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# INTERNATIONAL STANDARD



# 3143

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Oil of clove stem

*Huile essentielle de griffes de giroflier*

First edition — 1975-03-01

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[ISO 3143:1975](#)

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Ref. No. ISO 3143-1975 (E)

**Descriptors** : essential oils, cloves, materials specifications.

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3143 was drawn up by Technical Committee ISO/TC 54, *Essential oils*, and circulated to the Member Bodies in February 1973.

It has been approved by the Member Bodies of the following countries :

|                     |             |                       |
|---------------------|-------------|-----------------------|
| Australia           | France      | New Zealand           |
| Belgium             | Ghana       | South Africa, Rep. of |
| Bulgaria            | India       | Thailand              |
| Czechoslovakia      | Japan       | Turkey                |
| Egypt, Arab Rep. of | Netherlands | U.S.S.R.              |

The Member Body of the following country expressed disapproval of the document on technical grounds :

United Kingdom

This International Standard forms part of a series of ISO publications dealing with oils of clove. Other documents in the series are :

ISO 3141, *Oil of clove leaf*.

ISO 3142, *Oil of clove bud*.

# Oil of clove stem

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies certain characteristics of oil of clove stem, with a view to facilitating the assessment of its quality. It is not applicable to the oil of Indonesian clove stem.

## 2 REFERENCES

ISO/R 210, *Essential oils – Packing.*

ISO/R 211, *Essential oils – Labelling and marking containers.*

ISO 212, *Essential oils – Sampling.*

ISO/R 279, *Determination of the density and relative density of essential oils.*

ISO/R 280, *Determination of the refractive index of essential oils.*

ISO/R 875, *Determination of solubility of essential oils in ethanol.*

ISO 1272, *Essential oils – Determination of phenols content.*

## 3 DEFINITION

**oil of clove stem:** The product obtained by steam distillation of the flower stalks of *Syzygium aromaticum* (Linnaeus) Merrill and Perry (Syn. : *Eugenia caryophyllus* (Sprengel) Bullock and Harrison).

## 4 REQUIREMENTS

### 4.1 Appearance

Clear, mobile liquid.

### 4.2 Colour

Yellow to light brown; in contact with iron, the oil becomes dark purple-brown.

### 4.3 Odour

Spicy and characteristic of eugenol

### 4.4 Relative density at 20/20 °C

Minimum : 1,041

Maximum : 1,059

### 4.5 Refractive index at 20 °C

Minimum : 1,531 0

Maximum : 1,536 0

### 4.6 Solubility in 70 % (V/V) ethanol at 20 °C

The solubility in 70 % (V/V) ethanol shall be 1 volume in 2 volumes to give a clear solution.

### 4.7 Phenols content

Minimum : 85 % (V/V)

Maximum : 95 % (V/V)

## 5 SAMPLING

See ISO 212.

Minimum volume of final sample : 50 ml

## 6 METHODS OF TEST

### 6.1 Relative density at 20/20 °C

See ISO/R 279.

### 6.2 Refractive index at 20 °C

See ISO/R 280.

### 6.3 Solubility in 70 % (V/V) ethanol at 20 °C

See ISO/R 875.

### 6.4 Phenols content

See ISO 1272.

## 7 PACKING, LABELLING AND MARKING

See ISO/R 210 and ISO/R 211.