

DRAFT UGANDA STANDARD

Third Edition
2017-mm-dd

Neutral spirit — Specification



Reference number
DUS DEAS 144: 2017

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National foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Trade, Industry and Cooperatives established under Cap 327, of the Laws of Uganda, as amended. UNBS is mandated to coordinate the elaboration of standards and is

- (a) a member of International Organisation for Standardisation (ISO) and
- (b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards, and
- (c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of representatives of consumers, traders, academicians, manufacturers, government and other stakeholders.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

This Draft Uganda Standard, DUS DEAS 144: 2017, *Neutral spirit — Specification*, is identical with and has been reproduced from an International Standard, DEAS 144: 2017, *Neutral spirit — Specification*, and is being proposed for adoption as a Uganda Standard.

This standard was developed by the Subcommittee on Water and alcoholic beverages, SC 16, under the Food and agriculture Standards Technical Committee (UNBS/TC 2).

Wherever the words, "East African Standard " appear, they should be replaced by "Uganda Standard."

This standard cancels and replaces US 144: 2014, *Neutral spirit — Specification* (2nd Edition), which has been technically revised.



EAS 144: 2017

ICS 67.160.10

DRAFT EAST AFRICAN STANDARD

Neutral spirit 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.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. 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 procedures of the Community.

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.

FDEAS 144 was prepared by Technical Committee EASC/TC 007, *Alcoholic and non-alcoholic beverages*.

This second edition cancels and replaces the first edition EAS 144:2013, of which has been technically revised.

Neutral spirit Specification

1 Scope

This final draft East African Standard specifies the requirements and method of sampling and test for neutral spirit intended for use in the manufacture or blending of alcoholic beverages.

2 Normative references

The following referenced documents are indispensable for the application 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 12, *Drinking (potable) water — Specification*

EAS 38, *Labelling of pre-packaged foods — Specification*

EAS 39, *Hygiene in food and drink manufacturing industry — Code of practice*

EAS 100, *Food stuffs — Methods of determination of Lead*

3 Terms and definitions

For the purposes of this standard, the following terms and definitions shall apply.

3.1

alcohol

as ethyl alcohol (C₂H₅OH)

3.2

furfural

aldehyde with the chemical formula C₄H₃OCHO, is one of the by products of alcohol fermentation of carbohydrate material by microorganism present

3.3

fusel oil

complex mixture of higher alcohols containing principally amyl alcohols (pentanols), butyl alcohols (butanols), propyl alcohols (propanols) and traces of capryl alcohol (octan-2-ol), hexyl alcohols (hexanols), or heptyl alcohols (heptanols), esters, aldehydes and terpenes. It is a product of alcoholic fermentation obtained during distillation

3.4

neutral spirit

distillate obtained from fermented carbohydrate material, purified by fractional distillation with removal of fusel oil and furfural

4 Requirements

4.1 General requirements

Neutral spirit shall:

- a) be derived from carbohydrate materials of agricultural source;
- b) be clear, colourless and free from any suspended matter even when diluted to 20 % by volume with distilled water;
- c) have only the odour of pure ethyl alcohol and no secondary odour; and
- d) have only the characteristic taste of pure ethyl alcohol.

4.2 Specific quality requirements

Neutral spirit shall comply with the quality requirements specified in Table 1.

Table 1 Quality requirements for neutral spirit

| SI No | Characteristic | Requirement | Test method |
|-------|--|------------------|-------------|
| ii) | Ethanol content, percent by volume at 20 °C, min. | 96 | EAS 104 |
| v) | Volatile acids as acetic acid, mg/L absolute alcohol, max. | 20 | |
| vi) | Total solids, % mg/L, max. | 30 | |
| vii) | Methanol content, mg/L, max. | 50 | |
| viii) | Higher alcohols (fusel oils) as amyl alcohol, mg/L of absolute alcohol, max. | 10 | |
| ix) | Furfural content | To pass the test | |
| x) | Aldehydes (as acetaldehyde), mg/ L, max. | 5 | |

5 Heavy metal contaminants

When tested in accordance with EAS 100, the level of lead shall not exceed 0.01 mg/L.

6 Hygiene

Neutral spirit shall be manufactured and handled in a hygienic manner in accordance with EAS 39.

7 Weights and measures

The volume and fill of neutral spirit shall comply with the weights and measures regulations of Partner States or equivalent legislation.

8 Packaging

8.1 Neutral spirit shall be packaged in suitable food grade containers.

8.2 Neutral spirit shall be packaged for bulk delivery and storage in containers that shall prevent contamination of the product and preserve its safety and quality.

9 Labelling

The containers in which neutral spirit is packaged for storage or transport shall be marked in accordance with the provisions of EAS 38.

Markings indicative of the inflammable nature of the material shall be clearly displayed on such containers.

10 Sampling and test

Sampling and testing of neutral spirit shall be done in accordance with EAS 104.

Draft Standard for Comments

Draft Standard for Comments