MINISTRY OF FOOD PROCESSING INDUSTRIES
GOVERNMENT OF INDIA

PMFME
सूक्ष्म उद्यमों का संबल

NIFTEM
THANJAVUR

PM Formalisation of
Micro Food Processing Enterprises Scheme

Processing of Tutti Frutti

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TABLE OF CONTENTS

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CHAPTER 1
INTRODUCTION

1.1 Introduction

Preparation of candy with fruits has been popular these days. Candies, also called as Sweets and Lollies are delicious and delightful. Papayas, Mangoes, Pineapples have often been chosen for the preparation of Candies. Candied papayas are also called “tutti-frutti” in native language.

Fruits that have a rigid tissue structure are candied either whole or in halves. It must be halved or the skin perforated, in order for sugars to penetrate the fruit. For fruits with strong cell structure, such as cherries, papaya, pineapple and preservation must take place in syrups of gradually increasing concentration. This is true for the batch as well as the continuous process. If fruits are immersed in hot 75% concentrated syrup, the osmotic pressure will cause water to pass outward through the cell wall more quickly than the syrup passes inward. The difference of the rates of passage of water and syrup causes the collapse of cell structure and the fruit will become tough and shrivelled.

1.1.1 Market Potential

Candied fruits notably tutti fruitti is quite popular. A number of small scale units manufacture these items and find a ready market at a profitable price. As the consumption of bakery goods is on the increase, the demand for tutti fruitti can also be expected to rise at the same pace. Papaya candy and other fruit candies can find a good market outside India also.

1.2 Papaya

Just like coconut, papaya tree is considered as "Karpaga Viruksha" because, the various parts of the tree are used either for human consumption or for animals or as raw materials for several of the agro - based industries. Papaya not only helps to improve

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the farm income but also serves as a cottage industry. Papaya (Carica papaya) is a tropical fruit having commercial importance because of its high nutritive and medicinal value. Papaya is a power house of nutrients and is available throughout the year. It is a rich source of threes powerful antioxidant vitamin C, vitamin A and vitamin E; the minerals, magnesium and potassium; the B vitamin pantothenic acid and fiber. Handling papaya fruit post harvest is to prepare the fruits for market and also to preserve the fruits quality so it can present on market as it demands.

1.3 Proximate Composition of Unripe Papaya

Chemical Composition	Unripe Papaya
Protein	0.7g
Fat	0.2g
Crude fibre	0.9g
Carbohydrate	5.7g
Energy	27 K Cal
Minerals	0.5g

CHAPTER 2

PREPARATION OF TUTTI FRUTTI

2.1 Preservation

Food preservation has long been an on-going challenge for human with the methods like, drying, salting and fermentation being traditionally done for preservation. The process of impregnation with sugar must not be hurried because otherwise, the fruit would shrivel an unfit for glazing and crystallizing.

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Tutti frutti is a colourful confection containing variously chopped and candied fruits, or an artificially created flavouring simulating the combined flavour of different fruits. Papaya is the second most nutritive food for Mango. Tutti frutti is made from unripe papaya fruit and contains a good amount of sugar. The countries with the largest papaya production are India and Brazil followed by Nigeria, Indonesia, and Mexico. Tutti frutti manufacturing project can be initiated on a small scale basis and it is a profitable investment option for startup entrepreneurs**.**

Tutti frutti is made by impregnating fruits with flavour & taste along with attractive colour. It is useful in the preparation of other food items such as toppings. It provides attractiveness as well as nutritive value to many food items. Mostly used for toppings for bread, ice cream, fruit bar, pulao, cakes, pastries, custard shrikhand and fruit salads, etc. Tutti frutti is a mass consumption added to sweets, paan Masala also.

