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DRAFT EAST AFRICAN STANDARD

Castor oil for cosmetic use — Specification

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.

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.

Castor oil for cosmetic use — Specification

1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for castor oil for cosmetic use.

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.

EAS 346, *Labelling of cosmetics — Requirements*

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

EAS 847-1, *Cosmetics — Analytical methods — Part 1: Glossary of terms*

EAS 847-2*, Cosmetics — Analytical methods — Part 2: Determination of moisture content and volatile matter content*

EAS 847-5, *Cosmetics — Analytical methods — Part 5: Determination of unsaponifiable matter*

EAS 847-7, *Cosmetics — Analytical methods — Part 7: Determination of specific gravity*

EAS 847-9, *Cosmetics — Analytical methods — Part 9: Determination of colour*

EAS 847-10, *Cosmetics — Analytical methods — Part 10: Determination of acetyl value and hydroxyl value*

EAS 847-13, *Cosmetics — Analytical methods — Part 13: Determination of rancidity*

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

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 6320, *Animal and vegetable fats and oils — Determination of refractive index*

ISO 16212, *Cosmetics — Microbiology — Enumeration of yeast and mould*

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

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

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

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

ISO 24153, *Random sampling and randomisation procedures*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EAS 846, EAS 847-1 and the following 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

— IEC Electropedia: available at http://www.electropedia.org/

3.1
castor oil
pure oil obtained from castor seeds (*Ricinus. Communis Linn*., *fan. Euphoribiaceae*)

3.2
fixed oil
non-volatile oil of animal or plant origin

4 Requirements

4.1 General requirements

4.1.1 Castor oil for cosmetic use shall be obtained from castor seeds (*Ricinus communis*)

4.1.2 Castor oil for cosmetic use may further undergo bleaching with bleaching earth or activated carbon or both, and deodorization.

4.1.3 Castor oil for cosmetic use shall be odourless or have a characteristic odour of castor seeds and shall not have fixed oils.

4.1.4 When examined visually, castor oil for cosmetic use shall be free from sediments, other foreign matter and separated water.

4.2 Specific requirements

Castor oil for cosmetic use 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 castor oil for cosmetic use

S/N	Characteristic	Requirement	Test method
i.	Moisture content, % m/m, max.	0.5	EAS 847-2
ii.	Insoluble impurities, % m/m, max.	0.25	ISO 663
iii.	Refractive index at 20 °C	1.4770 - 1.4810	ISO 6320
iv.	Saponification value, mg KOH/g	177 - 187	ISO 3657
v.	Iodine value, I_2/100 g	82 - 90	ISO 3961
vi.	Acid value, mg KOH/g, max.	4.0	ISO 660
vii.	Acetyl value, mg KOH/g, min.	143	EAS 847-10
viii.	Critical solution temperature, °C, max.	0	Annex A
ix.	Peroxide value, meq, O_2/kg, max.	10	ISO 3960

4.3 Microbiological requirements

Castor oil for cosmetic use shall comply with the microbiological requirements given in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Microbiological requirements for castor oil for cosmetic use

S/N	Microorganism	Requirement	Test method
i.	Total viable count for aerobic mesophyllic microorganisms[a], CFU/g or CFU/ml, max.	1 000	ISO 21149
ii.	*Pseudomonas aeruginosa*, per ml or g	Not detected	ISO 22717
iii.	*Staphylococcus aureus*, per ml or g	Not detected	ISO 22718
iv.	*Candida albicans*, per ml or g	Not detected	ISO 18416
v.	Yeasts and moulds count, CFU/g, max.	100	ISO 16212
[a] The total aerobic count of castor oil for cosmetic use for children below 3 years shall not exceed 100 CFU/g.			

4.4 Heavy metal contaminants

Castor oil for cosmetic use shall comply with the heavy metal limits given in Table 3 when tested in accordance with the test methods specified therein.

Table 3 — Heavy metal limits for castor oil for cosmetic use

S/N	Heavy metal	Maximum limit[a] mg/kg	Test method
i.	Lead	10	EAS 847-16
ii.	Arsenic	2	
iii.	Mercury	1	
[a] The total amount of heavy metals as lead, mercury and arsenic, in combination in the finished product, shall not exceed 10 mg/kg.			

6 Packaging

Castor oil for cosmetic use shall be packaged in suitable well-sealed containers that shall protect the contents and shall not cause any contamination or react with the product.

7 Labelling

7.1 In addition to the labelling requirements given in EAS 346, the package shall be legibly and indelibly marked with product name as “Castor oil”.

7.2 The words “For cosmetic use” and “For external use only” shall be conspicuously labelled.

8 Sampling

Sampling shall be done in accordance with ISO 24153.

Annex A
(normative)

Determination of critical solution temperature

A.1 Reagent

The reagent shall be prepared by diluting ethyl alcohol or rectified spirit with distilled water till the relative density of the mixture at 15.5 ºC is 0.8303 ± 0.0001, when compared with distilled water at the same temperature. De-natured alcohol shall not be used for this test.

A.2 Procedure

Mix in a test tube, one gram of the castor oil, with 4.15 times its mass of the reagent. Upon examination, the solution thus obtained shall be perfectly clear at 20 ºC and shall remain clear when cooled and maintained for five minutes at a temperature of 0 ºC.

Bibliography

US 2275:2021, Castor oil for cosmetic industry — Specification