

MINISTRY OF HEALTH AND FAMILY WELFARE
(Food Safety and Standards Authority of India)
Notification

New Delhi, dated the 1st August, 2011

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2.3.6: Thermally Processed Fruits Juices:

1. Thermally Processed Fruits Juices (Canned, Bottled, Flexible And/or Aseptically Packed) means unfermented but fermentable product, pulpy, turbid or clear, intended for direct consumption obtained by a mechanical process

from sound, ripe fruit or the flesh thereof and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage. The juice may have been concentrated and later reconstituted with

water suitable for the purpose of maintaining the essential composition and quality factors of the juice. It may contain salt. One or more of the nutritive sweeteners may be added in amounts not exceeding 50 g/kg but not Exceeding 200g/kg in very acidic fruits except in case of Apple Juice, Orange Juice (reconstituted from concentrate),

Grape Juice, Pineapple Juice (reconstituted from concentrate). The product is not required to be called sweetened

juice till the added nutritive sweeteners are not in excess of 15g/kg.

2. The product may contain food additives permitted in these Regulations and Appendices. The product shall Conform to the microbiological requirements given in Appendix B.

The product shall meet the following requirements:

FRUIT JUICES

		TSS Min (%)	Acidity expressed as Citric Acid Max (%)
	1	2	3
1	Apple Juice	10	3.5 (as malic acid)
2	Orange Juice		
	(a) Freshly expressed	10	3.5
	(b) Reconstituted from concentrate	10	3.5
3	Grape Fruit Juice	9	
4	Lemon juice	6	4.0(minimum)
5	Lime juice -	-	5.0(minimum)
6	Grape Juice		
	(a) Freshly expressed	15	3.5
	(b) Reconstituted from concentrate	15	3.5
7	Pineapple Juice		
	(a) Freshly expressed	10	3.5
	(b) Reconstituted from concentrate	10	3.5
8	Black Currant	11	3.5
9	Mango, Guava or any other pulp fruit	15	3.5P
10	Other fruit juices of single species- not very acidic	10	3.5
11	Other fruit juices of single species very acidic	10	3.5
12	Other fruit juices of single species or combination thereof - not very acidic 10 3.5	10	3.5
13	Other fruit juices of single species or combination thereof - very acidic		

2.10.6 BEVERAGES NON-ALCOHOLIC - CARBONATED

1. CARBONATED WATER means water conforming to the standards prescribed for Packaged Drinking Water under Food Safety and Standard Act, 2006 impregnated with carbon dioxide under pressure and may contain any of the following singly or in combination:

1. Sugar, liquid glucose, dextrose monohydrate, invert sugar, fructose, honey, fruits and vegetables extractives and permitted flavouring, colouring matter, preservatives, emulsifying and stabilising agents, citric acid, fumaric acid and sorbitol, tartaric acid, phosphoric acid, lactic acid, ascorbic acid, malic acid, edible gums such as guar, karaya, arabic carobean, furcellaran, tragacanth, gum ghatti, edible gelatin, albumin, licorice and its derivatives, salts of sodium, calcium and magnesium, vitamins, Caffeine not exceeding 145 parts per million, Estergum (Glycerol ester of wood resin) not exceeding 100 parts per million, Gellan Gum at GMP level and quinine salts not exceeding 100 parts per million (expressed as quinine sulphate). It may also contain Saccharin Sodium not exceeding 100 ppm or Acesulfame-K not exceeding 300 ppm or Aspartame (methyl ester) not exceeding 700 ppm. or sucralose not exceeding 300 ppm or Neotame not exceeding 33 ppm. Provided that the quantity of added sugar shall be declared on the container / bottle and if no sugar is added that also shall be declared on the container/bottle as laid down in labelling Regulations 2.4.5 (24,25,26, 28 and 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011. In case of returnable bottles, which are recycled or refilling the declaration of quantity of added sugar and no sugar added may be given on the crown.

Provided also that the declaration of 'no sugar added' shall not be applicable for 'carbonated water (plain soda)'.

Provided also that the products which contain aspartame, acesulfame or any other artificial sweetener for which special labeling provisions have been provided under regulations 2.4.5 (24,25,26, 28 and 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011, shall not be packed, stored, distributed or sold in returnable containers.

