

DRAFT KENYA STANDARD

DKS [1773:2024]

ICS [67.160.10]

[Third]Edition

**Water - based flavoured drink in solid form —
Specification**



**Kenya Bureau of
Standards**

Standards for Quality life

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REVISION OF KENYA STANDARDS

In order to keep abreast of progress in industry, Kenya Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Managing Director, Kenya Bureau of Standards, are welcome.

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Water - based flavoured drink in solid form — Specification

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Foreword

This Kenya Standard was prepared by the Water-Based Flavoured Drinks and Ices Technical Committee under the guidance of the Standards Projects Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards

Water-based flavoured drink in solid form is consumed as a drink after dissolving with potable water. .

Quality of the product is paramount if the consumer's interests are to be protected.

Being a solid product, Water -based flavoured drink in solid form has a stable shelf-life if stored appropriately. However, the quality of the product is monitored through incorporation of limits of parameters such as moisture content, microbiological status, and heavy metal contaminants.

These products are marketed as flavoured powders with nature identical, or artificial/synthetic flavors. During the preparation of this standard wide consultation and laboratory analysis was done.

Labelling requirements of Water-based flavoured drink in solid form have been incorporated in this standard to prevent any misrepresentations of the products through, say, fruit pictorials on the labels.

This third edition cancels and replaces the second edition (KS 1773:2018), which has been technically revised.

During the preparation of this standard, reference was made to the following document (s):

KS 224, Fruit drinks and squashes — Specification.

Food, Drugs and Chemical Substances Act – Chapter 254 of the Laws of Kenya.

Acknowledgement is hereby made for the assistance derived from this (these) source (s)

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Water-based flavoured drink in solid form — Specification

1 Scope

This draft Kenya Standard specifies the requirements for water-based flavoured drink in solid form intended for human consumption prepared by dissolving in potable water into a ready-to-drink beverage..

2 Normative references

The following referenced documents referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CXG 50, General Guidelines on sampling

CXS 34, Recommended methods of analysis and sampling

Food, Drugs and Chemical Substances Act, Cap. 254

KS EAS 38, Labelling of pre-packaged foods — Specification

KS CODEX STAN 192, General Standard for food additives

KS ISO 712, Cereals and cereal products – Determination of moisture content – Reference method

KS ISO 4831, Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of Coliforms — Most probable number techniques

KS ISO 4832, Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coliforms — Colony-count technique

KS ISO 4833-1, Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30°C by the pour plate technique.

KS ISO 6579, Microbiology of food and animal feeding stuffs — Horizontal method for the detection of Salmonella spp.

KS ISO 6888-1, Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species)

KS ISO 7251, Microbiology of food and animal feeds — Horizontal method for the detection and enumeration of presumptive Escherichia coli- Most probable number technique

KS ISO 9526, Fruits, vegetables and derived products — Determination of iron content by flame atomic absorption spectrometry

KS ISO 17239, Fruits, Vegetables and derived products — Determination of arsenic content — Method using hydride generation atomic absorption spectrometric

KS ISO 17240, Fruits and vegetable products — Determination of tin content — Method using flame atomic absorption spectrometric

Public Health Act, Cap. 242

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

water- based flavoured drinks in solid form

concentrated products in powder form prepared from sweetening agents, natural, nature identical or artificial fruit flavourings, permitted colourings and other optional permitted ingredients that require dissolving in potable water before consumption.

3.2

INS

International Numbering System used in identifying the approved food additive

3.3

potable water

water either in its original state or after treatment, intended for human drinking, cooking, food preparation, or other domestic purposes, food production, regardless of its origin whether it is supplied from a distribution network, from a tanker or in bottles

3.4

food additive

any substance not normally consumed as a food by itself and not normally used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, or may be reasonably expected to result (directly or indirectly), in it or its byproducts becoming a component of or otherwise affecting the characteristics of such foods. The term does not include contaminants or substances added to food for maintaining or improving nutritional qualities. (see KS CODEX STAN 192)

3.5

uniform

not changing in form or character; remaining the same in all cases and at all time

3.6

nature identical flavouring

substances chemically isolated from aromatic raw materials or obtained synthetically; they are chemically identical to substances present in natural products intended for human consumption

3.7

food grade packaging material

packaging material, made of substances which are safe and suitable for the intended use, and which will not impart any toxic substance or undesirable odour or flavour to the product.

4 Requirements

4.1 General requirements

4.1.1 Water - based flavoured drink in solid form

4.1.1.1 The product shall be a water based flavoured drink in solid form intended for human consumption which contains different types of flavours.

4.1.1.2 The product may be sweetened with permitted non-nutritive sweeteners or nutritive sweeteners singly or in combination.

4.1.1.3 The product shall have a uniform colour and particle size.

4.1.1.4 When reconstituted, it shall dissolve completely in portable water upon stirring, be flowing and free from lumps.

4.1.1.5 When the water- based flavoured drink in solid form is dissolved in water in accordance with instructions given, the ready-to-drink product shall have, a uniform colour, characteristic taste and flavour of the specified flavor and shall be free from suspended particles.

