

# DRAFT UGANDA STANDARD

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## Edible Ices and Ice mixes — 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/TC2, *[Food and Agriculture]*, Subcommittee SC1, *[Milk and Milk Products]*.

This third edition cancels and replaces the second edition (US 33:2002), which has been technically revised.



# Edible Ices and Ice mixes — Specification

## 1 Scope

This Draft Uganda standard specifies the requirements, methods of sampling and test for edible ices ready for human consumption and ice mixes in liquid or powdered/dried form.

## 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 EAS 38: *Labelling of pre-packaged foods – General requirements*

US 45, *General standard for food additives*

US 28: *Code of Hygiene for food and drink manufacturing industries*

US ISO 4833: *Microbiology of the food chain – Horizontal method for the enumeration of microorganisms – Part 1: Colony count at 30<sup>o</sup> C by the pour plate technique*

US ISO 7251: *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of presumptive Escherichia coli — Most probable number technique*

US 217-8/EAS 217-8: *Methods for microbiological examination of foods – Part 8: Enumeration of Yeast and Moulds in Foods.*

US EAS 70 : *Dairy ices and ice mixes*

US ISO 11290-2: *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of Listeria monocytogenes -- Part 2: Enumeration method*

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

FDUS 1559; *Materials in contact with food—Requirements for packaging materials*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in US EAS 70 and the following apply.

### 3.1 edible ices

frozen sweetened products obtained either from an emulsion of fat and protein with the addition of other ingredients and substances, or from a mixture of water, sugars and other ingredients and substances which have been treated by freezing and are intended for storage, sale and human consumption in the frozen or partially frozen state.

### 3.2

#### **ice mixes**

products in liquids or powder form intended for the preparation of edible ices.

### 3.3

#### **Ice cream**

edible ice obtained from a heat treated mix, consisting of edible fat and milk solids with or without other permitted ingredients and food additives.

### 3.4

**frozen dessert or confection** — shall mean an edible ice obtained from an emulsion of edible fat and protein or milk with one or more permitted ingredients and food additives

### 3.5

#### **Sherbet/ sorbet** —

edible ice obtained from sugar, water, fruit acid, fruit or fruit flavouring and a small amount of milk solids with or without permitted additives

### 3.6

#### **Frozen Yogurt-**

Means freezing while stirring a product resulting from the fermentation by specific lactic acid producing bacteria of a pasteurized or ultra-pasteurized mixture of milk and other optional ingredients approved for use in ice cream

### 3.7

#### **milk shake-**

a pure, clean, wholesome semi-viscous drink prepared by stirring while freezing a pasteurized mix consisting of sweetener and other ingredients

### 3.8

#### **frozen dietary dessert-**

food for any special dietary use, prepared by freezing, with or without agitation, composed of a pasteurized mix which may contain milkfat and/or edible vegetable fats oils, protein, carbohydrates, flavoring, stabilizers, emulsifiers, vitamins and minerals.

### 3.9

#### **ice (water ice, lolly, popsicle)**

an edible ice obtained from sugar, water fruit acid and fruit or fruit flavoring with or without other permitted ingredients and food additives

### 3.10

#### **bulky flavours**

shall be flavouring materials or ingredients which have a significant contribution to the weight of the product fruit, nut, cocoa products, confectionery etc.

### 3.11

#### **dried / powder ice mixes**

dry product with moisture content equal to or less than 4 per cent which, after the addition of the prescribed amount of water..

## 4 Essential Composition and quality factors

### 4.1 Edible Ices

#### 4.1.1 Permitted Ingredients

All ingredients used shall comply with the relevant standards.

