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**Soft drink concentrate — Specification**



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This African Standard was prepared by ARSO/TC 18, *Alcoholic and non-alcoholic beverages*.

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## Soft drink concentrate — Specification

### 1 Scope

This African standard specifies requirements, methods of sampling, and tests for soft drink concentrates in solid and liquid forms intended for 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.

AOAC 999.10, *Lead, cadmium, zinc, copper and iron in foods — Atomic absorption spectrophotometry after microwave digestion*

ARS 53, *General principles of food hygiene — Code of practice*

ARS 56, *Pre-packaged foods — Labelling*

ARS 2229, *Alcoholic beverages — Methods of sampling and test*

CXG 66, *Guidelines for the use of flavourings*

CXS 192, *Codex general standard for food additives*

ISO 4831, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of coliforms — Most probable number technique*

ISO 4832, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coliforms — Colony-count technique*

ISO 4833-1, *Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30 °C by the pour plate technique*

ISO 17239, *Fruits, vegetables and derived products — Determination of arsenic content — Method using hydride generation atomic absorption spectrometry*

ISO 21527-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 1: Colony count technique in products with water activity greater than 0.95*

ISO 21527-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0.95*

### 3 Terms and definitions

For the purpose of this standard, the following terms and definitions apply.

#### 3.1

##### **soft drink concentrate**

undiluted liquid or unreconstituted solid which may contain flavours, sweeteners, acids and colours, designed to be mixed with water to prepare a soft drink

### 4 Requirements

#### 4.1 General requirements

4.1.1 The materials shall be either in solid and/or liquid form.

# DARS 2234:2026

**4.1.2** The solid material shall be granular to fine crystalline powder devoid of lumps and free from foreign materials. It shall be soluble in water at  $27 \pm 2^{\circ}\text{C}$  temperature when dissolved as per the directions for use.

**4.1.3** The liquid material shall be clear or cloudy, free from scum, residue, or suspended matter, of a uniform colour, and with or without flavor. It shall be free from bad flavours and odours

**4.1.4** No synthetic food colour and artificial sweeteners shall be used in the product

## 4.2 Specific requirements

The concentrate, in solid and liquid forms, shall conform to the requirements given in Table 1.

**Table 1 – Specific requirements for concentrate in solid and liquid forms**

S/No	Characteristic	Requirement		Test method
		Concentrate in solid form	Concentrate in liquid form	
i.	Water insoluble matter, % by mass, max.	1.0	1.0	ARS 2229
ii.	Moisture content, % by mass, max.	5.0	NA	
iii.	Sulphated ash, % by mass, max.	Value is declared by the manufacturer	NA	

## 5 Food additives

Food additives may be used in accordance with CXS 192.

## 6 Hygiene

**6.1** The concentrate, in solid and liquid forms, shall be manufactured and handled in accordance with ARS 53.

**6.2** The concentrate, in solid and liquid forms, shall comply with the microbiological limits given in Table 2 when tested in accordance with the test methods specified therein.

**Table 2 — Microbiological limits for the concentrate, in solid and liquid forms**

S/No	Microorganism	Limit	Test method
i.	<i>Coliforms</i> , MPN/ mL or; <i>Coliforms</i> , CFU/mL	Not detected	ISO 4831 or ISO 4832
ii.	Total plate count, CFU/mL, max.	50	ISO 4833-1
iii.	Yeasts and moulds CFU/mL, max	2	ISO 21527

## 7 Contaminants

### 7.1 Heavy metals

The concentrate, in solid and liquid forms, shall comply with the heavy metal limits given in Table 3 when tested in accordance with the test methods specified therein.

Table 3 — Heavy metal limits for the concentrate, in solid and liquid forms

S/No	Heavy metal	Limit, mg/kg, max.	Test method
i.	Arsenic (As)	0.1	ISO 17239
ii.	Lead (Pb)	2	AOAC 999.10
iii.	Copper (Cu)	20	AOAC 999.10

## 7.2 Pesticide residues

The concentrate, in solid and liquid forms, shall comply with the pesticide residue limits specified in the Codex Alimentarius Commission food online database.

## 8 Packaging

The concentrate, in solid and liquid forms, shall be packaged in food-grade containers that shall not affect the quality and the safety of the product.

## 9 Labelling

In addition to the labelling requirements given in ARS 56, each package shall be legibly and indelibly labelled with the following information:

- a) name of the product;
- b) name, physical and postal address of the manufacturer, importer or bottler;
- c) juice/pulp content, if added
- d) list of ingredients;
- e) Name of flavour
- f) net contents;
- g) Batch or code number;
- h) date of manufacture;
- i) date of expiry;
- j) storage instructions;
- k) country of origin; and
- l) instruction for use.

## 10 Sampling

Sampling shall be done in accordance with ARS 2229.

**Bibliography**

IS 13019:1991, *Soft drink concentrate — Specification*

Draft African Standard for comments only — Not to be cited as African Standard

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