Australian Standard®

Screwcap bottles for microbiological use (McCartney bottles)

This Australian Standard was prepared by Committee CH/1, Laboratory Glassware and Related Apparatus. It was approved on behalf of the Council of Standards Australia on 1 March 1994 and published on 11 July 1994.

The following interests are represented on Committee CH/1:

Australian Chamber of Commerce and Industry
Australian Government Analytical Laboratories
National Standards Commission
N.S.W. Agriculture
National Association of Testing Authorities, Australia
Royal Australian Chemical Institute
Royal College of Pathologists of Australasia
Royal Melbourne Institute of Technology
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PREFACE

This Standard was prepared by the Standards Australia Committee on Laboratory Glassware and Related Apparatus in response to a request from N.S.W. Agriculture supported by the Australian Society of Microbiologists and the N.S.W. Supply Service. The N.S.W. Supply Service has withdrawn a thin-walled variation of the McCartney bottle as a result of complaints received about its narrow neck, instability, leakage problems, tendency to crack during flame-sterilization procedures and soft cap which distorted under light loads.

In preparing this Standard, the Committee considered ISO 4796, *Laboratory glassware—Bottles*, and details given in Cruickshank, R. *Medical Microbiology—A guide to the laboratory diagnosis and control of infection*, 11th ed. Edinburgh: Livingstone, 1965, p. 724–734.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

CONTENTS

STANDARDS AUSTRALIA

Australian Standard

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1 SCOPE This Standard specifies the requirements for screwcap glass bottles suitable for use in microbiological laboratories as culture bottles.

NOTES:

1 Clause 6 specifies type tests that are performed to assess compliance of finished product with this Standard. However, it may also be convenient for product manufacturers to use these tests for quality control purposes.

2 Alternative methods for determining compliance of a lot with this Standard are given in Appendix A.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1199 Sampling procedures and tables for inspection by attributes

1399 Guide to AS 1199—Sampling procedures and tables for inspection by attributes

2243 Safety in laboratories

2243.3 Part 3: Microbiology

3900 Quality management and quality assurance standards

3900.1 Part 1: Guidelines for selection and use

3904 Quality management and quality system elements

3904.1 Part 1: Guidelines

SAA

HB 18 Guidelines for third-party certification and accreditation

HB 18.44 Guide 44: General rules for ISO or IEC international third-party certification schemes for products

3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

3.1 Nominal capacity—volume of liquid which a bottle will contain when filled to the base of the neck.

3.2 Seal—the system which enables the contents of the bottle to be isolated from the external environment.

3.3 Transition zone—curved part of the bottle where a change in direction occurs in the linear outline of the bottle, for example between base and sidewall or sidewall and neck.

4 MATERIALS

4.1 Bottle The bottle shall be made from clear, colourless glass free of particulate matter and having thermal properties which meet the requirements of the test outlined in Appendix B.

4.2 Cap The cap shall be made of material which is resistant to the conditions of normal use, including washing and sterilization procedures.

The cap shall be sufficiently strong and rigid so as not to crack or distort when being screwed onto the bottle.

4.3 Insert The insert shall be made of an elastic material which is chemically inert and retains its shape under normal conditions of use.

NOTE: Sealing inserts may be moulded into the cap.