covered by sub-regulation 1.1 shall be 'Ice Cream', 'Kulfi', 'Chocolate Ice Cream' or 'Softy Ice Cream'.

6.1.2 The name of the product covered by sub-regulation 1.2 shall be 'Milk Ice' or 'Milk Lolly'

6.1.3 The name of the product covered by sub-regulation 1.3 shall be 'Dried Ice Cream Mix'.

6.2 The type, as per sub-regulation 2.3.1, of ice cream, kulfi, chocolate ice cream or softy ice cream shall always be indicated on the label of the product. For softy ice cream offered for sale directly from the freezer without prepackaging, the type of product shall be displayed in a manner and at a place that is clearly visible to the consumer.

6.3 Every package of ice cream, kulfi, chocolate ice cream and softy ice cream containing starch shall have a declaration on its label as specified in Food Safety and Standards (Packaging and Labelling) Regulations, 2011, regulation 2.7.1(2).

6.4 In addition, the labelling provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011 shall apply.

7. Method of Sampling and Analysis

As provided in the Food Safety Standards Authority India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.15 Standard for Frozen Desserts or Confections with Added Vegetable Oil or Fat or Vegetable Protein, or both

This Standard applies to Frozen Desserts or Confections in conformity with the definitions in sub regulation 1 of this Standard. *

1. Definition

1.1 Frozen Dessert or Frozen Confection (hereafter referred to as the said product) means the product obtained by freezing a pasteurised mix prepared with edible vegetable oils or fats having a melting point of not more than 37.0 degree C or vegetable protein products, or both. It may also cntain milk fat and milk protein with the addition of nutritive sweeteners and other permitted non-dairy ingredients. The said product may contain incorporated air and may be frozen hard or frozen to a soft consistency.

Note * This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk or milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

1.2 Dried Frozen Dessert Mix or Dried Frozen Confection Mix (hereafter referred to as the said product) means the product in a powder form which on addition of prescribed amount of water and freezing shall give a product similar in characteristics to the product described in sub regulation 1.1.

2 Essential Composition and Quality Factors

2.1 Raw Material:

- Milk and or milk products;
- Vegetable oils or fats;
- Vegetable protein products.

2.2 Permitted ingredients:

- Sugar and other nutritive sweeteners (e.g. sugar, jaggery, dextrose, fructose, liquid glucose, dried liquid glucose, high maltose corn syrup, honey etc.);
- Potable water;
- Starch, provided it is added only in amounts functionally necessary as governed by Good Manufacturing Practice, taking into account any use of the stabilizers or thickeners listed in sub regulation 3;
- Other non-dairy ingredients - fruit and fruit products, eggs and egg products, coffee, cocoa, chocolate, condiments, spices, ginger and nuts; bakery products such as cake or cookies as a separate layer or coating

2.3 Composition:

2.3.1 Frozen Dessert or Frozen Confection

Parameter				
		High fat Frozen Dessert or Frozen Confection	Medium fat Frozen Dessert or Frozen Confection	Low fat Frozen Dessert or Frozen Confection
Total Solids, minimum, %, m/m		36	30	26
Weight minimum, gm/l		525	475	475
Total Fat	Minimum, %, m/m	10	2.5	-
	Maximum, %, m/m		10	2.5
Protein (N X6.25) minimum		3.5	3.5	3

Note(s):

(1) In case where coating, base or layer of non-dairy ingredients forms a separate part of the product, only the Frozen Dessert or Frozen Confection portion shall conform to the respective composition.

(2) When any type of frozen dessert or frozen confection is offered for sale in contravention of the requirements of Sub Regulation 6.2, the standards prescribed for the type frozen dessert or frozen confection as per this section shall apply.

2.3.2 Dried Frozen Dessert Mix or Dried Frozen Confection Mix

The said product on addition of water shall give a product conforming to the composition, except the 'weight', as specified in the sub regulation 2.3.1 for the respective product described in the sub regulation 1.1. The moisture content of the dried product shall not be more than 4.0 % (m/m).

