

# UGANDA STANDARD

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## Dairy Creams and prepared creams— Specification

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## 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 key stakeholders including government, academia, consumer groups, private sector and other interested parties.

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.

The committee responsible for this document is Technical Committee UNBS/TC 200, *Milk and milk products*

This second edition cancels and replaces the first edition (US 1987:2019), which has been technically revised.



# Dairy creams and prepared creams — Specification

## 1 Scope

This Draft Uganda Standard prescribes the requirements, methods of sampling and test for dairy creams and prepared creams for direct human consumption or further processing.

## 2 Normative references

The following referenced documents 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.

US 163, *Code of hygienic practice for milk and milk products*

US EAS 38, *Labelling of prepackaged foods*

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

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

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

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

US CODEX STAN 243 *Standard for fermented milks*

US EAS 12, *Potable water — Specification*

US 28 *Code of practice for hygiene in the food and drink manufacturing industry*

US ISO 8262-3 *Milk products and milkbased foods — Determination of fat content by the Weibull-Berntrop gravimetric method (Reference method) — Part 3: Special cases*

US ISO 707 *Milk and milk products – Guidance on sampling*

US ISO 1740 *Milk fat products and butter - Determination of fat acidity (Reference method)*

DUS ISO 19660:2018 *Cream — Determination of Fat Content — Acido-Butyrometric Method*

DUS ISO 2450 *Cream — Determination of Fat Content — Gravimetric Method (Reference Method)*

DUS ISO/TS 22113 *Milk and Milk Products — Determination of the Titratable Acidity of Milk Fat*

### 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

- 3.1  
cream**  
fluid milk product comparatively rich in fat, in the form of an emulsion of fat-inskimmed milk, obtained by physical separation from milk.
- 3.2  
Half and half Cream**  
mix of half whole milk and half cream, typically used as a cream in coffee. It is also known as table or coffee cream.
- 3.3  
Single Cream**  
cream with a low fat-content, which does not thicken when beaten. It is also known as light cream
- 3.4  
Clotted Cream**  
thick, rich, yellowish cream with a scalded or cooked flavor that is made by heating unpasteurized milk until a thick layer of cream sits on top. Also known as Devonshire or Devon Cream
- 3.5  
reconstituted cream**  
cream obtained by reconstituting milk products with or without the addition of potable water and with the same end product characteristics as the product described in Section 3.1
- 3.6  
recombined cream**  
cream obtained by recombining milk products with or without the addition of potable water and with the same end product characteristics as the product described in Section 3.1
- 3.7  
prepared cream**  
milk products obtained by subjecting cream, reconstituted cream and/or recombined cream to suitable treatments and processes.
- 3.8  
pre-packaged liquid cream**  
fluid milk product obtained by preparing and packaging cream, reconstituted cream and/or recombined cream
- 3.8  
whipping cream**  
fluid<sup>1</sup> cream, reconstituted cream and/or recombined cream that is intended for whipping

**3.9****whipped cream**

fluid1 cream, reconstituted cream and/or recombined cream into which air or inert gas has been incorporated without reversing the fat-in-skimmed milk emulsion

**3.10****fermented/ sour cream**

product obtained by fermentation of cream, reconstituted cream or recombined cream, by the action of suitable micro-organisms, that results in reduction of pH with or without coagulation

**3.11****acidified cream**

product obtained by acidifying cream, reconstituted cream and/or recombined cream by the action of acids and/or acidity regulators to achieve a reduction of pH with or without coagulation

**4 Essential Composition and quality factors****4.1 Raw materials**

Dairy creams and prepared creams shall be made exclusively from dairy and/or products such as butter, milk fat products, milk powders, cream powders and butter milk obtained from dairy animalmilk, and conforming to relevant standards.

**4.2 Other Permitted ingredients**

4.2.1 Potable water when used shall conform to US EAS 12

4.2.2 Products derived exclusively from milk or whey and containing 35% (m/m) or more of milk protein of any type (including casein and whey protein products and concentrates and any combinations thereof) and milk powders: These products can be used in the same function as thickeners and stabilizers, provided they are added only in amounts functionally necessary not exceeding 20 g/kg.

4.2.3 Gelatine and starch may be used in the same function as stabilizers, provided they are added only in amounts functionally necessary as governed by Good Manufacturing Practice taking into account any use of the stabilizers/thickeners.

