



EAST AFRICAN COMMUNITY



EDICT



OF

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EAS 49 (2006) (English): Dried whole milk and skimmed milk powder – Specification



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EAS 49:2006
ICS 67.100

EAST AFRICAN STANDARD

Dried whole milk and skimmed milk powder — 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 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.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

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.

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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Dried whole milk and skimmed milk powder — Specification

1 Scope

This East African Standard prescribes the requirements and methods of sampling and test for dried whole milk and dried skimmed milk made from cow milk.

This standard covers requirements for dried milk powder made from whole milk and skimmed milk.

2 Normative references

The following standards contain provisions, which, through reference in this text constitute provisions of this standard. All standards are subject to revision and parties to agreements based on this standard are encouraged to take steps to ensure the use of the most recent editions of the standard indicated below. Information on currently valid national and international standards may be obtained from the Partner States Bureaux of Standards Information and Documentation Centre.

CAC/GL 56, *Guidelines on the use of mass spectrometry (MS) for identification, confirmation and quantitative determination of residues*

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

EAS 38, *Labelling of pre-packaged foods*

EAS 68, *Milk and milk products — Methods of microbiological examination*

EAS 81, *Milk powders — Methods of analysis*

EAS 161, *Milk and milk products — Sampling — Inspection by attributes — Specification*

EAS 165, *Milk and milk products — Inspecting sampling — Inspection by variables*

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

ISO 14674, *Milk and milk powder — Determination of aflatoxin M1 content — Clean-up by immunoaffinity chromatography and determination by thin-layer chromatography*

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

3 Definitions

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

3.1

dried whole milk

product obtained by the removal of water only from whole milk obtained from the cow

3.2

dried skimmed milk

product obtained by the removal of water only from skimmed cow milk

4 Requirements

4.1 Raw materials

Milk powder shall be made from cow milk complying with EAS 67 and EAS 69.

4.2 Physical and sensory characteristics

The powder shall be uniform in composition and shall be free flowing and free from hard lumps.

The colour shall be white to creamy white.

The powder shall be free from abnormal taste or odour and the reconstituted milk shall be wholesome.

The powder shall be free from dirt and other extraneous matter.

4.3 Physico-chemical requirements

The milk powder shall comply with the requirements given in Table 1.

Table 1 — Requirements for milk powder (whole and skim)

Property	Requirement		Method of testing
	Whole milk powder	Skimmed milk powder	
Moisture, percent by weight, maximum	4.0	5.0	EAS 81
Total milk solids, percent by weight, minimum	96.0	95.0	EAS 81
Fat, percent by weight	Not less than 26.0	Not more than 1.0	EAS 81
Titrateable acidity as lactic acid, per 100 g powder, maximum	1.0	1.25	EAS 81
Solubility value, minimum	85.0 (if roller dried)	85.0 (if roller dried)	EAS 81
Solubility value, minimum	98.0 (if spray dried)	98.0 (if spray dried)	EAS 81
Presence of burnt particles	Disc B or better	Disc B or better	Annex A

5 Hygiene

5.1 Milk shall be produced, processed and handled in accordance with CAC/RCP 57.

5.2 Milk powders shall comply with the microbiological requirements stated in Table 2.

Table 2 — Microbiological limits

Microorganisms	Maximum limit	Test method
Total plate count	50 000/g	EAS 68
Coliforms	10/g	EAS 68
<i>E. coli</i>	<1/g	EAS 68
Staphylococcus aureus	Absent/25 g	ISO 6611
Salmonella	Absent/25 g	ISO 6785
Yeasts and moulds	10/g	EAS 68

6 Food additives

Food additives may only be added in accordance with EAS 103, *Schedule of permitted additives*.

7 Contaminants

7.1 Pesticide residues

The products covered by this standard shall comply with the maximum residue limits elaborated in the relevant Codex Standards.

7.2 Veterinary drug residues

The products covered by this standard shall comply with the maximum residue limits elaborated in the relevant Codex Standards.

7.3 Heavy metals

The products covered by this standard shall comply with the maximum limits for heavy metal contaminants established by the Codex Alimentarius Commission.

8 Sampling

For the purpose of determining the compliance to this standard, sampling shall be done in accordance with EAS 161 and EAS 165.

9 Packaging

The product shall be packaged in clean, safe food grade containers in such a way as to protect it from contamination and deterioration.

10 Labelling

10.1 The containers shall be labelling in compliance with the requirements of EAS 38. In addition the following particulars shall be labelled on the container:

- (i) directions for reconstitution of dried milks shall be given;
- (ii) process of manufacture (spray dried or roller dried).
- (iii) date of manufacture; and
- (iv) not suitable for infants.

10.2 The name of the product shall be:

- whole cow milk powder; or
- skimmed cow milk powder

'Whole milk powder', may be designated 'Full cream milk powder '.

'Skimmed milk powder' may be designated 'Low fat milk powder'.

10.3 The milk fat content shall be declared as:

- a) percentage by mass or volume; or
- b) grams per serving, provided that the number of servings is stated.

10.4 Milk protein content shall be declared as:

- (i) a percentage by mass or volume, or
- (ii) grams per serving provided that the number of servings is stated.

10.5 In the list of ingredients, milk products used for protein adjustment shall be declared.

10.6 Name and physical address of the manufacturer or packer.

10.7 Lot identification, batch or code number.

10.8 Storage conditions.

10.9 Expiry date.

10.10 Country of origin.

Annex A (normative)

Determination of the burnt particles of milk powder

A.1 Apparatus

- A.1.1 ADMI-standard picture series** for the measurement of the burnt particles
- A.1.2 Top loading balance**, readability 10 mL
- A.1.3 Filter unit**, vacuum connection preferred (e.g. Presto Silesia, Presto-Elektra Sediment tester)
- A.1.4 Filter paper** (for example, Funke Gerber Neorevamat)
- A.1.5 Erlenmeyer flasks**, volume 500 mL

A.2 Reagents

Sodium hexametaphosphate liquid, 2 %

A.3 Procedure

A.3.1 Sample preparation

Mix the sample carefully by repeatedly shaking and inverting the containers. Close the containers immediately after taking the sample for analysis.

A.3.2 Determination of burnt particles

A.3.2.1 Spray dried milk powder

Weigh 25 g skimmed powder or 32.5 g whole milk powder into an Erlenmeyer flask. Dilute the powder into 250 mL distilled water (temperature 45 °C). The water shall not have visible particles.

Filter the dilution through the filter paper. Rinse the Erlenmeyer flask with 50 mL distilled water and filter it also through the filter paper. Dry the filter paper at the temperature of 30 °C to 40 °C in a dustless place.

Measure the amount of the burnt particles using the ADMI-standard picture series. Grade to A, B, C and D disks.

A.3.2.2 Roller dried milk powder

Weigh 17 g skimmed milk powder and 22 g whole milk powder into an Erlenmeyer flask. Dilute the powder into 250 mL 2 % sodium-hexametaphosphate liquid (temperature 80 °C) shaking by hands. The rest to be done as explained in A.3.2.1.