4.1.1.6 Water based flavoured drink in solid form shall not contain any substances harmful or injurious to health.

4.1.2 Ready-to-drink beverage

When the water- based flavoured drink in solid form is dissolved in water in accordance with instructions given, the ready-to-drink product shall:

- a) have uniform colour, characteristic taste and flavour of the specified flavor;
- b) be free from suspended particles; and
- c) be free from foreign matter

4.2 Specific requirements

4.2.1 Water-based fruit flavoured drinks in solid form shall comply with the specific requirements given in Table 1, when tested in accordance with the test methods specified therein;

Table 1 Specific requirements for water-based flavoured drinks in solid form

S/No.	Parameter	Requirement	Test method
i)	Moisture content, (m/m) % max	10	KS ISO 712

4.2.2 Permitted ingredients

4.2.2.1 Food additives

Only permitted food additives permitted under KS CODEX STAN 192 shall be used.

4.2.2.2 Sweetening agents

Sucrose, glucose (dextrose) or fructose, and any other permitted nutritive and/or non-nutritive sweeteners may be used.

4.2.2.3 Flavouring agents

Where flavouring agents are used, they shall be in accordance with CXG 66

5 Contaminants

5.1 Heavy metal contaminants

Water based -flavoured drink in solid form shall not contain heavy metal contaminants in excess of the limits given in Table 2 when tested in accordance with the test methods prescribed therein.

Table 2 — Limits for heavy metal contaminants in water based flavoured drink in solid form

S/N	Contaminant	Maximum level	Test method
i)	Arsenic (As)	0.2 mg/kg	KS ISO 17239
ii)	Lead (Pb)	0.03 mg/kg	KS ISO 9526

5.2 Other contaminants

The products covered by the provisions of this standard shall comply with those maximum levels for contaminants established by the Codex Alimentarius Commission for these products.

6 Hygiene

6.1 Manufacturing premises

Water based flavoured drinks in solid form shall be prepared and packaged in the premises built and maintained under hygienic conditions in accordance with the Public Health Act, Cap. 242, the Food, Drugs and Chemical Substances Act, Cap. 254 of the Laws of Kenya and KS EAS 39 Code of practice for hygiene in the food and drink manufacturing industry.

6.2 Microbiological limits

The product shall be free from pathogenic organisms and shall comply with the microbiological limits given in Table 3 when tested in accordance with the test methods prescribed therein.

Table 3 — Microbiological limits for water-based flavoured drink in solid form

S/N	Micro-organism	Limit	Test method
i)	Total Plate Count, CFU/g	<200	KS ISO 4833-1
ii)	<i>Coliforms</i> , per 100 ml	Not detected	KS ISO 4831 or KS ISO 4832
iii)	<i>Escherichia coli</i> , per 25g, (cfu/g),	Not detected	KS ISO 7251
iv)	Yeast and moulds (cfu/g), max.	10	KS ISO 6881-1

v)	<i>Staphylococcus aureas</i> , per 25 g	Not detected	KS ISO 6881-1
vi)	<i>Shigella</i> per 25 g	Not detected	KS ISO 4833-1
vii)	<i>Salmonella</i> , per 25 g	Not detected	KS ISO 6579
viii)	<i>Vibrio cholera</i> , per 25 g	Not detected	KS ISO 6579

7 Packaging

The product shall be packed in food-grade packaging material which shall protect the integrity of the product throughout the shelf life.

8 Labelling

8.1 General

8.1.1 In addition to the requirements given in KS EAS 38, KS EAS 803, KS EAS 804 and KS EAS 805 the following information shall be legibly and indelibly labelled:

- i) name of product as X Flavoured powdered drink where X is the name of the flavour in the drink such as “Orange flavoured powdered drink” or “Lemon flavoured powdered drink”; (if more than one flavour is used, the name shall include the flavours used)
- ii) list of all ingredients listed in descending order of ingoing weight (m/m)
- iii) name, physical location, and address of manufacturer;
- iv) net weight in metric units;
- v) batch number
- vi) manufacturing date
- vii) expiry date
- viii) country of origin
- ix) storage conditions;
- x) directions of use stating the recommended amount of the product that should be applied in a stated volume of potable water;
- xi) cautionary statement prescribing the duration of use after opening the product stated time period or a statement of similar meaning

8.2 Additional labelling requirements

The following designations shall be used where applicable:

- a) When non-nutritive sweeteners are employed as substitutes for sugars in water-based fruit flavoured drinks, the statement, “contains non-nutritive sweetener(s),” shall be included in conjunction with or in close proximity to the product name; and
- b) The name of non-nutritive sweeteners used shall be indicated in the label.

8.3 Labelling prohibitions

8.3.1 Water based flavoured drink in solid form shall not be described or presented on any label or in any labelling in a manner that is false, misleading, or deceptive or is likely to create an erroneous impression regarding its character in any respect.

8.3.2 The use of fruit pictorials in either form such as pictures, graphics is prohibited.

9 Sampling

The products covered by the provisions of this standard shall be sampled in accordance with CXG 50 and tested using appropriate standard methods declared in this standard or as per CXS 234

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