The FPO specifications for candied fruits having TSS (Total Soluble Solids) value 75%-80% and reducing sugar 25%. Papaya (*Carica papaya***) is a tropical fruit having commercial importance and is famous for its high nutritive and medicinal values. The Candy can be prepared by adjusting the level of different ingredients to obtain the best quality.**

2.2 Quality Specifications for Tutti-frutti

- The moisture content of the product at the time of packing should not exceed 6%
- Mold and fungal growth should be absent. It should also test negative for coliforms, salmonella, and streptococci.
- The manufacturer must obtain a “Fruit Products Order” license to manufacture the product.

2.3 Manufacturing Process

The unripe papaya fruits are peeled and edible portion taken out. These are cured as per requirement of individual commodity. The general process is to slowly impregnate the prepared papaya fruits with sugar by the process of cooking and storage (holding) till the consistency is raised to minimum 68° brix (total soluble solids).

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Preserves are packed along with the syrup. Candied fruits are made, after draining the syrup and drying the pieces from the preserves. Candied fruits are further coated with thin transparent layer of sugar to make glaced crystallised fruits. Preserves are packed in glass bottles and plastic jars. Candy fruits are packed in polyethylene pouches or in tins (lined with polyethylene).

2.3.1 Preparation of the Fruit

All fruit to be processed should be hand picked and not shaken from the tree. To obtain maximum yields of top quality dried product, all fruit should free from bruising. Any rotten or bruised fruit should be thrown away. For maximum profitability, the dryer should be loaded to maximum capacity as often as possible, therefore it is advisable to buy more fruit than is required. Unpeeled fruits should be washed in a mild disinfectant solution made from one part of bleach to 50 parts of water. Care must be taken not to break the skin of the fruits as this will contaminate the flesh. Gloves and aprons must be worn to protect the workers hands and clothes. Ten litres of treated water will be sufficient for about 20kg fruit. The wash water should be changed after this amount has been washed as it becomes contaminated by the fruit. Washed fruits are carefully peeled to remove all the peel and any damaged parts of the flesh. Fruits are cut into slices of varying thickness depending on the type of fruit.

2.3.2 Blanching

This stage is optional, but some processors choose to soak fruits in a salt water prior to drying. There are several benefits of including this process. Fruit pieces are immersed in concentrated salt water for up to 1 hour. They are rinsed in clean water to remove any excess salt water before processing. Most vegetables and some fruits are blanched before drying to inhibit enzyme activity and to help preserve the colour. The material is cut into appropriate sized pieces and plunged into boiling water for up to 5 minutes. They should be blanched in small batches to ensure that each piece is properly heated through. If too many pieces are put into the water at one time, the water temperature will drop and prolong the blanching time. After blanching for the required time, papaya fruits are rapidly cooled by plunging into cold (or iced) water.

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2.3.3 Preparation of Sugar Solution

A weighed amount of sucrose is dissolved in water to make a solution of a known strength. The water must be heated to dissolve all the sugar. For example, to make a 67% sugar solution, 67g of sugar are dissolved in 100ml water. The strength of a sugar solution can be measured using a refractometer, which calculates the total soluble solids as degrees Brix. After the syrup has been used to soak fruit, the strength becomes reduced. It can be made back to the desired concentration by dissolving more sugar. The Pearson Square calculation is useful to determine the amount of sugar to add. The concentration of the sugar solution and the time of soaking are dependent on the material and the desired level of water removal. The following technique has been used successfully with banana, mango and papaya: Fruit pieces are soaked for up to 18 hours in a 67% sucrose solution, which will remove about 40% of the water. The fruit is finally added with flavours and colours depends on the requirement and then it is then ready for drying.

2.3.4 Shade/Tray Drying

Drying Fruit pieces are arranged on mesh-bottom trays so that they are not touching or overlapping. The fruit should be loaded into the trays as soon as it is cut. This prevents the pieces from sticking together and allows the drying process to start as soon as possible. The trays should be brushed clean to remove any old fruit pieces. The trays should be loaded into the dryer as soon as they are ready.

