AFDC12 (5983) P2/TZS 1351: 2010
ICS: 67.160.20

DRAFT TANZANIA STANDARD

Flavoured drink in solid form — Specification

TANZANIA BUREAU OF STANDARD

Flavoured drink in solid form — Specification

0 Foreword

Flavoured drinks in solid form are among the beverages produced in Tanzania; some of which are imported for direct human consumption.

This Tanzania Standard was developed in order to ensure the safety and quality of flavoured drinks in solid form being produced or sold in Tanzania.

In the preparation of this Tanzania Standard assistance was drawn from:

KS 1773:2003, *Flavoured drink in solid form — Specification*; published by the Kenya Bureau of Standards

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 flavoured drink in solid form containing nutritive sweeteners intended for direct human consumption 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

Use the formal opening statement and remove the years in the referenced standards:

TZS 4:2009, *Rounding off numerical values*

TZS 59:2010(2nd Ed.)water for analytical Laboratory use-specification and test method
TZS 101:2017, *Refined sugar — Specification*

TZS 109:2008, *General code of hygiene for food processing units*

Codex stan 192 *Permissible food additives and levels of use — Schedule*

TZS 118:2018, *Microbiologyof food and animal feeding stuffs-Horizontal method for enumeration of microorganisms-colony-count technique at 30^{0}C*

TZS 119:2018, *Microbiology of food and animal feeding stuffs-Horizontal method for detection and enumeration of coliforms — Most probable number technique (MPN)*

TZS 131:2010 (2nd Ed) , Microbiology of food and animal feeding stuff: General guidance for enumeration of yeasts and moulds- Colony Count technique at 25^{o}C

TZS 163:2012,*Fresh fruits and vegetable products — Methods of sampling and tests*

TZS 538:2015**, L**abelling of pre-packaged foods — General requirements

TZS 789:2016-EAS 12:2014 , *Potable water specification*

TZS 1318:2010, *Spices and condiments — Determination of moisture content — Entrainment method*

TZS 1492:2016 / ISO 2447-1998 Fruit and vegetable products —Determination of tin content

TZS 1495:2016/ ISO 7952-1994 Fruits, vegetables and derived products sampling and methods of test – Part 9: Determination of copper content – Method using flame atomic absorption spectrometry

TZS 1502:2016 Fruits, vegetables and derived products – Sampling and methods of test Part 14\: Determination of arsenic content \- Silver diethyldithocarbamate spectrophotometric method

TZS 268:2017(2nd Ed) General atomic absorption spectrophotometric method for determination of lead in food and food stuffs

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

3 Terms and definitions

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

3.1 Flavoured drink in solid form

a dry product in a form of crystals, powder or tablets, containing sugar conforming to TZS 101 (see clause2), acid regulators, ascorbic acid, flavourants such as orange, lemon, lime, tangerine and colour complying to the respective Tanzania Standards or Codex Alimentarius Commission standards.

3.2 Ready to drink beverage

a product obtained by reconstitution of fruit flavoured drink in solid form as crystal powder or tablet, 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).

4 Requirements

4.1 General requirements

Flavoured drink in solid form shall:

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

4.2 Specific requirements

4.2.1 Moisture content

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) products relevance

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 Taste and aroma (flavour)

When the 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.

4.2.4 Wholesomeness

The reconstituted drink shall have a good body and colour.

4.2.5 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	TZS 268:2017
2	Arsenic (As)	0.2	TZS 1502:2016
3	Copper (Cu)	3	TZS 1495:2016
4	Tin (Sn	200	TZS1492:2017
5	Mercury	0.1	AOAC 971.21:2000(17th Ed)

4. 2.6 Food additives

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

4.2.6.1 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.

4.2.7 Vitamin C (L – ascorbic acid) fortification

Flavoured drink in solid form may contain vitamin C in amounts capable of releasing 35 mg/100 ml minimum when determined as per annex C of TZS 585 (see clause 2).

4.2.8 Degrees Brix

The dissolved flavoured drink in solid form shall have a minimum brix content of 10° when determined at 20 °C in accordance to clause 8 of TZS 163 (see clause 2).

5 Hygiene

5.1 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	1×10^3	TZS 118:
2	Coliforms, cfu/g	Absent	TZS 119:
3	Yeast and moulds, cfu/g	10	TZS 131
4	Staphylococcus aureus	10^2	TZS 125

6 Packaging, marking and labelling

6.1 Packing

Flavoured drink in solid form shall be packed in suitable food grade containers which are inert, 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 labelling

In addition to the provisions covered under TZS 538 (see clause 2) flavoured drink in solid form shall be legibly and indelibly marked on the label with the following information.

a) The common name of the product shall reflect the physical form and flavour used;
b) Name, postal and physical address of the manufacturer and/ or packer or distributor;
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;
h) Storage condition;
i) Trade or brand name;
j) Instruction on how to prepare/use;
k) A declaration of any known allergen

6.3 Certification mark – Each container may also be marked with a TBS certification mark.

NOTE – The use of TBS certification mark of quality is governed by the provisions of the standards Act, 2009. Details of the conditions under which a license for use of the TBS certification mark of quality may be granted to manufacturers or producer may be obtained from TBS.