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Neutral (Fine) Spirit — Specification

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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.

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EAST AFRICAN STANDARD SPECIFICATION FOR NEUTRAL SPIRIT FOR MANUFACTURE OF ALCOHOLIC BEVERAGES

1.0 SCOPE

This East African Standard prescribes the requirements sampling and test methods for neutral spirit intended for use in the manufacture or blending of alcoholic beverages

2.0 NORMATIVE REFERENCES

The following standards contain provisions, which through reference in this text constitute provisions of this standard. All standards are subject to revision and parties to agreements based on this standard are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the respective Community member state National Standards Body i.e. KEBS, TBS, UNBS.

- ◆ EAS 12, Standard specification for drinking (potable) water
- ♦ EAS 38, Standard specification for the labelling of pre-packaged foods
- ♦ EAS 39, Standard specification for factory and employee requirements for food factories.
- ♦ ISO 1388/1 to 1388/7

3.0 Definitions

For the purpose of this standard the following definitions apply.

- **3.1 Ethanol**: means ethyl alcohol, having the chemical formula C₂H₅OH.
- **3.2 Furfural:** an aldehyde with the chemical formula C₄H₃OCHO, produced by the action of hot alcoholic acidic liquid on certain vegetables fibres during the, course of distillation.
- **3.3 Methanol:** alcohol with the chemical formula CH₃OH. It is distinctly poisonous causing total and permanent blindness or death.

4.0 REQUIREMENTS

4.1 Description

Neutral spirit is any spirit with a characteristic odor and test of ethanol (ethyl alcohol) obtained from distillation of carbohydrates to remove the furfural and fusel oils leaving no secondary aroma/taste /flavour.

It is used for the manufacture or blending alcoholic beverages conventionally prepared as gins, whiskies, brandies, rums, wines etc

- **4.2 Origin -** Neutral spirit shall be derived from carbohydrate materials of agricultural source.
- **4.3 Appearance** Neutral spirit shall be clear, colourless and free from any suspended matter even when diluted to 20 percent by volume with distilled water
- **4.4 Odour** Neutral spirit shall have only the odour of pure ethyl alcohol and no secondary odour.
- **4.5.** Taste Neutral spirit shall have only the characteristic taste of pure ethyl alcohol.
- 4.6 **Miscibility** shall be completely miscible in water

- 4.7 Hygiene the degree of cleanliness in respect of containers, premises of manufacture, persons engaged in the handling of the product and equipment shall meet the requirements of EAS 39; Code of practice for hygiene in food and drink manufacturing industry. Procedures to ensure compliance to EAS 39 shall be established and maintained and the necessary records kept.
- 4.8. When tested in accordance with EAS 216; Ethanol for industrial use Methods of test, neutral spirit shall comply with the requirements in table 1 below;

Table 1. Requirements for Neutral Spirit for Manufacture of Alcoholic Beverages

SI No	Characteristics	Requirements
(i)	Specific gravity at 20°C	0.8066 - 0.8098
(ii)	Ethanol content, % volume at 20°C	96
(iii	Alkalinity	Nil
iv)	Acidity, as acetic acid,g/100l absolute alcohol, max	2
(v)	Residue on evaporation mg/L, max.	50mg/L
(vi)	Lead (as Pb), g/100 I, max	1ppm
(vii)	Copper (as Cu) g /100 l, max	2ppm 30ppm
(viii) (ix)	Methanol content Furfural content	To pass the test
x)	Aldehydes (as acetaldehyde) g/ 100 l,	To page the toot
1 1,	(mg/L)Max	5
xi	Permanganate reaction time in minutes, min	30
xii	Fundail on	
۸۱۱	Fusel oil as a) Esters as ethyl acetate	To pass test
	b) n-propanol	no precipitate shall
	c) higher alcohols	form
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Weights and measures

Fill of Container: The contents of the products shall occupy where applicable not less than 90 per cent of the total volume capacity of the container.

5.0 Packaging and labelling

5.1 Packaging

- 5.1.1 Neutral spirit shall be packaged in such containers that satisfy the requirements of EAS 38, Labelling of Pre-packaged foods.
- 5.1.2 All containers, in which the material is packed, shall be dry, clean, and free from substances soluble in neutral spirit and leak-proof.

- 5.1.3 Necessary safeguards against the risk arising from storage and handling of large volumes of inflammable liquids shall be provided and all due precautions shall be taken at all times to prevent accidents by fire or explosion.
- 5.1.3 Except when they are opened for the purpose of cleaning and rendering them free from alcohol vapour, all containers shall be kept securely closed unless they have been thoroughly cleaned and freed from alcohol fumes.

5.2 Labelling

In addition to requirements of EAS 38; Labelling of pre-packaged foods, the containers in which neutral spirit is packaged for storage or transport shall be clearly marked with the following;

- a) Name of the product "neutral spirit"
- b) alcohol content
- c) Name and address of the manufacturer/ importer
- d) Batch number
- e) Date of manufacture
- f) Country of origin
- g) Markings indicative of the inflammable nature of the material shall be clearly displayed on such containers

6. Sampling and test methods

The method of drawing representative sample shall be in accordance with ISO.

Tests shall be conducted in accordance to test methods in table 1