

INTERNATIONAL STANDARD

ISO
9843

First edition
1991-06-01

Oil of cedarwood (*Cupressus funebris* Endlicher)

Huile essentielle de bois de cèdre (Cupressus funebris Endlicher)

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ISO 9843:1991

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INTERNATIONAL

ISO



Reference number
ISO 9843:1991(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 9843 was prepared by Technical Committee ISO/TC 54, *Essential oils*.

Annex A of this International Standard is for information only.

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Oil of cedarwood (*Cupressus funebris* Endlicher)

1 Scope

This International Standard specifies certain characteristics of essential oil of cedarwood (*Cupressus funebris* Endlicher), Cupressaceae family, with a view to facilitating the assessment of its quality.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/R 210:1961, *Essential oils — Packing.*

ISO/R 211:1961, *Essential oils — Labelling and marking containers.*

ISO 212:1973, *Essential oils — Sampling.*

ISO 279:1981, *Essential oils — Determination of relative density at 20 °C (Reference method).*

ISO 280:1976, *Essential oils — Determination of refractive index.*

ISO 592:1981, *Essential oils — Determination of optical rotation.*

ISO 875:1981, *Essential oils — Evaluation of miscibility in ethanol.*

3 Definition

For the purposes of this International Standard, the following definition applies.

oil of cedarwood: The oil obtained by steam distillation of the wood of *Cupressus funebris* Endlicher, Cupressaceae family.

4 Requirements

4.1 Appearance

Clear, mobile liquid.

4.2 Colour

Almost colourless to light yellow.

4.3 Odour

Characteristic, woody and bitter.

4.4 Relative density at 20/20 °C

Minimum: 0,955

Maximum: 0,966

4.5 Refractive index at 20 °C

Minimum: 1,5000

Maximum: 1,5080

4.6 Optical rotation at 20 °C

Between – 35° and – 20°

4.7 Miscibility in 95 % (V/V) ethanol at 20 °C

1 volume of the oil shall not require more than 5 volumes of 95 % (V/V) at 20 °C to give a clear solution.

4.8 Cedrol content, by chromatography

Minimum: 10 % (m/m)

4.9 Typical chromatogram

See annex A, for information only.

4.10 Flash point

100 °C (for information only).

5 Sampling

See ISO 212.

Minimum volume of test sample: 25 ml

NOTES

- 1 This volume does not include the volume used for flash point determination.
- 2 This volume is sufficient to carry out all the tests specified in this International Standard at least once.

6 Methods of test

6.1 Relative density at 20/20 °C

See ISO 279.

6.2 Refractive index at 20 °C

See ISO 280.

6.3 Optical rotation at 20 °C

See ISO 592.

6.4 Miscibility in 95 % (V/V) ethanol at 20 °C

See ISO 875.

6.5 Cedrol content, by chromatography

See the typical chromatograms of the essential oil, in annex A.

6.6 Establishment of a typical chromatogram

See annex A, for information only.

6.7 Flash point

Guidance on methods for the determination of flash point will be given in a future Technical Report.

7 Packaging, labelling and marking

See ISO/R 210 and ISO/R 211.

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Annex A (informative)

Typical chromatograms

Sample: oil of cedarwood

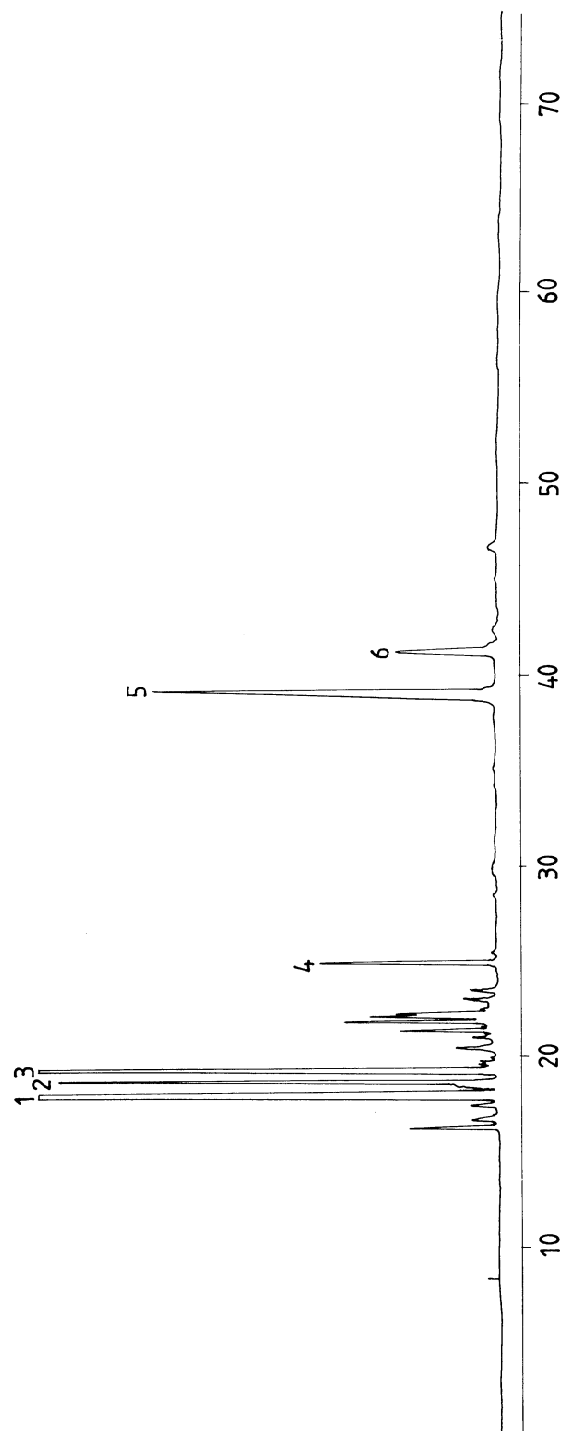
Constituents

1	δ -Cedrene
2	β -Cedrene
3	Thujopsene
4	Cuparene
5	Cedrol
6	Widdrol

Stationary phase: polyethylene glycol 20 000
Split ratio: 1/100
Detector: flame ionization
Oven temperature:
 — initial temperature: 100 °C
 — final temperature: 180 °C
Injection temperature: 200 °C
Detection temperature: 200 °C
Carrier gas: nitrogen
Volume injected: 0,2 μ l

