

KENYA STANDARD

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**Fruit-based soft drinks with milk—
Specification**

PUBLIC REVIEW DRAFT

TECHNICAL COMMITTEE REPRESENTATION

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Kenya Industrial Research and Development Institute
Consumer Information Network
Government Chemist's Department
Jomo Kenyatta University of Agriculture and Technology
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Agri-pro pak Ltd
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Fruit based soft drink with milk — Specification

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Foreword

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This Kenya Standard was developed by the Technical Committee on Processed Fruits and Vegetables under the guidance of the Standards Projects Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards.

It covers all types of flavours of fruit based soft drinks with milk made from a blend of skim milk and fruit juice or fruit juice concentrate, water and other optional ingredients. . The product shall be distinguished from fruit squashes, fruit juices and other fruit-based soft drinks through appropriate labelling.

The standard stipulates the essential compositional, quality microbiological and labelling requirements. .

In the preparation of this standard useful information were derived from various sources mainly the local manufacturers, Codex Alimentarius Commission, and members of the technical committee.

During the preparation of this standard, reference was also made to the following documents:

KS EAS 77 -1, Soft fruit juice — Specification Part 1: Soft drinks and fruit juice

Acknowledgement is hereby made for the assistance derived from these sources.

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Fruit based soft drinks with milk- Specification

1 Scope and application

1.1 Scope

This Kenya Standard specifies requirements and methods of test for fruit based soft drink with milk, intended for direct consumption.

1.2 Application

This standard covers fruit based soft drinks made from a blend of skimmed milk and fruit juices

2 Normative references

KS EAS 38, *Labelling of pre-packaged foods*

KS CODEX STAN 206, *General standard for the use of dairy terms*

KS EAS 69, *Pasteurized milk- Specification*

KS EAS 49, *Dried whole milk powder and skimmed milk powder- specification*

KS 140, *Methods of test for processed fruits and vegetables.*

KS 220, *Methods for the microbiological examination of foods*

KS EAS 77 *Soft fruit juice — Specification*

KS 1485, *Fruit-flavoured drinks — Specification*

KS 432, *Methods of test for fruit juices and similar products*

KS EAS 153, *Specification for drinking water Part 1. The requirements for drinking water*

KS 660, *Guide to the safe use of food additives*

Codex Stan 195, General Standard for Food Additives

Codex Stan 193, General Standard for contaminants

KS EAS 39 , *Code of practice for hygiene in the food and drink manufacturing industry*

KS 38, *Plantation (mill) white sugar — Specification*

KS EAS 5, *Refined white sugar — Specification*

3 Definitions

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For the purposes of this standard, the following definitions shall apply:

3.1 Fruit Juice

Fruit juice is the unfermented but fermentable liquid obtained from the edible part of sound, appropriately mature and fresh fruit maintained in sound condition by suitable means including post harvest surface treatments applied in accordance with Good Manufacturing Practices (GMP)

A single juice is obtained from one kind of fruit. A mixed juice is obtained by blending two or more juices or juices and purées, from different kinds of fruit.

Fruit juice is obtained as follows:

3.1.1 Fruit juice directly expressed by mechanical extraction processes.

3.1.2 Fruit juice from concentrate by reconstituting concentrated fruit juice defined in Section 3.2 with potable water that meets the criteria described in Section 4.1.1(c).

3.2 Concentrated Fruit Juice

Concentrated fruit juice is the product that complies with the definition given in Section 3.1.2 above, except water has been physically removed in an amount sufficient to increase the Brix level to a value at least 50% greater than the Brix value established for reconstituted juice from the same fruit.

3.1.3 Fruit-based soft drinks with milk

It shall be dilutable or ready to drink blend of fruit juice and skim milk, among other optional ingredients

4. Essential composition and quality requirements

4.1 Composition

4.1.1 Preparation –

Fruit-based soft drinks with milk shall be prepared from drinking water complying with KS EAS 153, sugar, complying with KS EAS 5 and KS 38, permitted colourings, permitted flavourings and other optional ingredients contained in the Food, Drugs and Chemical Substances Act, Cap. 254 of the Laws of Kenya. The mixing, processing and packaging of the fruit-based soft drinks with milk shall be done in accordance with Good Manufacturing Practices stipulated in KS EAS 5.

4.1.2 Total soluble solids

The total soluble solids in the juice shall be a minimum of 10.0° Brix for ready to drink as determined by refractometer at 20 °C uncorrected for acidity.

4.1.3 Fruit juice content

The juice shall be a minimum of 10 % of pure fruit juice.

4.1.4 Milk content

The milk shall be a minimum of 1% and a maximum of 5%

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4.1.5 Ethanol content

The ethanol content shall not exceed 3 g/kg.

