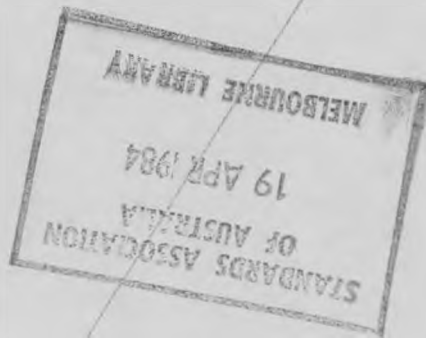


# Australian Standard 1900—1981

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## CHILDREN'S FLOTATION TOYS AND SWIMMING AIDS



**STANDARDS ASSOCIATION OF AUSTRALIA**  
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THE FOLLOWING CONSUMER, INDUSTRIAL, SAFETY, PROFESSIONAL AND governmental organizations were officially represented on the committee entrusted with the preparation of this standard:

Australian Federation of Consumer Organizations  
Australian Medical Association  
Australian Retailers Association  
Bureau of Consumer Affairs, W.A.  
Confederation of Australian Industry  
Council of Australasian Spa and Pool Associations Ltd  
Department of Business and Consumer Affairs  
Ministry of Consumer Affairs, Vic.  
National Safety Council of Australia (Victorian Division)  
Parent Centres Australia  
Plastics Institute of Australia, Inc.  
Royal Life Saving Society of Australia  
Water Safety Council of N.S.W.

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This standard, prepared by Committee CS/21, Swimming Aids, was approved on behalf of the Council of the Standards Association of Australia on 10 February 1981, and was published on 1 April 1981.

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*This standard was issued in draft form for public review as DR 80025.*

**AUSTRALIAN STANDARD**

# **CHILDREN'S FLOTATION TOYS AND SWIMMING AIDS**

**AS 1900—1981**

|                              |             |
|------------------------------|-------------|
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## PREFACE

This edition of this standard was prepared by the Association's Committee on Swimming Aids. The first edition (1976) was prepared in response to a request from the Department of Science and as a result of public concern on safety aspects related to the design, construction and usage of children's flotation and swimming aids.

The standard deals with flotation toys and swimming aids specifically intended to be worn by or attached to a child, ranging from items designed for purposes of recreation to items designed for swimming instruction at locations such as swimming pools or sheltered beaches. It is important that the intended distinction between the items covered by this standard, and more specialized aids such as buoyancy vests, is clearly understood. Buoyancy vests (see AS 1499) are intended for use principally by aquatic sportsmen in activities such as water skiing, for which greater impact strength and resistance to crushing and petrol are necessary requirements. On the other hand, the items covered by this standard are of a type generally thought of as toys and usually sold for a comparatively low price and intended for use under adult supervision.

Although these items are for recreation purposes and are not in any sense safety devices, the failure of a flotation aid to perform its intended function may endanger the user, particularly if this is a young child lacking confidence or ability in the water. Accordingly, the object of this standard is to establish through design and constructional requirements a desirable level of fitness for purpose in products available to the consumer. Only where the product is designed to be worn by the child is it possible to evaluate how it will perform in the water. Therefore this standard applies only to articles intended to be worn by a child in the water. It includes however an appendix which provides recommendations regarding buoyant articles which are not worn by or attached to the user; the performance of such non-attached buoyant articles cannot be predicted as there is no way of knowing the way in which these articles will be used.

In the initial preparation of this standard, maximum buoyancy limits were set, together with the requirement that the article be inherently buoyant, as it was felt at that time that, whereas only small amounts of buoyancy were required to increase a child's confidence, excessive buoyancy could hinder movement in the water. This has now been considered at greater length and it has been decided to delete the maximum buoyancy limits and at the same time introduce minimum buoyancy levels for these items. This is in recognition of the fact that there may be a need for swimming aids with a wide range of buoyancy values, depending on the purpose of the article, e.g. for use by disabled children.

The standard no longer includes flotation rings within its scope as, in the absence of any positive means of wearing such articles or of attaching them to the user, they are considered as non-attached articles and their performance in use is not readily predictable. Flotation rings would, however, be within the intended field of application of Appendix B.

