



DRAFT EAST AFRICAN STANDARD

Nail polish remover— 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.

This third edition cancels and replaces the second edition (EAS 341: 2013), which has been technically revised.

Nail polish remover — Specification

1 Scope

This Draft East African Standard specifies the requirements, sampling and test methods for nail polish removers used for cosmetic purposes.

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 — General requirements*

EAS 377(all parts), *Cosmetics and cosmetic products*

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

ISO 24153, *Random sampling and randomization procedures*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EAS 846 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>

nail polish remover

solvent used to remove nail polish

4 Requirements

4.1 General requirements

4.1.1 All ingredients used shall comply with EAS 377 (all parts).

4.1.2 Nail polish remover shall be effective in removing all traces of the nail polish.

4.1.3 Nail polish remover shall have no undesirable or harmful effects on the nails and cuticle for example, cracking or drying.

4.2 Specific requirements

Nail polish remover 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 nail polish remover

S/No.	Characteristic	Requirement	Test method
i)	Organic solvent content, % by mass, min.	80	Annex A
ii)	Non-volatile matter, % by mass, min.	0.5	Annex B

5 Packaging

Nail polish remover shall be packaged in suitable well-sealed containers that protect the contents and shall not cause any contamination or react with the product.

6 Labelling

6.1 In addition to the labelling requirements given in EAS 346, each package shall be legibly and indelibly labelled with product name as “nail polish remover”.

7 Sampling

Sampling shall be drawn for test in accordance with ISO 24153.

Annex A **(normative)**

Determination of solvent content

A.1 Outline of the method

The components of the solvent used in the nail polish remover are separated and determined by gas chromatography.

A.2 Apparatus

Gas chromatograph equipped with columns prepared with DC-200 silicone grease and carbowax 20 M

A.3 Procedure

A.3.1 Disperse 3 g of the sample in 8 mL of iso-octane. Filter in a closed system, and keep the solution in a tube closed with a serum cap for analysis.

A.3.2 Set up the system as shown in Table A.1.

A.3.3 Inject 5 μ L aliquots of standard solution into the column. Calibrate the integrator.

A.3.4 Inject 5 μ L aliquots of the sample-solution into the column.

A.4 Results

Determine the solvent content by reference to the standard solution.

Table A.1 — Analytical conditions and the retention time of solvent

S/N	Compound	DC-200 silicon grease		Carbowax 20M*
		75 °C	100 °C	40 °C
i)	Ethanol	2.1	1.25	2.5
ii)	Isopropyl alcohol	2.5	2.50	2.5
iii)	Acetone	2.5	1.50	1.3
iv)	Carbitol	-	2.00	-
v)	Methyl ethyl	-	2.50	-
vi)	Ethyl acetate	5.0	2.75	2.2
vii)	Hexane	-	3.00	-
viii)	Chlorothene	-	3.75	-
ix)	Methyl cellosolve	-	3.75	-
x)	Butanol	-	4.00	-
xi)	Cyclohexane	-	4.25	-
xii)	Heptane	-	5.25	-
xiii)	Isooctane	-	5.25	-
xiv)	Ethyl cellosolve	10.0	5.75	1.5
xv)	Methyl isobutyl	-	-	-
xvi)	Letone	-	6.25	-
xvii)	Amyl alcohol	-	7.50	-
xviii)	Toluene	-	8.10	-
xix)	Amyl acetate	16.5	9.50	5.0
xx)	Butyl acetate	-	9.75	-
xxi)	Xylene	21.1	15.5	7.0
xxii)	Butyl cellosolve	-	19.8	-

*10 ft x 1/4 in OD, 5 wt % stationary phase on acid-washed Chromosorb 60/80 mesh. Helium carrier gas at 60 mL/min

NOTE — If the determination of camphor by gas chromatography is needed, the analysis should be made on the DC – 200 column at 180 °C.

Annex B (normative)

Determination of non-volatile matter

B.1 Apparatus

B.1.1 Flat glass petri dish, 8 cm diameter

B.1.2 Thermostatically controlled oven

B.2 Procedure

Weigh accurately $1.0 \text{ g} \pm 0.2 \text{ g}$ of the polish in the petri dish and place it in an oven at $105 \text{ }^\circ\text{C} \pm 2 \text{ }^\circ\text{C}$ for one hour. Cool to room temperature and weigh the dish. Repeat the process to bring to constant mass.

B.3 Calculation

The non-volatile matter content shall be calculated as follows;

$$\text{Non-volatile matter, percent by mass} = \frac{M_2 - M_1 \times 100}{M}$$

where

M is the, mass in grams, of the sample taken,

M_1 is the mass, in grams, of the dry and empty petri dish, and

M_2 is the mass, in grams, of the petri dish and dried sample

Bibliography

EAS 341: 2013, Nail polish removers — Specification

DEAS 341:2022

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