The dryer doors should be closed after each tray is loaded. Direct sunlight should be avoided as this bleaches the colour and reduces the level of vitamins C. The drying temperature should be controlled to avoid over-heating and spoilage of the fruit. Most fruits are dried at about 60-70 deg C. Fruits are dried until they have the desired final moisture content (15% for conventionally dried fruits; 20-25% for osmotically dried (sugar-treated fruits).

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2.3.5 Packaging

Packaging of tutti frutti should be packaged immediately after drying to prevent them absorbing moisture from the surrounding air. After drying, fruits can be packed in bulk in sealed moisture-proof polyethylene bags then packed into smaller packets at a later date.

2.4 Formulation of Ingredients

Ingredients	**Quantity**
Peeled Papaya	57.5 %
Sugar	42 %
Flavours and Colours	As required
Preservative	0.2 % (Citric acid)

2.4.1 Flow chart for Making Tutti-Frutti

Raw and cleaned papaya fruits

Washing

Peeling and pricking

Cutting in to regular cubes

Add common salt in water and soak for 1 hour

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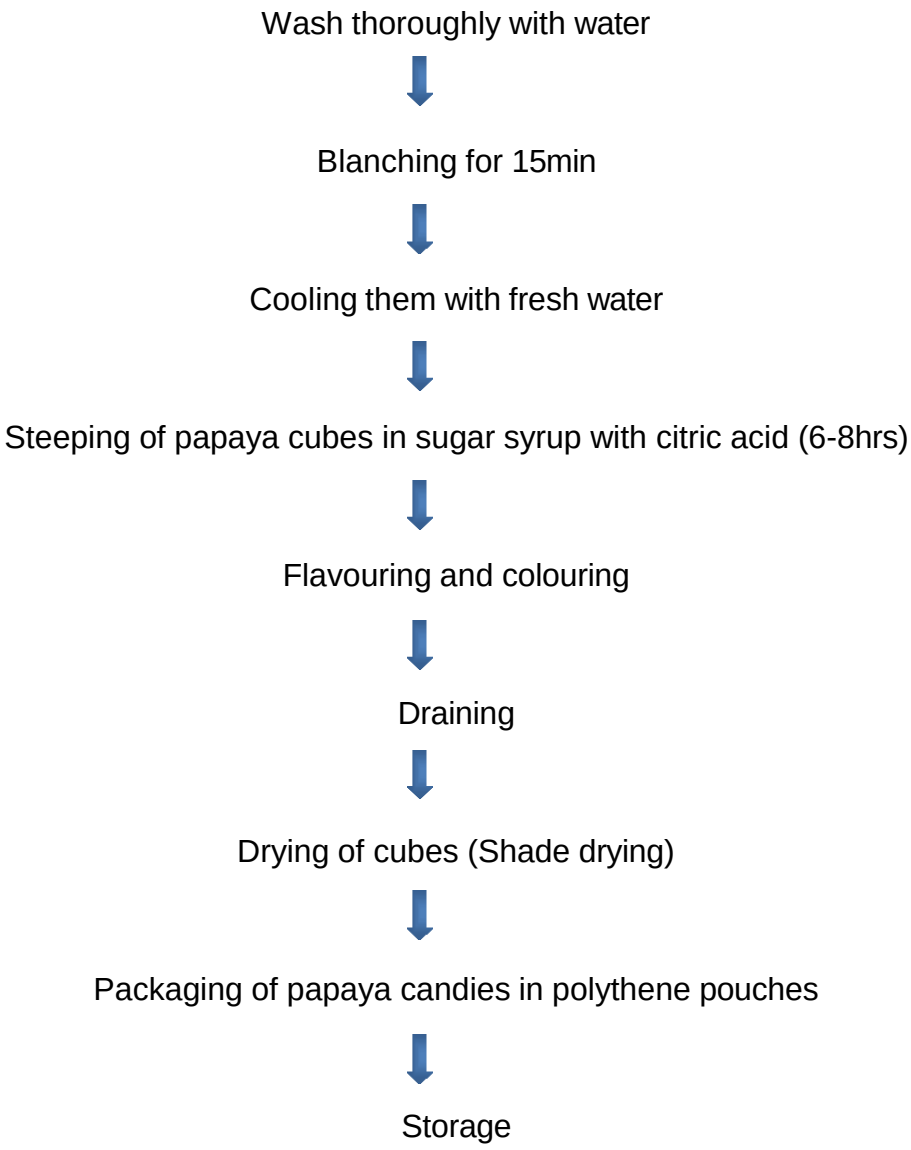

