

Australian Standard™

**Workplace air quality—Sampling and  
analysis of volatile organic compounds  
by solvent desorption/gas  
chromatography**

**Part 1: Pumped sampling method**

This Australian Standard was prepared by Committee CH-031, Methods for the Examination of Workplace Atmospheres. It was approved on behalf of the Council of Standards Australia on 3 November 2003 and published on 24 December 2003.

---

The following are represented on Committee CH-031:

Australian Aluminium Council  
Australian Chamber of Commerce and Industry  
Australian Institute of Occupational Hygienists  
Australian Mines and Metals Association  
Bureau of Steel Manufacturers of Australia  
Clean Air Society of Australia & New Zealand  
Coal Services  
Commonwealth Department of Health and Aging  
Department for Administrative and Information Services, S.A.  
Department of Mineral Resources, N.S.W.  
National Association of Testing Authorities, Australia  
WorkCover New South Wales

---

### **Keeping Standards up-to-date**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site at [www.standards.com.au](http://www.standards.com.au) and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Global Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.com.au](mailto:mail@standards.com.au), or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

---

Australian Standard™

**Workplace air quality—Sampling and  
analysis of volatile organic compounds  
by solvent desorption/gas  
chromatography**

**Part 1: Pumped sampling method**

Originated as part of AS 2986—1987.  
Revised and redesignated as AS 2986.1—2003.

**COPYRIGHT**

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd  
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 5620 4

## PREFACE

This Standard was prepared by the Standards Australia Committee CH-031, Methods for Examination of Workplace Atmospheres to supersede, in part, AS 2986—1987, *Workplace atmospheres—Organic vapours—Sampling by solid absorption techniques*.

This Standard is identical with and has been reproduced from ISO 16200-1:2001, *Workplace air quality—Sampling and analysis of volatile organic compounds by solvent desorption/gas chromatography*, Part 1: *Pumped sampling method*.

The objective of this Standard is to provide a method for sampling, using a personal pump and analysis of organic compounds by gas chromatography in workplace atmospheres.

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 part of ISO 16200’ should read ‘this Australian Standard’.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

None of the documents referenced in this Standard have been adopted as Australian Standards.

This Standard is Part 1 of the following series:

AS

- 2986 Workplace air quality—Sampling and analysis of volatile organic compounds by solvent desorption/gas chromatography
- 2986.1 Part 1: Pumped sampling method
- 2986.2 Part 2: Diffusive sampling method

The Committee acknowledges advice from NATA (National Association of Testing Authorities) that, in Australia, some clauses in this Standard, which are given as advisory, are mandatory requirements for laboratories seeking NATA accreditation. Specifically:

- (i) Clause 4.4: Traceability of calibration blend solutions to national or international Standards is a NATA requirement.
- (ii) Clause 6: Preparation of field blanks is a NATA requirement.
- (iii) Clause 10: Estimations of uncertainty are required by NATA to be prepared in accordance with the principles of ISO GUM.\*

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

---

\* ‘Guide to the Expression of Uncertainty in Measurement’ issued by BIPM, IEC, IFCC, ISO, IUPAC, IUPAP and OIML, Geneva, 1993.

## CONTENTS

1	<b>Scope</b> .....	1
2	<b>Normative references</b> .....	1
3	<b>Principle</b> .....	2
4	<b>Reagents and materials</b> .....	2
5	<b>Apparatus</b> .....	4
6	<b>Sampling</b> .....	6
7	<b>Procedure</b> .....	7
8	<b>Calculations</b> .....	8
9	<b>Interferences</b> .....	9
10	<b>Precision and bias</b> .....	9
11	<b>Storage and transport</b> .....	9
12	<b>Test report</b> .....	10
13	<b>Quality control</b> .....	10
	<b>Annex A (informative) Description of sorbent types</b> .....	23
	<b>Annex B (informative) Equivalence of gas chromatographic stationary phases</b> .....	24
	<b>Annex C (informative) Determination of breakthrough volume</b> .....	25
	<b>Bibliography</b> .....	27

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-