

CHAPTER 2 FOOD PRODUCT STANDARDS

2.7. SWEETS & CONFECTIONERY:

2.7.1 Sugar boiled confectionery:

Sugar boiled confectionery whether sold as hard boiled sugar confectionery or pan goods confectionery or toffee or milk toffee or modified toffee or lacto-bon-bon or by any other name shall mean a processed composite food article made from sugar with or without doctoring agents such as cream of tartar by process of boiling whether panned or not. It may contain centre filling, or otherwise, which may be in the form of liquid, semi-solid or solids with or without coating of sugar or chocolate or both. It may also contain any of the following:-

- (i) sweetening agents such as sugar, invert sugar, jaggery, lactose, gur, bura sugar, khandsari, sorbitol, honey, liquid glucose;
- (ii) milk and milk products;
- (iii) edible molasses;
- (iv) malt extracts;
- (v) edible starches;
- (vi) edible oils and fats;
- (vii) edible common salts;
- (viii) fruit and fruit products and nut and nut products;
- (ix) tea extract, coffee extract, chocolate, cocoa;
- (x) vitamins and minerals;
- (xi) shellac (food grade) not exceeding 0.4 per cent by weight bee wax (food grade), paraffin wax (food grade), carnauba wax (food grade), and other food grade wax or any combination thereof;
- (xii) edible desiccated coconut;
- (xiii) spices and condiments and their extracts;
- (xiv) candied peels;
- (xv) enzymes;
- (xvi) permitted stabilizing and emulsifying agents;
- (xvii) edible foodgrains; edible seeds;
- (xviii) baking powder;
- (xix) gulkand, gulabanaafsha, mulathi;
- (xx) puffed rice;

- (xxi) china grass;
- (xxii) eucalyptus oil, camphor, menthol oil crystals, pepper mint oil;
- (xxiii) thymol;
- (xxiv) edible oil seed flour and protein isolates;
- (xxv) gum arabic and other edible gum.

¹⁵[(xxvi) Isomaltulose at 50 per cent. (Max) of the total sugars without adversely affecting the stability of the product]

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

- (i) Ash sulphated (on salt free basis) Not more than 2.5 per cent by weight.

Provided that in case of sugar boiled confectionery where spices are used as centre filling, the ash sulphated shall not be more than 3 per cent by weight.

- (ii) Ash insoluble (in dilute Hydrochloric acid) Not more than 0.2 Per cent by weight.

Provided that in case of sugar boiled confectionery where spices are used as centre filling, the ash insoluble in dilute Hydrochloric acid shall not be more than 0.4 per cent.

Where the sugar boiled confectionery is sold under the name of milk toffee and butter toffee, it shall conform to the following additional requirements as shown against each;

(1) Milk toffee-

- (i) Total protein (N x 6.25) shall not be less than 3 per cent by weight on dry basis.
- (ii) Fat content shall not be less than 4 per cent by weight on dry basis.

(2) Butter toffee- fat content shall not be less than 4 per cent by weight on dry basis.

Provided that it may contain food additives permitted in these regulations including appendix 'A'.

Provided further that if artificial sweetener has been added as provided in Regulation 3.1.3, it shall be declared on the label as provided in regulation 3.1.3, it shall be declared on the label as provided in Regulation 2.4.5 (24,

25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

2.7.2: Lozenges:

Lozenges shall mean confections made mainly out of pulverised sugar, or icing sugar with binding materials such as edible gums, edible gelatine, liquid glucose or dextrin and generally made from cold mixing which does not require primary boiling or cooking of the ingredients. It may contain any of the following:-

