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ICS 71.100.40

DRAFT EAST AFRICAN STANDARD

Fabric softener — Specification

EAST AFRICAN COMMUNITY

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Second Edition 2026

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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 074, Surface active agents.

This second edition cancels and replaces the first edition (EAS 1143: 2022), which has been technically revised.

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.

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Introduction

Household fabric softeners are stable aqueous dispersions of cationic materials used for providing fabric softening and static control benefits during laundering. Rinse-added fabric softening compositions contain, as the active component, di-hardened tallow dimethylammonium chloride and imidazolinium compounds substituted with two tallow groups. These materials are normally prepared in the form of a dispersion in water.

The dispersion of the base material contains other additives such as preservatives, colourant (dyes) and fragrances. Other fabric rinses contain additives to prevent or control foaming and electrolyte salts such as calcium chloride and thickener materials to control the viscosity. Other ingredients are added to modify the rheology and/or flow of the dispersion.

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Fabric softener — Specification

1 Scope

This Draft East African Standard specifies the requirements, sampling and test methods for fabric softeners.

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 217-1-1, *Methods for the microbiological examination of foods — Part 1-1: General procedures and techniques*

EAS 794, *Determination of the microbial inhibition of cosmetic soap bars and liquid hand and body washes — Test method*

ISO 862, *Surface active agents — Vocabulary*

ISO 2871-1, *Surface active agents — Detergents — Determination of cationic active matter content — Part 1: High-molecular-mass cationic active matter*

ISO 2871-2, *Surface active agents — Detergents — Determination of cationic active matter content — Part 2: Cationic active matter of low molecular mass (between 200 and 500)*

ISO 4316, *Surface active agents — Determination of pH of aqueous solutions — Potentiometric method*

ISO 21150, *Cosmetics — Microbiology — Detection of Escherichia coli*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 862 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 Online browsing platform: available at https://www.iecee.org/

3.1
laundering
cleaning and restoring of textile materials to a serviceable condition using the washing and drying equipment commonly found in households

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3.2
fabric softener/fabric conditioner/fabric enhancer
surface active agent or mixture applied during the final rinse of laundering to modify the surface properties of textiles, improving softness, lubricity, antistatic behavior, fragrance retention, and overall fabric.

4 Requirements

4.1 General requirements

4.1.1 Fabric softener shall have uniform dispersion with no lumps or phase separation, and shall not be toxic to human beings.

4.1.2 Fabric softener shall be uniform in colour with no un-dissolved or precipitated dyes that may stain the treated fabrics.

4.1.3 Fabric softener, both as received and when dissolved in water, shall possess a pleasant, fresh odour and shall not develop an objectionable odour during storage at ambient temperature.

4.1.4 Fabric softener shall remain stable for the declared shelf-life without breaking the dispersion (phase separation), changes in colour and deterioration of the odour.

4.1.5 Fabric softener shall disperse effectively or easily in standard hard water (total hardness150 mg/kg ± 20 mg/kg) at 30 °C.

4.1.6 Fabric softener shall influence the properties of the fabric to improved wet-ability, softness and reduced static charge.

4.2 Specific requirements

Fabric softener 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 fabric softener

S/No.	Property	Requirement	Test method
i.	Cationic surfactant content, % m/m, min.	2.5	ISO 2871
ii.	pH neat	2.0 – 7.0	ISO 4316
iii.	Antibacterial activity[a]	To pass the test	EAS 794
[a] Applicable to fabric softeners to which antibacterial claims are made			

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4.3 Microbiological limits

Fabric softener 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 household fabric softener

S/No.	Micro-organism	Limit	Test method
i)	Total viable counts, cfu/g, max.	2×10^2	EAS 217-1-1
ii)	*Escherichia coli*	Not detected	ISO 21150
iii)	*Pseudomonas aeruginosa*	Not detected	ISO 22717

5 Packaging

Fabric softener shall be packaged in suitable containers that withstand normal usage and transportation and that prevent leaking, drying out and contamination of the product.

6 Labelling

Each package shall be legibly and indelibly labelled in English and/or any other official language (French, Kiswahili, etc.) used in the importing East African Partner State with the following information

a) Name of the product as "Fabric softener", or "Fabric conditioner", or "Fabric enhancer";

b) manufacturer's name and physical address. The name, physical address of the distributor/supplier and trademark may be added;

a) batch or lot number;

b) list of ingredients;

c) net content;

d) country of origin;

e) Hazard and precautionary statements or hazard pictogram/symbols and signal words;

f) date of manufacture;

g) expiry date;

h) storage instructions;

i) disposal instructions, and

j) instructions for use.

7 Sampling

Sampling shall be done in accordance with Annex A.

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Annex A
(normative)

Sampling

A.1 Requirements

A.1.1 In drawing, preparing, storing and handling samples, the precautions in A.1.2 – A.1.7 shall be observed.

A.1.2 Samples shall be taken from a place which is not exposed to damp air, dust or soot.

A.1.3 The sampling instruments shall be clean and dry when used.

A.1.4 The samples, the material being sampled, the sampling instruments and the containers for samples shall be protected from adventitious contamination.

