



DRAFT TANZANIA STANDARD

**Artificially sweetened flavoured drink in solid form –
Specification**

FOR STAKEHOLDERS COMMENTS ONLY

TANZANIA BUREAU OF STANDARDS

0 Foreword

Artificially sweetened flavoured drinks in solid form are among beverages sweetened with "non-nutritive" artificial sweeteners which provide a sweet sensation to the taste buds, without raising blood sugar levels, they are calorie free products consumed for diet purposes.

These products are currently produced in Tanzania and some are imported for direct human consumption.

The need to develop this Tanzania Standard was necessitated by the need to ensure the safety and quality of artificially sweetened flavoured drinks in solid form being produced and marketed in Tanzania.

In reporting the result of a test or analysis made in accordance with the Tanzania Standard, if the final value observed or calculated is to be rounded off, it shall be done in accordance with TZS 4 (see clause 2)

1 Scope

This Tanzania Standard specifies requirements, methods of sampling and test for artificially sweetened flavored drinks in solid form intended for direct human consumption for people on diet as a ready to drink beverage after reconstitution with potable water.

2 Normative References

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies

TZS 4: 2009, *Rounding off numerical values*

TZS 118:2018(1st Ed) ISO 4833-1:2003 - Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of microorganisms – Colony-count technique at 30°C

TZS 119: 2018 (3rd Ed) ISO 4831: 2006 - Microbiology of food and animal feeding stuffs – Horizontal method for detection and enumeration of coliforms – Most probable number technique

TZS 109: *General code of hygiene for food processing units*

TZS 789: (Rev) *Drinking (potable) water – Specification*

TZS 538: 1999, *General standard on packaging, marking and labeling*

TZS 163: 2012, *processed fruits and vegetable products – Method of sampling and test*

TZS 114: 2008, *Soft drink manufacturing units – Code of hygiene*
TZS (Code of hygiene)

TZS 131: 2010 ISO 21527-2 , *Microbiology General guidance for enumeration of yeast and moulds – Colony Count technique at 25°C*

Codex stan 192 Permitted food additives

AOAC 971.21:2000(17th Ed) Mercury in food flameless Atomic absorption method

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3 Terms and definitions

For the purpose of this Tanzania Standard the following definitions shall apply: -

3.1 Artificially sweetened flavoured drink in solid form

the flavoured dry product in a form of crystals, powder or tablets, containing permitted artificial sweeteners.

3.2 Reconstituted drink

a product obtained by reconstitution of flavoured drink in solid form as crystals, powder or tablets, using potable water in accordance with the direction for use as provided on the product label for direct human consumption.

3.3 Potable water

water conforming to the requirements of TZS 789 (see clause 2)

3.4 Good body

wholesome as drink.

3.5 Calorie free

having relatively fewer calories(5 calories per serving)

3.6 Solubility

a property of a solid to dissolve in a potable water to form a homogenous solution

4 Requirements

4.1 General Requirements

4.1.1 Artificially sweetened flavoured drink in solid form shall:

- (a) have uniform colour and particle size
- (b) free flowing and free from lumps in case of powdered flavoured drink
- (c) free from foreign matter
- (d) dissolve completely in potable water upon shaking or stirring

4.1.2 Taste and aroma (flavour)

When the artificially sweetened flavoured drink in solid form is dissolved in potable water in accordance with the instruction given on the label by the manufacturer, the reconstituted drink

product shall have taste and aroma characteristic of the flavour to which it is claimed or implied on the label.

4.1.3 Wholesomeness

The reconstituted drink beverage shall have a good body and uniform colour.

4.2 Specific requirements

4.2.1 Moisture content

Artificial sweetened flavoured drink in solid form shall have a maximum moisture content of 3 % when determined in accordance with clause 10 of TZS 33 (see clause 2)

4.2.2 pH

The pH of flavoured drink in solid form after reconstitution shall be in a range of 2.7 to 4.0 and shall be verified as per clause 7 of TZS 163 (see clause 2).