3 Food Additives:

3.1 Only those additives classes indicated in the table below may be used for the said product categories specified:

Additive (Functional Class)	All types of Frozen Dessert or Frozen Confection	Dried Frozen Dessert Mix or Dried Frozen Confection Mix
Stabilizers	√	√
Emulsifiers	√	√
Thickeners	√	√
Acidity regulators	√	√
Colours	√	√
Flavourings	√	√
Humectants	√	√
Sweetener	√	√

√ The use of additives belonging to the class is technologically justified.

3.2 Within each food additive class, the specific food additives listed in Appendix A, the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 may be used in the products complying with this standard and only within the limits specified.

3.3 The food additive use level specified in Appendix A, the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 shall apply to the product after reconstitution in respect of Dried Frozen Dessert Mix or Dried Frozen Confection Mix.

4 Contaminants:

The said product shall comply with the limits stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011.

5 Hygiene

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

The said product shall conform to the microbiological requirements given in Table 2 of Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

6 Labelling

6.1 Name of the food.-

6.1.1 The name of the product covered by sub regulation 1.1 shall be 'Frozen Dessert or Frozen Confection'.

6.1.2 The name of the product covered by sub regulation 1.2 shall be 'Dried Frozen Dessert or Dried Frozen Confection'.

6.2 The type, as per sub regulation 2.3.1, of frozen dessert or frozen confection shall always be indicated on the label of the product. For soft consistency products offered for sale directly from the freezer without any pre-packaging, the type of product shall be displayed in a manner and at a place that is clearly visible to the consumer.

6.3 Every package of Frozen Desert or Frozen Confection, in which Edible Vegetable Oil or Vegetable Fat or Partially Hydrogenated Fat is an ingredient, shall declare the per cent trans fatty acid by weight on the label .

6.4 Every package of Frozen Desert or Frozen Confection shall bear the following label, namely:

Contains …….. Milk Fat* Edible Vegetable Oil* and Vegetable Fat* and Vegetable Protein Product

*strike out whatever is not applicable

6.5 In addition, the labelling provisions laid down under Food Safety and Standards (Packaging and Labelling) Regulations, 2011 shall apply.

7 Method of Sampling and Analysis.- As provided in the FSSAI Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.16 Standard for *Chhana* and *Paneer.-*

This Standard applies to *Chhana* and *Paneer* as defined in sub regulation 1 of this Standard. *

1. Definition.-

Chhana or *Paneer* means the product obtained from any variant of milk†, with or without use of milk solids, which have undergone adequate heat treatment to ensure microbial safety, by precipitation with, lactic acid or citric acid.

2. Essential Composition and Quality Factors.-

2.1 Raw materials:

Milk;
Milk solids;
Lactic acid;
Citric acid;

Note * This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk or milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

† As defined in sub-regulation 1 of the Standard for Milk.

2.2 Composition.-

Parameter	*Chhana or Paneer*	*Low fat Chhana or Paneer*
Moisture, maximum, % (m/m)	70	70
Milk fat, minimum, % (m/m), dry matter basis	50	-
Milk fat, maximum, % (m/m), dry matter basis	-	15

3. Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified.

Additive (Functional Class)	***Chhana or Paneer* and *Low fat Chhana or Paneer***
Acidifying agents	√
Preservatives	√

√ The use of additives belonging to the class is technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 should be used.

4. Contaminants.-

The product shall comply with the limits stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues), Regulations, 2011.

5. Hygiene.-

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

The product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives), Regulation, 2011.

6. Labelling.-

6.1 The name of the product shall be *Chhana, Paneer*, Low Fat *Chhana* or Low Fat *Paneer* depending upon the composition as per the sub regulation 2.2.