4.2.4 Starter cultures of harmless micro-organisms including those specified in Section 2 of the Standard for Fermented Milks (CODEX STAN 243-2003).

4.2.5 Where specific micro-organism(s) is (are) declared, these shall be present, viable, active and abundant in the product to the date of minimum durability.

4.2.6 Additionally, for use in fermented cream and acidified cream, only Rennet and other safe and suitable coagulating enzymes to improve texture without achieving enzymatic coagulation

4.2.6 When cream is intended for use by the final consumer the cream should have been prepared in a way that facilitates the whipping process

**4.2 Composition Requirements**

The compositional requirement of dairy creams and prepared creams shall be as given in table 1.

**Table 1 – Compositional requirements of dairy creams and prepared creams**

S/N	Characteristic	Half and Half/ table/ coffee/cooking cream	Single/ /light cream	Double cream	Whipping cream	Sour cream and acidified creams	Test method
i)	Free fatty acid, as lactic acid (%) m/m, max.	0.06 – 0.10 %	0.06 – 0.10 %	0.06 – 0.10 %	0.06 – 0.10 %-	4.5- 4.810 %-	US ISO 1740
ii)	Milk fat % (m/m), min.	10-18%	18-30%	48%-60%	30-38%	10%	DUS ISO 2450/ DUS ISO 19660
iii)	pH	6.60 – 6.70	6.60 – 6.70	6.60 – 6.70	6.60 – 6.70	4.5 to 4.8.	US ISO/TS 22113

## 5 . Food Additives

Food additives may be used in production of cream and prepared in accordance with US 45.

## 6 Contaminants

The products covered by this Standard shall comply with the Maximum Levels for contaminants that are specified for the product in the *General Standard for Contaminants and Toxins in Food and Feed* (US CODEX STAN 193).

## 7 Hygiene

7.1 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the General Principles of Food Hygiene (US 28), the Code of Hygienic Practice for Milk and Milk Products (US 163).

7.2 Dairy creams and prepared creams shall comply with the microbiological criteria in table 2



Table 2 — Microbiological limits in Dairy creams and prepared creams

SN	Micro-organism	Maximum limits	Method of test
i	Total plate count max cfu per g	10 <sup>3</sup>	US ISO 4833 part 1
ii	<i>Escherichia. Coli</i> MPN per g	Absent	US ISO 11866-2 use part 1 for detecting low numbers
ii	<i>Salmonella spp</i> per 25 g	Absent	US ISO 6785
iv	<i>Listeria. Monocytogenes</i> per 25 g	Absent	US ISO 10560
v	Yeasts and Moulds cfu per g	100	US ISO 6611
vi	<i>Staphylococcus aureus</i> cfu per g	Absent	US ISO 6888-1,

## 8 Fill of the container

The fill of the container shall be in accordance with the regulations of Weights and Measures regulations of Uganda.

## 9 Packaging

Dairy creams and prepared cream shall be packaged in food contact grade containers in accordance to US 1659.

## 10 Labelling

In addition to US EAS 38, the following specific provisions shall apply:

- a) the name of the product;
- b) name, address and physical location of the manufacturer/processor;
- c) net contents in standard metric units
- d) manufacturing date;
- e) best before date;
- f) country of origin;
- g) conditions of storage; and
- h) batch/lot number

allergen warnings

## 11 Sampling

Sampling for the purpose of testing shall be done in accordance with US ISO 707.

## Bibliography

- [1] CXS 288-1976, *Standard for creams and prepared creams*.
- [2] KS 35:2018, *Dairy creams and prepared creams — Specification*

For comments

## Certification marking

Products that conform to Uganda standards may be marked with Uganda National Bureau of Standards (UNBS) Certification Mark shown in the figure below.

The use of the UNBS Certification Mark is governed by the Standards Act, and the Regulations made thereunder. This mark can be used only by those licensed under the certification mark scheme operated by the Uganda National Bureau of Standards and in conjunction with the relevant Uganda Standard. The presence of this mark on a product or in relation to a product is an assurance that the goods comply with the requirements of that standard under a system of supervision, control and testing in accordance with the certification mark scheme of the Uganda National Bureau of Standards. UNBS marked products are continually checked by UNBS for conformity to that standard.

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For comments

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**ICS 67.100.10**

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