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CHILDREN'S TOYS (SAFETY REQUIREMENTS) Part 2—CONSTRUCTIONAL REQUIREMENTS



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THE FOLLOWING SCIENTIFIC, INDUSTRIAL, CONSUMER AND GOVERNMENTAL organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Consumers Association
Australian Federation of Consumer Organizations
Australian Retailers Association
Confederation of Australian Industry
Country Women's Association of Australia
Department of Business and Consumer Affairs
Department of Consumer Affairs, N.S.W.
Department of Health
Department of Public and Consumer Affairs, S.A.
Department of Industrial Relations and Technology
Department of Science and the Environment
Health Commission of New South Wales
Health Commission of Victoria
Ministry of Consumer Affairs, Vic.
National Safety Council of Australia (Victorian Division)
Royal Alexandra Hospital for Children

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AUSTRALIAN STANDARD

**CHILDREN'S TOYS
(SAFETY REQUIREMENTS)**

**Part 2
CONSTRUCTIONAL
REQUIREMENTS**

AS 1647, Part 2-1981

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PREFACE

This standard was prepared by the Association's Committee on Safety of Children's Toys and relates to the constructional requirements of children's toys. This standard constitutes Part 2 of the standard for toys and as such, is a part revision of AS 1647—1974, Children's Toys and Playthings (Safety Requirements).

Other Parts of the standard are as follows:

- Part 1—General Safety Requirements
- Part 3—Toxicological Requirements
- Part 4—Flammability Requirements

In preparing this standard, the committee took into account the work of the British Standards Institution and the Toy Manufacturers of America Inc, as well as the following documents:

BS 5665: Part 1—1979 (which is equivalent to European Committee for Standardization EN 71 Part 1)

United States Consumer Product Safety Commission Regulations

United States Voluntary Product Standard PS 72-76 - *see ASTM F963*

Canadian Government Regulations.

This standard makes reference to the following standards:

- AS 1055 Code of Practice for Noise Assessment in Residential Areas
- AS 1259 Sound Level Meters
 - Part 2—Type 2, Precision
 - Part 3—For the Measurement of Impulsive Sounds
- AS 1647 Children's Toys
 - Part 1—General Safety Requirements
- AS 1815 Method for Rockwell Hardness Test
 - Part 1—Testing of Metals
- AS 1900 Children's Swimming Instruction Aids, and Flotation Toys and Rings
- AS 1924 Playground Equipment for Parks, Schools and Domestic Use
 - Part 1—General Requirements
- AS 1927 Pedal Bicycles
- AS 3191 Electric Flexible Cords
- AS C100 Approval and Test Specification for Definitions and General Requirements for Electrical Materials and Equipment
- AS C109 Approval and Test Specification for Appliance Plugs and Appliance Inlet-sockets
- AS C112 Approval and Test Specification for Plugs and Plug Sockets
- AS C126 Approval and Test Specification for Extra-low Voltage Transformers

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
CHILDREN'S TOYS
(SAFETY REQUIREMENTS)

PART 2—CONSTRUCTIONAL REQUIREMENTS

FOREWORD

This standard constitutes Part 2 of the standard for toys and it relates to constructional requirements for toys. The purpose of this standard is to establish safety requirements for children's toys such that the more obvious hazards associated with them will be eliminated. The standard does not cover performance requirements other than from a safety point of view.

In the preparation of this standard, the various hazards that are associated with the constructional properties of toys were isolated into two broad groups. The first group of hazards comprised those which were applicable to all toys, whereas the second group of hazards comprised those which were specifically related to toys which, because of their design or because of traditional play modes, are intended for use by children of a certain age group.

Examples of hazards in the first group are as follows:

- (a) Sharp edges which could occur on thin materials such as metals.
- (b) Sharp points which could result because of burrs or pointed projections that are intended to form part of the toy, such as a mast on a ship.
- (c) Pinch or crush hazard which could result from entrapment of a finger in between the moving parts of a hinge such as on a box, or between the links of a chain or coil spring.
- (d) Excessive noise levels which could be either continuous noise such as that obtained from a siren of a car, or impulsive noise such as that obtained from a cap pistol.

Examples of hazards in the second group are as follows:

- (i) Ingestion or inhalation hazard which relates to small toys or components of toys, that could be torn or otherwise removed from the toy and consequently placed into the child's mouth and swallowed or inhaled. This hazard is particularly pertinent to toys that are intended for use by children aged 3 years or less because these children have not fully developed their reflexes to be capable of coughing out

small items which they may have placed into the mouth.

- (ii) A strangulation hazard which exists with toys that have a string or elastic which may become wrapped around a young child's throat. This hazard is relevant to toys which are intended to be tied across a cradle or playpen or toys in which the string or elastic is an integral part of the toy, such as pull-along toys or the coiled flex used on a toy telephone.
- (iii) A fall-off-the-toy hazard which relates to the instability of such toys as tricycles and rocking horses, which are generally termed 'ride-on' or 'sit-on' toys.
- (iv) A puncture hazard resulting from being struck by a projectile such as a toy dart that may be ejected by a spring-loaded pistol.
- (v) An electric shock hazard that may result from a toy such as an electric train set.
- (vi) A burn hazard that could occur from touching a heated surface on a steam engine.

Moreover, the evaluation of a toy for the various hazards has been related not only to the finished new product, but the toy is also to be evaluated after subjecting the toy to normal use, which is the intended play mode, and reasonably foreseeable abuse, which is an abuse play mode, e.g. dropping, biting, to which the toy is likely to be subjected.

Nevertheless, in spite of the evaluation of the toy for all the above and other hazards which this standard is intended to obviate, it should be borne in mind that the standard cannot eliminate all possible hazards from toys and choice of a suitable toy for a particular child remains the responsibility of the purchaser. In the selection of a toy, it is important that the age of the child and the nature and stage of his or her mental and physical development be considered. Care should also be exercised to ensure that toys intended for use by older children do not fall into the hands of much younger children who may not appreciate the consequences of incorrect use, or that children do not play with defective or damaged toys or that toys are not used in ways for which they were not intended.