
Draft COMESA/East African Standard

Yoghurt — Specification

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Foreword

Yoghurt— Specification

1 Scope

This COMESA/East African Standard prescribes requirements, methods of sampling and test for yoghurt.

2 Normative references

The following referenced standards are indispensable for the application of this COMESA/East African Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced standard (including any amendments) applies.

Codex Alimentarius Commission pesticides residue limits

CAC/MRL 02-2006, Maximum residue limits for veterinary drugs in foods

CAC/RCP 57, Code of hygiene practice for milk and milk products

CODEX STAN 1, General standard for the labeling of prepackaged foods

CODEX STAN 192-1995, Codex general standard for food additives

CODEX STAN 193-1995: Codex general standard for contaminants and toxins in foods

EAS 69, pasteurized liquid milk — Specification

ISO 2446, Milk — Determination of fat content (Routine method)

ISO 4832, Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of coliforms -- Colony-count technique

ISO 4833: Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of microorganisms — Colony-count technique at 30 °C

ISO 5538, Milk and milk products — Sampling — Inspection by attributes — Specification

ISO 6611: Milk and milk products — Enumeration of colony-forming units of yeasts and/or moulds — Colony-count technique at 25 °C

ISO 8197, Milk and milk products — Inspecting sampling — Inspection by variables

ISO 6785, Milk and milk products — Detection of *Salmonella* spp.

ISO 6888: Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and other species)

ISO 11866, Milk and milk products — Enumeration of presumptive *Escherichia coli*

ISO 13580, Yogurt -- Determination of total solids content (Reference method)

3 Definitions

For the purpose of this East African Standard the following definitions shall apply:

3.1 Milk

means the normal, clean and fresh secretions, without any addition or subtraction, extracted from the udder of a healthy cow, and free from colostrum, i.e. excluding that got during the first seven days after calving.

3.2 yoghurt

a cultured milk product obtained by lactic acid fermentation through the action of *Lactobacillus bulgaricus* and *Streptococcus thermophilus*

3.3 sweetened yoghurt

yoghurt to which one or more sugars only have been added

3.4 sugar

means any carbohydrate sweetening matter

3.5 plain yoghurt

yoghurt to which no sugar and food additives have been added

3.6 flavoured yoghurt

yoghurt to which flavouring foods or other flavouring ingredients have been added

3.7 fruit yoghurt

yoghurt to which fruits have been added

3.8 heat-treated yoghurt

yoghurt which has been subjected to heat treatment after fermentation

3.9 pasteurized yoghurt

yoghurt which has been subjected to pasteurization process (**see EAS 69**) after fermentation

3.10 thermized yoghurt

yogurt that is heat-treated at 62 °C to 65 °C for 15 to 20 seconds aimed at reducing the number of viable organisms and prolonging shelf-life.

3.11 sterilized yoghurt

yoghurt that is heat-treated at a minimum of 115 °C for 15 seconds aimed at attaining commercial sterility and prolonged shelf-life

4 Essential composition and quality requirements

4.1 General requirements

4.1.1 The microorganisms in the final product shall be viable and abundant except for heat-treated and sterile yoghurts.

4.1.2 Yoghurt shall be in categories as in table 1:

Table 1: Categories of Yoghurt

	Whole milk yoghurt	Fat reduced yoghurt	Fat free yoghurt	Test method
milk fat%	3.0% m/m (min)	more than 0.5% but less than 3.0 % m/m	0.5% m/m (max)	ISO 2446
solids non-fat	8.2% m/m (Min)	8.2% m/m	8.2% m/m (min)	ISO13580

Note: Solids non-fat content is calculated from total solids and fat contents

4.1.2 Yoghurt shall have a pH value of not more than 4.5

4.5 Sweetened yoghurt

For sweetened yoghurt the compositional requirements in 4.2, 4.3, and 4.4 shall apply to the milk part of the yoghurt.

4.6 Essential raw materials

Yoghurt shall be made from the following essential raw materials:

- Pasteurized milk or concentrated milk, or
- Pasteurized fat reduced milk or concentrate fat reduced milk, or
- Pasteurized fat free milk or concentrated fat free milk,
- Pasteurized cream, or
- A mixture of two or more of these products

All raw materials shall comply with relevant standards.

4.7 Essential additions

Cultures of *Lactobacillus bulgaricus* and *Streptococcus thermophilus*

4.8 Optional additions

Whole milk powder, skimmed milk powder, unfermented buttermilk, concentrated whey, whey powder, whey proteins, whey protein concentrate, water-soluble milk proteins, edible casein, caseinates, manufactured from pasteurized products.

- Cultures of suitable bacteria in addition to those in 4.7
- Sugars (in sweetened yoghurt only).

4.9 Fruit yoghurt shall contain amount of fruits in accordance with national regulations.

5 Food additives

5.1 Plain yogurt

Plain yoghurt shall have no food additives except stabilizers, emulsifiers, thickeners and pH adjusters in CODEX STAN 192-1995, and levels specified in the standard.

