

Australian Standard™

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

**Part 2: Utilization of chromatographic  
profiles of samples of essential oils**

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  
Consumers Federation of Australia  
Essential Oil Producers Association  
New South Wales Agriculture  
Southern Cross University  
The Royal Australian Chemical Institute  
University of New South Wales  
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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 11024-2:1998, *Essential oils—General guidance on chromatographic profiles, Part 2: Utilization of chromatographic profiles of samples of essential oils*.

The objective of this Standard is to describe general guidelines on the determination of compliance of a chromatographic profile of a sample of essential oil under examination, with the reference chromatographic profile given in the Standard for that oil.

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 applies:

- (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 International Standard' 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 the example to Clause 3.1, *replace* 'citronnellal' with 'citronellal'.
- (f) In Clause 7.2, 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	

NOTE: The changes listed in Items (e) and (f) are indicated in the text by a single 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 2:

### Utilization of chromatographic profiles of samples of essential oils

## 1 Scope

This part of ISO 11024 describes general guidelines on the determination of the compliance of a chromatographic profile of a sample of essential oil under examination with the reference chromatographic profile given in the standard for that oil.

NOTE Refer also to ISO 11024-1<sup>1)</sup>.

## 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.

### 3.1

#### **representative components**

components present in all of the samples of the essential oil involved, whether major or minor ones

EXAMPLE Geranyl formate, isomenthone, citronnellal, geraniol, etc. in the essential oil of geranium.

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<sup>1)</sup> ISO 11024-1, *Essential oils — General guidance on chromatographic profiles — Part 1: Preparation of chromatographic profiles for presentation in standards*.