2.5 Role of Ingredients

Fruits candies are made with a combination of sucrose and glucose syrup, whereas sugar-free formulations are made with one or more sugar alcohols. Other ingredients include colours and flavours, with organic acids sometimes added to bring out fruit flavours or to enhance a sour experience. Sometimes fats are added to provide certain flavour characteristics, improve eating quality, and reduce stickiness or tooth compaction.

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2.5.1 Sweeteners

The main ingredients used in sugar-based hard candies are sucrose and glucose syrup, with the ratio chosen based on the desired end product characteristics. Higher glucose syrup levels (50– 60% of the sugar solids; dry basis) prevent sucrose crystallization (graining) during storage, but generally lead to greater stickiness and make candies that are less sweet. Glucose syrup also aids in machinability of the candy mass, making the candy less brittle and easier to work with. This depends to some extent on the type of glucose syrup since, for example, high maltose syrup gives a more brittle candy and reduces machinability. Cost is also a consideration. In the United States, due to government price supports, glucose syrup is less expensive than sucrose; however, this is generally reversed in the world market. The type of glucose syrup used in hard candy varies by manufacturer, although 42 DE glucose syrup is most common. Use of a higher DE syrup would add too much low molecular weight sugars (e.g., glucose), leading to a candy with a lower Tg and a product that is more susceptible to stickiness.

Invert sugar is generally also present in finished candy from hydrolysis of the sucrose at high temperatures during processing. Invert sugar is sometimes added at low levels to the initial formulation to enhance flavor release, control crystallization and increase sweetness. Under certain cooking conditions, glucose and fructose may go through a reversion reaction, where long-chain polymers are formed. These polymers can have significant effect on candy properties. Although commercial hard candies contain a wide range, it is often said that the final DE of the finished candy should be around 16–18% to ensure a good quality, stable hard candy.

2.5.2 Flavors

Flavors are added to enhance consumer appeal and satisfaction, although they often add a substantial cost to hard candy. Selection of flavor is based on the desired flavor characteristic in the final product, the stability of the flavor, and the necessary use level, in addition to the cost. Choice of flavor must be made in conjunction with choice of color to ensure satisfactory consumer perception. Flavors may come from natural or artificial

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sources, or a blend of both may be used. Salt may often be added at very low levels to enhance the flavor and reduce sweetness. Salt is particularly effective in enhancing the flavor profile of butter, butterscotch, caramel, and toffee flavors.

2.5.3 Colors

Proper choice of color in hard candy is crucial since, along with flavor, it is one of the more important selling points. A vibrant color that matches the flavor is critical to establishing a high quality candy. Despite their importance to candy attributes, typical use levels of colors in candy are generally less than 0.2% depending on final color intensity desired and base color used. Stability of colors in hard candy during storage can be a concern – especially exempt (natural) colors. Each colorant has a distinct response to environmental stresses (light, acid pH, heat, etc.).

2.5.4 Organic Acids

Acidulants are often used to provide tartness, especially for fruit-flavored candies. Malic, citric, tartaric and lactic acids are often used, with citric acid being most common. Besides cost, functionality of the acid plays an important role in ingredient selection. Hard candies that cater to consumers who enjoy the sour experience may contain a dusting of powdered acid on the surface in addition to a pocket of powdered acid within the center of the candy piece.