5.2 Other types of yoghurt

5.2.1 Flavours

Fruit yoghurt may contain the following flavours

- Essences and extracts derived from fruit or parts of fruit,
- Synthetic equivalents of essences.

Flavoured yoghurt may contain the following flavours

- Essences and extracts derived from fruit or parts of fruit,

- Synthetic equivalents of essences.

5.2.2 Food colours

Others types of yoghurt may have colours exclusively from substances as a result of carry-over or of vegetable source in accordance with *CODEX STAN 192-1995* and in levels specified therein

5.2.3 Stabilizers, emulsifiers and thickeners

Yoghurt may contain approved stabilizers, emulsifiers and thickeners permitted in *CODEX STAN 192-1995* and in levels specified therein.

5.2.4 Preservatives

Preservatives shall not be added to yoghurt.

Their presence may only be as a result of carry-over effect from flavouring substances and they shall be limited to the residual limits in Table 2.

Table 2— Residue preservatives in flavoured yoghurt

Name	Maximum level mg/kg
Sorbic acid and its sodium, potassium, and calcium salts	50
Sulphur dioxide and Benzoic acid (Singly or in combination)	50

5.2.5 Artificial sweeteners

Artificial sweeteners specified in *CODEX STAN 192-1995* may be added in amount specified therein limited to special dietary use only.

6 Hygiene

6.1 Yoghurt shall be produced, processed and handled in accordance with *CAC/RCP 57*.

Note: Reference to *CAC/RCP 57* does not mean an endorsement of the use of lactoperoxidase system as a means of preservation of raw milk as contained therein

6.2 Microbiological limits

The products shall not contain micro-organisms exceeding the microbiological quality limits in Table 3 within their shelf-life.

Table 3 — Microbiological quality limits

Micro-organisms	Cfu (Maximum limits)	Test method
<i>E. Coli</i>	Absent	ISO 11866
<i>Salmonella spp</i>	Negative in 25 ml	ISO 6785
Moulds and yeasts	10	ISO 6611
<i>Staphylococcus aureus</i>	Negative in 25 ml	ISO 6888

7 Contaminants

7.1 Heavy metals

The products covered by this standard shall comply with the maximum limits for contaminants as specified in *CODEX STAN 193-1995*.

7.2 Pesticides residues

The products covered by this standard shall comply with the maximum residue limits for pesticides as specified by Codex Alimentarius Commission.

7.3 Veterinary drugs

The products covered by this Standard shall comply with the maximum residue limits specified in *CAC/MRL 02-2006*

8 Packaging

8.1 Yoghurt shall be packaged in food grade materials that are non-toxic and inert to yoghurt.

8.2 The packaging material or containers shall be well sealed to protect the contents during storage.

9 Labelling

The containers shall be labelled in accordance with provisions of the *CODEX STAN 1-1985*. In addition, the following particulars shall be legibly and indelibly labelled on the container:

9.1 The name of the product

Where artificial sweeteners have been used for special dietary purposes, they shall be declared on the label.

9.1.1 The name of the product shall be declared in accordance with the categories defined in Clause 4 subject to the following provisions:

9.1.1.1 Yoghurt with not less than 3.0% m/m milk fat content shall be designated as whole milk yoghurt.

9.1.1.2 For yoghurt with less than 3.0% m/m milk fat but with more than 0.5 % m/m milk fat the designation shall include fat reduced. Yoghurt with no more than 0.5 % m/m milk fat shall be designated as fat free. Accompanying the name of the food shall be a milk fat statement in multiples of 0.5 % e.g. 1.0 %, 1.5 %, 2.0 % etc. whichever is closest to the actual milk fat content of the yoghurt.

9.1.2 The provisions given in 9.1.1.1 and 9.1.1.2 apply also to yoghurt to which sugar or sugars have been added as defined in 3.2, with the provision that the designations concerned shall be accompanied by the term "Sweetened".

9.1.3 Where milk other than cow's milk is used for the manufacture of yoghurt or any part thereof, a word or words denoting the animal or animals from which the milk has been derived shall be inserted immediately before or after the designation of the product.

9.2 List of ingredients

A complete list of ingredients shall be declared on the label in descending order of proportion.

9.3 Net contents

The net contents shall be declared by volume or mass in SI units.

9.4 Name and address

The name and address of the manufacturer, packer, distributor, importer, exporter or vendor, shall be declared.

9.5 Country of origin

The country of origin of the yoghurt shall be declared.

9.6 Date of manufacture

There shall be an indication of the date of production, that is, the date the final product was packaged for final sale.

9.7 Date of expiry

The date of expiry shall be indicated

9.8 Storage instructions

9.9 Lot identification

Each container shall be indelibly and legibly marked to identify the producing factory and the lot.

10 Methods of sampling

For the purpose of determining the compliance to this standard, sampling shall be done in accordance with ISO 5538 and ISO 8197

11 Fill of container

The yoghurt shall occupy not less than 90 % v/v of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20 °C, which the sealed container will hold when completely filled.