The requirements of this standard regarding body mass and buoyancy requirements have been coordinated with those of AS 1499 and AS 2260, and it may be feasible for a suitably designed article to comply with the requirements of both this standard and AS 1499 and AS 2260. It should be noted, however, that as the items covered by this standard are not safety devices, the standard permits the use of some materials which would not comply with the general requirements for buoyancy aids set out in AS 2259, or the specific requirements of AS 1499 or AS 2260.

This standard aims also, through marking and instruction requirements, to highlight the consumer's responsibility to select and use the aid in a manner that will ensure that the life of the child using the aid is not unnecessarily endangered.

As education of the consumer is largely in the hands of the manufacturer, all manufacturers are strongly urged to provide comprehensive instructions and warnings with their products, since children using these aids may be potentially only minutes away from death.

This standard makes reference to the following Australian standards:

|         |                                                                                                                                                                     |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AS 1091 | Method for the Determination of the Tear Resistance of Woven Textile Fabrics by the Wing-rip Method                                                                 |
| AS 1192 | Electroplated Coatings of Nickel and Chromium                                                                                                                       |
| AS 1441 | Methods of Test for Coated Fabrics<br>1441.5—Method for Determination of Coating and Ply Adhesion<br>1441.6—Method for Determination of Resistance to Flex Cracking |
| AS 1499 | Buoyancy Vests                                                                                                                                                      |
| AS 1512 | Lifejackets                                                                                                                                                         |
| AS 1789 | Electroplated Coatings of Zinc on Iron and Steel                                                                                                                    |
| AS 1791 | Chromatic Conversion Coatings on Zinc and Cadmium Electrodeposits                                                                                                   |
| AS 2259 | General Requirements for Buoyancy Aids                                                                                                                              |
| AS 2260 | Buoyancy Garments                                                                                                                                                   |
| AS 2324 | PVC Film and Sheeting                                                                                                                                               |

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## STANDARDS ASSOCIATION OF AUSTRALIA

## Australian Standard

## for

## CHILDREN'S FLOTATION TOYS AND SWIMMING AIDS

## SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This standard specifies requirements for flotation toys and swimming aids intended to be worn on the arms or trunk of a child as a means of providing additional buoyancy during swimming instruction or recreation in the water. The articles specified include those which may be regarded as toys. This standard does not deal with buoyancy aids intended for lifesaving, nor does it deal with articles which are not worn by the child, such as kick boards, flotation rings and inflatable surf mats. Recommendations regarding the design and manufacture of such items are provided in Appendix B.

**NOTES:**

1. It is emphasized that children using swimming aids or flotation aids should be under constant competent supervision, and this standard is not intended to diminish in any way the need for such supervision.
2. The requirements for lifejackets, buoyancy vests and buoyancy garments are set out in AS 1512, AS 1499 and AS 2260 respectively.

**1.2 DEFINITIONS.** For the purposes of this standard, the following definitions apply:

*Closed-cell cellular materials*—cellular materials in which almost all the cells are non-interconnecting, viz polystyrene foam, cork.

*Air cell*—a permanently sealed compartment using air, or air together with some other suitable material, to hold apart the walls of that compartment and provide buoyancy.

*Inflatable air chamber*—a compartment capable of being inflated with air which uses the pressure of the air to hold apart the walls of the compartment and provide buoyancy.

*Flotation toy/swimming aid*—an article which, when ready for use, is inherently buoyant and is worn on the arms or trunk of a child to provide additional buoyancy during recreation in the water or to increase the child's confidence during swimming, or to aid improvement in swimming technique. It is not a life-saving device.

**1.3 CLASSIFICATION.** The articles specified herein shall be classified as follows:

- (a) *The minimum buoyancy deemed to be adequate for intended wearers*—within three ranges of body mass as follows:
  - (i) Body mass 22 kg to 40 kg.
  - (ii) Body mass 12 kg to 25 kg.
  - (iii) Body mass 10 kg to 15 kg.
- (b) *Wearing or attachment location*—intended for fitting to—
  - (i) upper arms;
  - (ii) back;
  - (iii) chest;
  - (iv) waist; or
  - (v) any combination of these.