



DRAFT TANZANIA STANDARD

Ginger drink — Specification

ASDraft for stakeholders comments

TANZANIA BUREAU OF STANDARDS

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0 Foreword

Ginger drink is beverage drink obtained from ginger rhizomes (*Zingiber officinale* L.). Ginger drink is one of the highly consumed beverages in the beverages industry.

This Tanzania standard was prepared to ensure the safety and quality of ginger drink produced for local and export markets.

In the preparation of this Tanzania Standard assistance was derived from the local manufacturers of ginger drink.

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

1. Scope

This Tanzania standard specifies requirements, method of sampling and testing for non-alcoholic ginger drink for direct human consumption.

2 Normative references

The following referenced documents are indispensable for the application 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 66, *Guidelines for the use of flavourings*

CXS 192, *General Standard for food additives*

CXS 193, *General Standard for Contaminants and Toxins in Food and Feed*

TZS 109, *Food processing and manufacturing units -Code of hygiene -General*

TZS 118, *Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of microorganisms - Colony-count technique at 30 °C*

TZS 119, *Microbiology of food and animal feeding stuffs - Horizontal method for detection and enumeration of coliforms - Most probable number technique*

TZS 122, *Microbiology of food and feeding stuffs - Horizontal method for the detection of salmonella spp*

TZS 125, *Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) - Part 2: Technique using rabbit plasma fibrinogen agar medium*

TZS 131, *Microbiology of food and animal feeding stuff - General guidance for enumeration of yeasts and moulds - Colony count technique at 25 °C*

TZS 163, *Fresh fruits and vegetables - sampling*

TZS 268, *General atomic absorption spectrophotometric method for determination of lead in food and food stuffs*

TZS 538, *Pre -packaged food labeling - General requirements*

TZS 799, *Foodstuffs -Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products - High-performance liquid chromatographic method*

TZS 1488, *Fruits, vegetables and derived products –Determination of titratable acidity*

TZS 1491, *Fruits, vegetables and derived products –Determination of pH*

TZS 1496, *Fruits, vegetables and derived products –Determination of soluble solids*

TZS 1504, *Fruits and vegetable products – Determination of ethanol content*

TZS 1581-1, *Fruits, vegetables and derived products - Determination of cadmium content - Part 1: Method using graphite furnace atomic absorption spectrometry*

3 Terms and definitions

For the purpose of this standard the following definitions apply.

3.1 ginger drink

non-alcoholic beverage prepared from ginger, potable water and any other edible plant materials

3.2 brix°

soluble solids content of the drink expressed as percentage by weight (% w/w)

3.3 non- alcoholic drink

beverage with less than 0.5 % v/v alcohol content

3.4 edible plant materials

any part of plant that is safe and suitable for human consumption ie leaves, stem, roots, seeds, flowers and fruits

4 Requirement

4.1 Ingredients

Ginger drink shall be prepared from the following ingredients complying with relevant Tanzania standard:

- a) Ginger;
- b) potable water;
- c) any other edible plant materials;

4.2 General requirements

Ginger drink shall:

- a) be safe for human consumption;
- b) predominantly have a ginger flavor; and
- c) be free of foreign matter;

4.3 Specific requirements

Ginger drink shall comply with specific requirements given in Table 1 when tested in accordance with the test methods specified therein.

Table 1— Specific requirements for ginger drink

S/No	Parameter	Requirement	Test method
i.	pH value	2.5 – 4	TZS 1491
ii.	*Degree brix at 20°C, min..	8	TZS 1496
iii.	Alcohol content, % v/v, max.	0.5	TZS 1504
iv.	Titrateable acidity g/L	< 1	TZS 1488
v.	* This parameter is applicable to ginger drink with added sugar		

5 Food additives

5.1 Food additives may be used in the preparation of ginger drink in accordance with CXS 192.

5.2 Ginger drink may be flavoured and only permitted flavours shall be used in accordance with CXG 66

6 Hygiene

6.1 Ginger drink shall be processed in premises and environment that is hygienically maintained and shall be handled in accordance with the requirements provided in TZS 109.

6.2 Ginger drink shall not exceed the microbiological limits given in Table 2, when tested in accordance with the test methods specified therein.

Table 2 — Microbiological limit for ginger drink

S/No	Microorganism	Limit	Method of test
i.	Total plate count, CFU/ml, max.	10 ²	TZS 118

ii.	Coliforms, CFU/ml, max.	Absent	TZS 119
iii.	Yeast and moulds, CFU/ml, max	10	TZS 131
iv.	<i>Staphylococcus aureus</i> , in 1 ml	Absent	TZS 125
v.	<i>Salmonella spp.</i>	Absent	TZS 122

7 Contaminants

7.1 Heavy metals

Ginger drink shall not contain heavy metal contaminants in excess of the limits specified in Table 3 when tested in accordance with the test methods specified therein.

Table 3— Maximum limits of heavy metal contaminants

S/No.	Heavy metal	Maximum limit, (mg/kg)	Test method
i.	Lead as Pb	0.1	TZS 268
ii.	Cadmium	0.1	TZS 1581-1
iii.	Tin*	250	
* Applicable to canned products			

7.2 Pesticide residues

The maximum allowable pesticide residue limits in ginger drink shall be as specified in the relevant Codex Alimentarius online data base for pesticide residues.

7.3 Mycotoxins

Ginger drinks shall not exceed aflatoxin limits specified in Table 4 when tested in accordance with the test methods specified therein.

Table 4— Aflatoxin limits for ginger drink

S/No.	Aflatoxin	Maximum Limit µg/kg	Test method
i.	Aflatoxin B ₁	5	TZS 799
ii.	Total aflatoxins	10	

8 Sampling and test method

8.1 Sampling

Sampling of ginger drink shall be done in accordance with TZS 163

8.2 Test methods

Test methods for ginger drink shall be as specified in this Tanzania Standard

9 Packaging, marking and labelling

9.1 Packaging

Ginger drink shall be packed in food grade material that ensures the integrity and safety of the product.

9.2 Marking and labelling

Ginger drink shall be labelled in accordance with TZS 538. In addition to TZS 538, each container shall be labelled legibly and indelibly with the following particulars:

- a) The name of the product as “ginger drink”, if contain added sugar the words “with added sugar” shall appear in close proximity of the name of the product;
- b) The net content;
- c) Name and address of the manufacturer;
- d) Batch or code number;
- e) Country of origin;
- f) List of ingredients in descending order;
- g) Brand or trade name;
- h) Declaration of allergens if any;
- i) Date of manufacturer; and
- j) Expiry date.

9.3 The containers may also be marked with the TBS standards mark of quality.

NOTE — The TBS Standards Mark of Quality may be used by manufacturers only under licence from TBS. Particulars of conditions under which the licences are granted, may be obtained from TBS.