



CD/K/608:2010
ICS 67.120.20

EAST AFRICAN STANDARD

Albumen flakes of non-edible quality — Specification

EAST AFRICAN COMMUNITY

Foreword

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

In order to meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. 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 procedures of the Community.

Article 15(1) of the EAC SQMT Act, 2006 provides that "Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose".

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.

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Introduction

Albumen flakes are being increasingly used by the printing industry. Albumen flakes are used in compounding the sensitive mixture needed for coating aluminium or zinc foils for off-set printing. This East African Standard is, therefore, being formulated to ensure that the production of albumen flakes is up to a quality level on the basis of which imports can be minimized. These albumen flakes are not fit for human consumption.

In the preparation of this East African Standard, the following sources were consulted extensively:

Regulations Governing the Voluntary Grading of Shell Eggs, 7 CFR Part 56, Effective March 30, 2008

United States Standards, Grades, and Weight Classes for Shell Eggs, AMS 56, Effective July 20, 2000

IS 6557:1972(R2000), *Specification for Albumen Flakes, Non-Edible Quality*

Codex Alimentarius website: http://www.codexalimentarius.net/mrls/vetdrugs/jsp/vetd_q-e.jsp

USDA Foreign Agricultural Service website: <http://www.mrlatabase.com>

USDA Agricultural Marketing Service website: <http://www.ams.usda.gov/AMSV1.0/Standards>

European Union: http://ec.europa.eu/enterprise/sectors/pharmaceuticals/veterinary-use/maximum-residue-limits/index_en.htm

Assistance derived from these sources is hereby acknowledged.

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Albumen flakes of non-edible quality — Specification

1 Scope

This East African Standard specifies the requirements and the methods of sampling and test for albumen flakes of non-edible quality.

2 Normative references

The following referenced documents are indispensable for the application 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 Official Method 931.06:1931, *Phosphorus (Total) (P_2O_5) in Eggs*

CAC/RCP 1, *Recommended international code of practice — General principles of food hygiene*

EAS 35, *Edible salt — Specification*

EAS 12, *Drinking (potable water) — Specification*

EAS 38, *Labelling of prepackaged foods — Specification*

EAS 39, *Hygiene in the food and drink manufacturing industry — Code of practice*

EAS 41, *Fruits, vegetables and derived products — Sampling and methods of test*

EAS 103, *Schedule for permitted food additives*

EAS 123, *Distilled water — Specification*

ISO 936:1998, *Meat and meat products — Determination of total ash*

ISO 1736:2008, *Dried milk and dried milk products — Determination of fat content — Gravimetric method (Reference method)*

ISO 1737:2008, *Evaporated milk and sweetened condensed milk — Determination of fat content — Gravimetric method (Reference method)*

ISO 4831:2006, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of coliforms — Most probable number technique*

ISO 4832:2006, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coliforms — Colony-count technique*

ISO 4833:2003, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of microorganisms — Colony-count technique at 30 degrees C*

ISO 5537:2004, *Dried milk — Determination of moisture content (Reference method)*

ISO 5985:2002, *Animal feeding stuffs — Determination of ash insoluble in hydrochloric acid*

ISO 6491, *Animal feeding stuffs — Determination of phosphorus content — Spectrometric method*

ISO 6579:2002, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection of *Salmonella* spp.*

ISO 8156:2005, *Dried milk and dried milk products — Determination of insolubility index*

ISO 9390, *Water quality — Determination of borate — Spectrometric method using azomethine-H*

ISO 13730:1996, *Meat and meat products — Determination of total phosphorus content — Spectrometric method*

ISO 21527-1:2008, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 1: Colony count technique in products with water activity greater than 0.95*

ISO 21527-2:2008, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0.95*

3 Definitions

For the purpose of this standard the following definition shall apply:

albumen flakes

the dried product prepared from the albumen of eggs of hens ducks, turkeys, and guinea fowls

4 Requirements

4.1 Raw material

Good eggs may be employed for preparing albumen flakes. Low grade eggs, broken eggs and discarded eggs may also be used if yolk and albumen can be separated clearly.

4.2 Processed product

4.2.1 Albumen flakes shall be dry, crystalline, of pale yellow to dull brownish colour, 1.2 to 1.6 mm in size and free from extraneous matter and insect infestation.

4.2.2 The product shall also comply with the requirements given in Table 1.

Table 1 — Requirements for albumen flakes

S/No. (1)	Characteristic (2)	Requirement (3)	Method of test (4)
i)	Moisture content, % by mass, Max	8.0	Annex A of CD/K/607:2010
ii)	Solubility, % min	80	Annex C of CD/K/607:2010
ii)	pH	5.5 to 6	
iv)	Glucose, % by mass, Max	0.1	Annex A

5 Packing and marking

5.1 Packing

Albumen flakes shall be packed as agreed to between the purchaser and the manufacturer.

5.2 Marking

5.2.1 The container shall be marked legibly with the following information:

- a) Name of material along with brand name, if any;

- b) Name and address of the manufacturer;
- c) Net weight of the content; and
- d) Batch number or code number.

5.2.2 Each container may also be marked with a Certification Mark.

6 Sampling

The method of drawing representative samples of the material and the criteria for conformity shall be as prescribed in Annex E of CD/K/607:2010.

7 Tests

7.1 The test shall be carried out as prescribed in col4 and 5 of Table 1.

7.2 **Quality of reagents** — Unless specified otherwise, pure chemicals and distilled water (see EAS 123) shall be employed in the tests.

NOTE 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the experimental results.

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Annex A
(normative)

Determination of glucose in albumen flakes

A.1 Reagents

A.1.1 Iodine solution — 0.05 N.

A.1.2 Sodium hydroxide solution — 0.1 N.

A.1.3 Sulfuric acid — concentrated.

A.1.4 Standard sodium thiosulphate solution — 0.05 N

A.2 Procedure

A.2.1 Place accurately weighed one gram of the prepared sample of albumen flakes into a 250-ml volumetric flask and dilute with about 150 ml of water. Mix thoroughly the contents of the flask and make the volume to 250 ml with water. Pipette 50 ml of the albumen flakes solution in a 250-ml stoppered flask. Add 40 ml of iodine solution and 25 ml of sodium hydroxide solution. Stopper the flask and keep in dark for 20 min. Acidify with 5 ml of sulfuric acid and titrate quickly the excess of iodine against standard sodium thiosulphate solution. Conduct a blank using 50 ml of water instead of albumen flakes solution.

A.3 Calculation

Glucose, percent by weight = $(B - S) \times 0.004502$

where

B = volume of sodium thiosulphate solution required for the blank, and
 S = volume of sodium thiosulphate solution required for the sample.

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