2.5.5 Glazes and Waxes

Glazes and waxes are used in the manufacturing of confections, mainly to enhance appearance but also as protective coatings on panned candies. In addition to forming a moisture barrier and extending the shelf, they also help to prevent stickiness.

2.5.6 Chemical Changes Take Place during Storage of Candies

Numerous chemical changes occur during high temperature cooking of candies. The most important of these reactions include

(1) inversion of sucrose into glucose and fructose,

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(2) browning, which leads to discoloration of the syrup, and

(3) polymerization of the monosaccharides into higher saccharides.

The extent of these reactions depends primarily on cook time and temperature, saccharide composition, and pH.

2.5.7 Stability and Shelf Life of Candies

The average shelf life of tutti frutti is found to be 18-24 months. Since fruit candies typically have a water activity less than 0.3, microbial issues are not a problem during storage. The low water content in hard candy ensures that no microorganisms can grow. However, sugar glasses are notoriously hygroscopic and readily pick up moisture from humid air.

The equilibrium relative humidity (ERH) of a typical commercial candy is often quoted as being 20–30%, meaning that a hard candy exposed to ambient air with relative humidity greater than about 30% readily picks up moisture from the air. Moisture sorption would continue until the vapor pressure of water above the candy equilibrates with the vapor pressure of water in the air. Moisture uptake can lead to several problems in hard candies, namely stickiness, graining, and flavor loss.

2.6 Faults of Tutti Frutti

- Stickiness
- Crystallisation
- Flavour loss
- Dustiness
- Cracking
- Microstructure damage
- Acidulation
- Loss of freshness
- Microstructure and Texture loss
- Water activity and moisture absorption

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2.6.1 Equipments Required for Processing

DICING/CUBING MACHINE

TUTTI FRUTTI PROCESSING

TRAY DRYER

CONTINUOUS SEALING MACHINE

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CHAPTER 3

PACKAGING OF TUTTI FRUTTI

3.1 Purposes of Packaging

Packaging preserves aroma and flavor and eases shipping and dispensation. Wax paper seals against air, moisture, dust, and germs, while cellophane is valued by packagers for its transparency and resistance to grease, odors and moisture. In addition, it is often resealable. Polyethylene is another form of film sealed with heat, and this material is often used to make bags in bulk packaging. Plastic wraps are also common. Aluminum foils wrap chocolate bars and prevent a transfer of water vapor while being lightweight, non-toxic and odor proof. Vegetable parchment lines boxes of high-quality confections like gourmet chocolates. Cardboard cartons are less common, though they offer many options concerning thickness and movement of water and oil.

Packages are often sealed with a starch-based adhesive derived from tapioca, potato, wheat, sago, or sweet potato. Occasionally, glues are made from the bones and skin of cattle and hogs for a stronger and more flexible product, but this is not as common because of the expense.

3.2 History

Candy packaging played a role in its adoption as the most popular treat given away during trick-or-treating for Halloween in the US. In the 1940s, most treats were homemade. During the 1950s, small, individually wrapped candies were recognized as convenient and inexpensive. By the 1970s, after widely publicized but largely false stories of poisoned candy myths circulating in the popular press, factory-sealed packaging with a recognizable name brand on it became a sign of safety.

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3.2.1 Marketing and Design

Packaging helps market the product as well. Manufacturers know that candy must be hygienic and attractive to customers. In the children's market quantity, novelty, large size and bright colors are the top sellers. Many companies redesign the packaging to maintain consumer appeal.

3.2.2 Packaging Requirements

- Moisture Barrier
- Fat Barrier
- Resistance To Breakage
- Flavour Retention
- Ease Of Opening and (Sometimes) Ease Of Reclosing,
- Ability To Be Decorated For Visual Attractiveness,
- Protection For Prolonged Periods

3.2.3 Oxidation of Tutti Frutti

Interestingly, despite some well-known deteriorative reactions by confectionery products particularly lipid oxidations, flavor disappearance, and moisture gain (which also accelerates the adverse lipid reaction) relatively little has been done to obviate the changes. Vacuum, inert gas, and other reduced-oxygen packaging is virtually unknown in candy (although it is standard for nuts).