6.2 Low Fat *Channa* and Low Fat *Paneer* shall be sold in sealed package only and shall bear the following label declaration:

LOW FAT *PANEER* or LOW FAT *CHHANA*

6.3 Provisions laid down under Food Safety and Standards (Packaging and Labelling) Regulations, 2011, shall apply.

7. Method of Sampling and Analysis.- As provided in the Food Safety Standards Authority India Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.17 Standard for Cheeses and Cheese Products.-

This Standard applies to Cheeses, Processed Cheeses and Processed Cheese Spreads as defined in the sub regulation 1. *

1. Definitions

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

(a) coagulating wholly or partly the protein of milk, skimmed milk, partly skimmed milk, cream, whey cream or buttermilk, or any combination of these materials, through the action of non- animal rennet or other suitable coagulating agents, with or without use of harmless lactic acid bacteria , and by partially draining the whey resulting from the coagulation, while respecting the principle that cheese-making results in a concentration of milk protein (in particular, the casein portion), and that consequently, the protein content of the cheese will be distinctly higher than the protein level of the blend of the above milk materials from which the cheese was made;

(b) processing techniques involving coagulation of the protein of milk or products obtained from milk, or both, which give an end-product with similar physical, chemical and organoleptic characteristics as the product defined under (a).

All cheeses shall be made from pasteurised milk.

(i) **Ripened Cheese** is cheese which is not ready for consumption shortly after manufacture but which must be held for some time at such temperature and under such other conditions as will result in necessary biochemical and physical changes characterizing the cheese in question.

(ii) **Mould Ripened Cheese** is a ripened cheese in which the ripening has been accomplished primarily by the development of characteristic mould growth through the interior and/ or on the surface of the cheese.

(iii) **Unripened Cheese** including fresh cheese is cheese which is ready for consumption shortly after manufacture.

1.1.1 **Extra Hard Grating Cheese** means ripened cheese obtained by coagulating milk with cultures of harmless lactic acid producing bacteria, non-animal

Note* This standard should be read in conjunction with the General Standard for Milk and Milk Products with reference to the generic provisions pertaining to definitions of milk/ milk products and heat treatments, guidelines for use of dairy terms, addition of micronutrients etc.

rennet, or other suitable coagulating enzymes. It may have slightly brittle texture and an extra hard rind which may be coated with vegetable oil, food grade waxes or polyfilm.

1.1.2 **Individual or Named Variety Cheese** is a cheese, as defined above (Sub-Regulation 1.1), that is designated with its well-established unique name as provided below.

(i) **Cheddar Cheese** means ripened hard cheese obtained by coagulating heated or pasteurised milk with cultures of harmless lactic acid producing bacteria, non-animal rennet or other suitable coagulating enzymes. It shall be in the form of hard pressed block with a coating of food grade waxes or wrapping of cloth or polyfilm. It shall have firm, smooth and waxy texture with a pale straw to orange colour without any gas holes.

(ii) **Danbo Cheese** means ripened semi hard cheese obtained by coagulating heated or pasteurised milk with cultures of harmless lactic acid producing bacteria, non-animal rennet or other suitable coagulating enzymes. It shall be smooth in appearance with firm texture and uniform yellow colour and may be coated with food grade waxes or wrapping of cloth or polyfilm.

(iii) **Edam Cheese** means the ripened semi hard cheese obtained by coagulating heated or pasteurised milk with cultures of harmless lactic acid producing bacteria non-animal rennet or other suitable coagulating enzymes. It shall have a firm texture suitable for cutting with a yellowish colour and a hard rind which may be coated with food grade waxes, wrapping of cloth, polyfilm or vegetable oil.

(iv) **Gouda Cheese** means ripened semi hard cheese obtained by coagulating milk with cultures of harmless lactic acid producing bacteria, non-animal rennet or other suitable coagulating enzymes. It shall have firm texture suitable for cutting, straw to yellowish colour and a hard rind which may be coated with food grade waxes, wrapping of cloth, or vegetable oil.

(v) **Havarti Cheese** means ripened semi hard cheese obtained by coagulating milk with cultures of harmless lactic acid producing bacteria, non-animal rennet or other suitable coagulating enzymes. It shall have firm texture suitable for cutting, a light yellow colour and may have a semi soft slightly greasy rind.

(vi) **Tilsiter** means ripened semi hard cheese obtained by coagulating milk with cultures of harmless lactic acid producing bacteria and cultures of *Bacterium linens*, non-animal rennet or other suitable coagulating enzymes. It shall have firm texture suitable for cutting, with an ivory to yellow colour with a firm rind which may show red and yellow smear

producing bacteria or coated with food grade waxes or wrapping of cloth or polyfilm after removal of the smear.

