Sudanese Standards &
Metrology Organization

Gum Olibanum

SDS - 2873/06

شركة انشاء سيد العتيبة

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Introduction

This Sudanese standard is formulated by the technical committee No.4 formed according to the administrative decree of the SSMO/1/A/I dated 18/8/01. It applies to gum Olibanum from *Boswellia papyrifera*. On formulating this standard the committee has referred to international publications and works of Sudanese researchers on the subject.

Gum Olibanum

1- SCOPE

This Sudanese standard applies to the dry exudate from *Boswellia papyrifera* (Del.).

2- SYNONYMS

Amyris papyrifera, Frankincense, Oleo-gum resin, Luban.

3- DEFINITION

Gum olibanum is the dry exudate obtained from the stems and branches of *Boswellia papyrifera* (Del.) tree (fam. *Burseraceae*). It consists mainly of salts of an acidic arabino-galactan protein complex which on hydrolysis yields galactose, arabinose, rhamnose, glucuronic acid and 4-O-methoxy glucuronic acid and a trace of L.fucose.

4- DESCRIPTION

Gum olibanum is a greenish-yellow solid in the form of irregular nodules and fragments which on pressing form a slightly plastic mass . Gum olibanum has a characteristic pleasant odour and bitter taste . It may contain extraneous materials such as sand and pieces of bark.

5-COMMERCIAL GRADES

Grade	Particle size
Nagawa	10 mm
Grade1	10-5 mm
Grade 2	5-2.5 mm
Soksokania	2.5 mm

6- FUNCTIONAL USES

It is used as a fixative for perfumes, in soap manufacture, in flokloric medicine, an incense in holly places and as an insecticide.

7- CHARACTERISTICS

7.1 IDENTIFICATION

7.1.1 Solubility

Partially dissolves in distilled water forming a milky emulsion, insoluble in ethanol.

7.1.2 Loss on drying

Less than 10%(105C, 5hrs).

7.2 PURITY

7.2.1 Total ash*

Less than 2%.

7.2.2 Nitrogen content*	0.26 to 0.31%.
7.2.3 Oil content*	Not less than 2%
7.2.4 Heavy metals*	Not more than 40 mg/kg.
7.2.5 Tannin - bearing gums	Formation of a black precipitate indicates presence of tannin.

7.3 MICROBIOLOGICAL CRITERIA

7.3.1 *Salmonella sp.*	Negative per test.
7.3.2 *E.coli*	Negative in 1gm.

8- PACKAGING

Multi-layer paper bag lined with polyethylene, capacity of 50 - 25 kg, or as agreed, upon, between customer and supplier.

9- LABELLING

Should be clear and indicates:
- Product Name.
- Product Grade.
- Producing Company.
- Net Weight.
- Season of Production.
- Storage Conditions.
- Country of Origin.

10- STORAGE

Should be stored under clean, cool and dry conditions, in a properly constructed warehouse.

11- SHELF LIFE

Two years under the appropriate storage conditions mentioned in section 10.

12- SAMPLING

Sampling should be carried out according to Sudanese standard SDS No. 145.

13- TESTING

Testing should be carried out according to Sudanese standards SDS No.146, 147,148, 149, 152, 153, 154, 155, 157, 158 and 528.

*Test carried out on dry weight basis.
**Nitrogen conversion factor (NCF) according to Anderson, D.M.W.(1986).

14- REFERENCES

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