Tutti fruitti is not that challenging a product class to protect during distribution. The fact that relatively few products become unacceptable during distribution. That the products could be delivered with better quality is axiomatic within the industry and its ancillary supporters. The inevitable question is whether better quality retention and associated costs will result in increased sales or profitability.

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3.3 Available Tutti Frutti Packaging

- Cast polypropylene film with its transparency, moisture and fat barrier, and twist memory—for sugar pieces.
- Oriented polypropylene film with its transparency, moisture and fat barrier, and eventual heat sealability—for pouches and overwraps.
- Cavitated core-oriented polypropylene film, with its moisture and fat barrier, opacity, and stiffness resembling glassine—for bar wraps.
- Vacuum metallized polypropylene, with its enhanced moisture barrier and its metallic-like appearance—for pouches.
- Thin and thinner aluminum foil, with color to coordinate with the season/holiday/contents—for chocolate cones.
- Injection-molded plastic that can be shaped to any device known to kids—computer, tape player, squirt gun, aerosol, whatever struck the manager's imagination.
- Injection-molded polyester preforms (tubes that precede the bottle-blowing operation), to contain anything that could flow or pour—and even their blown bottles and jars for very-high-acid syrups.
- Embossed and decorated metal cans—for sugar candies and breath mints.
- Convolute and spiral-wound composite paperboard canisters—for cereal-based products.
- Stand up flexible pouches—for minibars.
- Transfer metallized paper and paperboard—for boxed chocolates.

3.3.1 Alternative Packaging Technologies

1) Plastic cups with reclosable closures

2) Zippers or slides on flexible-film material pouches, with inert gas flushing.

3) Gable-top paperboard cartons.

4) Active packaging. And for the bold visionaries, active packaging beyond desiccants: oxygen scavengers, antioxidant delivery, oxidation signalers, odor scavengers to remove subtle rancidity, and desirable flavor generators. Blow-molded barrier bottles with inert gas flushing (salty snacks for automobile carriers).

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Thus, those interested or concerned or even casually looking at confectionery packaging employ a broad array of alternatives beyond the “traditional” bar wrap, pillow pouch, roll wrap, set-up box, thermoformed polystyrene tray, folding paperboard carton, and twist wrap. By looking just beyond the conventional, and seeking to enhance quality retention, manufacturers can control the adverse effects of oxygen and moisture by some devices that are common in other venues: composite paperboard canisters, multiple-cavity barrier thermoforms, hermetically sealed pouches, athlete-friendly bottles, squeeze tubes, and—these above all—reduced oxygen interiors and barrier structures.

And all topped with shapes and graphics crafted from holograms, diffraction patterns, and even sound bites—all designed to enhance the basic notion that makes tutti fruitti tastes good and is stable.

3.4 Future Trends

The candies market is one of the most competitive in the FMCG area. Major companies continuously battle to entice sweet-toothed consumers from competing brands. A strong brand

The developing trends in candy packaging are:

- Widespread and increasing use of cold seal
- Use of laminated structures and cold seals for premium products
- Increasing use of opaque multi-packs for grocery outlets
- Switch over to higher yield opaque films for cost reduction
- Replacement of Al foil / paper wraps by OPP laminates
- Developments in low temperature heat seal packs

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METALLIZED POLYPROPYLENE

FLEXIBLE STAND - UP POUCHES

ORIENTED POLYPROPYLENE FILM

PAPERBOARD

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CHAPTER 4

FOOD SAFETY REGULATIONS AND STANDARDS OF TUTTI FRUTTI

4.1 Standards

4.1.2 Processed fruits

Includes all forms of processing other than peeling, cutting and surface treating fresh fruits.