(vii) **Cottage Cheese and Creamed Cottage Cheese** means soft unripened cheese obtained by coagulation of pasteurised skimmed milk with cultures of harmless lactic acid bacteria with or without the addition of non-animal rennet or other suitable coagulating enzymes. Creamed Cottage Cheese is cottage cheese to which a pasteurised creaming mixture of cream, skimmed milk, condensed milk, non-fat dry milk, dry milk protein, Sodium or Potassium or Calcium or Ammonium caseinate is added. It shall have a soft texture with a natural white colour. It may contain spices, condiments, seasonings and fruits pulp.

(viii) **Cream Cheese (Rahmfrischkase)** means soft unripened cheese obtained by coagulation of pasteurised milk and pasteurised cream with cultures of harmless lactic acid producing bacteria with or without the addition of non-animal rennet or other suitable coagulating enzymes. It shall have a soft smooth texture with a white to light cream colour. It may contain spices, condiments, seasonings and fruit pulp.

(ix) **Coulommiers Cheese** means soft unripened cheese obtained by coagulation of milk with cultures of harmless lactic acid producing bacteria and non-animal rennet or other suitable coagulating enzymes and moulds characteristic of the variety. It shall have soft texture and white to cream yellow colour and may show presence of white mould including orange or red spots on the surface.

(x) **Camembert Cheese** means ripened soft cheese obtained by coagulating milk of with cultures of harmless lactic acid producing bacteria and cultures of *Penicillium caseicolum* and *Bacterium linens* non-animal rennet or other suitable coagulating enzymes. It may be in the form of flat cylindrical shaped cheese covered with white mould (*Penicillum caseicolum*) with occasional orange coloured spots (*Bacterium linens*).

(xi) **Brie Cheese** means soft ripened cheese obtained by coagulating milk with cultures of harmless lactic acid producing bacteria and cultures of *Penicillium caseicolum* and *Bacterium linens*, non-animal rennet and other suitable enzymes. It shall be white to creamy yellow in colour with a smooth texture showing presence of white mould (*Penicillium caseicolum*) with occasional orange coloured spots (*Bacterium linens*) on the rind.

(xii) **Saint Paulin** means ripened semi hard cheese obtained by coagulating milk with non-animal rennet, cultures of harmless lactic acid producing bacteria or other suitable enzymes. It shall be white to yellow in colour

with a firm and flexible texture and a hard rind which may be coated with food grade waxes or polyfilm.

(xiii) **Samsoe** means hard ripened cheese obtained by coagulating milk with non-animal rennet and cultures of harmless lactic acid producing bacteria or suitable coagulating enzymes. It shall be yellow in colour with a firm texture suitable for cutting and may have a rind with or without food grade waxes or polyfilm coating.

(xiv) **Emmental or Emmentaler** means hard ripened cheese with round holes obtained by coagulating milk with non-animal rennet, cultures of harmless lactic acid producing bacteria or other suitable coagulating enzymes. It shall have a light Yellow colour and a firm texture suitable for cutting and may have a hard rind.

(xv) **Provolone** means pasta filata cheese obtained by coagulating milk with cultures of harmless lactic acid producing bacteria, non-animal rennet or other suitable coagulating enzymes. It may be smoked. It shall be white to yellow straw in colour with a fibrous or smooth body and rind which may be covered with vegetable fat or oil, food grade waxes or polyfilm.

1.2 **Cheese Products** are the products prepared from cheese(s) with other milk products and may contain permitted non-dairy ingredients.

1.2.1 **Processed Cheese** means the product obtained by grinding, mixing, melting and emulsifying one or more varieties of cheeses with the aid of heat and emulsifying agents and may contain cream, butter, butter oil and other milk products. It may also contain non-dairy ingredients not exceeding one sixth of the weight of the total solids of the final product on dry matter basis.

1.2.2 **Processed Cheese Spread** means the product obtained by grinding, mixing, melting and emulsifying one or more varieties of cheese with emulsifying agents with the aid of heat and may contain cream, butter oil and other dairy products. It may also contain natural carbohydrate sweetening agents and other non-dairy ingredients not exceeding one sixth of the weight of total solids of the final product on dry weight basis.

