



## DRAFT TANZANIA STANDARD

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

*Draft for stakeholders comments*

**TANZANIA BUREAU OF STANDARDS**

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# Artificially sweetened flavoured drink in solid form — Specification

## 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. It is a revision of the second edition published in 2022.

This third edition cancels and replaces the second edition (TZS 1351:2022) which has been technically revised.

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 flavoured drinks in solid form intended for 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:

CXS 192, *Permitted food additives*

TZS 4, *Rounding off numerical values*

TZS 114, *Soft drink manufacturing units — Code of hygiene*

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 125-2, *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 268, General atomic absorption spectrophotometric method for determination of lead in food and food stuffs*

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

*TZS 585, Ready to drink non-carbonated non-alcoholic beverage - Specification*

*TZS 789, Drinking (potable) water — Specification*

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

*TZS 1491, Fruits and Vegetables — Determination of Ph*

*TZS 1492 / ISO 2447, Fruit and vegetable products —Determination of tin content*

*TZS 1502, Fruits, vegetables and derived products — Determination of arsenic content \- Silver diethyldithiocarbamate spectrophotometric method*

*TZS 2616, Foodstuffs-Determination of mercury by flameless atomic absorption spectrophotometric method*

### **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**

flavoured dry product in form of crystals, powder, tablets or any other solid forms, containing permitted artificial sweeteners

#### **3.2 reconstituted drink**

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

#### **3.3 potable water**

water conforming to the requirements of TZS 789

#### **3.4 calorie free**

having relatively fewer calories (5 calories or less per serving).

#### **3.5 solubility**

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

#### **3.6 Non-nutritive artificially sweeteners**

synthetic sweetening agents that provide sweet taste with no energy(calories) to the diet

## 4 Requirements

### 4.1 General requirements

4.1.1 Artificially sweetened flavoured drink in solid form shall:

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

4.1.2 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 The reconstituted drink beverage shall be wholesome and uniform in colour.

4.1.4 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 in accordance with TZS 585.

### 4.2 Specific requirements

Artificially sweetened flavoured drink in solid form shall comply to the specific requirements given in Table 1, when tested in accordance with the test methods specified therein.

**Table 1— Specific requirements of artificially sweetened flavoured in solid form**

S/No	Characteristic	Requirement	Test method
i.	Moisture, %m/m, Max.	3	TZS 1318
ii.	pH*	2.7 to 4.0	TZS 1491
* pH of flavoured drink in solid form after reconstitution			

## 5 Food additives

Use of food additives shall be in accordance with CXS 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.

## 6 Hygiene

6.1 The product shall be prepared under strict hygienic conditions according to TZS 114

6.2 The product shall not exceed microbiological limits given in Table 2 when tested in accordance with the levels given in Table 2.

**Table 2 — Microbiological limits for artificially sweetened flavoured drink in solid form**

S/N	Microorganism	Maximum limit	Test method
i.	Total plate count, CFU/g	10 <sup>3</sup>	TZS 118
ii.	Coliforms, CFU/g	Absent	TZS 119
iii.	Yeast and moulds, CFU/g	10	TZS 131
iv.	<i>Staphylococcus aureus</i> , CFU/g	10 <sup>2</sup>	TZS 125-2
v	<i>Salmonella spp</i>	Absent	TZS 122

## 7. Contaminants

### 7.1 Heavy metals

Heavy metals in artificially sweetened flavoured drink in solid form shall not exceed the maximum limits given in Table 3 when tested in accordance with the test method specified therein.

**Table 3 —Maximum limits for heavy metals contaminants**

S/No.	Contaminant	Maximum Limit (mg/kg)	Test method
i.	Lead (Pb)	0.2	TZS 268
ii.	Arsenic (As)	0.2	TZS 1502
iii.	Tin (Sn)*	200	TZS 1492
iv.	Mercury	0.1	TZS 2616
*Applies for canned products			

## 8 Packaging, marking and labelling

### 8.1 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.

**8.1.1** The containers shall be filled under strict hygienic conditions.

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

**8.1.3** Labeling shall be made to the main containers if used.

## **8.2 Marking and labeling**

**8.2.1** Artificially sweetened flavoured drink in solid form shall be labelled in accordance with TZS 538. In addition to the provisions covered under TZS 538, artificially sweetened flavored 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 sugar free nature of the product form and flavour used;
- b) name, postal and physical address of the manufacturer and /packer or distributors;
- c) list of ingredients in descending order, including specific names of additives and/or the International numbering (INS);
- d) net weight in SI Unit;
- e) batch identification number in code or in clear;
- f) date of manufacture and expiry date;
- g) country of manufacture;
- h) storage condition;
- i) trade or brand name;
- j) a declaration of any known allergen;
- k) 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”; and
- m) a statement that shall prominently feature on the label that the drink contains an artificial sweetener.

**8.2.2** If the drink in solid form to which aspartame has been added is displayed for retail sale other than in a package shall display a statement that the drink contains an artificial sweetener together with the statement “Phenylketonuria: contains Phenylalanine”, in standard 50 % of the label size.

**8.4** 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.

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

**8.6** Each container may also be marked with the TBS Standards Mark of Quality.

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

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