



**RWANDA  
STANDARD**

**DRS  
415**

Second edition

yyyy-mm-dd

---

---

**Roasted sesame seeds — Specification**

ICS 65.020.20

---

---

Reference number

DRS 415: 2023

© RSB 2023

In order to match with technological development and to keep continuous progress in industries, standards are subject to periodic review. Users shall ascertain that they are in possession of the latest edition

© RSB 2023

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without prior written permission from RSB.

Requests for permission to reproduce this document should be addressed to:

Rwanda Standards Board

P.O Box 7099 Kigali-Rwanda

KK 15 Rd, 49

Tel. +250 788303492

Toll Free: 3250

E-mail: [info@rsb.gov.rw](mailto:info@rsb.gov.rw)

Website: [www.rsb.gov.rw](http://www.rsb.gov.rw)

ePortal: [www.portal.rsb.gov.rw](http://www.portal.rsb.gov.rw)

<b>Contents</b>	<b>Page</b>
Foreword .....	iv
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	2
4 Requirements .....	2
4.1 Essential ingredients .....	2
Sesame seeds complying with RS EAS 1006 .....	2
4.2 Optional ingredients .....	2
4.3 General requirements .....	2
4.4 Specific requirements .....	3
5 Food additives .....	3
6 Contaminants .....	3
6.1 Pesticide residues .....	3
6.2 Heavy metals .....	3
6.3 Aflatoxins .....	4
7 Hygiene .....	4
8 Microbiological limits .....	4
9 Packaging .....	4
10 Labelling .....	4
11 Sampling .....	5
Annex A (normative) Determination of salt content .....	6
A.1 Reagent .....	6
A.2 Procedure .....	6
A.3 Calculation .....	7

## 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 415 was prepared by Technical Committee RSB/TC 003, *Cereals, pulses, legumes and cereal products*.

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

- 1) US 1628: 2016, Sesame grain — Specification

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

This second edition cancels and replaces the first.. edition (RS 415: 2020 ), which has been technically revised.

## Committee membership

The following organizations were represented on the Technical Committee on *Cereals, pulses, legumes and cereal products* (RSB/TC 003) in the preparation of this standard.

Enterprise URWIBUTSO/SINA GERARD

MANOSALIWA Food Industries Ltd

MINIMEX Ltd

National Agricultural Export Development Board (NAEB)

National Industrial Research and Development Agency (NIRDA)

Nyarutarama Business Incubation Center

One Acre Fund-Tubura

Rwanda Food and Drugs Authority

Zamura Feeds Ltd

Rwanda Standards Board (RSB) – Secretariat

Copy for public comments



# Roasted sesame seeds — Specification

## 1 Scope

This Draft Rwanda Standard specifies the requirements, sampling and test methods for roasted sesame seeds from the varieties (*Sesamum indicum* L.) 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.

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 16050, *Food stuffs — 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 20483, *Cereals and pulses — Determination of the nitrogen content and calculation of the crude protein content — Kjeldahl method*

RS ISO 2171, *Cereals, pulses and by-products — Determination of ash yield by incineration*

RS ISO 542, *Oilseeds — Sampling*

RS ISO 5985, *Animal feeding stuffs — Determination of ash insoluble in hydrochloric acid*

RS ISO 605, *Pulses — Determination of impurities, size, foreign odours, insects, and species and variety — Test methods*

RS ISO 6634, *Fruits, vegetables and derived products — Determination of arsenic content — Silver diethyldithiocarbamate spectrophotometric method*

RS ISO 665, *Oilseeds — Determination of moisture and volatile matter content*

RS ISO 729, *Oilseeds — Determination of acidity of oils*

### 3 Terms and definitions

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

#### 3.1

##### **sesame seeds**

edible seeds of the sesame plant, which are used whole or have oil extracted

#### 3.2

##### **roasted sesame seeds**

sesame seeds which have been subjected to heat

#### 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 Essential ingredients

Sesame seeds complying with RS EAS 1006

#### 4.2 Optional ingredients

The following optional ingredients including but not limited to the following may be used in roasted sesame seeds and shall comply with relevant standards::

- a) salt complying with RS EAS 35;
- b) honey complying with RS EAS 36; and
- c) Spices.

#### 4.3 General requirements

Roasted sesame seeds shall:

- a) be practically free from off flavours and odours;
- b) be clean;



- c) be wholesome;
- d) have a colour characteristic of the variety;
- e) be free from extraneous matter and other foreign matter such as sand, glass and metal; and
- f) not exceed 0.1% m/m, of filth when tested in accordance with RS ISO 605.

#### 4.4 Specific requirements

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

**Table 1 — Specific requirements for roasted sesame seeds**

S/N	Characteristic	Requirements	Test method
i.	Moisture content, % m/m, max.	5.0	RS ISO 665
ii.	Acid insoluble ash, % m/m, max.	0.4	RS ISO 5985
iii.	Total ash% max.	4.0	RS ISO 2171
iv.	Free fatty acids % m/m, max	3.0	RS ISO 729
v.	Salt content (as sodium chloride), %, m/m, max.	1.2	Annex A

#### 5 Food additives

Food additives which may be used in roasted sesame seeds shall be in accordance with RSCODEX STAN 192.

