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DRAFT EAST AFRICAN STANDARD

Butter for cosmetic use – Specification Part 1: Shea butter

EAST AFRICAN COMMUNITY

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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.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. 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 Principles and procedures for development of East African Standards. XXXXXX.

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.

The committee responsible for this document is Technical Committee EASC/TC 071, *Cosmetics and related products.*

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

Butter for cosmetic use – Specification Part 1: Shea butter

1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for shea butter for cosmetic use derived from the kernels of the sheanuts (*Butyrospermum parkii*). This standard does not cover products for which therapeutic claims are made.

2 Normative references

The following documents are 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.

ISO 15774, *Animal and vegetable fats and oils -- Determination of cadmium content by direct graphite furnace atomic absorption spectrometry*

EAS 346, *Labelling of cosmetics — General requirements*

EAS 846, *Glossary of terms relating to the cosmetic industry*

EAS 847-16, *Cosmetics — Analytical methods — Part 16: Determination of lead, mercury and arsenic content*

ISO 660*, Animal and vegetable fats and oils — Determination of acid value and acidity*

ISO 662, *Animal and vegetable fats and oils — Determination of moisture and volatile matter content*

ISO 663, *Animal and vegetable fats and oils — Determination of insoluble impurities content*

ISO 3596, *Animal and vegetable fats and oils — Determination of unsaponifiable matter — Method using diethyl ether extraction*

ISO 3657, *Animal and vegetable fats and oils – Determination of saponification value*

ISO 3960, *Animal and vegetable fats and oils — Determination of peroxide value — Iodometric (visual) endpoint determination*

ISO 3961, *Animal and vegetable fats and oils – Determination of iodine value*

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

ISO 5555, Animal and vegetable fats and oils — Sampling

ISO 6321, *Animal and vegetable fats and oils — Determination of melting point in open capillary tubes (Slip point)*

ISO 8294, *Animal and vegetable fats and oils — Determination of copper, iron and nickel contents — Graphite furnace atomic absorption method*

ISO 18416, *Cosmetics — Microbiology — Detection of candida albicans*

ISO 21149, *Cosmetics -- Microbiology -- Enumeration and detection of aerobic mesophilic bacteria*

ISO 21527 (all parts), *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds*

ISO 22716, *Cosmetics — Good Manufacturing Practices (GMP) — Guidelines on Good Manufacturing Practices*

ISO 22717, *Cosmetics — Microbiology —Detection of Pseudomonas aeruginosa*

ISO 22718, *Cosmetics — Microbiology — Detection of Staphylococcus aureus*

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
pure (raw or unrefined) shea butter
oleaginous material obtained from the nut kernel of the *Butyrospermum parkii*, from the *Sapotaceae* family by manual or mechanical methods. It is obtained through a thermal process or cold pressed, which does not alter the nature of the fat. It can be purified by washing with water, settling, filtering and centrifuging.

3.2
grade A shea kernels
kernel free from moulds, decays, weevils, cracks, discoloration and sprouts. They are not spilt, shrivelled, decayed, damaged, skinned, broken or empty.

3.3
refined shea butter
oleaginous material obtained from the nut kernel of *Butyrospermum parkii,* from the *Sapotaceae* family by manual, mechanical or solvent extraction, and has undergone further chemical alteration processes such as bleaching and deodorizing to remove its natural scent and colour. The result of refinement is an odourless, white butter

4 Requirements

4.2 General requirements

Shea butter for cosmetic use shall be:

a) a soft solid of uniform colour with a characteristic odour;

b) free from visible foreign matter; and

c) insoluble in water and soluble in organic solvents.

Shea butter for cosmetic industry shall be produced, prepared and handled in accordance with ISO 22716.

4.3 Specific requirements

Shea butter for cosmetic industry shall comply with the specific requirements given in Table 1 when tested in accordance with the test methods specified therein.

Table 1 — Specific requirements for shea butter for cosmetic industry

Characteristic	Requirement		Test method
	Pure	Refined	
Moisture content,%, m/m, max.	0.2	0.1	ISO 662
Free fatty acid, % as oleic,max.	1	0.1	ISO 660
Peroxide value, mEq/kg, max.	6	5	ISO 3960
Insoluble impurities,% m/m	<1	<1	ISO 663
Unsaponifiable matter,%	>6	4 – 9	ISO 3596
Saponification value, mgKOH/g	170 - 190	178 - 195	ISO 3657
Acid value, max.	6.0	1.5	ISO 660
Iodine value, Wij's	50 - 61	50 - 70	ISO 3961
Melting point	28 - 42		ISO 6321

4.4 Microbiological requirements

Shea butter for cosmetic industry shall comply with the microbiological limits given in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Microbiological limits for shea butter for cosmetic industry

Characteristic	Limit	Test method
Total viable count for aerobic mesophyllic micro-organisms per g, max.	1 000	ISO 21149
Pseudomonas aeruginosa	Not detectable in 0.5 g of cosmetic product	ISO 22717
Staphylococcus aureus		ISO 22718
Candida albicans		ISO 18416
Total Coliforms	Not detected	ISO 4831
Yeast and moulds	Not detected	ISO 21527

4.5 Heavy metals

Shea butter for cosmetic industry shall comply with the limits for heavy metal contaminants given in Table 3 when tested in accordance with the test methods specified therein.

Table 3 — Heavy metal limits for shea butter for cosmetic industry

Heavy metal	Maximum limit mg/kg	Test method
Lead	0.1	EAS 847-16
Arsenic	0.1	
Mercury	0.1	
Iron	5	ISO 8294
Cadmium	0.1	ISO 15774

6 Packaging

Shea butter for cosmetic industry shall be packaged in suitable containers and sealed in manner to ensure the safety and quality throughout the shelf life of the product.

7 Labelling

In addition to the labelling requirements in EAS 346, the package shall be legibly and indelibly marked with the following information:

a) manufacturer's name and physical address;

b) product name as “pure shea butter” or “refined shea butter”, “;

c) batch number;

d) net content of the material when packed;

e) country of origin;

f) month and year of manufacture and expiry;

g) recommended storage conditions, and

h) caution statement.

8 Sampling

Sampling shall be carried in accordance with ISO 5555.

Bibliography

[1] *Dynasty Shea & Essentials, Organically Refined Shea Butter Specifications*

[2] *Quality characteristics of West African shea butter (Vitellaria Paradoxa) and approaches to extend shelf-life by Hee Seung Nahm, May, 2011*

[3] *Shea butter export guide, September 2005, by Peter Lovett, Emily Miller, Philip Mensah, Vanessa Adams and Catherine Kannenberg at the West Africa Trade Hub (WATH).*

[4] *Safety Assessment of Butyrospermum parkii (Shea) -Derived Ingredients as Used in Cosmetics*

[5] *Journal of Food Research; Vol. 2, No. 5; 2013.Effect of Nut Treatments on Shea Butter Physicochemical Criteria and Wrapper Hygienic Quality Influence on Microbiological Properties*

[6] Journal of Stored Products and Postharvest Research Vol. 3(3), pp. 24 – 29, 8 February, 2012, *Microbiological and physicochemical characterization of shea butter sold on Benin markets.*

[7] SCCS/1564/15, *The sccs notes of guidance for the testing of cosmetic ingredients and their safety evaluation, 9th revision, 25 April 2016*

[8] US 1635 2016, *Shea butter – Specification*

