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Flavoured soft drinks — Specification

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Foreword

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by Technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

DRS 79 was prepared by Technical Committee RSB/TC 001, *Non-alcoholic beverages*.

This third edition cancels and replaces the second edition (RS 79: 2018) and RS 381:2018 Plant flavoured soft drinks—Specification, which have been technically revised.

Committee membership

The following organizations were represented on the Technical Committee on *Non-alcoholic beverages* (RSB/TC 001) in the preparation of this standard.

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MINIMEX Ltd

Mwezi Co.Ltd,

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Rwanda Food and Drugs Authority

SORWATOM

SPIC Ltd

Rwanda Standards Board (RSB) – Secretariat

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Flavoured soft drinks — Specification

1 Scope

1.1 This Draft Rwanda Standard specifies the requirements, sampling and test methods for flavoured soft drinks.

1.2 This standard applies to soft drinks flavoured with fruits, plant parts or their extracts other than fruits, or other food flavourings (natural/synthetic).

1.3 This standard does not apply to soft drinks covered by specific individual standards

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 950.17, *Official Method Citric Acid in non-alcoholic Beverages*

AOAC 950.27, *Solids (total) in non-alcoholic beverages*

AOAC 950.29, *Sucrose in non-alcoholic beverages*

AOAC 950.31, *Official Method, Glucose (Commercial) in non-alcoholic Beverages*

AOAC 980.19, *Tin in food, Atomic Absorption Spectrophotometric method*

AOAC 999.10, *Lead, cadmium, zinc, copper and iron in food, Atomic Absorption Spectrophotometry*

RS CXC 1, *General principles of food hygiene*

RS CXS 192, *General standard for food additives*

RS EAS 12, *Potable water — Specification*

RS EAS 38, *General standard for labeling of prepackaged foods*

RS ISO 16649-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 2: Colony-count technique at 44 degrees C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

RS ISO 1842, *Fruit and vegetable products — Determination of pH*

RS ISO 4833-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30 degrees C by the pour plate technique*

RS ISO 6579-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection of Salmonella spp.*

RS ISO 6888-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 1: Technique using Baird-Parker agar medium*

RS 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 purposes of this standard, the following terms and definitions apply.

3.1

flavoured soft drink

non-alcoholic beverage which may be flavoured with either fruits or other plant parts or their extracts or any other food flavouring, which may be natural or synthetic.

3.2

food grade packaging material

packaging material, made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product

4 Classification

Flavoured soft drink shall be classified as concentrated or ready-to-drink.

5 Ingredients

5.1 Essential ingredients

The following essential ingredients shall be used in flavoured soft drinks and shall comply with relevant standards:

- a) potable water complying with RS EAS 12;
- b) fruit or plant parts or their plant parts or their extracts or any other food flavouring which may be natural or synthetic.

5.2 Optional ingredients

The following ingredients may be used in flavoured soft drinks and shall comply with relevant standards. They include but are not limited to:

- c) sugar complying with RS EAS 5 or RS EAS 16 or RS EAS 749;
- d) honey complying with RS EAS 36; and
- e) nutrients such as vitamins and minerals.

6 Requirements

6.1 General requirements

Flavoured soft drink shall:

- a) be free from any extraneous matter;
- b) be free from signs of fermentation;
- c) be free from any substances injurious to health;
- d) possess characteristics of the flavours used;
- e) be free from off-flavour and off-odours; and
- f) be physically homogeneous.

6.2 Specific requirements

Flavoured soft drinks shall comply with the specific requirements stipulated in Table 1 when tested in accordance with test methods specified there in.

Table 1 — Specific requirements for flavoured soft drinks

S/N	Characteristic	Requirements		Test method
		Ready to drink	Concentrated	
i.	Brix, %, min	5	35	AOAC 950.29
ii.	pH	2.4 - 5.8	2.4 - 5.8	RS ISO 1842
iii.	Total Acidity as anhydrous citric-acid, g/l, max.	12.0	12.0	AOAC 950.17
iv.	Sucrose, %, m/m, max	9.0	70	AOAC 950.29

v.	Ethyl alcohol, %, v/v, max.	0.5	0.5	RS EAS 104
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7 Food additives

Food additives which may be used in the manufacture of flavoured soft drinks shall be in accordance with RS CXS 192

8 Hygiene

Fruit flavoured soft drink shall be produced and handled under hygienic conditions in accordance with RS CXC 1.