- (i) sweetening agents such as dextrose, dextrosemonohydrate, honey, invert sugar, sugar, jaggery, bura sugar, khandsari, sorbitol, liquid glucose;
- (ii) milk and milk products;
- (iii) nuts and nuts products;
- (iv) malt syrup;
- (v) edible starches;
- (vi) edible common salt;
- (vii) ginger powder or extracts;
- (viii) cinnamon powder or extracts;
- (ix) aniseed powder or extracts;
- (x) caraway powder or extracts;
- (xi) cardamom powder or extracts;
- (xii) cocoa powder or extracts;
- (xiii) protein isolates;
- (xiv) coffee-extracts or its flavour;
- (xv) permitted colouring matter;
- (xvi) permitted emulsifying and stabilizing agents
- (xvii) vitamins and minerals;
- ¹⁵[(xviii) Isomaltulose at 50 per cent. (Max) of the total sugars without adversely affecting the stability of the product;]

It shall also conform to the following standards:

(i)	Sucrose content	Not less than 85.0 per cent by weight.
(ii)	Ash Sulphated (salt free basis)	Not more than 3.0 percent by weight
(iii)	Ash insoluble in dilute Hydrochloric acid	Not more than 0.2 per cent by weight

The product may contain food additives permitted in these regulations including Appendix A.

Provided that if artificial sweetener has been added in the product as provided in the regulation 3.1.3, it shall be declared on the label as provided in Regulation 2.4.5 (24, 25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

Provided further that if only permitted artificial sweetener is used in the products as sweetener, the requirement for sucrose prescribed in these standards shall not be applicable to such products.

2.7.3: Chewing gum and bubble gum

Chewing gum and bubble gum shall be prepared from chewing gum base, or bubble gum base, natural or synthetic, non-toxic; cane sugar and liquid glucose (corn syrup).

The following sources of gum base may be used: -

- (1) Babul, Kikar (Gum Arabic)
- (2) Khair
- (3) Jhingan (Jael)
- (4) Ghatti
- (5) Chiku (Sapota)
- (6) Natural rubber latex
- (7) Synthetic rubber latex
- (8) Glycerol ester of wood rosin
- (9) Glycerol ester of gum rosin
- (10) Synthetic resin
- (11) Glycerol ester or partially hydrogenated gum or wood rosin.
- (12) Natural resin
- (13) Polyvinyl acetate
- (14) Agar (food grade)

It may also contain any of the following ingredients, namely: -

- (a) Malt
- (b) Milk powder
- (c) Chocolate

- (d) Coffee
- (e) Gelatin, (food grade)
- (f) Permitted Emulsifiers
- (g) Water, potable
- (h) Nutrients like Vitamins, minerals, proteins
- ¹⁵[(i) Isomaltulose at 50 per cent. (Max) of the total sugars without adversely affecting the stability of the product]

It shall be free from dirt, filth, adulterants and harmful ingredients. it shall also conform to the following standards, namely: -

	<i>Ingredients</i>	<i>Chewing gum</i>	<i>Bubble gum</i>
(i)	Gum	Not less than 12.5 per cent by weight	Not less than 14.0 per cent by weight
(ii)	Moisture	Not more than 3.5 per cent by weight	Not more than 3.5 per cent by weight
(iii)	Sulphated Ash	Not more than 9.5 per cent by weight.	Not more than 11.5 per cent by weight.
(iv)	Acid insoluble ash	Not more than 2.0 per cent by weight.	Not more than 3.5 per cent by weight.
(v)	Reducing sugars (calculated as dextrose)	Not less than 4.5 per cent by weight.	Not less than 5.5 per cent by weight.
(vi)	Sucrose	Not more than 70.0 per cent by weight.	Not more than 60.0 percent by weight.

