



# MALAYSIAN STANDARD

MS 1042-3:2015

## **Safety in laboratories - Code of practice - Part 3: Biosafety and biocontainment in microbiology laboratories (First revision)**

**ICS: 71.040.10**

Descriptors: code of practice, safety, laboratory, biosafety, biocontainment, microbiological

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## Contents

	<b>Page</b>
Committee representation .....	iii
Foreword.....	iv
Introduction .....	vi
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Organisation .....	6
5 Degree of hazard from microorganisms.....	12
6 Personal protective equipment (PPE).....	14
7 Classification of infective microorganisms by risk group .....	18
8 Principles of containment and biosafety levels .....	22
9 Animals and animal containment facilities .....	42
10 Aquatic animal containment facilities.....	55
11 Plant containment facilities.....	60
12 Arthropod containment facilities .....	69
13 Emergency response: laboratory spills .....	77
14 Special equipment and precautions for use .....	83
15 Work areas .....	97
16 Laboratory cleaning .....	98
17 Waste disposal .....	99
18 Transport of infectious and other biological materials .....	103
Annex A Normative references .....	119
Annex B Example microbiological incident/illness report form.....	122

**Contents** *(continued)*

	<b>Page</b>
Annex C Water and gas supplies to containment facilities .....	124
Annex D Chemical disinfectants.....	128
Annex E Biological hazard signs .....	136
Annex F Recommendations on acceptable room airtightness .....	138
Annex G Classification of microorganisms into Risk Groups .....	143
Annex H List of animal and bird diseases .....	150
Annex J Certification of BSL-3 and BSL-4 laboratories .....	152
Bibliography .....	160

## Committee representation

The Industry Standards Committee on Occupational Safety and Health (ISC W) under whose authority this Malaysian Standard was developed, comprises representatives from the following organisations:

Business Council for Sustainability and Responsibility Malaysia  
Chemical Industries Council of Malaysia  
Construction Industry Development Board Malaysia  
Department of Agriculture  
Department of Chemistry, Malaysia  
Department of Environment  
Department of Occupational Safety and Health Malaysia  
Department of Standards Malaysia  
Federation of Malaysian Manufacturers  
Jabatan Bomba dan Penyelamat Malaysia  
Lloyd's Register Technical Services Sdn Bhd  
Malaysia International Chamber of Commerce and Industry  
Malaysian Employers Federation  
Malaysian Industrial Hygiene Association  
Malaysian Nuclear Agency  
Malaysian Society for Occupational Safety and Health  
Malaysian Trades Union Congress  
Mineral and Geoscience Department Malaysia  
Ministry of Health Malaysia  
Ministry of International Trade and Industry  
National Institute of Occupational Safety and Health  
SIRIM Berhad (Secretariat)  
SIRIM QAS International Sdn Bhd  
SME Corporation Malaysia  
Suruhanjaya Tenaga  
The Institution of Engineers, Malaysia  
The National University of Malaysia

The Technical Committee on Safety in Laboratories which supervised the development of this Malaysian Standard consists of representatives from the following organisations:

Department of Agriculture (Pesticides Board)  
Department of Chemistry Malaysia  
Department of Occupational Safety and Health Malaysia  
Institute for Medical Research  
Institute of Chemistry Malaysia  
Jabatan Bomba dan Penyelamat Malaysia  
Malaysian Industrial Hygiene Association  
National Institute of Occupational Safety and Health  
National Pharmaceutical Control Bureau  
SIRIM Berhad (Secretariat)  
SIRIM QAS International Sdn Bhd  
Sterling Drug (M) Sdn Bhd  
Suruhanjaya Tenaga  
Universiti Kebangsaan Malaysia

The Working Group on Safety in Laboratories - Microbiological which developed this Malaysian Standard consists of representatives from the following organisations:

Department of Agriculture  
Institute for Medical Research  
International Medical University  
Malaysian Industrial Hygiene Association  
National Pharmaceutical Control Bureau  
National Public Health Laboratory  
SIRIM Berhad (Secretariat)  
UKM Medical Centre  
University of Malaya  
Veterinary Research Institute

# MS 1042-3:2015

## Foreword

This Malaysian Standard was developed by the Working Group on Safety in Laboratories - Microbiological under the authority of the Industry Standards Committee on Occupational Safety and Health.

MS 1042 consists of the followings parts, under the general title *Safety in laboratories - Code of practice*:

*Part 1: General*

*Part 2: Chemical aspects*

*Part 3: Biosafety and biocontainment in microbiology laboratories*

*Part 4: Ionising radiations*

*Part 5: Non-ionising radiations<sup>1)</sup>*

*Part 6: Mechanical aspects*

*Part 7: Fume cupboards*

*Part 8: Recirculating fume cabinet<sup>2)</sup>*

*Part 9: Storage of chemicals*

The objective of this standard is to promote safety in laboratories and to deal specifically with biosafety practices and containment in microbiology laboratories. It is intended to be used in conjunction with Parts 1 and 2 in the series, relating to general and chemical safety aspects of laboratory work.

This edition revises the requirements for laboratories in line with Malaysian legislations and international guidelines on biosafety.

Major modifications in this revision are as follows:

- a) the title has been changed to "Safety in laboratories - Code of practice - Part 3: Biosafety and biocontainment in microbiology laboratories";
- b) revision of the requirements for laboratories dealing with infectious diseases and the classifications of microorganisms into the four risk groups;
- c) description of the physical containment for microbiology laboratories in accordance with international guidelines;

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<sup>1), 2)</sup> To be develop.

**Foreword** *(continued)*

- d) presentation of requirements for animal, plant and arthropods containment facilities have been included; and
- e) description of aquatic animal containment section.

This standard is intended to assist in addressing the obligations placed on employers and employees under the occupational health and safety legislation.

The provisions in a code are not mandatory but give practical guidance on how to comply with the relevant provisions of the act or regulation. Users will need to consult the relevant authority to determine if this standard has been incorporated and the manner of incorporation, if any.

This Malaysian Standard cancels and replaces MS 1042: Part 3:1986, *Code of practice for safety in laboratories: Part 3: Microbiological*.

Compliance with a Malaysian Standard does not of itself confer immunity from legal obligations.