AS 2164—1995

Australian Standard®

Laboratory glassware—One-mark volumetric flasks

[Based on ISO 1042:1983 Laboratory glassware—One-mark volumetric flasks]

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 19 July 1995 and published on 5 October 1995.

The following interests are represented on Committee CH/1:

Australian Chamber of Commerce and Industry

Australian Government Analytical Laboratories

Environmental Protection Authority of N.S.W.

National Association of Testing Authorities, Australia

National Standards Commission

Royal Australian Chemical Institute

Royal College of Pathologists Australasia

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University of Sydney

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PREFACE

This Standard was prepared by the Standards Australia Committee CH/1, Laboratory Glassware and Related Apparatus to supersede the 1978 edition of AS 2164, *One-mark volumetric flasks*. This edition is based on ISO 1042—1983, *Laboratory glassware—One-mark volumetric flasks*, with significant changes.

The objective of this Standard is to provide a specification for one-mark volumetric flasks required for general use in laboratories.

This Standard varies from the previous edition in that the dimensions of the complete range of flasks now conform with those of ISO 1042. This Standard differs from ISO 1042 in that it refers to AS 2162 for information on verification and use, and requires markings appropriate to the type of glass used.

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Originated as AS R20— 1953 (being BS 1792:1952 endorsed with Australian amendment).
Previous edition AS 2164— 1978.
Second edition 1995.

STANDARDS AUSTRALIA

Australian Standard

Laboratory glassware—One-mark volumetric flasks

1 SCOPE This Standard specifies requirements for an internationally acceptable series of one-mark volumetric flasks, suitable for general laboratory purposes. Two classes of accuracy are specified, Class A flasks being of higher accuracy than Class B flasks.

NOTE: The method of verification and notes for the use of one-mark volumetric flasks are given in AS 2162.

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

AS
2162 Code of practice for the use of volumetric glassware

2409 Interchangeable conical ground glass joints

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

3.1 Capacity—the volume of water at 20°C, expressed in millilitres, contained by the flask at 20°C when filled to the graduation line.

3.2 Neck—that part of the flask which is of apparently uniform internal diameter.

3.3 Reference temperature—the standard temperature of 20°C at which the volumetric flask is intended to contain its nominal volume (nominal capacity).

3.4 Unit of volume—the cubic centimetre (cm^3), for which the name millilitre (mL) may be used.

NOTE: The term millilitre (mL) is commonly used as a special name for the cubic centimetre (cm^3).

4 CLASSES OF ACCURACY Two classes of accuracy are specified:

Class A for the higher grade; and

Class B for the lower grade.

5 SERIES OF CAPACITIES The series of capacities of one-mark volumetric flasks are as follows:

5—10—25—50—100—200—250—500—1 000 and 2 000 mL.

All these flasks may be finished with a plain neck or be provided with a stopper.

NOTE: If volumetric flasks of capacities other than those listed above are required, it is recommended that they conform, as far as possible, to the essential requirements of this Australian Standard.

6 MENISCUS The setting of the meniscus shall be performed in accordance with AS 2162.

7 ACCURACY The capacity of the flask shall not differ from the nominal capacity by more than the maximum permitted errors shown in Table 1.