

Button/coin battery safety

A guide for business on the application of mandatory standards

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Button/coin batteries and consumer goods that contain button/coin batteries

What is this guide about?

In December 2020, the Australian Government made mandatory safety and information standards for button/coin batteries and consumer goods that contain button/coin batteries (the Standards). This guide provides a summary of the requirements for the supply of these products into the Australian market. The standards include an 18 month transition period and will be mandatory from 22 June 2022.

Who should read this guide?

Suppliers of button/coin batteries and consumer goods that contain, are powered by, or store button/coin batteries should read this guide to familiarise themselves with the hazards and the mandatory requirements for these products. You are considered a supplier if you manufacture, import, distribute or retail button/coin batteries or consumer goods containing, powered by, or for storing button/coin batteries within Australia or for the Australian market.

What are button/coin batteries?

Button/coin batteries are small, single cell batteries with a diameter greater than their height.

Button/coin batteries are available in different sizes, shapes and electrical charges. Button/coin batteries generally operate using one of 4 chemistries: lithium, alkaline, silver oxide and zinc-air.



For the purposes of the the Standards, button, button cell and coin cell batteries are each referred to as 'button/coin batteries'. In industry, the term 'coin' is associated with lithium batteries and the term 'button' is associated with non-lithium batteries. Where relevant, the Standards distinguish between types of button/coin batteries on the basis of their chemistry (or electrochemical system).

What are consumer goods that contain button/coin batteries?

The mandatory safety and information standards for consumer goods that contain button/coin batteries apply to consumer goods and their accessories that use, are powered by, or are intended to operate with button/coin batteries, as well as consumer goods designed or intended to store button/coin batteries, such as storage containers and organisers.

Consumer goods are defined in the ACL as goods that are intended to be used, or are of a kind likely to be used, for personal, domestic or household use or consumption. The broad definition of 'consumer good' under the ACL concerns not only the *intended* use of a product (i.e. for the purpose a good was originally sold and/or the location it is intended to be used), but also the *likely* use of that kind of product. For example, if consumers are likely to use a product personally or in or around a household (even if this is not the primary intended use of the product), the product will likely be subject to the Standards.

There is a broad range of consumer and household products that contain button/coin batteries including, but not limited to, remote controls (television remotes, car keys, garage door openers), watches, computers, cameras, calculators, torches, flameless candles, fitness devices, digital kitchen and bathroom scales, toys, games, novelty items, musical greeting cards and home medical devices (digital thermometers, glucometers, heart rate monitors and hearing aids).

Where there is any doubt around your product's classification as a consumer good, it is recommended you assume the product may be subject to the Standards unless you have received specific legal advice to the contrary.

What are the hazards?

If swallowed, a button/coin battery can become stuck in a child's throat and result in catastrophic injuries and even death. Insertion of button/coin batteries into body orifices such as ears and noses can also lead to significant injuries.

In Australia 3 children have died and at least one child a month is seriously injured as a result after swallowing or inserting a button/coin battery, with some of them sustaining lifelong injuries.

The safety risk to children from button/coin batteries arises when they can get access to the batteries. Children can access button/coin batteries in a variety of ways, including:

- products with battery compartments that are not secure
- button/coin battery packaging that is not child resistant
- poor quality products which release button/coin batteries when dropped or broken
- spare batteries being provided loose in product packaging
- spare batteries not being kept out of reach around the home
- used batteries not being properly disposed of.

Summary of business obligations

The following set of mandatory safety and information standards (the Standards) were introduced on 21 December 2020 and are mandatory from 22 June 2022. They include safety and information standards for products that contain button/coin batteries and safety and information standards for button/coin batteries themselves.

- Consumer Goods (Products Containing Button/Coin Batteries) Safety Standard 2020
- Consumer Goods (Products Containing Button/Coin Batteries) Information Standard 2020
- Consumer Goods (Button/Coin Batteries) Safety Standard 2020 and
- Consumer Goods (Button/Coin Batteries) Information Standard 2020.

The Standards aim to improve safety by reducing the ability for children to gain access to button/coin batteries and raising consumer awareness of the hazard.

Mandatory safety and information standards under the Australian Consumer Law (ACL) make particular features compulsory for the legal supply of a product into the Australian market. It is an offence to supply consumer goods that do not comply with mandatory standards.

The safety standards set out a number of mandatory requirements which must be met in order to comply with the Standards. The information standards, as well as setting out mandatory requirements, make a number of best-practice recommendations which suppliers are encouraged to implement.

The Standards include the following requirements:

Consumer goods that contain button/coin batteries

- 1. Consumer goods containing button/coin batteries that are intended to be replaced by the consumer must have a secure battery compartment that is resistant to being opened by young children.
- 2. Consumer goods that contain button/coin batteries, whether or not the batteries are intended to be replaced, must be secure and not release the batteries during reasonably foreseeable use or misuse conditions.
- 3. Compliance testing must be undertaken to demonstrate that safety requirements have been met.
- 4. For consumer goods that contain button/coin batteries, warnings are required on the packaging or in the accompanying instructions.
- 5. If the consumer good is supplied unpackaged, or not supplied with instructions, warnings must be attached or included with the consumer good, to alert consumers that a button/coin battery is included with the product and the hazard button/coin batteries pose to children.
- 6. Hearing aids (and any related accessories) are exempt from secure battery requirements, but are subject to warning requirements.
- 7. Other exemptions from secure battery and warning requirements are provided for:
 - second-hand goods first supplied to a consumer before the Standards become mandatory
 - professional equipment, subject to certain criteria
 - audio visual and information communications technology equipment containing button/coin batteries that are soldered in place.