4.1.2.7 Candied fruits

Includes glazed fruits (fruits treated with a sugar solution and dried), candied fruits (dried glazed fruit immersed in a sugar solution and dried so that the fruit is covered by a candy-like sugar shell), and crystallized fruit is prepared (dried glazed fruit rolled in icing or granulated sugar and dried).

Food Category System	Food Category Name	Food Additive	INS No	Recommended maximum level	Note
4.1.2.7	**Candied / glazed / crystallised fruit including murrabba***	**Allura red AC**	**129**	**100 mg/kg**	
		Annatto	160b	200 mg/kg	
		Aspartame	951	2,000 mg/kg	191
		BENZOATES		1,000 mg/kg	13
		Brilliant blue FCF	133	200 mg/kg	
		Canthaxanthin	161g	200 mg/kg	
		CAROTENOIDS		200 mg/kg	
		CHLOROPHYLLS AND CHLOROPHYLLINS, COPPER COMPLEXES		**250 mg/kg**	

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		Caramel III - ammonia caramel	150c	200 mg/kg	
		Caramel IV - sulfite ammonia caramel	150d	7,500 mg/kg	
		beta-Carotenes, vegetable	160a(ii)	1,000 mg/kg	
		Curcumin	100	200 mg/kg	
		Diacetyltartaric and fatty acid esters of glycerol	**472e**	**1,000 mg/kg**	
		Erythrosine	127	100 mg/kg	
		Fast green FCF	143	200 mg/kg	
		Grape skin extract	163(ii)	1,000 mg/kg	
		HYDROXYBENZOATES PARA		1,000 mg/kg	27
		IRON OXIDES		250 mg/kg	
		Indigotine (Indigo carmine)	132	200 mg/kg	
		Neotame	**961**	**65 mg/kg**	
		PHOSPHATES		10 mg/kg	33
		Ponceau 4R	124	200 mg/kg	
		RIBOFLAVINS		300 mg/kg	
		SORBATES		500 mg/kg	42
		SULFITES		100 mg/kg and 40 mg/kg (for murabba)	44
		Sucralose (Trichlorogalactosucrose)	955	800 mg/kg	
		Sunset yellow		**200 mg/kg**	
		FCF			

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		Tartrazine	102	200 mg/kg	
		Acesulfame potassium	950	500 mg/kg	188
		Tartaric acid	334	GMP	
		*No sweeteners and colours permitted in murrabba			

4.2 Food Safety

Part I - General Hygienic and Sanitary practices to be followed by Petty Food Business Operators applying for Registration (See Regulation 2.1.1(2))

SANITARY AND HYGIENIC REQUIREMENTS FOR FOOD MANUFACTURER/ PROCESSOR/HANDLER

The place where food is manufactured, processed or handled shall comply with the following requirements:

1. The premises shall be located in a sanitary place and free from filthy surroundings and shall maintain overall hygienic environment. All new units shall set up away from environmentally polluted areas.

2. The premises to conduct food business for manufacturing should have adequate space for manufacturing and storage to maintain overall hygienic environment.

3. The premises shall be clean, adequately lighted and ventilated and sufficient free space for movement.

4. Floors, Ceilings and walls must be maintained in a sound condition. They should be smooth and easy to clean with no flaking paint or plaster.

5. The floor and skirted walls shall be washed as per requirement with an effective disinfectant the premises shall be kept free from all insects. No spraying shall be done during the conduct of business, but instead fly swats/ flaps should be used to kill spray flies getting into the premises. Windows, doors and other openings

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shall be fitted with net or screen, as appropriate to make the premise insect free The water used in the manufacturing shall be potable and if required chemical and bacteriological examination of the water shall be done at regular intervals at any recognized laboratory.

6. Continuous supply of potable water shall be ensured in the premises. In case of intermittent water supply, adequate storage arrangement for water used in food or washing shall be made.

