
Cottage cheese — Specification



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This African Standard was prepared by ARSO TC 04: Milk and milk products.

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ARSO Central Secretariat
International House 3rd Floor
P. O. Box 57363 — 00200 City Square
NAIROBI, KENYA

Tel. +254-20-2224561, +254-20-3311641, +254-20-3311608

E-mail: arso@arso-oran.org

Web: www.arso-oran.org

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ARSO Central Secretariat
International House 3rd Floor
P.O. Box 57363 — 00200 City Square
NAIROBI, KENYA

Tel: +254-20-2224561, +254-20-3311641, +254-20-3311608

E-mail: arso@arso-oran.org
Web: www.arso-oran.org

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1 Scope

This African Standard specifies requirements, sampling and test methods for cottage cheese intended for direct human consumption or for further processing.

2 Normative references

The following standards are referred to in the text in such a way that some or all of their content constitutes requirements of this Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced standard (including any amendments) shall be applied.

ARS 53, *General Principles of Food Hygiene — Code of practice*

ARS 56, *Labelling of Prepackaged Foods*

ARS 1034, *Dairy Industry — Glossary of terms*

ARS 1036, *Code of Hygienic Practice for Milk and Milk Products*

CXS 192, *General Standard for Food Additives*

CXS 193, *General Standard for Contaminants and Toxins in Food and Feed*

CXS 346, *General Standard for the labelling of non-retail containers of foods*

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

ISO 6579-1, *Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of Salmonella spp.*

ISO 6888-1, *Microbiology of the food chain — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 1: Method using Baird-Parker agar medium*

ISO 11290-1, *Microbiology of the food chain — Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. — Part 1: Detection method*

ISO 14501, *Milk and milk powder — Determination of aflatoxin M1 content — Clean-up by immunoaffinity chromatography and determination by high-performance liquid chromatography*

ISO 16649-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 1: Colony-count technique at 44 degrees C using membranes and 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

ISO 23319, *Cheese and processed cheese products, caseins and caseinates — Determination of fat content — Gravimetric method*

3 Terms and definitions

For the purposes of this document, the terms and definitions in ARS 1034 and the following shall apply.

cottage cheese

soft, rindless un-ripened cheese in conformity with ARS 1073, and ARS 1078. The body has a near white colour and a granular texture consisting of discrete individual soft curd granules of relatively uniform size,

from approximately 3–12 mm depending on whether small or large size of curd is desired and possibly covered with a creamy mixture.

Note Rindless cheese is cheese that has been kept in such a way that no rind is developed.

4 Requirements

Raw materials and ingredients used shall comply with relevant standards.

4.1 Raw materials

4.1.1 Essential raw materials

- a) Cow milk, buffalo milk or their mixtures, and products obtained from these milks.
- b) Starter cultures of harmless lactic acid and/ or flavour producing bacteria and cultures of other harmless microorganisms.
- c) Rennet or other safe and suitable coagulating enzymes.
- d) Sodium chloride and potassium chloride or calcium chloride as a salt substitute.
- e) Potable water.
- f) Safe and suitable enzymes to enhance the ripening process.

4.1.2 Optional raw materials

- a) Safe and suitable processing aids.
- b) Herbs and spices.
- c) Rice, corn and potato, flours and starches: Notwithstanding the provisions in ARS 1073, these substances can be used in the same function as anti-caking agents for treatment of the surface of cut, sliced, and shredded products only, provided they are added only in amounts functionally necessary as governed by Good Manufacturing Practice.

4.2 General requirements

Cottage cheese shall be:

- a) have smooth and homogeneous texture, not spongy, which crumbles or spreads on slicing,
- b) contain few irregular small holes or no holes,
- c) have tangy and salty flavour, and
- d) be free from dirt, foreign matter and without off- flavours and textural defects.

4.3 Compositional requirements

Cottage cheese shall meet the compositional requirements given in Table 1 when tested in accordance with the test methods specified therein. Cottage cheese may be classified as identified in Table 1 and meet the compositional requirements, as shown.

