

# DRAFT UGANDA STANDARD

Second Edition  
2018-mm-dd

---

---

## Butter — Specification

---

---



Reference number  
DUS DEAS 22: 2018

© UNBS 2018

**Compliance with this standard does not, of itself confer immunity from legal obligations**

**A Uganda Standard does not purport to include all necessary provisions of a contract. Users are responsible for its correct application**

© UNBS 2018

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

Requests for permission to reproduce this document should be addressed to

The Executive Director  
Uganda National Bureau of Standards  
P.O. Box 6329  
Kampala  
Uganda  
Tel: +256 417 333 250/1/2  
Fax: +256 414 286 123  
E-mail: [info@unbs.go.ug](mailto:info@unbs.go.ug)  
Web: [www.unbs.go.ug](http://www.unbs.go.ug)

## National foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Trade, Industry and Cooperatives established under Cap 327, of the Laws of Uganda, as amended. UNBS is mandated to coordinate the elaboration of standards and is

- (a) a member of International Organisation for Standardisation (ISO) and
- (b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards, and
- (c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of representatives of consumers, traders, academicians, manufacturers, government and other stakeholders.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

This Draft Uganda Standard, DUS DEAS 22:2018, *Butter — Specification*, is identical with and has been reproduced from an East African Standard, EAS 22:2018, *Butter — Specification*, and is being proposed for adoption as a Uganda Standard.

This standard cancels and replaces the first edition US EAS 22: 2006, which has been technically revised.

This standard was developed by Food and agriculture Standards Technical Committee (UNBS/TC 2).

Wherever the words, "East African Standard " appear, they should be replaced by "Uganda Standard."



**DEAS 22: 2018**

ICS 67.100.20

HS 0405.10.00

## **DRAFT EAST AFRICAN STANDARD**

---

**Butter — Specification**

**EAST AFRICAN COMMUNITY**

---



### Copyright notice

This EAC document is copyright-protected by EAC. While the reproduction of this document by participants in the EAC standards development process is permitted without prior permission from EAC, neither this document nor any extract from it may be reproduced, stored or transmitted in any form for any other purpose without prior written permission from EAC.

Requests for permission to reproduce this document for the purpose of selling it should be addressed as shown below or to EAC's member body in the country of the requester:

© East African Community 2018 — All rights reserved  
East African Community  
P.O. Box 1096,  
Arusha  
Tanzania  
Tel: + 255 27 2162100  
Fax: + 255 27 2162190  
E-mail: [eac@eachq.org](mailto:eac@eachq.org)  
Web: [www.eac-quality.net](http://www.eac-quality.net)

Reproduction for sales purposes may be subject to royalty payments or a licensing agreement. Violators may be prosecuted.

DRAFT FOR COMMENTS

## Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the Principles and procedures for development of East African Standards.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

The committee responsible for this document is Technical Committee EASC/TC 017, *Milk and milk products*.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

This third edition cancels and replaces the second edition (EAS 22: 2007), which has been technically revised.





# Butter — Specification

## 1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for butter intended for human consumption or for 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 999.10, *Official method for lead, cadmium, zinc, copper, and iron in foods Atomic absorption Spectrophotometry after microwave Digestion*

CAC/RCP 1, *Code of practice — General principle for food hygiene*

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

CODEX STAN 192, *Codex general standard for food additives*

EAS 35, *Fortified food grade Salt — Specification*

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

EAS 803, *Nutrition labelling — Requirements*

ISO 660, *Animal and vegetable fats and oils — Determination of acid value and acidity*

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

ISO 1740, *Milkfat products and butter — Determination of fat acidity (Reference method)*

ISO 2446, *Milk — Determination of fat content*

ISO 3727-1, *Butter — Determination of moisture, non-fat solids and fat contents — Part 1: Determination of moisture content (Reference method)*

ISO 3727-2, *Butter — Determination of moisture, non-fat solids and fat contents — Part 2: Determination of non-fat solids content (Reference method)*

ISO 3727-3, *Butter — Determination of moisture, non-fat solids and fat contents — Part 3: Calculation of fat content*

ISO 3961, *Animal and vegetable fats and oils — Determination of iodine value*

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

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*

ISO 5764, *Milk — determination of freezing point — Thermistor cryoscope method (Reference method)*

ISO 6320, *Animal and vegetable fats and oils — Determination of refractive index*