#### 6 Contaminants

##### 6.1 Pesticide residues

Roasted sesame seeds shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission

##### 6.2 Heavy metals

Roasted sesame seeds shall not exceed the maximum limits for heavy metals in Table 2 when tested in accordance with test methods specified therein.

**Table 2 — Heavy metal contaminants in Roasted sesame seeds**

S/N	Heavy metal	Maximum limit (mg/kg)	Test method
i.	Lead	0.1	AOAC 999.11
ii.	Arsenic	0.1	RS ISO 6634

### 6.3 Aflatoxins

Roasted sesame seeds shall not exceed aflatoxin limits in Table 3 when tested in accordance with test methods specified therein.

**Table 3 — Aflatoxin limits for Roasted sesame seeds**

S/N	Type of aflatoxin	Maximum limit (µg/kg)	Test method
i.	Total aflatoxin	10	RS ISO 16050
ii.	Aflatoxin B1	5	

### 7 Hygiene

Roasted sesame seeds shall be processed and handled in accordance with RS CAC/RCP 1.

### 8 Microbiological limits

Roasted sesame seeds shall not exceed microbiological limits specified in Table 4 when tested in accordance with test methods specified therein.

**Table 4 — Microbiological limits for Roasted sesame seeds**

S/N	Microorganism	Maximum limit	Test method
i.	Total Viable Count, CFU/g	10 <sup>3</sup>	RS ISO 4833-1
ii.	<i>E.coli</i> , CFU/g	absent	RS ISO 16649-2
iii.	<i>Salmonella spp.</i> , in 25g	Absent	RS ISO 6579-1
iv.	<i>Staphylococcus aureus</i> , CFU/g	Absent	RS ISO 6888-1
v.	Yeasts and moulds, CFU/g	10 <sup>2</sup>	RS ISO 21527-2

### 9 Packaging

Roasted sesame seeds shall be packaged in food grade packaging material that ensures the integrity and safety of the product

### 10 Labelling

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

- a) product name as “Roasted sesame seeds”;
- b) name and address of the manufacturer /packer/distributor/ importer/exporter/vendor;
- c) country of origin;

- a) list of ingredients in descending order;
- d) batchnumber;
- b) net contentsshall be declared in the metric system;
- e) food additives used;
- f) date of manufacture
- g) expiry date
- h) instructions for use;
- i) statement, "Food for Human Consumption" shall appear on the package;
- j) storage instructions;
- k) instructions on 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.

## **11 Sampling**

Sampling of roasted sesame seeds shall be done in accordance with RS ISO 542.

## Annex A (normative)

### Determination of salt content

#### A.1 Reagent

A.1.1 Acetone

A.1.2 calcium acetate solution

A.1.3 HNO<sub>3</sub>

A.1.4 0.1 N AgNO<sub>3</sub>

A.1.5 Ferric indicato

A.1.6 0.1 N NH<sub>4</sub>SCN<sub>3</sub>

#### A.2 Procedure

A.2.1 Weigh 2 g of a thoroughly mixed sample into a platinum or silica dish

A.2.2 Disperse the sample with 10 mL of acetone

A.2.3 Remove acetone, at room temperature, with an air current

A.2.4 Add, and thoroughly, mix 10 mL of 10 % calcium acetate solution

A.2.5 Carefully dry on a steam bath

A.2.6 Ash in a muffle furnace at 500 °C (1 022 °F). Complete ashing not necessary

A.2.7 Place the ash in a beaker and dissolve the ash in 25 mL HNO<sub>3</sub> (1+3).

A.2.8 Add at least 2 mL - 4 mL of 0.1 N AgNO<sub>3</sub> that is just enough to precipitate all chloride present

A.2.9 Add at least 5 mL of 0.1 N AgNO<sub>3</sub> in excess, to B.2.8.

A.2.10 Boil, cool, then add 5 mL ferric indicator.

A.2.11 Titrate excess Ag with 0.1 N NH<sub>4</sub>SCN (which has been standardized to equalize normalities) to a permanent light brown end point.

**A.2.12** Subtract the amount of NH<sub>4</sub>SCN used in B.2.11 from the total AgNO<sub>3</sub> used in B.2.8 and B.2.9. The resulting difference is the ml of 0.1 N AgNO<sub>3</sub> used in the calculation of salt

### A.3 Calculation

The salt content shall be calculated as follows:

$$\text{NaCl} = \frac{(\text{mL of 0.1 N AgNO}_3)(0.05845)}{\text{gram of sample}}$$

Copy for public comments

## Bibliography

[1] RS 415: 2020 Sesame seeds-Specification, First edition

Copy for public comments

Copy for public comments

---

---

Price based on 7 pages