Table 1 — Compositional requirements for cottage cheese

Parameter	Cheese category			Test method
	Min content (m/m)	Max content (m/m)	Reference level (m/m)	
Milk fat, %	0	Not restricted	4-5	ISO 23319
Fat free dry matter, %	18	Restricted by the MFFB		AOAC 926.08

Compositional modifications beyond the minima and maxima specified above for milkfat and dry matter are not considered to be in compliance with section 4.3.3 of the General Standard for the Use of Dairy Terms (CODEX STAN 206).

Note MFFB equals percentage moisture on a fat-free basis, i.e.,

$$\frac{\text{Weight of moisture in the cheese}}{\text{Total weight of cheese} - \text{Weight of fat in the cheese}} \times 100$$

5 Food additives

Food additives may be used and only within the limits specified in accordance with CXS 192 – Category 01.6.2.1 (Ripened cheese, includes rind).

6 Contaminants

6.1 Heavy metals

The products covered by this African Standard shall comply with those maximum limits for metal contaminants specified in CXS 193.

6.2 Aflatoxins

When tested in accordance with ISO 14501, the level of aflatoxin M₁ shall not exceed 0.50 µg/kg.

6.3 Pesticides residues

Pesticide residue limits shall be in accordance with limits set by the Codex Alimentarius Commission for the product.

6.4 Veterinary drug residues

Veterinary drug residue limits shall be in accordance with limits set by the Codex Alimentarius Commission for the product.

7 Hygiene

The products covered by this African Standard shall be produced, prepared and handled in accordance with the provisions of the appropriate sections of ARS 53 and ARS 1036.

Cottage cheese shall be free from microorganisms and products originating from microorganisms in amounts which may represent a hazard to human health.

Cottage cheese shall comply with microbiological limits given in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Microbiological limits for Cottage cheese

Micro-organisms	Sampling plan		Limits		Test method	Stage of analysis
	n	c	m	M		
<i>Salmonella</i>	5	0	Absence in 25 g		ISO 6579-1	On the market during the shelf-life and during handling
<i>Listeria monocytogenes</i>	5	0	Absence in 25 g		ISO 11290-1	On the market during the shelf-life
<i>Brucella</i> - For un-ripened cheese made from raw milk	5	0	Absence in 25 g			
Coagulase-positive staphylococci	5	0	10 ² cfu/gm	10 ³ cfu/gm	ISO 6888-1	End of the production process
<i>Escherichia Coli</i>	5	1	10 cfu/gm	10 ² cfu/gm	ISO 16649-1	On the market during the shelf-life
n = number of units comprising the sample c = number of sample units giving values between m and M m= the level of the microbiological criterion required in the product M= value or level of microbial limit not to be reached or greater than in any unit of the sample						

8 Packaging

Cheese shall be packaged in suitable food grade containers which will safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product during dispatch, transport and use of the product until the end of its shelf life.

9 Labelling

In addition to the provisions of ARS 56 and ARS 1034, the following specific provisions apply:

9.1 Name of the food

The name cottage cheese may be applied in accordance with ARS 56, provided that the product is in conformity with this Standard. Where customary in the country of retail sale, alternative spelling may be used.

The use of the name is an option that may be chosen only if the cheese complies with this standard. Where the name is not used for a cheese that complies with this standard, the naming provisions of ARS 1073, apply.

9.2 Declaration of milk fat content

The milk fat content shall be declared in a manner found acceptable in the country of sale to the final consumer, either (i) as a percentage by mass, (ii) as a percentage of fat in dry matter, or (iii) in grams per serving as quantified in the label provided that the number of servings is stated.

9.3 Labelling of non-retail containers

Information required in clause 8 of this Standard needed to be complied with the requirements mentioned in the General standard for the labelling of non-retail containers of foods (CXS 346).

10 Methods of sampling

For checking the compliance with this standard, the methods of sampling contained in ISO 707, shall be used.

Bibliography

CXS 273- Codex Standard for Cottage cheese.