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**Citrus fruits powder— 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 474 was prepared by Technical Committee RSB/TC 038 on *Processed Fruits and Vegetables* and RSB/TC 002 on *Tea and derived products*.

In the preparation of this standard, reference was made to the following standard:

- 1) GSO 2011, Lemon powder standard

The assistance derived from the above source is hereby acknowledged with thanks.

## **Committee membership**

The following organizations were represented on the Technical Committee on *Processed Fruits and Vegetables* (RSB/TC 038) and *Tea and derived products* (RSB/TC 002) in the preparation of this standard.

Amazon Nutrition Cabinet

Anas Ltd

Benya Company Ltd

Bora Wa Uzima

Cooperative Des Agriculteurs et de Transformateurs d'ananas de Mutendeli (Catam)

National Agricultural Export Development Board provides (NAEB)

Netrapi Ltd

Nyarutarama Business Incubation Centre

Rwagasabo Beverages Ltd

Rwanda Agriculture and Animal Resources Development Board (RAB)

Rwanda Food and Drug Authority (RFDA)

Rwanda Mountain Tea

Rwanda Tea Packers Ltd

Shagasha Tea Company

Shekina Enterprise

Sorwatom Ltd

Spic Ltd

Tuzamurane Cooperative

Urwibutso Enterprise

Winners Together Ltd

Rwanda Standards Board (RSB) – Secretariat

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# Citrus fruits powder — Specification

## 1 Scope

This Draft Rwanda Standard specifies requirements, sampling and test methods for citrus fruits powder intended for human consumption.

This Draft Rwanda Standard excludes powders claimed to have medical or other health effects

## 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.

ISO 1575, *Tea — Determination of total ash*

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

RS CODEX STAN 192, *General standard for food additives*

RS CODEX STAN 193, *General standard for contaminants and toxins in food and feed*

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

RS ISO 1576, *Tea — Determination of water-soluble ash and water-insoluble ash*

RS ISO 1577, *Tea — Determination of acid-insoluble ash*

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 1839, *Tea — Sampling*

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*

RS ISO 5498, *Agricultural food products — Determination of crude fibre content — General method*

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 7513, *Instant tea in solid form — Determination of moisture content (loss in mass at 103 degrees C)*

RS ISO 9768, *Tea — Determination of water extract*

### 3 Terms and definitions

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

#### 3.1

##### **citrus fruits powder**

powder obtained from dried citrus fruits from which the seeds have been removed

#### 3.2

##### **adulterant**

any material intentionally added that changes the original composition and compromises the quality and safety of citrus fruits powder

#### 3.3

##### **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 Raw materials

Citrus fruits peels and base

#### 4.2 General requirements

Citrus fruits powder shall:

- a) have characteristic appearance, colour, taste, odour of the citrus fruit used;
- b) be free from dirt, fungal growth and insect infestation;
- c) be free from foreign matter;



d) be free from off flavours and odours; and

e) be free from adulterants.

#### 4.3 Types of citrus fruits

All cultivated fruits of the Citrus species

#### 4.4 Specific requirements

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

**Table 1 — Specific requirements for citrus fruits powder**

S/N	Characteristic	Requirement	Test method
i.	Moisture, %, (max) by mass max.	10	RS ISO 7513
ii.	Total ash % m/m max.	4.0	ISO 1575
iii.	Water extract % m/m min.	32	RS ISO 9768
iv.	Water soluble ash as percentage of total ash, min.	45	RS ISO 1576
v.	Acid insoluble ash in hydrochloric acid, % m/m, max.	1.0	RS ISO 1577
vi.	Crude fibre, %, max.	16.5	RS ISO 5498

#### 5 Food additives

Food additives may be used in citrus fruits powder in accordance with RS CODEX STAN 192

#### 6 Hygiene

**6.1** Citrus fruits powder shall be processed and handled in a hygienic manner in accordance with RS CAC/RCP 1

**6.2** Citrus fruits powder shall not exceed microbiological limits given in Table 2 when tested in accordance with the test methods specified therein.

**Table 2— Microbiological limits for Citrus fruits powder**

S/N	Microorganism	Maximum limit	Test method
i.	Yeast and moulds , cfu/g	10 <sup>2</sup>	RS ISO 21527-2
ii.	<i>Salmonella spp</i> per 25 g	Absent	RS ISO 6579-1
iii.	<i>E.coli</i> , cfu/g	Absent	RS ISO 16649-2

## 7 Contaminants

### 7.1 Pesticide residues

Citrus fruits powder shall comply with the updated maximum pesticide residue limits established by the Codex Alimentarius Commission.

### 7.2 Heavy metals

Heavy metals in citrus fruits powder shall not exceed maximum residue limits as stipulated in RS CODEX STAN 193.

### 7.3 Aflatoxin

The maximum content of aflatoxins in citrus fruits powder when determined in accordance the method described in RS ISO 16050 shall not exceed 10µg/kg for total aflatoxins and 5 µg/kg (ppb) for aflatoxin B1.

## 8 Packaging

Citrus fruits powder shall be packaged in food grade packaging materials that will safeguard the hygienic, nutritional and organoleptic qualities of the product.

## 9 Labelling

**9.1** In addition to the requirements specified in RS EAS 38, each package of citrus fruits powder shall be legibly and indelibly labelled with the following:

- a) name of the product as “citrus fruits powder”;
- b) the type of citrus fruit used;
- c) net weight;
- d) name and physical address of the manufacturer/packer/importer/exporter;
- e) list of ingredients in descending order;
- f) date of manufacture;
- g) best before date/expiry date;
- h) batch/lot number;
- i) net weight;

- j) country of origin;
- k) storage instructions;
- l) instructions for use;
- m) allergens if any;
- n) Food additives, if used; and
- o) instructions for disposal of used package.

**9.2** When labelling non-retail packages, information for non-retail packages shall either be given on the packages or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer or packer shall appear on the packages

## **10 Sampling**

Sampling of citrus fruits powders shall be in accordance to RS ISO 1839.

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