Provided that it may contain food additives permitted in and these regulations including Appendix A

Provided further, if artificial sweetener has been added as provided in Regulation 3.1.2 (1), it shall be declared on the label as provided in Regulation 2.4.5 (24, 25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

Provided also, that, if only artificial sweetener is added in the product as sweeteners the parameters namely, reducing sugars and sucrose prescribed in the table above shall not be applicable to such product

²⁹[2.7.4 Chocolate

1. Chocolate means a homogeneous product obtained by an adequate process of manufacture from a mixture of one or more of the ingredients, namely, cocoa materials including cocoa beans, cocoa nib, cocoa mass (cocoa liquor/cocoa paste), cocoa press cake and cocoa powder (cocoa fines or cocoa dust), including fat reduced cocoa powder with or without addition of sugars, cocoa butter, milk solids including milk fat. The addition of vegetable fats other than cocoa butter shall not exceed 5 per cent of the finished product, after deduction of the total weight of any other added edible foodstuffs, without reducing the minimum contents of cocoa materials. The nature of the vegetable fats permitted for this purpose is specified in clause (ii) of paragraph 5 of these regulations.

2. The product may contain Isomaltulose at 50 per cent. (Max) of the total sugars without adversely affecting the stability of the product.

3. The material shall be free from rancidity or off odour, insect and fungus infestation, filth, adulterants and any harmful or injurious matter.

4. The chocolate shall be of the following types:

(i) milk chocolate is obtained from one or more of cocoa nib, cocoa mass, cocoa press cake, cocoa powder including low-fat cocoa powder with sugar and milk solids including milk fat and cocoa butter. Milk solids refers to the addition of milk ingredients in their natural proportion except that milk fat may be added or removed;

(ii) milk covering chocolate as defined above, but suitable for covering purposes;

(iii) plain chocolate is obtained from one or more of cocoa nib, cocoa mass, cocoa press cake, cocoa powder including low fat cocoa powder with sugar and cocoa butter. Provided that dark chocolate shall contain, on a dry matter basis, not less than 35 per cent. total cocoa solids, of which not less than 18 per cent. shall be cocoa butter and not less than 14 per cent. fat-free cocoa solids;

(iv) plain covering chocolate is same as plain chocolate but suitable for

covering purposes;

(v) blended chocolate means the blend of milk chocolate and plain chocolate in varying proportions;

(vi) white chocolate is obtained from cocoa butter, milk solids, including milk fat and sugar;

(vii) filled chocolate means a product having an external coating of chocolate with a centre clearly distinct in its composition from the external coating, but does not include flour confectionery, pastry and biscuit products, the coating shall meet the requirements of one or more of the chocolate types specified under paragraph 4 of this standard. The chocolate component of the coating shall not be less than 25 per cent. of the total mass of the finished product; centre filling(s) or component(s) shall comply with the standards specified under these regulations;

(viii) composite chocolate means a product containing at least 60 per cent of chocolate by weight and edible wholesome substances such as fruits, nuts and raisins. It shall contain one or more edible wholesome substances which shall not be less than 10 per cent. of the total mass of finished product;

(ix) praline means a product in a single mouthful size, where the amount of the chocolate component shall not be less than 25 per cent of the total weight of the product; the product shall consist of either filled chocolate or a single or combination of the chocolate specified under paragraph 4 of this standard.

(x) couverture chocolate shall contain, on a dry matter basis, not less than 35 per cent total cocoa solids of which not less than 31 per cent shall be cocoa butter and not less than 2.5 per cent fat-free cocoa solids

Provided that it may contain artificial sweeteners specified in Appendix A appended to these regulations and shall have labelling declarations specified under the Food Safety and Standards (Packaging and labelling) Regulations, 2011.

5. Optional ingredients

(a) In addition to the aforementioned ingredients, the chocolate may contain one or more of the substances given below, namely: -

- I. edible salts;
- II. spices and condiments and their extracts;
- III. vitamins and minerals;
- IV. permitted emulsifying and stabilizing agents;
- V. permitted sequestering and buffering agents;

(b) ⁸¹[Any vegetable fat that are standardized in these regulations may be used, singly or in blends, as cocoa butter equivalent and shall comply with the following standards as in item (I) to (III).]