2. Essential Composition and Quality Factors.-

2.1 Raw materials.-

Milk and products obtained from milk.

2.2 Permitted ingredients.-

- Starter cultures of harmless lactic acid, and flavour producing bacteria and cultures of other harmless microorganisms;
- Safe and suitable enzymes (non-animal origin);

- Sodium chloride;
- Potable water;
- Non-dairy ingredients: Vinegar or acetic acid, spices, condiments and other vegetable seasoning and foods, other than sugars, properly cooked or prepared for flavouring and characterization of the product *(In Cheese Products only;.*
- Natural carbohydrate sweetening agents: Sucrose, dextrose, corn syrup, corn syrup solids, honey, maltose, malt syrup and hydrolysed lactose *(In Processed Cheese Spreads only).*

2.3 Composition.-

Product		**Moisture, Maximum, % (m/m)**	**Milk fat, Minimum, % (dry matter basis)**	**Lactose, Maximum, % (m/m)**
i.	Cheese			
a.	Hard- Pressed Cheese	39	48	--
b.	Semi Hard –Cheese	45	40	--
c.	Semi-Soft Cheese	52	45	--
d.	Soft Cheese	80	20	--
e.	Extra Hard Cheese	36	32	--
f.	Mozzarella Cheese	60	35	--
g.	Pizza Cheese	54	35	--
ii.	Extra Hard Grating Cheese	36	32	--
iii.	Named variety cheeses			
a.	Cheddar	39	48	--
b.	Danbo	39	45	--
c.	Edam	46	40	--
d.	Gouda	43	48	--
e.	Havarti			
	– Havarti	48	45	--
	– 30% Havarti	53	30	--
	– 60% Havarti	60	60	--
f.	Tilsiter			
	– Tilsiter	47	45	--
	– 30% Tilsiter	53	30	--
	– 60% Tilsiter	39	60	--
g.	Cottage Cheese and Creamed Cottage Cheese	80	*	--
h.	Cream cheese	55	70	--
i.	Coulommiers	56	46	
j.	Camembert			
	– 30% Camembert	62	30	--
	– 40% Camembert	56	40	--
	– 45% Camembert	56	45	--
	– 50% Camembert	56	50	--
k.	Brie	56	40	--
l.	Saint Paulin	56	40	--
m.	Samsoe			

Product		Moisture, Maximum, % (m/m)	Milk fat, Minimum, % (dry matter basis)	Lactose, Maximum, % (m/m)
	– Samsoe	44	45	--
	– 30% Samsoe	50	30	--
n.	Emmental	40	45	--
o.	Provolone			
	– Smoked	45	45	--
	– Unsmoked	47	45	--
iv.	Cheese products			
a.	Processed Cheese	47 (50% for chiplets (packed sliced processed cheese), when sold in a package other than tin	40	5
b.	Processed Cheese Spread	60	40	5

* Milk fat, Minimum 4% (m/m) for creamed cottage cheese.

Cheeses or Cheese products shall have pleasant taste and free from off flavour and rancidity.

3. Food Additives and Processing Aids.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified:

Additive (Functional Class)	Cheese, including named variety cheeses and Sliced/Cut/ Shredded Cheese	Processed Cheese	Processed Cheese Spreads
Food Additives			
Stabilizers	√	√	√
Emulsifiers	√	√	√
Colours	√	√	√
Acidity Regulators	√	√	√
Preservatives	√	√	√
Anticaking Agents	√	X	X
Flavourings	X	X	√
Processing Aids			
Enzymes	√	√	√

√ The use of additives belonging to the class is technologically justified.

X The use of additives belonging to the class is not technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 should be used.

4. Contaminants.-

The Product shall comply with the limits stipulated under the Food Safety and Standards (Contaminants, Toxins and Residues), Regulations, 2011.

5. Hygiene.-

The product shall be prepared and handled in accordance with the guidance provided in the Schedule 4, Part II & III of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standard Act, 2006.
The product shall conform to the microbiological requirements given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulation, 2011.

6. Labelling.-

6.1 The name of the food shall be cheese. However, the word "cheese" may be omitted in the designation of an individual cheese variety as per the Sub Regulation 1.1.

