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# INTERNATIONAL STANDARD



# 3217

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

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## Oil of lemongrass (*Cymbopogon citratus*)

*Huile essentielle de lemongrass* (Cymbopogon citratus)

First edition – 1974-08-15

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[ISO 3217:1974](https://standards.iteh.ai/catalog/standards/sist/a9d38e48-ca42-4122-bc0a-dae28a90c406/iso-3217-1974)

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UDC 668.524.004.1

Ref. No. ISO 3217-1974 (E)

**Descriptors** : essential oils, lemongrass, specifications, 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 3217 was drawn up by Technical Committee ISO/TC 54, *Essential oils*, and circulated to the Member Bodies in May 1973.

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

Australia  
Belgium  
Bulgaria  
Czechoslovakia  
Egypt, Arab Rep. of

France  
Italy  
Netherlands  
Portugal  
Romania

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South Africa, Rep. of  
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Turkey  
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No Member Body expressed disapproval of the document.

# Oil of lemongrass (*Cymbopogon citratus*)

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies certain characteristics of oil of lemongrass (*Cymbopogon citratus*)<sup>1)</sup>, with a view to facilitating the assessment of its quality.

## 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 592, *Determination of the optical rotation of essential oils.*

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

ISO 1279, *Essential oils – Determination of the content of carbonyl compounds – Hydroxylammonium chloride method.*

ISO . . . , *Essential oils – Determination of the residue on evaporation.*<sup>2)</sup>

## 3 DEFINITION

**oil of lemongrass** (*Cymbopogon citratus*): The oil obtained by steam distillation of the grass *Cymbopogon citratus* (A.P. de Candolle) Stapf.

## 4 REQUIREMENTS

### 4.1 Appearance

Clear, mobile liquid.

### 4.2 Colour

Pale yellow to orange-yellow.

### 4.3 Odour

Characteristic with a strong note of citral.

### 4.4 Relative density at 20/20 °C

Minimum : 0,872

Maximum : 0,897

### 4.5 Refractive index at 20 °C

Minimum : 1,483 0

Maximum : 1,489 0

### 4.6 Optical rotation at 20 °C

Range from – 3° to + 1°.

### 4.7 Carbonyl compounds content, expressed as citral

Minimum : 75 %

### 4.8 Solubility in ethanol at 20 °C

Freshly distilled oils are soluble in 70 % (V/V) ethanol. The solubility diminishes on storage and the oil may become insoluble in 90 % (V/V) ethanol.

### 4.9 Residue on vacuum distillation

Minimum : To be specified later.

Maximum : To be specified later.

## 5 SAMPLING

See ISO 212.

Minimum volume of final sample : 50 ml.

1) Also known in the trade as "oil of West Indian lemongrass".

2) In preparation.

## ISO 3217-1974 (E)

### 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 Optical rotation at 20 °C

See ISO/R 592.

#### 6.4 Carbonyl compounds content, expressed as citral

See ISO 1279.

Test portion : 1,0 to 1,5 g

Standing time : 15 min, without heating.

Relative molar mass ( $M$ ) = 152,2

#### 6.5 Solubility in ethanol at 20 °C

See ISO/R 875.

#### 6.6 Residue on vacuum distillation

See ISO . . .

### 7 PACKING, LABELLING AND MARKING

See ISO/R 210 and ISO/R 211.

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