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 6611, *Milk and milk products — Enumeration of colony-forming units of yeasts and/or moulds — Colony-count technique at 25 degrees C*

ISO 6888-3, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 3: Detection and MPN technique for low numbers*

ISO 7238, *Butter — Determination of pH of the serum — Potentiometric method*

ISO 8968-4, *Milk and milk products — Determination of nitrogen content — Part 4: Determination of protein and non-protein nitrogen content and true protein content calculation (Reference method)*

ISO 11866-1, *Milk and milk products — Enumeration of presumptive Escherichia coli — Part 1: Most probable number technique using 4-methylumbelliferyl-beta-D-glucuronide (MUG)*

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

### **3 Terms and definitions**

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

**3.1 butter**  
fatty product derived exclusively from milk and/or products obtained from milk, principally in the form of an emulsion of the type water-in-oil

**3.2 cow**  
lactating female of cattle (*Bos indicus* and *Bos Taurus* or their crosses)

### **4 Requirements**

#### **4.1 Raw materials**

Butter shall be made exclusively from milk.

#### **4.2 Permitted ingredients**

The following ingredients may be used:

- a) edible salt complying with EAS 35 for salted butter; and
- b) starter cultures of lactic acid bacteria.

### 4.3 General requirements

Butter shall:

- a) have characteristic texture and colour;
- b) be of characteristic flavour, free from taint and rancidity;
- c) be firm, neither greasy nor oily at 25 °C and showing granular texture on breaking; and
- d) not have water exuding to the surface.

### 4.4 Specific requirements

Butter shall comply with specific requirements given in Table 1 when tested in accordance with test methods specified therein.

Table 1 — Specific requirements for butter

S/N	Characteristic	Requirement	Test method
i.	Fat content, %, m/m, min.	80	RS ISO 3727-3
ii.	Milk Solids-Not-Fat content, %, m/m, max.	2	RS ISO 3727-2
iii.	Moisture Content, %, m/m, max.	16	RS ISO 3727-1
iv.	Butter serum pH	6.6 - 7.0	RS ISO 7238
v.	Acid value of fat, %, max.	0.10	RS ISO 660
vi.	Iodine value	26 - 40	RS ISO 3961
vii.	Free fatty Acid as oleic acid, %, max.	0.3	RS ISO 1740
viii.	Refractive Index at 40 °C	1.4530 - 1.4590	RS ISO 6320

### 4.3 Microbiological limits

Butter shall comply with microbiological limits given in Table 2 when tested in accordance with test methods specified therein

Table 2 — Microbiological limits for butter

S/N	Microorganism	Maximum limit	Test method
i.	<i>Total plate count</i> , CFU/g	10 <sup>5</sup>	ISO 4833-1
ii.	<i>E. coli</i> , CFU/g	Absent	ISO 11866-1
iii.	<i>Salmonella Spp</i> , in 25 g	Absent	ISO 6579-1
iv.	<i>Moulds and yeasts</i> , CFU/g	10	ISO 6611
v.	<i>Staphylococcus aureus per g</i>	Absent	ISO 6888-3

## 5 Food additives

Food additives, if used, shall comply with CODEX STAN 192.

## **6 Contaminants**

### **6.1 Heavy metals**

The level of Lead (Pb) shall not exceed 0.02 mg/kg when tested in accordance with AOAC 999.10.

### **6.2 Mycotoxin**

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

### **6.3 Pesticide and veterinary drug residues**

The products covered by this standard shall comply with the maximum residue limits for veterinary drug and pesticide residues established in Codex Standard Guide for Maximum Pesticide Limits in Foods.

## **7 Hygiene**

Butter shall be produced and handled in accordance with CAC/RCP 57 and CAC/RCP 1.

## **9 Packaging**

Butter shall be packaged in food grade containers which safeguards the quality of the product.

## **10 Labelling**

The containers shall be labelled in compliance with the requirements of EAS 38 and EAS 803. In addition, the following particulars shall be legibly and indelibly labelled on the container:

- a) name of the product as "salted butter or unsalted butter";
- b) net content in SI units;
- c) name and physical address of manufacturer;
- d) batch or code number;
- e) nutritional information;
- f) the date of manufacture and expiry date;
- g) instruction for storage and use; and
- h) country of origin.

## **11 Sampling**

Sampling of butter for analysis shall be done in accordance with ISO 707.

DRAFT FOR COMMENTS