

Australian Standard™

**Essential oils—General guidance on  
chromatographic profiles**

**Part 1: Preparation of chromatographic  
profiles for presentation in standards**

This Australian Standard was prepared by Committee CH-021, Essential Oils. It was approved on behalf of the Council of Standards Australia on 14 June 2002 and published on 27 June 2002.

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The following are represented on Committee CH-021:

Australian Association of Certification Bodies  
Australian Society of Cosmetic Chemists  
Australian Society of Perfumers and Flavourists  
Cosmetic Toiletry Fragrance Association of Australia  
Essential Oil Producers Association  
New South Wales Agriculture  
Royal Australian Chemical Institute  
Southern Cross University  
University of New South Wales  
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chromatographic profiles**

**Part 1: Preparation of chromatographic  
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## PREFACE

This Standard was prepared by the Standards Australia Committee CH-021, Essential Oils. This Standard is identical with and has been reproduced from ISO 11024-1:1998, *Essential oils—General guidance on chromatographic profiles, Part 1: Preparation of chromatographic profiles for presentation in standards*.

The objective of this Standard is to describe general guidelines on the determination of the chromatographic profile of an essential oil by gas chromatography on a capillary column.

The chromatographic profile is one of the specifications, which enables assessment of the quality of an essential oil. It is not a determination of the true concentration of the components; it is only an evaluation of its relative proportion.

As this Standard is reproduced from an International Standard, the following apply:

- (a) Its number appears on the cover and title page while the International Standard number appears only on the cover.
- (b) In the source text, 'this part of ISO 11024' should read 'this Australian Standard.'
- (c) A full point substitutes for a comma when referring to a decimal marker.
- (d) Substitute 'mL' for 'ml' wherever it appears.
- (e) In Table 1, CAS and EINECS numbers of chiral compounds are inaccurate.

CAS and EINECS numbers given in Table 1 refer to specific enantiomers only which is not reflected in the chemical names, for example:

|                               | CAS       | EINECS    |
|-------------------------------|-----------|-----------|
| (+) – $\alpha$ – pinene       | 7785-70-8 | 232-087-8 |
| (–) – $\alpha$ – pinene       | 7785-26-4 | 232-077-3 |
| ( $\pm$ ) – $\alpha$ – pinene | 2437-95-8 |           |

- (f) In Annex A the following corrections should be made:

Table A.1

1. Replace 'Eucalyptol peak' with '1,8 cineole'.
2. Replace 'Decanal peak' with 'n-decanal'.

- (g) In Annex B the following corrections should be made:

(i) Paragraph B.3.1

- (A) Peak number 9, replace 'cis-ocimene' with 'cis- $\beta$ -ocimene'.
- (B) Peak number 11 replace 'trans-ocimene' with 'trans- $\beta$ -ocimene'.

(ii) In Clause B.3.5, paragraph 1, line 2

Replace the word 'linaool' with 'linalool'.

NOTE: The changes listed in Items (e), (f) and (g) are indicated in the text by a marginal bar against the relevant clause or table or part thereof.

References to International Standards should be replaced by references to equivalent Australian Standards as follows:

| <i>Reference International Standard</i>  | <i>Australian Standard</i>   |
|--|--|
| ISO  | AS   |
| 7609 Essential oils—Analysis by gas chromatography on capillary columns—General method | 5027 Essential oils—Analysis by gas chromatography on capillary columns—General method |

The document ISO 356 listed as normative reference in Clause 2 has not been adopted as Australian Standard.

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## AUSTRALIAN STANDARD

**Essential oils — General guidance on chromatographic profiles —****Part 1:****Preparation of chromatographic profiles for presentation in standards****1 Scope**

This part of ISO 11024 describes general guidelines on the determination of the chromatographic profile of an essential oil by gas chromatography on a capillary column.

The chromatographic profile is one of the specifications which enables assessment of the quality of an essential oil in the same way as the physico-chemical characteristics. It is determined at the time of finalizing the standard on the essential oil.

It is not a determination of the true concentration of the components, it is only an evaluation of its relative proportions.

NOTE Refer also to ISO 11024-2<sup>1)</sup> for use of chromatographic profiles of samples of essential oils.

**2 Normative references**

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 11024. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 11024 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 356, *Essential oils — Preparation of test samples*.

ISO 7609, *Essential oils — Analysis by gas chromatography on capillary columns — General method*.

**3 Terms and definitions**

For the purposes of this part of ISO 11024 the following terms and definitions apply.

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<sup>1)</sup> ISO 11024-2, *Essential oils — General guidance on chromatographic profiles — Part 2: Utilization of chromatographic profiles of samples of essential oils*.