AS 3864—1997

Australian Standard®

Medical refrigeration equipment—For the storage of blood and blood products

This Australian Standard was prepared by Committee HT/10, Medical Refrigeration. It was approved on behalf of the Council of Standards Australia on 14 March 1997 and published on 5 August 1997.

The following interests are represented on Committee HT/10:

Australian Hospital Association
Australian Institute of Refrigeration, Air Conditioning and Heating
Australian Red Cross Society
Commercial Refrigeration Manufacturers Association of Australia
Commonwealth Department of Health and Family Services
Commonwealth Serum Laboratories
Institute of Medical and Veterinary Science
N.S.W Health Department
Queensland Health
Royal College of Pathologists of Australasia

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PREFACE

This Standard was prepared by the Standards Australia Committee HT/10, Medical Refrigeration, to supersede AS 3864—1991, *Medical refrigeration equipment—For the storage of blood and blood products, and containers for the transport of blood and blood products*.

In the preparation of this Standard, account has been taken of testing conducted by the N.S.W. Red Cross Society Blood Transfusion Service.

Whilst this Standard specifies test methods, other methods which have been demonstrated to produce equivalent or comparable results, are acceptable.

As this Standard deals with the manufacture of new medical refrigeration equipment, existing equipment may not meet all aspects of this Standard.

The objective of this Standard is to ensure that blood and blood products can be safely stored at pre-determined temperatures prior to use in patients.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

The principal differences between this edition and the 1991 edition are as follows:

(a) A temperature not warmer than −25°C is specified for the storage of plasma products, and a broader temperature range of 2°C to 6°C is specified for the storage of blood and blood products.

(b) The alarms are to activate if the temperature of the lagged probe falls to 2.5°C or reaches 5.5°C for the storage of red cells, or rises to −27°C for the storage of plasma. In practice, it would mean that alarms would activate within the accepted temperature range.

(c) Lagging material for temperature probes of recording systems of freezers and freezer rooms has been changed to the thermal capacity equivalent to 100 ±10 g of ice. The use of aluminium cylinders as suitable lagging material has been incorporated.

(d) The operation test for cabinets (Appendices D and H) may be performed at ambient temperatures of 10°C and 32°C only.

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