



## DRAFT TANZANIA STANDARD

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Fruit flavoured alcoholic beverage — SPECIFICATION

DRAFT FOR STAKEHOLDERS COMMENTS

## 0 FOREWORD

Most of the alcoholic beverages have traditionally been known to be products of direct fermentation processes; either from grain, sugar, fruit or saps. In other instances alcoholic beverages have been products of secondary processes of the fermentation products, such as distillation. Consequently a wide range of alcoholic beverages such as wine, beer, brandy, whisky, perry, gin, cider and others have existed for a long time.

Alcoholic beverages are normally judged in terms of their flavour and stimulating effect they produce. Bearing this in mind the alcoholic beverage industry has thus continuously has been search of new techniques that would enable the industry to manufacture products that would fulfill the aforementioned requirements, without necessarily involving the traditional techniques cited in above.

Research and development that has been taking place for the production of non-traditional alcoholic beverages in recent years has enabled the production of alcoholic beverages by blending Ethanol with unfermented fruit juices or fruit flavours. The increase demand for consumption of fruit or fruit flavoured alcoholic beverages has been an inspirational to this development.

In light of the need to safeguard the consumer and in order to ensure the safety and quality of the product, this Tanzania Standard was thus developed.

In reporting the results 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 (see clause 2).

## 1 SCOPE

This Tanzania Standard prescribes the requirements and the methods of sampling and test for Fruit flavoured alcoholic beverage.

## 2 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;

*TZS 4, rounding off numerical values*

*TZS 56, Beer- Specification*

*TZS 59, Water distilled -Duality-Specification*

*TZS 79, Method for determination of arsenic*

*TZS 101, refined sugar-Specification*

*TZS 109, Code of hygiene for food processing unit-general*

*TZS 115, Food- permitted food additives- schedule*

*TZS 117, Food- handling of samples for microbiological analysis-code of practice*

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

TZS 119, *General guidance for the enumeration of coliforms- Most probable Number technique*

TZS 163, *processed fruits and vegetable products-Methods of sampling and gest*

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

TZS 538, *Packaging, packing and labelling of food.*

TZS 574, (part 1), *Drinking water- part 1: The requirement for drinking water and bottled drinking water.*

TZS 471, *Methods of sampling and testing for alcoholic beverages*

TZS 1018 *Neutral (fine) spirit - Specification*

TZS 831 *brown sugar – Specification*

### 3 TERMS AND DEFINITIONS

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

#### 3.1 alcohol

as ethyl alcohol (C<sub>2</sub>H<sub>5</sub>OH)

#### 3.2 neutral or fine spirit

the alcoholic distillate obtained from fermented wort or wash of mash of cereals and other carbohydrates, saccharified by diastase of malt or other permitted enzymes; or it may be a distillation product from sugarcane or honey; fermented by the action of *Saccharomyces cerevisiae*, from which a distilled liquor conforming to TZS 1018 (see clause 2) is obtained after a series of concentration by distillation process.

#### 3.4 fruit flavoured alcoholic beverages

a carbonated or non carbonated alcoholic beverage intended to be consumed directly without prior dilution, obtained by mixing ethanol with unfermented fruit juice or fruit flavoursconcentrated syrup containing sugar, diluted with potable water to attain the required alcoholic content.

## **4 REQUIREMENTS**

### **4.1 GENERAL REQUIREMENTS**

#### **4.1.1 Description**

Fruit flavoured alcoholic beverage shall be a carbonated/non carbonated alcoholic beverage intended to be consumed directly without prior dilution; obtained by blending ethanol with unfermented fruit juice or harmless flavourants, essences, and/or plant extracts, concentrated syrup containing sugar, diluted with potable water to an alcohol content of between two and seven with or without the addition of additives. Ethanol may be obtained by fermentation of carbohydrates derived materials or from neutral spirit.

#### **4.1.2 Ingredients**

The following material shall be used for the production of fruit flavoured alcoholic beverage;

4.1.2.1 Ethyl alcohol

4.1.2.2 Potable water conforming to TZS 574(part one) (see clause 2)

4.1.2.3 Fruit juice/flavourants.

The juice of designated fruit shall be unfermented, conforming to requirement of respective prescribed in Tanzania Standard or any of the permitted flavourings (see clause 2)

4.1.2.4 Refined sugar conforming to TZS 101 or brown sugar conforming to TZS 831(see clause 2)

4.1.2.5 Carbon dioxide may be used in the production fruit flavoured alcoholic beverage;

Note: The carbon dioxide shall be of pure and fit for human consumption

#### **4.1.3 Taste and Aroma**

The product shall have the taste and flavour characteristic of the fruit or flavours for which it is claimed or implied. Foreign flavours and odours shall not be present.

It shall also be clear and have the characteristic colour of its type. The product shall be free from suspension, sediments or any foreign matter and other substances injurious to health.

### **4.2 SPECIFIC REQUIREMENT**

Fruit flavour alcoholic beverage shall comply with the specific requirements specified in Table 1:

Table 1: Physical and Chemical Requirements of Fruit Flavoured Alcoholic beverage

S/N	Characteristic	Requirements	Method of Test
1	Ethyl alcohol, percent , v/v	2 - 7	TZS 471
2	Methanol, percent , v/v max	0.4	TZS 471
3	pH	2.5 - 4.0	TZS 56
4	*Carbon dioxide ,percent, v/v	2.5 - 4.5	TZS 56
5	Arsenic as ,As mg/l, max	0.1	TZS 76
6	Lead as, Pb, mg/l, max	0.1	TZS 268
7	Tin as Sn, mg/l, max	250	TZS163
8	Copper, as Cu, mg/l, max	2.0	TZS 163

*\*If alcoholic beverage is carbonated*

#### 4.3 FOOD ADDITIVES

Food additives may be used in the preparation of in accordance with TZS 115.

#### 6. HYGIENE

Fruit flavoured alcoholic beverage shall be manufactured and handled in a hygienic manner in accordance with TZS 109. Also fruit flavoured alcoholic beverage shall conform to the microbiological limits prescribed in Table 2.

Table 2 — Microbiological limits for Fruit flavoured alcoholic beverage

S/N	Parameter	Requirement	Method of Test
1	Total Colony Count cfu/ml, max	10 <sup>2</sup>	TZS 118
2	Coliforms (MPN/ml)	NIL	TZS 119
3	Yeasts and Moulds cfu/ml, max	10 <sup>2</sup>	TZS 131

#### 7. SAMPLING AND TEST.

##### 7.1 SAMPLING

The method of sampling shall be in accordance with TZS 471

##### 7.2 TEST

Tests shall be done as prescribed in Table 1 and table 2.

#### 8. PACKAGING, MARKING AND LABELLING

##### 8.1 PACKAGING

8.1 Fruit flavoured alcoholic beverage shall be packaged in suitable food grade containers conforming to TZS 538

8.2 The volume filled shall be in accordance with the Weights and Packaging Regulations

## 8.2 MARKING AND LABELLING

In addition to the requirements of TZS 538, the following specific labelling requirements shall apply and shall be legibly and indelibly marked:

- a) name, physical location and address of manufacturer;
- b) ethyl alcohol content, % by volume;
- c) list of ingredients in descending order of proportion by mass;
- d) net content in millilitres or litres;
- e) a declaration by common name of any additives used;
- f) date of manufacture, batch identification number/code;
- g) best before;
- h) country of origin; and
- i) Statutory warnings.

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