Column: glass capillary, length 50 m, diameter 0,24 mm
Stationary phase: polyethylene glycol 20 000
Split ratio: 1/100
Detector: flame ionization
Oven temperature:
 — initial temperature: 100 °C
 — final temperature: 180 °C
Injection temperature: 200 °C
Detection temperature: 200 °C
Carrier gas: nitrogen
Volume injected: 0,2 μ l

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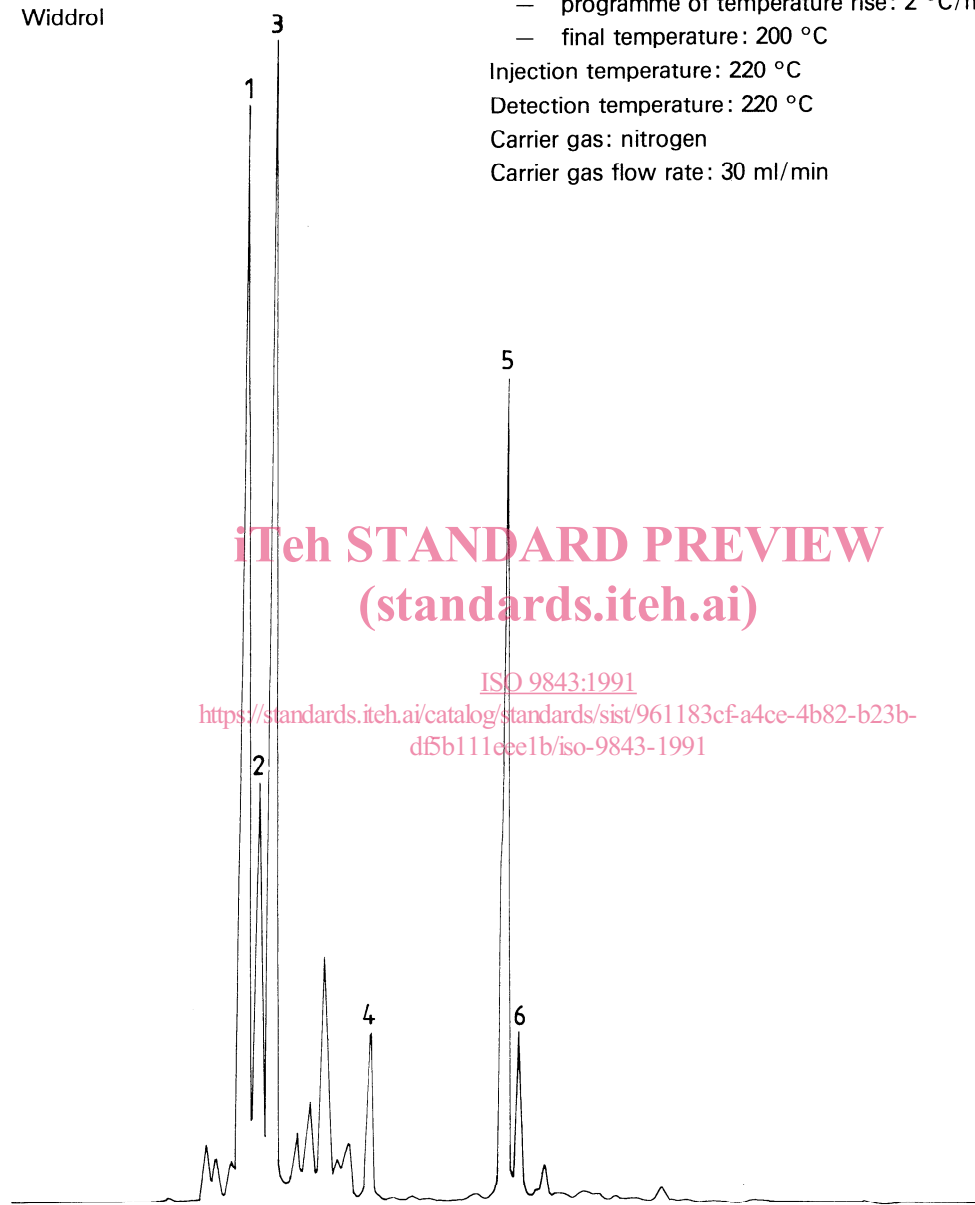


Constituents

- 1 δ -Cedrene
- 2 β -Cedrene
- 3 Thujopsene
- 4 Cuparene
- 5 Cedrol
- 6 Widdrol

Sample: oil of cedarwood

Column: length 3 m, diameter 3 mm
Stationary phase: 5 % (m/m) polyethylene glycol 20 000
Detector: flame ionization
Oven temperature:
— initial temperature: 70 °C
— programme of temperature rise: 2 °C/min
— final temperature: 200 °C
Injection temperature: 220 °C
Detection temperature: 220 °C
Carrier gas: nitrogen
Carrier gas flow rate: 30 ml/min



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Price based on 4 pages
