DEAS 847-1: 2025

ICS 71.100.70

DRAFT EAST AFRICAN STANDARD

Cosmetics — Analytical methods — Part 1: Glossary of terms

EAST AFRICAN COMMUNITY

Second Edition 2025

Copyright notice

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.

This second edition cancels and replaces the first edition (EAS 847-1: 2017), which has been technically revised.

EAS 847 consists of the following parts, under the general title *Cosmetics — Analytical methods*:

— *Part 1: Glossary of terms*

— *Part 2 : Determination of moisture content and volatile matter content*

— *Part 3: Determination of insoluble impurities*

— *Part 4: Determination of acid value and free fatty acids*

— *Part 5: Determination of unsaponifiable matter*

— *Part 6: Determination of melting point*

— *Part 7: Determination of specific gravity*

— *Part 8: Titre test*

— *Part 9: Determination of colour*

— *Part 10: Determination of acetyl value and hydroxyl value*

— *Part 11:Determination of allyl isothiocyanate*

— *Part 12:Determination of flash point by Pensky – Martens Closed Cap Tester*

— *Part 13 :Determination of rancidity*

- *Part 14: Determination of Polenske value*
- *Part 15 :Determination of ash content*
- *Part 16: Determination of lead, mercury and arsenic content*
- *Part 17: Determination of pH*
- *Part 18: Determination of thermal stability*
- *Part 19: Determination of non-ionic, anionic and cationic surfactant content*
- *Part 20: Determination of lather volume (foaming power)*
- *Part 21: Determination of free acid in oils*
- *Part 22: Determination of sulphur and sulphides in oils*
- *Part 23:Test for absence of grit in powders*
- *Part 24:Determination of matter insoluble in boiling water*
- *Part 25: Determination of fineness*
- *Part 26: Determination of boric acid*
- *Part 27: Determination of total fatty substance by gravimetric method*
- *Part 28: Determination of free caustic alkali*.

Cosmetics — Analytical methods — Part 1: Glossary of terms

1 Scope

This Draft East African Standard defines terms used in the test methods for oils and fats for cosmetic industry. This standard does not deal with the specifications of the oils or fats.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document. 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
acetyl value
number of milligrams of potassium hydroxide required to neutralize the acetic acid liberated by the hydrolysis of one gram of the acetylated oil or fat (see 3.3). Acetyl value of an oil or fat is a measure of the hydroxyl content of the material

3.2
acid value and free fatty acids
number of milligrams of potassium hydroxide required to neutralize the free acid present in one gram of the oil or fat under the prescribed conditions. The acidity of the oil or fat indicated by its acid value is frequently expressed as free fatty acids present in the sample

3.3
hydroxyl value
number of milligrams of the potassium hydroxide required to neutralize the acetic acid capable of combining by acetylation with one gram of the oil or fat (see 3.1). Hydroxyl value is equivalent to the hydroxyl content of the material based on the weight of the unacetylated fat

3.4
insoluble impurities
dirt, meal and other foreign substances which are insoluble in kerosene, petroleum ether and other solvents under the conditions of the prescribed test

3.5
iodine value (Wijs)
number of grams of iodine, absorbed per 100 g of the oil or fat, when determined by using Wijs solution. The iodine value of the oil or fat gives an indication of the degree of unsaturation of the constituent fatty glycerides

It is customary to give the method employed for its determination. Wijs method is applicable to all normal oils and fats not containing conjugated systems

3.6
melting point
temperature at which the oil or fat softens or becomes sufficiently fluid to slip or run as determined by the open-tube capillary-slip method. In the case of the closed-tube complete-fusion method, it is the temperature at which the oil or fat becomes perfectly clear and liquid

3.7
moisture content and volatile matter
moisture and any other material contained in the oil or fat which is volatile under the conditions of the prescribed test

3.8
Polenske value
number of millilitres of 0.1 N aqueous sodium hydroxide solution required to neutralize the steam volatile, water insoluble fatty acids distilled from 5 g of an oil or fat under the precise conditions specified in the method. The Polenske value is the measure of the steam volatile and water insoluble fatty acids, chiefly caprylic, capric and lauric acids, present in the oil or fat

3.9
refractive index
ratio of the velocity of light in vacuum to the velocity of light in the oil or fat; more generally, it expresses the ratio between the sine of the angle of incidence to the sine of the angle of refraction when a ray of light of a known wave-length (usually 589.3 mμ. the mean of the D lines of sodium) passes from air into the oil or fat

3.10
Reichert-Meissl value
number of millilitres of 0.1 N sodium hydroxide solution required to neutralize the steam volatile, water soluble fatty acids distilled from 5 g of an oil or fat under the precise conditions specified in the method. Reichert-Meissl value is a measure of water soluble steam volatile fatty acids, chiefly butyric and caproic acids, present in an oil or fat

3.11
saponification value
number of milligrams of potassium hydroxide required to saponify completely one gram of the oil or fat

3.12
specific gravity
3.12.1
specific gravity of an oil
ratio of the weight in air of a given volume of the oil at 30 °C to the weight in air of an equal volume of water at 30 °C

3.12.2
specific gravity of a fat
ratio of the weight in air of a given volume of the fat at 95 °C to the weight in air of an equal volume of water at 95 °C

3.13
titre
solidifying point (temperature) attained under standard conditions, during the solidification of the mixed fatty acids obtained from the oil or fat

3.14
unsaponifiable matter
fraction of substances in oils and fats which is not saponified by caustic alkali, but is soluble in ordinary fat solvents. It includes the higher aliphatic alcohols, sterols, pigments, hydrocarbons and resinous matter.

Bibliography

EAS 847-1: 2017, Cosmetics — Analytical methods — Part 1: Glossary of terms.