7. Equipment and machinery when employed shall be of such design which will permit easy cleaning. Arrangements for cleaning of containers, tables, working parts of machinery, etc. shall be provided.

8. No vessel, container or other equipment, the use of which is likely to cause metallic contamination injurious to health shall be employed in the preparation, packing or storage of food. (Copper or brass vessels shall have proper lining).

9. All equipments shall be kept clean, washed, dried and stacked at the close of business to ensure freedom from growth of mould/ fungi and infestation.

10. All equipments shall be placed well away from the walls to allow proper inspection.

11. There should be efficient drainage system and there shall be adequate provisions for disposal of refuse.

12. The workers working in processing and preparation shall use clean aprons, hand gloves, and head wears.

13. Persons suffering from infectious diseases shall not be permitted to work. Any cuts or wounds shall remain covered at all time and the person should not be allowed to come in direct contact with food.

14. All food handlers shall keep their finger nails trimmed, clean and wash their hands with soap, or detergent and water before commencing work and every

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time after using toilet. Scratching of body parts, hair shall be avoided during food handling processes.

15. All food handlers should avoid wearing, false nails or other items or loose jewellery that might fall into food and also avoid touching their face or hair.
16. Eating, chewing, smoking, spitting and nose blowing shall be prohibited within the premises especially while handling food.
17. All articles that are stored or are intended for sale shall be fit for consumption and have proper cover to avoid contamination.
18. The vehicles used to transport foods must be maintained in good repair and kept clean.
19. Foods while in transport in packaged form or in containers shall maintain the required temperature.
20. Insecticides / disinfectants shall be kept and stored separately and `away from food manufacturing / storing/ handling areas.

4.3 Labelling Standards

Labeling requirements for packaged food products as laid down in the Part VII of the Prevention of Food Adulteration (PFA) Rules, 1955, and the Standards of Weights and Measures (Packaged Commodities) Rules of 1977, require that the labels contain the following information:

1. Name, trade name or description
2. Name of ingredients used in the product in descending order of their composition by weight or volume
3. Name and complete address of manufacturer/packer, importer, country of origin of the imported food (if the food article is manufactured outside India, but packed in India)
4. Nutritional Information

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5. Information Relating to Food Additives, Colours and Flavours
6. Instructions for Use
7. Veg or Non-Veg Symbol
8. Net weight, number or volume of contents
9. Distinctive batch, lot or code number
10. Month and year of manufacture and packaging
11. Month and year by which the product is best consumed
12. Maximum retail price

4.3.1 Wherever applicable, the product label also must contain the following

The purpose of irradiation and license number in case of irradiated food. Extraneous addition of coloring material. Non-vegetarian food – any food which contains whole or part of any animal including birds, fresh water or marine animals, eggs or product of any animal origin as an ingredient, not including milk or milk products – must have a symbol of a brown color-filled circle inside a brown square outline prominently displayed on the package, contrasting against the background on the display label in close proximity to the name or brand name of the food.
Vegetarian food must have a similar symbol of green color-filled circle inside a square with a green outline prominently displayed.

All declarations may be: Printed in English or Hindi on a label securely affixed to the package, or Made on an additional wrapper containing the imported package, or Printed on the package itself, or May be made on a card or tape affixed firmly to the package and bearing the required information prior to customs clearance.

Exporters should review the Chapter 2 of the “FSS (Packaging and Labeling) Regulation 2011” and the Compendium of Food Safety and Standards (Packaging and Labeling) Regulation before designing labels for products to be exported to India. FSSAI revised the labeling Regulation and a draft notification to that effect was published on

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April 11, 2018, inviting comments from WTO member countries and the comments received are under review and the publication date remains unknown.

According to the FSS Packaging and Labeling Regulation 2011, “prepackaged” or “pre packed food” including multi-piece packages, should carry mandatory information on the label.

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