INTERNATIONAL STANDARD 🌐ISO 3528

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

Oil of mandarin, Italy

Huile essentielle de mandarine, Italie

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Descriptors : essential oils, oranges, materials specifications.

ISO 3528-1977 (E)

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 3528 was drawn up by Technical Committee ISO/TC 54, *Essential oils*, and was circulated to the member bodies in August 1974.

It has been approved by the member bodies of the following countries :

Belgium	Germany	South Africa, Rep. of
Bulgaria	India	Spain
Czechoslovakia	Italy	Turkey
France	Netherlands	Yugoslavia

No member body expressed disapproval of the document.

Oil of mandarin, Italy

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies certain characteristics of oil of mandarin, Italy, 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 280, *Essential oils – Determination of refractive index.*

ISO 592, *Essential oils – Determination of optical rotation.*

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

ISO 4715, *Essential oils – Determination of residue on evaporation.* [1]

3 DEFINITION

oil of mandarin, Italy : The oil obtained by expression from the peel of the mandarin *Citrus reticulata* Blanco.

4 REQUIREMENTS

4.1 Appearance

Mobile liquid.

4.2 Colour

From greenish-yellow to reddish-orange, according to the degree of ripeness of the fruit, with a light blue fluorescence.

4.3 Odour

Characteristic, recalling that of mandarin peel.

4.4 Relative density at 20/20 °C

Minimum :   0,850

Maximum :   0,855

4.5 Refractive index at 20 °C

Minimum :   1,473 0

Maximum :   1,477 0

4.6 Optical rotation at 20 °C

Range from + 64° to + 75°

4.7 Residue on evaporation

Minimum :   2,0 %

Maximum :   4,0 %

4.8 Carbonyl compounds content, expressed as decanal ($C_{10}H_{20}O$)

Minimum :   0,4 %

Maximum :   1,2 %

5 SAMPLING

See ISO 212.

Minimum volume of final sample : 50 ml

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[1] At present at the stage of draft.

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 280.

6.3 Optical rotation at 20 °C

See ISO 592.

6.4 Residue on evaporation

See ISO 4715.

Mass of sample : 5 g

Evaporation time : 6 h

6.5 Carbonyl compounds content

See ISO 1279.[1]

Mass of sample : 10 g

Standing time : 15 min

7 PACKING, LABELLING AND MARKING

See ISO/R 210 and ISO/R 211.

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1) Utilizing a pH meter, operate at pH 4.