AS/NZS ISO 8124.1:2013
ISO 8124.1:2012

AS/NZS ISO 8124.1:2013

Australian/New Zealand Standard™

Safety of toys

Part 1: Safety aspects related to mechanical and physical properties

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CS-018, Safety of Children's Toys. It was approved on behalf of the Council of Standards Australia on 2 April 2013 and on behalf of the Council of Standards New Zealand on 25 March 2013.
This Standard was published on 24 May 2013.

The following are represented on Committee CS-018:

Australian Chamber of Commerce and Industry
Australian Competition and Consumer Commission
Australian Toy Association
CHOICE
Consumer Affairs Victoria
Consumers Federation of Australia
Kidsafe
Ministry of Consumer Affairs New Zealand
National Acoustic Laboratories
National Retail Association
New Zealand Toy Distributors Association
NSW Office of Fair Trading
Pigment Ecological and Toxicological Technical Committee of Australia
Queensland Health
Safekids New Zealand
The Children's Hospital at Westmead

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.saiglobal.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR2 AS/NZS ISO 8124.1.

Australian/New Zealand Standard™

Safety of toys

Part 1: Safety aspects related to mechanical and physical properties

Originated in Australia as AS 1647—1974.
First Joint edition AS/NZS ISO 8124.1:2002.
Previous edition 2010.
Third edition 2013.

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140.

ISBN 978 1 74342 469 8

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-018, Safety of Children's Toys to supersede AS/NZS ISO 8124.1:2010, *Safety of toys*—Part 1: *Safety aspects related to mechanical and physical properties (ISO 8124-1:2009, MOD)*.

The objective of this Standard is to provide a specification for general safety, construction and labelling requirements for toys.

This revision incorporates the changes and additions from Amendments 1 and 2 to the 2010 edition. Additionally, the requirements for magnets previously provided in Appendix ZZ have been replaced with those in the latest edition of the ISO Standard. The revised requirements do not allow hazardous magnets, except in magnetic/electrical experimental sets under certain conditions, include additional foreseeable abuse tests specifically for toys with magnets, and use the small parts cylinder to identify those small strong magnets that are considered to be hazardous. These requirements are now substantially in alignment with those in the USA and Europe.

Furthermore, the 2010 AS/NZS variations concerning aquatic toys are no longer included so that requirements for aquatic toys are now aligned with the ISO Standard.

This Standard is identical with and has been reproduced from ISO 8124-1:2012, *Safety of toys*—Part 1: *Safety aspects related to mechanical and physical properties*.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(b) In the source text 'this part of ISO 8124' should read 'this Australian/New Zealand Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian/New Zealand Standard*	
ISO		AS	
6508	Metallic materials—Rockwell hardness test	1815	Metallic materials—Rockwell hardness test
6508-1	Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)	1815.1	Method 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)
IEC		AS IEC	
61672	Electroacoustics—Sound level meters	61672	Electroacoustics—Sound level meters
61672-1	Part 1: Specifications	61672.1	Part 1: Specifications
61672-2	Part 2: Pattern evaluation tests	61672.2	Part 2: Pattern evaluation tests

Only international normative references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. An 'informative' annex is only for information and guidance.

CONTENTS

Page

INTRODUCTION

This part of ISO 8124 is largely based upon existing standards in the European Union (EN 71-1 and in the United States of America (ASTM F963).

However, it should not be construed that a toy manufactured in compliance with this part of ISO 8124 will be in full compliance with relevant national toy safety requirements in the market where the product is intended to be distributed. The user of this part of ISO 8124 is therefore advised to be aware of relevant national requirements.

Compliance with the requirements of this part of ISO 8124 will minimize potential hazards associated with toys resulting from their use in their intended play modes (normal use) as well as unintended play modes (reasonably foreseeable abuse).

This part of ISO 8124 will not, nor is it intended to, eliminate parental responsibility in the appropriate selection of toys. In addition, this part of ISO 8124 will not eliminate the need for parental supervision in situations where children of various ages may have access to the same toy(s).

Although Annexes A, B, C, D and E are for information purposes only, they are crucial for the correct interpretation of this part of ISO 8124.

The safety of electric toys is described in IEC 62115.

When age indications are required for safety labelling purposes, they may be given in either months or years.

AUSTRALIAN/NEW ZEALAND STANDARD

Safety of toys

Part 1:
Safety aspects related to mechanical and physical properties

1 Scope

The requirements in this part of ISO 8124 apply to all toys, i.e. any product or material designed or clearly intended for use in play by children under 14 years of age. They are applicable to a toy as it is initially received by the consumer and, in addition, they apply after a toy is subjected to reasonably foreseeable conditions of normal use and abuse unless specifically noted otherwise.

The requirements of this part of ISO 8124 specify acceptable criteria for structural characteristics of toys, such as shape, size, contour, spacing (e.g. rattles, small parts, sharp points and edges, and hinge-line clearances) as well as acceptable criteria for properties peculiar to certain categories of toy (e.g. maximum kinetic energy values for non-resilient-tipped projectiles and minimum tip angles for certain ride-on toys).

This part of ISO 8124 specifies requirements and test methods for toys intended for use by children in various age groups from birth to 14 years. The requirements vary according to the age group for which a particular toy is intended. The requirements for a particular age group reflect the nature of the hazards and the expected mental and/or physical abilities of a child to cope with them.

This part of ISO 8124 also requires that appropriate warnings and/or instructions for use be given on certain toys or their packaging. Due to linguistic problems which may occur in different countries, the wording of these warnings and instructions is not specified but given as general information in Annex B. It should be noted that different legal requirements exist in many countries with regard to such marking.

This part of ISO 8124 does not purport to cover or include every conceivable potential hazard of a particular toy or toy category. Except for labelling requirements indicating the functional hazards and the age range for which the toy is intended, this part of ISO 8124 has no requirements for those characteristics of toys which represent an inherent and recognized hazard which is integral to the function of the toy.

EXAMPLE 1 An example of such a hazard is the sharp point necessary for the proper function of a needle. The needle is a hazard which is well understood by the purchaser of a toy sewing kit, and the functional sharp-point hazard is communicated to the user as part of the normal educational process of learning to sew as well as at the point of purchase by means of cautionary labelling on the product's packaging.

EXAMPLE 2 As a further example, a two-wheeled toy scooter has inherent and recognized hazards associated with its use (e.g. instability during use, especially while learning). The potential hazards associated with its structural characteristics (sharp edges, pinch hazards, etc.) will be minimized by compliance with the requirements of this part of ISO 8124.

Products not included within the scope of this part of ISO 8124 are:

a) bicycles, except for those considered to be toys, i.e. those having a maximum saddle height of 435 mm (see E.1);

b) slingshots;

NOTE "Slingshots" are also known as "catapults" and are usually held in the hand; examples are given in Figure 1. Toy versions of medieval catapults and trebuchets are not exempt from this part of ISO 8124; an example is given in Figure 2.