It shall conform to the following requirements, namely—

- (1) Total plate count per ml not more than that.....50..cfu..
- (2) Coliform count in 100 ml0.....cfu...
- (3) Yeast and mould count per ml not more than... 2.....cfu

Provided further estergum used in carbonated water shall have the following standards, namely:—

Glycerol esters of wood rosins commonly known as ester-gum is hard yellow to pale amber coloured solid. It is a complex mixture of tri and diglycerol esters of rosin acids from wood rosin. It is produced by the esterification

of pale wood rosin with food grade glycerol. It is composed of approximately 90 per cent rosin acids and 10 per cent

neutrals (non-acidic compounds). The resin acid fraction is a complex mixture of isomeric diterpenoid monocarboxylic

acids having the typical molecular formula of $C_{20}H_{30}O_2$ chiefly abietic acid. The substance is purified by steam

stripping or by counter-current steam distillation.

Identification:

Solubility-Insoluble in water, soluble in acetone and in Benzene.

Infra Red Spectrum-Obtain the infra-red spectrum of a thin film of the sample deposited on a potassium bromide plate-scan between 600 and 4000 wave numbers. Compare with typical spectrum obtained from pure estergum.

Test for absence of till oil rosin (Sulphur test)-Pass the test as given below:

When sulphur-containing organic compounds are heated in the presence of sodium formate, the sulphur is converted to hydrogen sulfide which can readily be detected by the use of lead acetate paper. A positive test indicates the use of till oil rosin instead of wood rosin.

Apparatus-Test Tube: Use a standard, 10x75 mm, heat-resistant, glass test tube, Burner - Bunsen: A small size burner of the microflame type is preferred.

Reagents

Sodium Formate Solution: Dissolve 20g of reagent grade sodium formate, $NaOOCH$, in 100 ml of distilled water.

Lead Acetate Test Paper: Commercially available from most chemical supply houses.

Procedure-Weigh 40-50 mg of sample into a test tube and 1-2 drops of sodium formate solution. Place a strip of lead acetate test paper over the mouth of the test tube. Heat the tube in the burner flame until fumes are formed

that contact the test paper. Continue heating for 2-5 minutes. There must be no formation of a black spot of lead sulphide indicating the presence of sulphur containing compounds.

Detection Limit: 50 mg/kg sulphur).

Drop softening point-Between 880 C and 960 C.

Arsenic-Not more than 3ppm.

Lead-Not more than 10ppm.

Heavy metals (as lead)-Not more than 40 ppm.

Acid value- Between 3 and 9.

Hydroxyl number-Between 15 and 45.

1) Restrictions on the use of sequestering and buffering agents.

Unless otherwise provided in these regulations the sequestering and buffering agents specified in column (1) of the Table below, may be used in the groups of food specified in the corresponding entry in column (2) of the said

Table, in concentration not exceeding the proportions specified in the corresponding entry in column (3) of the said

Table:

	Name of sequestering And buffering	Groups of food	Maximum level agents of use (parts per Million) (ppm) (mg./kg)
1	2	3	4
1	Acetic Acid 3000ppm	(i) Acidulant, buffering and neutralizing agents in beverages soft drinks	Limited by G.M.P.
		(ii) in canned baby foods 5,000	
2	Adipic acid	Salt substitute and dietary food 250	
3	Calcium Gluconate	In confections	2500
4	Calcium Carbonate	As a neutralizer in number of foods	10,000
5	Calcium oxide	As a neutralizer in specified dairy product	2500
6	Citric acid malic acid	Carbonated beverage and as an acidulant in miscellaneous foods	Limited by G.M.P.
7	DL Lactic Acid (food grade)	As acidulant in miscellaneous foods	Limited by G.M.P.
8	L(+) Lactic Acid (food grade)	As acidulant in miscellaneous foods	Limited by G.M.P.
9	Phosphoric acid	Beverages, soft drinks	600
10	Polyphosphate containing less than 6 Phosphate moieties	. (a) Processed cheese, bread 40,000	40,000
		(b) Milk Preparations 4,000	4,000
		(c) Cake Mixes 10,000	10,000
		(d) Protein foods 4,000	4,000
11	L (+) Tartaric acid	. Acidulant	600
12	Calcium Disodium, Ethylene	(i) Emulsions containing refined vegetable oils, eggs, vinegar, salt, sugar and spices	50
		(ii) Salad dressing;	
		(iii) Sandwich spread or fat Spread	
13	Fumaric acid	13. As acidulant in Miscellaneous foods	3000ppm