9 Microbiological requirements

Flavoured soft drinks shall comply with the requirements given in Table 2, when tested in accordance with test methods specified therein.

Table 2 — Microbiological limits for flavoured soft drinks

S/N	Microorganism	Maximum limit	Test method
i.	Total Viable Counts, CFU/ml	10 ²	RS ISO 4833-1
ii.	<i>E.coli</i> ,CFU/ml	absent	RS ISO 16649-2
iii.	<i>Staphylococcus aureus</i> , CFU/ml	absent	RS ISO 6888-1
iv.	<i>Salmonella spp</i> in 25 ml	absent	RS ISO 6579-1
v.	Yeasts and moulds, CFU/ml	10	RS ISO 21527-2

10 Contaminants

10.1 Pesticides residues

The products covered by the provisions of this standard should comply with those maximum residue limits for pesticides established by the Codex Alimentarius Commission.

10.2 Heavy metals

Flavoured soft drinks shall not contain heavy metal contaminants in excess of the limits stipulated in Table 3 when tested in accordance with test methods specified therein.

Table 3 — Limits for heavy metals in flavoured soft drinks

S/N	Characteristics	Maximum limit (mg/kg)	Test method
i.	Lead	0.03	AOAC 999.10
ii.	Tin as Sn	150	AOAC 980.19

11 Packaging

Fruit flavoured soft drinks shall be packaged in food grade packaging materials that ensure the integrity and safety of the product.

12 Labelling

9.1 In addition to requirements specified in RS EAS 38, the following requirements shall apply and shall be legibly and indelibly marked:

- a) name of the product " flavoured soft drink"; preceded by the predominant flavour used;
- b) Name and address of the manufacturer/ packer/distributor/importer/exporter/vendor;
- c) list of ingredients in descending order;
- d) food additives used;
- e) declaration of allergens;
- f) batch/lot number;
- g) net content;
- h) date of manufacture;
- i) country of origin;
- j) expiry date;
- k) storage conditions;

9.2 The following labelling shall be prohibited:

- a) misleading information of the flavoured soft drink through pictorials is prohibited; and
- b) nutrition and health claims are prohibited except if they are used in accordance with RS EAS 805

13 Sampling

Sampling shall be done in accordance with Annex A

Annex A (normative)

Method of sampling for flavoured soft drinks

A.1 Scale of sampling

A.1.1 All bottles in a consignment belonging to the same batch of manufacture shall constitute a lot. If the consignment is declared to consist of different batches of manufacture, bottles of the same batch shall be grouped together and each group so formed shall constitute a separate lot and each lot shall be sampled.

A.1.2 The number of bottles to be selected from a lot for testing for microbiological and other requirements shall depend on the size of the lot and shall be in accordance with Table A.1.

Table A.1 — Number of bottles to be selected for sampling

No. of bottles in the lot (L)	No. of bottles to be selected	
	Microbiological testing	Other tests
$L \leq 1\,300$	12	18
$1\,300 < L \leq 3\,200$	18	24
$L > 3\,200$	24	30

A.1.3 The bottle to be selected for testing shall be chosen at random from the lot by the following procedure. Starting from any bottle, count them as 1, 2, 3... up to r. Every rth bottle thus counted shall be withdrawn r being the integral part of N/n , where N is the total number of bottles in the lot and n is the total number of bottle to be chosen.

A.2 Test samples and reference samples

A.2.1 Samples for microbiological tests

The sample bottle selected for microbiological tests (see Table A.1) shall be divided at random into three equal sets and labelled with all particulars of sampling. One of these sets of sample bottles shall be for the purchaser; another for the vendor and the third set is the reference.

A.2.2 Samples for other tests

The sample bottles selected for other tests (see Table A.1) shall be divided at random into three equal sets and labelled with all the particulars of sampling. One of these sets of sample bottles shall be for the purchaser, another for the vendor and third is the reference.

Bibliography

- [1] RS 79: 2018 Fruit flavoured soft drinks — Specification
- [2] RS 381: 2018 Plant flavoured soft drinks — Specification

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