



**RWANDA
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**DRS
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Second edition

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Edible ice lollies — Specification

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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

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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 369 was prepared by Technical Committee RSB/TC 012, *Sugar and sugar products*.

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

- 1) TZS 1426 Edible ices(lollies) — Specification

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

This second edition cancels and replaces the first edition (RS 369: 2022), which has been technically revised.

(The first/second/third/... edition (RS nnn-n: yyyy) has been reaffirmed by the Board on dd-mm-yyyy.)

RS nnn consists of the following parts, under the general title *Introductory element — Main element*:

— *Part n: Part title*

— *Part [n+1]: Part title*

— *Part [n+2]: Part title*

Committee membership

The following organizations were represented on the Technical Committee on *Sugar and sugar products*. (RSB/TC 012) in the preparation of this standard.

Paragraph of participants

Rwanda Standards Board (RSB) – Secretariat

Introduction

Edible ices lollies are frozen confectionery, delicacies usually made from sugar or permitted sweeteners mixed with water and natural fruit juices or fruit concentrates. The mixture is stirred, packed in food grade plastic containers and frozen.

The standard was developed as a guidance to ensure safety of and to control quality of locally produced or imported ice lollies intended for human consumption

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Edible ice lollies — Specification

1 Scope

This Daft Rwanda Standard specifies the requirements, sampling and test methods for edible ice lollies intended for human consumption.

It does not apply to ices from milk and milk products.

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 932.12, *Solids (Soluble) in fruits and fruit products*

AOAC 952.13, *Arsenic in food. Silver diethyldithiocarbamate*

AOAC 983.20, *Mercury (methyl) in fish and shellfish, Gas chromatographic method*

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

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 CAC/RCP 1, *General Principles for Food Hygiene*

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

RS CODEX STAN 212, *Sugars — Specification*

RS EAS 12, *Potable Water — Specification*

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

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 707, *Milk and milk products — Guidance on sampling*

RS ISO 763, *Fruit and vegetable products — Determination of ash insoluble in hydrochloric acid*

3 Terms and definitions

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

3.1

edible ices

foodstuffs which are frozen from a liquid state to a more viscous texture, that are stored, transported, sold and consumed in a frozen state, that may contain different permitted food additives

3.2

edible ice lollies

sweetened, flavoured and coloured mixture of water and sugar with other ingredients but not milk or milk products, pre-packaged, pasteurized and frozen

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

3.4

foreign matter

organic or inorganic material other than the designated

3.5

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 The edible ice lollies shall consist of the following essential ingredients:

- a) potable water conforming to RS EAS 12; and
- b) sugars conforming to RS CODEX STAN 212.

4.2 Optional ingredients

Food grade ingredients complying with relevant standards may be used

4.3 General requirements

Edible ice lollies shall:

- a) be free from extraneous matter and foreign matter;
- b) be of typical taste, flavour, odour and colour characteristic of edible ice lollies.

4.4 Specific requirements

Edible ice lollies shall comply with the specific requirements in Table 1 when tested in accordance with test methods specified therein.

Table 1 — Specific requirements for ice lollies

S/N	Characteristic	Maximum limit	Test method
i.	pH	4.5	RS ISO 1842
ii.	Total soluble solids, %	20	AOAC 932.12
iii.	Acid insoluble ash %	0.3 - 0.4	RS ISO 763

4.5 Microbiological requirements

Ice lollies shall be free from microorganisms in amounts which may represent a hazard to health and shall meet the requirements specified in Table 2 when tested in accordance with test methods specified therein.

Table 2 — Microbiological requirements for ice lollies

S/N	Characteristic	Maximum limit	Test method
i.	Total viable count CFU/g	10 ²	RS ISO 4833-1
ii.	E.coli CFU/g	Absent	ISO 16649-2
iii.	Salmonella spp in 25g	Absent	RS ISO 6579-1

iv.	Staphylococcus aureus CFU/g	Absent	RS ISO 6888-1
v.	Coliform CFU/g	Absent	RSB ISO 4832
vi.	Yeast and moulds CFU/g	10	RS ISO 21527-1

5 Hygiene

Edible ice lollies shall be processed, packaged, stored and distributed under hygienic conditions prescribed in RS CAC/RCP 1.

6 Contaminants

6.1 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 for these products.

6.2 Heavy metals

Edible ice lollies shall not contain metal contaminants in excess of the limits indicated in Table 3 when tested in accordance with test methods specified therein.

Table 3 — Limits for heavy metals in ice lollies

S/N	Characteristic	Maximum limits (mg/kg)	Test method
i.	Arsenic, As	0.1	AOAC 952.13
ii.	Leads, Pb	0.2	AOAC 999.10
iii.	Mercury, Hg	0.05	AOAC 983.20

7 Food additives

Food additives which may be used shall comply with RS CODEX STAN 192.

8 Packaging

Edible ice lollies shall be packaged in food grade packaging materials that shall not affect the safety, hygienic, nutritional, organoleptic and technological qualities of the product.

9 Labelling

In addition to the requirements specified in RS EAS 38, each pack of ice lollies shall be clearly and indelibly marked with the following information:

- a) name of the product: "ice lollies";
- b) name and, address of the manufacturer;

- c) list of ingredients in descending order;
- d) Batch number;
- e) date of manufacture;
- f) expiry date;
- g) instructions for use;
- h) net contents in metric units;
- i) storage instructions; and
- j) country of origin.

10 Sampling

Sampling shall be done in accordance with Annex A.

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Annex A (normative)

Sampling method for icelollies

A.1 Selection of sample

A.1.1 If the product is supplied in bulk units, the number of units to be selected for sampling shall normally be as follows:

S/N	Total Number of Units	Number of units to be selected
i.	1	1
ii.	2-6	2
iii.	6-20	3
iv.	21-60	4
v.	61-100	5
vi.	Over 100	5 plus one For each additional 100 units for fraction there of

A.1.2 When sampling retail units, the following minimum number of units shall be selected at random from separate packages.

S/N	Total Number of Units	Number of units to be selected
i.	1-100	1
ii.	101-1000	2
iii.	1001-10000	4
iv.	Over 10000	4 plus one For each

A.2 Sampling containers

Wide mouth jars of mouth about 4.5 cm and capacity 100 g to 200 g shall be made of glass metal or other suitable material which can be sterilized easily. The jars shall be closed by means of suitable closure.

A.3 Storage and transport of samples

The sample shall be stored at temperature not higher than -5 °C.

A.4 Sampling for microbiological analysis

Containers for sampling microbiological analysis samples shall be sterile jars placed in a thermally insulated transport container not less than 30 min before use.

Bibliography

[1] RS 369: 2022, *Edible icelollies — Specification, First edition*

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