



DRAFT TANZANIA STANDARD

Guava juice – Specification

FOR STAKEHOLDERS' COMMENTS ONLY

TANZANIA BUREAU OF STANDARDS

0. FOREWORD

Guava juice is the liquid drink obtained from the soft pulp of guava fruit (*Psidium guajava*),

This Tanzania Standard was prepared to safe guard the consumer and to guide manufacturers, traders and regulators for safe and quality.

In the preparation of this Tanzania standard assistance was derived from TZS 1196:2015 Guava juice –specification published by Tanzania Bureau of Standards.

In reporting the results of a test or analysis made in accordance with this 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 prescribes requirements, methods of sampling and tests for guava juice

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.

- a) *TZS 4 Rounding off numerical values*
- b) *TZS 113:2015 – Processed fruits and vegetables – Code of hygiene.*
- c) *TZS 118 Food stuff-General guidance for enumeration of micro organisms –Colony count technique at 30°C*
- d) *TZS 131 Microbiology – General guidance for enumeration of yeast and mould –Colony count technique at 25 °C.*
- e) *TZS 163, Fresh fruits and vegetables — Sampling*
- f) *Codex Stan 192 Food additives – Schedule*
- g) *TZS 570 Determination of organic acids in fruits juices*
- h) *TZS 269 Estimation of ascorbic acid (vitamin c)*
- i) *TZS 538 Packaging and labelling of food*
- j) *TZS 731 Microbiology of food and feeding stuffs-Horizontal method for detection and enumeration of presumptive Escherichia coli*

- k) *TZS 789/EAS 12, Drinking (potable) water — Specification*
- l) *TZS 963 (Part 3), Starch and derived products – Heavy metals content – Part 3 – Determination of lead content by atomic absorption spectrometry with electro-thermal atomization*
- m) *TZS 1502, Fruits, vegetables and derived products – Sampling and methods of test Part 14: Determination of arsenic content - Silver diethyldithiocarbamate spectrophotometric method*
- n) *TZS 1496 Fruits and Vegetables – Determination of soluble solids.*
- o) *TZS 1498 Fruits and Vegetables – Determination of ascorbic acid*
- p) *TZS 1504 Fruits and Vegetables – Determination of ethanol content*

3.0 TERMS AND DEFINITIONS

For the purpose of this standard the following definitions shall apply.

3.1 guava juice

unfermented juice intended for direct consumption, obtained by mechanical process of Sound ripe guavas (*Psidium guajava*).

3.2 defects

particles of skins, stems, seeds, fibrous matters and other plant tissues

4. REQUIREMENTS

4.1 General requirements

4.1.1 Guava juice shall be obtained by mechanical extraction process of ripe guava fruits. The juice may have been concentrated and later reconstituted with potable water conform to TZS 789. For the purpose of maintaining the essential composition and quality factors of the juice. The colour may vary from creamy white and pink.

4.1.2 Guava juice shall possess the characteristic colour, flavor, aroma of fresh guava consistency and shall not show any sign of fermentation.

4.1.3 Guava juice shall be free from defects (see clause 3.2)

4.2 Specific requirements

Guava juice shall conform to the physical and chemical requirements given in Table 1.

Table 1. Physical and chemical requirements of guava juice

S/NO	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST (SEE CLAUSE 2)
1.	Soluble solids read as brix at 20 ⁰ C,min	8.5	TZS 1496
2.	Total acidity, expressed as malic acid, % m/v, max	0.7	TZS 570
3.	Ethanol % by mass, max	0.3	TZS 1504
4	Ascorbic acid % by mass, min	0.3	TZS 1498

4.5 Food additives:

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

5 Contaminants.

5.1 Guava juice shall not contain metal contaminants in excess of quantities specified in Table 2.

Table 2: Limits for metal contaminants in guava juice

Heavy metals	Maximum mg/kg	Test method
Arsenic (As)	0.2	TZS 1502
Lead (Pb)	0.03	TZS 963-3
Cadmium (Cd)	0.05	TZS 268

5.2 The maximum allowable pesticide residue limits in guava juice shall be as prescribed in the relevant Codex Stan 193

6. HYGIENE

6.1 Guava juice shall be prepared under hygienic conditions in accordance with TZS 113 (see clause 2).

6.2 Microbiological limit – Guava juice shall be free from pathogenic microorganisms or their toxic derivatives such as patulin and shall comply with the microbiological limits provided in Table 3.

Table 3 - Microbiological limits for guava juice

S/NO	Type of micro organism	Limits	Method of test
i	Total viable count, cfu/ml, max	10	TZS 118
ii.	Yeast and moulds, cfu/ml	absent	TZS 131
iii.	<i>Escherichia coli</i> , MPN/ml	absent	TZS 731

7. SAMPLING AND TEST METHODS

7.1 For the purpose of this standard sampling of guava juice shall be done in accordance with TZS 163 (see clause 2).

7.2 Guava juice shall be tested for ascertaining conformity of the product to the requirements in this standard by the methods given in TZS 163 (see clause 2) and as provided in the respective Tables of this standard.

8. PACKAGING, MARKING AND LABELLING

8.1 Packaging

8.1.1 Guava juice shall be packed in suitable food grade containers.

Containers shall be airtight and shall be provided with tamper proof seals and closures. Containers shall preclude contamination with or proliferation of microorganisms in the product during storage and transportation.

8.1.2 The head space of each container shall be 10% of the fill.

8.2 Marking and labeling

8.2.1 Guava juice shall also be packed and labeled in accordance with the requirements prescribed in TZS 538. In addition, each container shall be visibly and indelibly labeled with the following particulars:

- a) Name of the product: 'Guava juice'
- b) Name, physical and postal address of the manufacturer or packer
- c) Country of origin
- d) Date of manufacture and expiry date
- e) List of ingredients
- f) Net volume in metric units
- g) Storage condition
- h) Batch number in code or in clear
- i) Brand name, if any.

8.2.2 Containers may also be marked with TBS certification mark.

NOTE: The TBS standards mark of quality may be used by manufacturers only under licence from TBS. Particulars of conditions under which the licence is granted can be obtained from TBS.