



**RWANDA  
STANDARD**

**DRS  
570**

First edition

2023-mm-dd

---

---

**Non-dairy whipping cream powder —  
Specification**

ICS 67.220.10

---

---

Reference number

DRS 570: 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)

**Contents**

Page

Foreword .....	iv
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	2
4 Ingredients .....	3
4.1 Essential ingredients .....	3
4.2 Optional ingredients .....	3
5 Requirements .....	3
5.1 General requirements .....	3
5.2 Specific requirements .....	4
6 Food additives .....	4
7 Hygiene .....	4
8 Contaminants .....	5
9 Packaging .....	5
10 Labelling .....	5
11 Sampling .....	6

## **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 570 was prepared by Technical Committee RSB/TC 19, Spices, culinary herbs, condiments and food additives.

### **Committee membership**

The following organizations were represented on the Technical Committee on Spices, culinary herbs, condiments and food additives (RSB/TC 19) in the preparation of this standard.

E& Foods Direct Ltd

Innopro Ltd

Inyange Industries Ltd

Ishyo foods ltd

Nyarutarama Business Incubation Center

Rwanda Consumer's Rights Protection Organization (ADECOR)

Rwanda Food and Drugs Authority (Rwanda FDA)

Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA)

Skai Ltd

Umurage Enterprise

Zamura Feeds Ltd

Rwanda Standards Board (RSB) – Secretariat

DRS for public review



# Non-dairy whipping cream powder — Specification

## 1 Scope

This Draft Rwanda Standard specifies the requirements, sampling and test methods for non-dairy whipping cream powder intended for human consumption or further processing.

## 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 942.17, *Arsenic in foods Molybdenum blue method*

AOAC 999.11, *Lead, Cadmium, Copper, Iron and zinc in foods. Atomic absorption spectrophotometry after dry ashing*

RS ISO 8294, *Animal and vegetable fats and oils — Determination of copper, iron and nickel contents — Graphite furnace atomic absorption method*

RS CAC/RCP 1, *Code of practice — General Principles of Food Hygiene*

RS CODEX STAN 192, *General Standard for Food Additives*

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

RS EAS 5, *Refined white sugar — Specification*

RS EAS 35, *Fortified food grade salt — Specification*

RS ISO 5537, *Dried milk and dried milk products — Determination of moisture content (Reference method)*

ISO 2450, *Cream — Determination of fat content — Gravimetric method (Reference method)*

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 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 °C using 5-bromo-4-chloro-3-indolyl  $\beta$ -D-glucuronide*

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*

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 CXS 234, *Recommended methods of analysis and sampling*

### **3 Terms and definitions**

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

#### **3.1**

##### **emulsion**

mixture of two immiscible fluids such as oil and water that is achieved by breaking up the molecules in both substances into small and fine droplets. The droplets which comprise lipophilic phase and hydrophilic phase and combined together by an emulsifying compound.

#### **3.2**

##### **whipping cream powder**

vegetable-based whipped cream in powder form that can be used to prepare spreadable topping cream for cakes and confectionery products

#### **3.3**

##### **non-dairy whipping cream**

liquid oil-in-water emulsion, which can be whipped into a stable foam. The foam consists of air bubbles dispersed in a serum phase. It typically contains vegetable fat, sweeteners/sugar, water, emulsifiers and stabilizers.

#### **3.4**

##### **vegetable fat**

solid oil or fat that is obtained from vegetable matter

#### **3.5**

##### **food grade material**

materials that are free from substances that are hazardous to human health and may come in contact with food.



### 3.6

#### topping base

instant products obtained using the spray drying technology. They are made of vegetable oils, proteins and a special composition of plant-based emulsifiers

## 4 Ingredients

### 4.1 Essential ingredients

The following essential ingredients shall be used in non-dairy whipping cream powder and shall comply with the corresponding standards:

- a) topping base complying with RS CODEX STAN 192;
- b) sugars complying with RS EAS 5; and
- c) stabilizer complying with RS CODEX STAN 192.

### 4.2 Optional ingredients

The following optional ingredients complying with relevant standards may be used:

- a) food grade salt complying with RS EAS 35;
- b) thickening agents complying with RS CODEX STAN 192; and
- c) flavouring agents complying with RS CODEX STAN 192.

## 5 Requirements

### 5.1 General requirements

The non-dairy whipping cream powder shall be:

- a) free from lumps;
- b) fine powder;
- c) uniform in composition;
- d) free from dirt and other extraneous matter;

- e) of pleasant taste and flavour; and
- f) have white to creamy white colour.

## 5.2 Specific requirements

Non-dairy whipping cream powder shall comply with the requirements specified in Table 1 when tested in accordance with test methods specified therein.

**Table 1 — Specific requirements for non-dairy whipping cream powder**

S/N	Characteristic	Requirement	Test method
i.	Moisture content, % m/m, max.	7.0	RS ISO 5537
ii.	Total fat content: % m/m, min	15	ISO 2450
iii.	Copper (Cu), mg/kg, max	2.0	RS ISO 8294

## 6 Food additives

Food additives which may be added in non-dairy whipping cream powder shall be in accordance with RS CODEX STAN 192.

## 7 Hygiene

7.1 Non-dairy whipping cream powder shall be produced and handled in accordance with RS CAC/RCP 1

7.2 Non-dairy whipping cream powder 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 non-dairy whipping cream powder**

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

## 8 Contaminants

Non-dairy whipping cream powder shall not exceed the heavy metal limits given in Table 3 when tested in accordance with the test methods specified therein

**Table 3 — Maximum permissible limits for heavy metals**

S/N	Characteristics	Requirement mg/kg, max.	Test method
i.	Arsenic (As)	1	AOAC 942.17
ii.	Lead (Pb)	0.5	AOAC 999.11
iii.	Cadmium (Cd)	2	

## 9 Packaging

Non-dairy whipping cream powder shall be packaged in clean and safe food grade materials in order to protect it from contamination and deterioration.

## 10 Labelling

Non-dairy whipping cream powder shall be legibly and indelibly labelled with the following information:

- a) the name of the product; "Non-dairy whipping cream powder";
- b) list of ingredients on the label in descending order of proportion;
- c) net contents by mass in the SI units;
- d) name, physical location and address of the manufacturer or, packer, distributor, importer, exporter, vendor;
- e) country of origin;
- f) manufactured date;
- g) instruction for use;
- h) batch number;
- i) storage instructions; and
- j) expiry date.

## 11 Sampling

Sampling shall be done in accordance with RS CXS 234.

DRS for public review

## Bibliography

[1] RS EAS 49:2019, *Milk powders and cream powder — Specification*

[2] RS 221-2019, *Cream and prepared creams*

DRS for public review

---

---

Price based on nnn pages