6.2 Enzymes used from GMO should be labelled.

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

SURFACE TREATED WITH NATAMYCIN

6.4 Every package of Cheese(s), if coated/packed in food grade waxes polyfilm/wrapping of cloth, shall bear the following label, namely,—

REMOVE THE OUTER PACKING BEFORE CONSUMPTION

6.5 The labelling provisions laid down under Food Safety and Standards (Packaging and Labelling), Regulations, 2011 shall apply.

7. Method of Sampling and Analysis.-

As provided in the FSSAI Manual of Method of Analysis of Food (2015)- Milk and Milk Products.

2.1.18 Standard for Edible Casein Products.-

This Standard applies to Edible Casein Products as defined in sub-regulation 1 of this Standard.

1. Description.-

1.1 **Edible Casein** products mean the products obtained by separating, washing and drying the coagulum of skimmed milk or of other products obtained from milk.

1.2 **Edible Acid Casein** means the product obtained by separating, washing and drying the acid precipitated coagulum of skimmed milk or of other products obtained from milk.

1.3 **Edible Rennet Casein** means the product obtained after washing and drying the coagulum remaining after separating the whey from the skimmed milk or of other products obtained from milk, or both, which has been coagulated by non-animal rennet or by other coagulating enzymes.

1.4 **Edible Caseinate** means the dry product obtained by reaction of edible casein or casein curd coagulum with food grade neutralising agents followed by drying.

2. Essential Composition and Quality Factors

2.1 Raw Material

Skimmed milk and of other suitable products obtained from milk.

2.2 Ingredients

- Edible acids;
- Starter cultures of harmless lactic acid producing bacteria;
- Non-animal rennet or other safe and suitable coagulating enzymes;
- Potable water;
- Neutralizing agents.

2.3 Composition:

Parameter		Edible Acid Casein	Edible Rennet Casein	Edible Caseinate
Moisture[a], max. % (m/m)		12	12	8
Milk fat, % max. (m/m)		2	2	2
Milk protein[b], min. % (m/m), dry matter basis		90	84	88
Casein in protein, min. % (m/m)		95	95	95
Lactose[c], max. % (m/m)		1	1	1
Total ash including P_2O_5, % (m/m)	Min.		7.5	--
	Max.	2.5	--	--
Free acid, max. ml of 0.1 N sodium hydroxide per g		0.27	--	--
pH (in 10% solution), Max.		--	--	8

Note(s):

(a) The water content does not include water of crystallization of the lactose.

(b) Protein content is 6.38 multiplied by the total Kjeldahl nitrogen determined.

(c) Although the powders may contain both anhydrous lactose and lactose monohydrates, the lactose content is expressed as anhydrous lactose. 100 parts of lactose monohydrate contain 95 parts of anhydrous lactose.

3. Food Additives.-

3.1 Only those additives classes indicated in the table below may be used for the product categories specified:

Additive (Functional Class)	**Edible Acid Casein**	**Edible Rennet Casein**	**Edible Caseinate**
Stabilizers	√	√	√
Emulsifiers	√	√	√
Acidity Regulator	√	√	√

√ The use of additives belonging to the class is technologically justified.

3.2 Within each additive class, and where permitted according to the table, only those additives permitted as per Food Safety and Standards (Food Products Standards and Food Additives), Regulations, 2011 should be used.

4. Contaminants, Toxins and Residues.-

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

5. Hygiene.-

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

The product shall conform to the microbiological requirement given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulation, 2011.

6. Labelling

6.1 According to the composition in sub-regulation 2.3, the name of the product shall be Edible Acid Casein, Edible Rennet Casein, Edible Caseinate. Edible Caseinate shall be qualified by the name of the cation in the neutralizing agent used.

6.2 The labelling provisions laid down under the Food Safety and Standards (Packaging and Labelling) Regulations, 2011 shall apply.

7. Methods of Sampling and Analysis

As provided in the Food Safety Standards Authority India Manual of Method of Analysis of Food (2015) - Milk and Milk Products.

(d) The sub-regulation 2.1.9 relating to "Food for Infant Nutrition" shall be re-numbered as 2.1.19".

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