



**RWANDA
STANDARD**

**DRS
496-1**

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**Malted sorghum drinks— Specification—
Part 1: Alcoholic drink (Ikigage)**

ICS 67.160.10

Reference number

DRS 496-1: 2023

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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.

RS 496-1 was prepared by Technical Committee RSB/TC 031, *Alcoholic beverages*.

This first edition cancels and replaces the first edition (RS 391: 2019), which has been technically revised.

RS 496 consists of the following parts, under the general title *Malted sorghum drinks— Specification*

- *Part 1: Alcoholic drink (Ikigage)*
- *Part 2: Soft drink (Ubushera)*

Committee membership

The following organizations were represented on the Technical Committee on *Alcoholic beverages* (RSB/TC 031) in the preparation of this standard.

Paragraph of participants

Rwanda Standards Board (RSB) – Secretariat

Malted sorghum drinks— Specification Part 1: Alcoholic drink (Ikigage)

1 Scope

This Rwanda Standard specifies the requirements, sampling and test methods for ikigage made from malted sorghum grains of varieties (cultivars) grown from *Sorghum bicolor* (L.) Moench intended for human consumption

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 952.13, *Arsenic in food. Silver diethyldithiocarbamate*

AOAC 999.11, *Lead, Cadmium, Copper, Iron and Zinc in Food, Atomic Absorption Spectrophotometry*

RS 164, *Honey — Specification*

RS CAC/RCP 1, *General principles for food hygiene*

RS CODEX STAN 192, *Codex general standard for food additives*

RS EAS 104, *Alcoholic Beverages — Method of sampling and testing*

RS EAS 12, *Potable water — Specification*

RS EAS 38, *Labelling of pre-packaged foods — General requirements*

RS EAS 757, *Sorghum grains — Specification*

RS ISO 16050, *Foodstuffs Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products — High-performance liquid chromatographic method*

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 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*

RS ISO 4833-1, *Microbiology of the food chain — 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 the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: 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*

3 Terms and definitions

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

3.1

ikigage

alcoholic beverage derived from fermentation of a mash of malted sorghum grains with or without honey

3.2

inturire

ikigage to which honey has been used

3.3

extraneous matter

inorganic matter such as sand, glass, metal, gravel, dirt, pebbles, stones, lumps of earth, clay and mud and organic matter such as chaff, straw, weed seeds and grains of crops, insects or insects' fragments, rodent hairs or any other foreign matter

3.4

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 Requirements

4.1 Ingredients

4.1.1 Essential ingredients

4.1.1.1 The following ingredients shall be used for the production of ikigage:

- a) malted sorghum grains prepared from sorghum grains complying with RS EAS 757;
- b) potable water complying with RS EAS 12; and
- c) appropriate yeasts for fermentation.

4.1.1.2 For inturire, in addition to the ingredients in 4.1.1 a) to c), honey complying with RS 164 shall be used

4.2 General requirements

Ikigage shall:

- d) have the characteristic appearance, taste and aroma;
- e) be free from extraneous matter; and
- f) not contain added alcohol.

4.3 Specific requirements

Ikigage shall comply with the specific requirements given in Table 1 when tested in accordance with test methods specified therein.

Table 1 — Specific requirements for ikigage

S/N	Characteristic	Requirement		Test method
		Ikigage	Inturire	
i.	Ethyl alcohol content, %, v/v, max.	0.5-8.0	2.5-10	RS EAS 104
ii.	Volatile acidity, g/l, max.	0.6	0.6	
iii.	Total suspended solids %, m/v, max.	7.0	7.0	
iv.	Residual sugar, g/l, max.	20	35	
v.	Fructose, g/l, min.	Not detected	13	
vi.	Total solids, %, max.	15	15	
vii.	pH (25 °C ± 3 °C)	3.5 - 4.75	3.5 - 4.75	RS ISO 1842

4.4 Microbiological limits

Ikigage shall not exceed microbiological limits given in Table 2 when tested in accordance with test methods specified therein.

Table 2 — Microbiological limits for ikigage

S/N	Microorganism	Maximum limit	Test method
i.	Total plate count, cfu/ml	10 ²	RS ISO 4833-1

ii.	Salmonella spp, per 25 ml	Absent	RS ISO 6579-1
iii.	E. coli, cfu/ml	Absent	RS ISO 16649-2
iv.	Staphylococcus aureus, cfu/ml	Absent	RS ISO 6888-1
v.	Moulds cfu/ml	100	RS ISO 21527-1

5 Food preservatives

Food preservatives which may be used in processing Ikigage and inturire shall comply with RS CODEX STAN 192.

6 Hygiene

Ikigage shall be handled, processed, packaged, stored and distributed under hygienic conditions prescribed in the RS CAC/RCP 1.

7 Contaminants

7.1 Pesticide and veterinary drugs residues

Ikigage shall comply with the maximum residue limits for pesticides, antibiotics and other veterinary drugs limits set by Codex Alimentarius Commission.

7.2 Heavy metals

Ikigage shall not contain heavy metals in levels exceeding the limits indicated in Table 3 when tested in accordance with test methods therein.

Table 3 — Heavy metals in ikigage

S/N	Heavy metals	Maximum limits (mg/l)	Test method
i.	Arsenic	0.01	AOAC 952.13
ii.	Lead	0.2	AOAC 999.11
iii.	Cadmium	0.1	

7.3 Aflatoxin limits

Ikigage shall not contain aflatoxins in levels exceeding the limits given in Table 4 when tested in accordance with test methods specified therein.

Table 4 — Limits for aflatoxins

S/N	Type	Maximum limits(µg/l)	Test method
i.	Total aflatoxins	4	RS ISO 16050
ii.	Aflatoxin B1	2	

8 Packaging

Ikigage shall be packaged in suitable food grade materials that shall not affect the quality of the product.

9 Labelling

In addition to the requirements of RS EAS 38, the following specific labelling requirements shall apply and shall be legibly and indelibly marked:

- a) name of the product as “Ikigage” or “Inturire”;
- b) name and physical address of manufacturer;
- c) list of ingredients;
- d) preservative used;
- e) net content;
- f) ethyl alcohol content;
- g) date of manufacture;
- h) expiry date;
- i) instructions for use;
- j) storage instructions; and
- k) statutory warnings.

10 Sampling

Sampling of ikigage shall be done in accordance with RS EAS 104.

Bibliography

[1] RS 391: 2019 Ikigage —Specification (First edition)

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