



DEAS 747:2010
ICS 67.080.20

DRAFT EAST AFRICAN STANDARD

Fried potato chips — Specification

Draft for comments only — Not to be cited as East African Standard

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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Acknowledgement

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ASARECA is a non-political association of agricultural research institutes in: Burundi, DR Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania and Uganda. ASARECA serves as a platform for promoting regional research and in the sharing of benefits and spillovers that derive from such research. The mission of ASARECA is to *“Enhance regional collective action in agricultural research for development, extension and agricultural training and education, to promote economic growth, fight poverty, eradicate hunger and enhance sustainable use of resources in Eastern and Central Africa”*.

Development of standards has been part of PAAP's contribution to changing the way business is done in crucial agricultural sectors to increase efficiency and/or reduce waste through rationalization and harmonization of policies, laws, regulations and procedures. Rationalization focuses on how countries conduct business in a given subsector, and determines what should be done to make the procedures and processes more efficient. Harmonization brings together regionally different approaches (policies, laws, regulations and procedures) into unified approaches that are applied across the countries. This harmonization process allows commodities and factors to move freely across national boundaries, thereby improving domestic and foreign investment by expanding markets beyond national borders. Over time this will lead to gradual attainment of seamless borders for trade in potatoes and potato products across the region.

Removal of regulatory bottlenecks to transboundary movement of potato products in the region will enhance competitiveness of trade and value addition in the sub-sector. It will improve the value chains by supporting product differentiation and hence increased trade in potato products in the region. This will ultimately contribute to incomes, employment generation and improved welfare in the region. This fits snugly with the aspirations of ASARECA as a key player contributing to economic development of the region.

Introduction

Potato chips are one of the deep-fried snack foods available on the market. Such products are very popular for reasons of taste and nutritional value. Fried potato chips, also known as potato French fries, are usually prepared by peeling and slicing potato and deep-fat frying the slices in suitable edible oil or fat, or combinations thereof. In the case of sliced potato, these are sliced breadthwise to give thin slices. The slices/shreds are washed and fried in fat/oil or combinations thereof, held at proper temperature and time to render them ready. Salt and other seasonings are added after frying. When groundnut or other unsaturated oils are used, permitted antioxidants in the frying medium are sufficient to give protection to the potato chips.

Success in deep frying of chips depends upon several factors, such as:

- a) use of proper raw material of optimum maturity and quality;
- b) correct method of preparation;
- c) use of suitable equipment;
- d) selection of appropriate fat or oil as frying medium;
- e) optimum time and temperature of frying;
- f) efficient packaging; and
- g) proper storage.

This standard will assist in the processing and sale of standardized, nutritious and safe products. It provides requirements for assessing the quality and safety of potato chips. Complying with these requirements will enable the products to meet the minimum quality and safety requirements of consumers and regulators.

Fried potato chips — Specification

1 Scope

This draft East African Standard specifies requirements and methods of sampling and test for deep fried potato chips ready for consumption.

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.

EAS 38, *General standard for labeling of prepackaged foods*

EAS 39, *Code of practice for hygiene in the food and drink manufacturing industry*

EAS 103, *General standard for food additives*

EAS 321, *Edible oils and fats — Specification*

EAS 35, *Specification for edible (fortified) salt*

EAS 98, *Spices and Condiments — Specification*

EAS 217-5, *Methods for the microbiological examination of foods — Part 5: Enumeration of coagulase-positive staphylococci*

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

CAC/RCP 67, *Code of Practice for reduction of acryl amide in foods*

DEAS 748, *Fresh potatoes — Specification*

DEAS 746, *Frozen potato chips*

3 Product description

fried potato chips

product prepared from clean, mature, sound potato tubers or frozen potato chips subjected to a deep frying process to make them crispy and ready for consumption

4 Essential quality and compositional requirements

4.1 Essential materials

The following materials shall be used in the preparation of fried potato chips:

- a) fresh potato; conforming DEAS 748; or
- b) frozen potato Chips conforming to DEAS 746; and ;
- c) edible oil or fat conforming to EAS 321

NOTE Using the oil several times may lead to poor quality and affect the safety of the chips

4.2 Optional ingredients

In addition to the essential ingredients specified in 4.1, the following optional ingredients may be added:

- a) spices and condiments conforming to EAS 98.
- b) salt conforming to EAS 35;

4.3 General quality requirements factors

Fried potato chips shall:

1. have golden brown colour;
2. have acceptable texture;
3. have a uniform surface, free from blisters and excessive brown pigmentation;
4. not be excessively oily ; and
5. not be rancid bitter or have other objectionable odours and taste.

4.4 Specific quality requirements

The fried potato chips shall conform to the requirements given in Table 1.

Table 1 — Chemical for fried potato chips

Characteristic	Requirement
Acid insoluble ash, % by mass (on dry basis), max.	0.15
Free fatty acid %, by mass max.	0.5
Peroxide value, meq. oxygen/kg fat, max.	10
Fat content % by mass max (on dry basis). max	20
Acrylamide	As specified in CAC/RCP 67

5 Food additives

Additives may be used in accordance with EAS 103;

6 Contaminants

6.1 Pesticide residues

Fried potato chips shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission for this commodity.

6.2 Other contaminants

Fried potato chips shall comply with the maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193).

7 Hygiene

The fried potato chips shall be prepared, packaged and stored under hygienic conditions in accordance with EAS 39; The chips shall conform to the microbiological limits in Table 2.

Table 2— Microbiological requirements for potato crisps

Micro-organism(s)	Maximum limit	Method of test
Total viable count, CFU per gram, max	10 ⁴	EAS ISO
<i>Escherichia coli</i> , CFU per gram	Shall be absent	ISO 7251 ISO 4833;
<i>Salmonella</i>	Shall be absent	ISO 6579
Yeasts and moulds, CFU per gram	10 ³	EAS ISO ISO 21527-2

8 Packaging

Potato chips shall be packaged in a food grade material to safe guard the hygienic and nutritional quality of the product. The container shall be moisture and air proof, oil proof and well sealed to prevent spoilage or contamination.

10 Weights and Measures

Potato chips shall be packaged in accordance with Weights and Measures requirements of the destination country.

11 Labelling

In case of fried potato chips for distribution (under controlled conditions), in addition to the requirements of EAS 38, the following specific labeling requirements shall apply and shall legibly and indelibly marked.

- a) name of the product shall be "Fried potato chips";, if the chips are spiced the product shall be labelled as "Spiced fried potato chips";
- b) name and physical address of the manufacturer
- c) date of manufacture;
- d) best before date ;
- e) country of origin;
- f) list of ingredients;
- g) net weight; and
- h) lot identification
- i) Storage conditions,

12 Methods of sampling

Representative samples for determining the conformity of the material to the requirements of this specification shall be drawn in accordance with the relevant EAC standard.

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