### 4.2 Compositional requirements

Edible ices, excluding coating of non-ice character, shall comply with the following requirements in Table 1

**Table 1 Compositional requirements for edible ices**

Characteristics	Frozen desserts		Frozen yoghurt		Sherbert	Frozen Dietary desserts	Milk shake	Water Ices and lollies	Test Method
	Plain	Bulky	Plain	Bulky					
Milk Fat, % by mass, (min.)	-	-	3.25	2.3	1-3	3.0%	3.25-6.0	-	US ISO 7328 ISO 8262
Fat included if present., milk fat, % by mass, (min.)	5	4	-	-	-	-	-	-	US ISO 3594 US ISO 3595
Milk solids, not fat, % by mass, (min.)	-	-	-	-	1-3	-	-	1-3	US EAS 70
Protein, % by mass, (min.)	2.5	2.2	-	-	-	-	-	-	AOAC 991.20-23.
Egg yolk solids if declared %	1.4(min)	1.4(min)	1.12(max)	1.12(max)	-	-	-	-	AOAC 991.20-23.
Total Solids, % by mass (min.)	30	28	30	28	10	-	-	10	US ISO 3728
Acidity as %, citric acid (min.)	-	-	-	-	0.35	-	-	0.35	ISO 11869
Acidity, expressed as lactic acid, (min.)	-	-	0.3	-	-	-	-	-	US ISO 11869
Weight by volume g/L (min.)	475	475	475	475	475	-	-	475	

## 5 Food Additives

Food additive used shall be in accordance with US 45

## 6 Contaminants

### 6.1 Heavy metals

The products covered by this standard shall comply with the maximum allowable heavy metal contaminants established by the codex Alimentarius Commission.

### 6.2 Pesticide and Veterinary drug Residues

The products covered by this standard shall comply with the maximum residue limits of the codex Alimentarius Commission.

## 7 Hygiene

### Hygienic Requirements

Products covered by this standard shall be produced and handled in a hygienic manner in accordance with US 28.

Edible ices and ice mixes shall conform to the limits for microbiological contaminants in Table 2.

**Table 2 – Microbiological limits for Ices and Ice mixes**

Microorganism	Maximum limit	Test Method
Total aerobic count, CFU/ml	10 <sup>3</sup>	US ISO 4833- 1
E. coli, per 100 ml	Absent	US ISO 7251
Yeast and moulds, CFU/ml	10	US 217-8/EAS 217-8
Listeria monocytogenes, CFU/ml	Absent	US ISO 11290-2
Salmonella, , CFU/ml	Absent	US ISO 6785

## 8 Packaging

Edible Ices and ice mixes shall be packaged in accordance with US 1659.

## 9 Weights and measures

Edible Ices and Ice mixes shall be packaged in accordance with the Weights and Measures legislation.

## 10 Labelling

### 10.1 General

In addition to the general provisions of US EAS 38, Edible ices and ice mixes shall be labelled with the following information

- a) The name of the product shall be Edible ice or other names as described in clauses 3.



- b) The net volume or net weight in metric units;
- c) Name and address of the manufacturer, packer or distributor
- d) If artificially flavored or colored, a statement that such flavoring and coloring has been added, need to be declared after the name e.g. water ice pineapple flavor, orange flavor e.tc
- e) List of ingredients used in the manufacture of Edible ices, ice mixes and frozen desserts mix
- f) When any Edible ices and ice mixes or frozen desserts are represented for special dietary use by man, it shall be sold only in a container, the label on which shall contain the name of the food and the list of ingredients;
- g) When any Edible ices and ice mixes or frozen desserts are provided to consumers from soft-serve machines, the name of the type of frozen dessert in conjunction with the serving selections offered shall be conspicuously provided to the consumer;
- h) Bulk containers of Edible ices and ice mixes or frozen desserts shall show the manufacturer's name and address or assigned code, type of product and flavor statement;
- i) Country of origin where applicable;
- j) Expiry date

## 11 Sampling

Sampling shall be carried out in accordance with US CAC/GL 50

## Bibliography

- [1] *Kenya specification for edible ices and ice mixes*
- [2] US 33 2002; Edible ices and ice mixes

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## 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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