(I) they are non-lauric vegetable fats, which are rich in symmetrical monounsaturated triglycerides of the type POP (palmitic acid -oleic acid- palmitic acid), POSt (palmitic acid -oleic acid-stearic acid) and StOSt (stearic acid -oleic acid- stearic acid);

(II) they are miscible in any proportion with cocoa butter and are compatible with its physical properties (melting point and crystallization temperature, melting rate, need for tempering phase);

⁸¹[(III) they are obtained by the process of refining and/or fractionation, which excludes enzymatic modification of the triglyceride structure.]

1. Chocolates shall also conform to the following standards namely: -

Sr. No.	Characteristics	Requirements for					
		Milk Chocolate	Milk Covering Chocolate	Plain Chocolate	Plain Covering Chocolate	White Chocolate	Blended chocolate
1	Total Fat (on dry basis) per cent by weight. Not less than	25	25	25	25	25	25

Sr. No.	Characteristics	Requirements for					
		Milk Chocolate	Milk Covering Chocolate	Plain Chocolate	Plain Covering Chocolate	White Chocolate	Blended chocolate
2	Milk fat (on dry basis) Per cent by weight. Not less than	2	2	-	-	2	-
3	Cocoa solids (on Moisture-free and fat free basis) per cent by weight	2.5	2.5	12	12	-	3.0
4	Milk Solids (on Moisture-free and Fat-free Basis) per cent by weight (Minimum)	10.5	10.5	-	-	10.5	1-9 (Range)
5	Acid insoluble ash (on moisture fat and sugar free basis) per cent by weight, Not more than	0.2	0.2	0.2	0.2	0.2	0.2

In case of chocolate which contain vegetable fats other than cocoa butter, it shall have the following label declaration in bold:

⁸¹["CONTAINS COCOA BUTTER EQUIVALENT / VEGETABLE FAT IN ADDITION TO COCOA BUTTER"]]

2.7.5: ICE LOLLIES OR EDIBLE ICES

1. "ICE LOLLIES OR EDIBLE ICES" means the frozen ice produce which may contain sugar, syrup, fruit, fruit juices,⁴⁹[spices and condiments], cocoa, citric acid, permitted flavours and colours. It may also contain permitted stabilizers and/or emulsifiers not exceeding 0.5 per cent by weight. It shall not contain any artificial sweetner.

Ice Candy means the product obtained by freezing a pasteurized mix prepared from a mixture of water, nutritive sweeteners e.g. sugar, dextrose, liquid glucose, dried liquid glucose, honey, fruits and fruit products, coffee, cocoa, ginger, nuts and salt ⁴⁹[spices and condiments]. The product may contain food additives permitted in these Regulations and Appendices. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirement: -

Total sugars expressed as Sucrose ... Not less than 10.0 percent

¹⁵[The ice lollies or edible ices and ice candy may contain Isomaltulose at 50 per cent. (max) of the total sugars without adversely affecting the stability of the product.]

⁵¹[**2.7.6 Dry Mixtures of Cocoa and Sugars** (1) The standard applies to dry mixtures of cocoa and sugars intended for direct consumption. Dry Mixtures of Cocoa and Sugars is the product obtained from Cocoa Cake transformed into powder.

(2) Essential requirements:

- (a) Moisture Content, per cent. by mass: Not more than 7 per cent.;
- (b) Dry Mixtures of Cocoa and Sugars:

Parameter	Cocoa Butter Content (as a minimum cocoa powder content on a dry matter basis)
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	Level	≥20per cent. m/m	≥10per cent. m/m but < 20per cent. m/m	< 10per cent. m/m
Cocoa powder content in dry mixtures	Not < 25per cent. m/m	Sweetened Cocoa, or Sweetened Cocoa Powder, or Drinking Chocolate	Sweetened Cocoa, Fat-reduced, or Sweetened Cocoa Powder, Fat-reduced, or Fat-Reduced Drinking Chocolate	Sweetened Cocoa, Highly Fat-reduced or Sweetened Cocoa Powder, Highly Fat-reduced or Highly Fat-Reduced Drinking Chocolate
	Not < 20per cent. m/m	Sweetened Cocoa Mix, or Sweetened Mixture with Cocoa	Sweetened Cocoa Mix, Fat-reduced, or Sweetened Mixture with Cocoa, Fat-reduced:	Sweetened Cocoa Mix, Highly Fat-reduced or Sweetened Mixture with Cocoa, Highly Fat-reduced
	< 20per cent. m/m	Sweetened Cocoa-flavoured Mix	Sweetened Cocoa-flavoured Mix, Fat-reduced	Sweetened Cocoa-flavoured Mix, Highly Fat-reduced

(c) Chocolate Powder: Mixture of cocoa powder and sugars and/or sweeteners, containing not less than 32 per cent. wt/wt cocoa powder (29 per cent. wt/wt on a dry matter basis).

(3) Optional Ingredients

(a) Spices

(b) Salt (Sodium chloride)]

⁵⁶[2.7.7: Cocoa Powder

1. Description. - (a) Cocoa powder shall be the material obtained by mechanical transformation into powder form of cocoa press cake or cocoa mass resulting from the partial removal of fat from the ground nib of well-fermented sound roasted beans of *Theobroma cacao* L.

(b) It shall be in the form of powder, having characteristic taste and flavor.

(c) It shall be free from dirt, filth, deleterious substances, adulterant and added colouring matter and shall also be free from rancidity, off-flavour, mould growth and insect infestation.

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

S.No	Characteristics	Requirements (in per cent.)		
		Cocoa Powder	Fat reduced cocoa powder (Medium fat)	Highly Fat reduced cocoa powder (Low fat)
1.	Moisture content by weight	Not more than 7.0	Not more than 7.0	Not more than 7.0
2.	Cocoa butter by weight (on dry basis)	Not less than 20.0	Not less than 10.0-Not more than 20.0	Not more than 10.0
3.	Acid insoluble ash by weight (on moisture and fat-free basis)	Not more than 1.0	Not more than 1.0	Not more than 1.0
4.	Alkalinity of total Ash as K ₂ O by weight (on moisture and fat-free basis)	Not more than 12.0	Not more than 12.0	Not more than 12.0

5.	Crude fibre by weight (on moisture and fat-free basis)	Not more than 7.0	Not more than 7.0	Not more than 7.0
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2.7.8: Cocoa mass or Cocoa/Chocolate Liquor and Cocoa Cake

1. Description. - (a) Cocoa (Cacao) Mass or Cocoa/Chocolate Liquor means product prepared by cocoa beans, the seeds of *Theobroma cacao* by adequate grinding of clean, practically shell free nibs (cotyledons) with or without roasting, and with or without removal or addition of any of its constituents.

(b) Cocoa Cake is the product obtained by partial or complete removal of fat from cocoa nib or cocoa mass.

(c) The products shall have their characteristic colour, odour and flavour and shall be free from any added colouring matter, flavour, or added fats other than Cocoa butter.

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

S.No.	Characteristics		Requirements (in per cent.)	
			Cocoa Mass	Cocoa Cake
1.	Moisture content by weight		Not more than 10.0	Not more than 10.0
2	Cocoa Shell and Germ % by weight	<i>Calculated on the fat free dry matter</i>	Not more than 5.0	Not more than 5.0
		<i>Calculated on an alkali free basis (for cocoa shell only)</i>	Not more than 1.75	Not more than 4.5
3.	Cocoa Butter % by weight		47.0 -60.0	Not applicable
4.	Alkalinity of total Ash as K ₂ O % by weight (on moisture and fat-free basis)		Not more than 12.0	Not more than 12.0

5.	Acid insoluble ash % (on moisture and fat-free basis)	Not more than 1.0	Not more than 1.0
6.	Crude fibre % by weight (on moisture and fat-free basis)	Not more than 7.0	Not more than 7.0]