4.2.3 Metal contaminants

The product on testing shall not contain metal contaminants exceeding levels given in table 1:

Table 1 – Limits for metal contaminants

S/No	Contaminant	Maximum Limit, (mg/kg)	Method of Test TZS 163 (see clause 2)
1	Lead (Pb)	0.2	13
2	Arsenic (As)	0.2	12
3	Copper (Cu)	3	14
4	Tin (Sn)	200	16
5	Mercury	0.1	AOAC 971.21:2000(17th Ed)

4.2.4 Food additives

Use of food additives shall be in accordance to codex Stan 192

Food additives shall be used singly from each functional class or category of additives in order to serve a similar technological application; unless it is technologically justified to apply as such in combination and proven through risk assessment that such application shall not end up into creating something else chemically that could become a health hazard to the consumer.

5.1 Hygiene

The product shall be prepared under strict hygienic conditions according to TZS 114 (see clause 2)

5.2 Microbiological limit – The product on testing shall not contain microbiological count more than the levels given in table 2.

Table 2 – Microbiological limits

S/N	Microorganism	Limit	Method of Test (see clause 2)
1	Total plate count, cfu/g	1 x 10 ³	TZS 118: 2018
2	Coliforms, cfu/g	Absent	TZS 119: 2018
3	Yeast and moulds, cfu/g	10	TZS131
4	Staphylococcus aureus	10 ²	TZS 125/ISO 668-1
5	<i>Salmonella spp</i>	Not detected	TZS 122/ISO 6579-1

6 Packaging, marking and labelling

6.1 Packing

Artificially sweetened Flavoured drink in solid form shall be packed in suitable food grade containers which are, moisture proof and hermetically sealed. Where packaging is done in cans they shall be lacquered. The can shall have a plastic lid after the hermetic seal to ensure good hygienic conditions after opening the can during usage.

6.1.1 The containers shall be filled under strict hygienic conditions

6.1.2 If the product is packed in sachets, the sachets shall also be labeled.

6.1.3 Labeling shall be made to the main containers if used.

6.2 Marking and labeling

In addition to the provisions covered under TZS 538 (see clause 2) artificially sweetened flavored drink shall be legibly and indelibly marked on the label with the following information.

Each container shall be labeled with the following particulars:

- (a) The “common name” of the product shall reflect the sugar free nature of the product form and flavour used
 - (b) Name, postal and physical address of the manufacturer and /or packer or distributors
 - (c) List of ingredients in descending order, including specific names of additives and/or the International numbering (INS)
 - (d) Net mass in g or kg
 - (e) Batch identification number in code or in clear
 - (f) Date of manufacture and expiry or best before date
 - (g) Country of manufacture
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- h) Storage condition
- k) Trade or brand name
 - j) A declaration of any known allergen
- l) instruction on how to prepare/use

- l) Warning statement

“This product has no nutritive value, it is prohibited for children under 18 years of age, pregnant and breast feeding women, sick people and elderly people” and the statement shall also be written in Kiswahili as follows, “Bidhaa hii haina virutubisho, hairuhusiwi kutumiwa na watoto chini ya miaka 18, wanawake wajawazito na wanaonyonyesha, wagonjwa na wazee”.

- n) A statement that shall prominently feature on the label that the drink Contains an artificial sweetener.

NOTE – If the drink in solid form to which aspartame has been added is displayed for retail sale other than in a package, there must be displayed in connection with the drink in standard 50 % of the label size, a statement that the drink contains an artificial sweetener together with the statement “Phenylketonuria: contains Phenylalanine

6.3 The language on the label shall be in “Kiswahili” or Kiswahili and/or English. A second language may be used depending on the designated market.

6.4 The use of pictorials or any other misrepresentation of the product on the label is prohibited.

6.5 Each container may also be marked with the TBS standards mark of quality.

NOTE – The use of the TBS certification mark is governed by the provision of the Standards Act, 2009. Details of conditions under which a license for the use of TBS certification mark may be granted to the manufacturer may be obtained from TBS.

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