4.1.6 Ph content

The product shall have a maximum Ph of 4

4.1.7 Food Additives

Only permitted food additives complying with the levels of Codex *Stan 195, General Standard for Food Additives*, established by the Codex Alimentarius Commission (CAC

4.2 General Quality Requirements

4.2.1 The product, when packed, shall be free from burned or objectionable taints and flavours and shall have a good consistency.

4.2.2 Fruit skin, stem residue, fibrous matter, larva, insect fragments or any other foreign matter shall not be present in the product.

4.2.3 Organoleptic properties

4.2.3.1 Colour

The colour of the product shall be typical of the fruit varieties from which the juice have been extracted and free from browning.

4.2.3.2 Flavour

The product shall have the characteristic aroma and flavour of the specified fruit(s)

5 Hygiene Requirements

5.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with KS EAS 39, and the Public Health Act, Cap. 242 and the Food, Drug and Chemical Substances Act, Cap. 254 of the Laws of Kenya

5.2 Microbiological limits

Fruit-based soft drinks with milk shall be free from pathogenic organisms and shall comply with the microbiological limits stipulated in Table 1.

Table 1— Microbiological limits for fruit based soft drinks with milk

SL No	Characteristic	Limit	Test method
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i)	TVC per ml, Max	20	
ii)	coliforms per 100 MI	absent	KS 220
iii)	Listeria monocytogenes per ml	absent	"
iv)	Shigella per ml	absent	"
v)	<i>E.coli</i> per ml	absent	"
vi)	<i>Salmonella</i> per ml	absent	"
vii)	Staphylococcus aureus per ml	absent	"
viii)	Yeast and mould counts per ml, max.	10 CFU/ MI	

5.3 Pasteurization requirements

5.3.1 The product shall have undergone pasteurization or equivalent heat treatment to meet the above microbiological limits

6 Contaminants

6.1 Heavy metals

The products covered by this Standard shall comply with the maximum heavy metal contaminants limits in CODEX STAN 193, established by the Codex Alimentarius Commission (CAC)

6.2 Limits for heavy metal contaminants

The product shall not contain heavy metal contaminants in excess of the limits stipulated in table 2 below

Table 2 — Limits for heavy metal contaminants in dairy blend fruit juice concentrates

SL No	Characteristic	Limit (Max.)	Test method
i).	Arsenic (AS) mg/kg	0.1	KS 432
ii).	Lead (P _H) mg/kg	0.05	"
iii).	Mercury (Hg) mg/kg	0.001	"

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iv).	Copper (Cu) mg/kg	2.0	"
v).	Tin (Sn)mg/kg	150	"
vi).	Cadmium as Cd, mg/kg	0.1	"

6.3 Pesticide residues

The products covered by this standard shall comply with the maximum residue limits in KS 05-1051.

8 Packaging and labeling

8.1 Packaging requirements

The packaging material, shall be food grade made only of substances which are safe and suitable for their intended use and shall not affect the quality of the product

8.2 Labelling requirements

In addition to the requirements contained in KS EAS 38, the following provisions shall apply:

- i). **Name of product:** The name of the product shall be, 'x fruit beverage with milk or x fruit drink with milk', where x denotes the Fruit or mixture of fruits
- ii). **List of ingredients in descending order:** A complete list of ingredients shall be declared on the label in descending order of proportion, except water added for reconstitution of juice, this need not be declared.
- iii). **Fruit juice made from concentrate:** In the case of fruit juice made from concentrate, the fact of reconstitution shall be declared in the list of ingredients as follows: "fruit juice made from concentrate" or "reconstituted fruit juice" or "fruit juice made from concentrated fruit juice". If there are no ingredients to be listed in accordance with Clause 9.2, the expression "fruit juice made from concentrate" or "reconstituted fruit juice" or "fruit juice made from concentrated fruit juice" shall appear on the label
- iv). **Net contents:** The net contents shall be declared by volume in millilitres or litres;
- v). **Name and physical address:** The name and physical address of the manufacturer, packer, distributor, importer, exporter or vendor of the product shall be declared.
- vi). **Country of origin:** The country of origin of the product shall be declared. When the product undergoes processing in a second country which changes its nature, then the country in which the processing is done shall become the country of origin for the purpose of labelling.
- vii). **Expiry date**

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- viii). **Date of manufacture**
- ix). **Usage instructions where applicable**
- x). **Storage instructions**
- xi). **Batch or lot number to be declared:** Each container shall be embossed or otherwise permanently marked, in code to identify the producing factory and the lot.
- xii). **Nutrition information and claims:** Nutrition information and claims where made, shall be in accordance with KS EAS 803, 804 and 805
- xiii). Irradiation status where applicable

9 Methods of test

Testing of product shall be done in accordance with the procedures stipulated in KS 140, KS 220 and 05-432¹