A.1.5 The samples shall be placed in clean and dry glass containers. The sample containers shall be of such a size that they are almost completely filled by the sample.

A.1.6 Each container shall be sealed airtight after filling, and marked with full details of sampling, which include, date of sampling, batch or lot number, name of manufacturer, and other important particulars of the consignment.

A.1.7 The samples shall be stored in such a manner that the temperature of the material does not vary unduly from the normal temperature, and that they are protected from light.

A.2 Scale of sampling

A.2.1 In a single consignment, all the packages containing products of the same type and form, and drawn from the same batch of manufacture, shall constitute a lot. If the consignment consists of packages containing products of different types and forms, then the packages containing products of the same type, form and batch of manufacture shall be grouped together, and such group shall constitute a separate lot.

A.2.2 For ascertaining the conformity of the lot to the requirements prescribed in this standard, tests shall be carried out on each lot separately. The number *(n)* of packages to be selected for drawing the samples shall depend upon the size *(N)* of the lot and shall be in accordance with Table A.1.

Table A.1 — Scale of sampling

Number of packages in the lot ***N***	**Number of packages to be selected** ***n***
4 – 15	3
16 – 40	4
41 – 65	5
66 – 110	7
111 and above	10
NOTE When the size of the lot is three packages or less, the number of containers to be selected should be as agreed on between the purchaser/inspector and the supplier.	

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A.2.3 The packages shall be selected at random and to ensure randomness of selection, a random number table shall be used. In case such tables are not available, select any package and count all the packages in one order as 1, 2, 3, …, up to *r* and so on, where *r* is the integral part of *N/n*, (*N* being the lot size and *n* the number of packages to be selected). Every r^{th} package thus counted shall be withdrawn to give a sample for the purposes of test.

A.3 Preparation of gross samples, test sample and reference sample

A.3.1 Gross sample

From each one of the packages selected as in A.2, draw at random one or more containers. The material in the containers so chosen shall be nearly thrice the quantity required for purpose of test.

A.3.2 Test sample

A.3.2.1 From the gross representing each form of fabric softener, take a small but equal quantity of material and mix thoroughly into a composite sample which should be of a size sufficient to carry out triplicate testing for all the characteristics specified under Table 1. The composite samples representing each form and type of the product shall be divided into three equal parts, one for the purchaser/inspector, another for the supplier and the third for the referee.

A.3.2.2 The remaining portion of the material in each of the gross samples shall be divided into three equal pans, each forming an individual sample. One set of individual samples, representing the *n* selected packages shall be for the purchaser/inspector, another for the supplier, and the third for reference.

A.3.2.3 All the composite and individual samples shall be transferred to separate containers. These containers shall then be sealed airtight with stoppers, and labelled with full particulars of identification given in A.1.6.

A.3.3 Reference samples

A.3.3.1 Reference samples shall consist of a composite sample and a set of individual samples. All the containers shall bear the seals of both the purchaser/inspector and the supplier, and shall be kept at a place agreed to between the two parties.

A.3.3.2 Reference samples shall be used in case of any dispute between the purchaser/inspector and the supplier.

A.4 Criteria for conformity

A.4.1 Individual samples

A.4.1.1 For the characteristic, which has been determined on the individual sample, the mean ($\overline{X}$) and the range (R) of test results shall be calculated as follows:

$$\text{Mean}\left(\overline{X}\right) = \frac{\text{Sum of test results}}{\text{Number of test results}}$$

Range (*R*) is the difference between the maximum and the minimum value of test results.

A.4.1.2 If the specification limit for the characteristic is given as a minimum, the value of the expression ($\overline{X}$ - KR) shall be calculated from the relevant test results (see A.4.1.5). If the value so obtained is greater than or equal to the minimum limit, the lot shall be declared as conforming to the requirement for the characteristic.

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A.4.1.3 If the specification limit for the characteristic is given as a maximum, the value of the expression ($\overline{X}$ + KR) shall be calculated from the relevant test results (see A.4.1.5). If the value so obtained is less than or equal to the maximum limit, the lot shall be declared as conforming to the requirement for the characteristic.

A.4.1.4 If the characteristic has two-sided specification limits, then the values of the expression ($\overline{X}$ ± KR) shall be calculated from the relevant test results (see A.4.1.5). If the value so obtained lies between the two specification limits, the lot shall be declared as conforming to the requirement for the characteristic.

A.4.1.5 The value of the factor K referred to in A.4.1.2 to A.4.1.4 shall be chosen in accordance with Table A.2, depending upon the acceptable quality level, that is, the percentage of non-conforming packages that may be tolerated.

Table A.2 — Value of 'K' for achieving different acceptable quality levels

Acceptable quality level	Value of 'K'
Not more than 3.0 % defectives	0.4
Not more than 1.5 % defectives	0.5
Not more than 0.5 % defectives	0.6

A.4.2 Composite sample

For declaring the conformity of the lot to the requirements of all the remaining characteristics determined on the composite sample, the test results for each one of the characteristics shall meet the relevant requirement given in Table 1.

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Bibliography

EAS 1143: 2024, *Household fabric softener — Specification*

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