



MALAYSIAN STANDARD

MS ISO 16000-3:2015

**Indoor air - Part 3: Determination of
formaldehyde and other carbonyl
compounds in indoor air and test chamber
air - Active sampling method
(First revision)
(ISO 16000-3:2011, IDT)**

ICS: 13.040.20

Descriptors: indoor air, formaldehyde, carbonyl compounds, active sampling method

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Committee representation

The Industry Standards Committee on Environmental Management (ISC Z) under whose authority this Malaysian Standard was adopted, comprises representatives from the following organisations:

Association of Consulting Engineers Malaysia
Association of Environmental Consultants and Companies of Malaysia
Centre for Environment Technology and Development Malaysia
Department of Environment
Department of Standards Malaysia
Environmental Management and Research Association of Malaysia
Federation of Malaysian Manufacturers
Malaysian Industry-Government Group for High Technology
Malaysian Institute of Chemistry
Malaysian International Chamber of Commerce and Industry
Malaysian Palm Oil Association
Malaysian Palm Oil Board
Malaysian Palm Oil Council
Malaysian Plastics Manufacturers Association
Malaysian Rubber Board
Malaysian Rubber Glove Manufacturer's Association
Malaysian Textile Manufacturers Association
Ministry of Domestic Trade, Co-operatives and Consumerism
Ministry of Energy, Green Technology and Water
Ministry of International Trade and Industry
Ministry of Natural Resources and Environment
Ministry of Plantation Industries and Commodities
Ministry of Science, Technology and Innovation
SIRIM Berhad (Environmental Technology Research Centre)
SIRIM Berhad (Secretariat)
The Electrical and Electronics Association of Malaysia
The Institution of Engineers, Malaysia
Universiti Malaya
Universiti Putra Malaysia

The Technical Committee on Air Quality which supervised the adoption of the ISO Standard as Malaysian Standard consists of representatives from the following organisations:

Alam Sekitar Malaysia Sdn Bhd
Association of Environmental Consultants and Companies of Malaysia
Department of Chemistry, Malaysia
Department of Environment
Department of Occupational Safety and Health Malaysia
Malaysian Industrial Hygiene Association
Malaysian Meteorological Department
Malaysian Nuclear Agency
Ministry of Health Malaysia (Engineering Services Division)
SIRIM Berhad (Secretariat)
The Institution of Engineers, Malaysia
Universiti Kebangsaan Malaysia
Universiti Putra Malaysia

Committee representation *(continued)*

The Working Group on Workplace Atmosphere and Indoor Air which recommended the adoption of the ISO Standard as Malaysian Standard consists of representatives from the following organisations:

ASHRAE Malaysia Chapter

Association of Environmental Consultants and Companies of Malaysia

Department of Chemistry, Malaysia (Industry and Classification Trade Tariff Division)

Department of Environment

Department of Occupational Safety and Health Malaysia

Hospital Tengku Ampuan Rahimah

Institute for Medical Research

Jabatan Kerja Raya Malaysia

Malaysian Institute of Chemistry

Ministry of Health Malaysia (Engineering Services Division)

National Institute of Occupational Safety and Health

SIRIM Berhad (Environmental Technology Research Centre)

SIRIM Berhad (Secretariat)

The Institution of Engineers, Malaysia

Universiti Malaya

MS ISO 16000-3:2015

National foreword

The adoption of the ISO Standard as a Malaysian Standard was recommended by the Working Group on Workplace Atmosphere and Indoor Air under the authority of the Industry Standards Committee on Environmental Management.

This Malaysian Standard is identical with ISO 16000-3:2011, *Indoor air - Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air - Active sampling method*, published by the International Organization for Standardization (ISO). However, for the purposes of this Malaysian Standard, the following apply:

- a) in the source text, "this International Standard" should read "this Malaysian Standard";
- b) the comma which is used as a decimal sign (if any), to read as a point; and
- c) reference to International Standards should be replaced by corresponding Malaysian Standards as follows:

<u>Referenced International Standards</u>	<u>Corresponding Malaysian Standards</u>
ISO/IEC 17025, <i>General requirements for the competence of testing and calibration laboratories</i>	MS ISO/IEC 17025, <i>General requirements for the competence of testing and calibration laboratories</i>

MS ISO 16000 consists of the following parts, under the general title *Indoor air*.

Part 1: General aspects of sampling strategy

Part 2: Sampling strategy for formaldehyde

Part 3: Determination of formaldehyde and other carbonyl compounds - Active sampling method

Part 4: Determination of formaldehyde - Diffusive sampling method

Part 5: Sampling strategy for volatile organic compounds (VOCs)

Part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA sorbent, thermal desorption and gas chromatography using MS or MS-FID

Part 7: Sampling strategy for determination of airborne asbestos fibre concentrations

Part 8: Determination of local mean ages of air in buildings for characterizing ventilation conditions

Part 9: Determination of the emission of volatile organic compounds from building products and furnishing - Emission test chamber method

Part 10: Determination of the emission of volatile organic compounds from building products and furnishing - Emission test cell method