Button/coin batteries

- 1. Packaging is required to be child-resistant for coin batteries of lithium chemistry of all sizes, and button/coin batteries of a chemistry other than lithium with a diameter of 16 mm or above.
- 2. Compliance testing must be undertaken to demonstrate that child-resistant packaging requirements have been met.
- 3. Where the Standards require child-resistant packaging, and more than one button/coin battery is supplied, blister packaging must be designed to release only one battery at a time.

- 4. Any button/coin batteries that are supplied with a consumer good, where the battery is not pre-installed in a secure battery compartment, must be enclosed in child-resistant packaging.
- 5. Coin batteries of lithium chemistry with a diameter of 20 mm and above are required to be marked with an internationally recognised "Keep Out of Reach of Children" symbol.
- 6. Warnings and information are required on packaging of button/coin batteries to alert consumers to the hazard button/coin batteries pose to children and provide clear directions on what to do in the event a child is suspected to have swallowed or placed a battery inside any part of their body.
- 7. Exemptions apply to button/coin batteries supplied in bulk for professional use (subject to certain criteria). Button/coin batteries of zinc-air chemistry intended for hearing aids are exempt from childresistant packaging requirements, but are subject to warning requirements.

Transition period

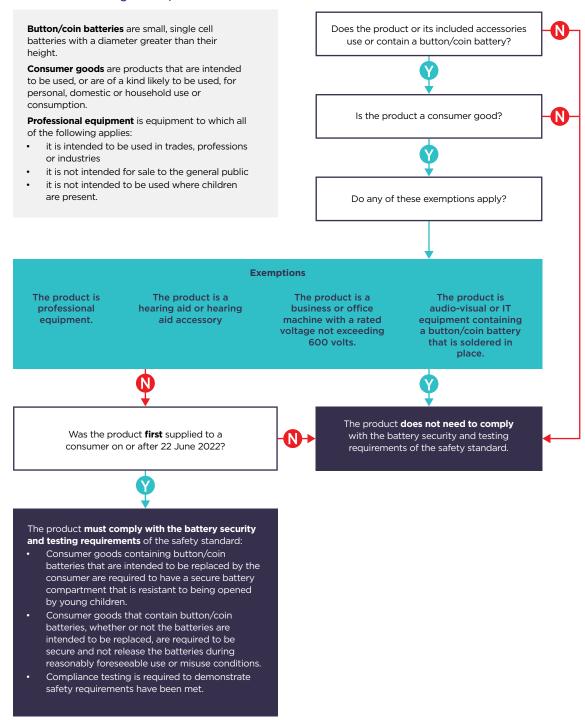
- 1. There is a transition period of 18 months before the Standards become mandatory. The transition period gives businesses the opportunity to sell through existing stock, make any manufacturing and design changes, and undertake any testing necessary to ensure compliance with the Standards. Suppliers are encouraged to comply with the new requirements as soon as possible.
- 2. As a supplier, you **should** continue to apply the requirements outlined in the <u>Industry Code for</u> Consumer Goods that Contain Button Batteries whilst you transition to the new requirements.
- 3. From 22 June 2022 suppliers **must** only supply products that meet the requirements of the mandatory standards.

Applying the standards - a visual guide

Do the battery security and compliance testing requirements apply to my product?

The flowchart below provides guidance on which products must comply with the battery security and testing requirements in the safety standard for products containing button/coin batteries.

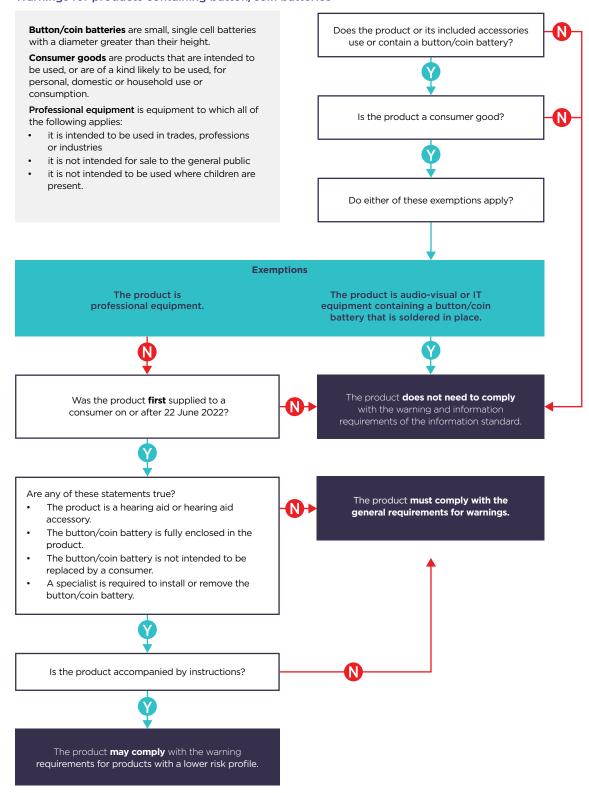
Products containing button/coin batteries



Do the warning and information requirements apply to products I supply?

The flowchart below provides guidance on which products must comply with the warning and information requirements in the information standard for products containing button/coin batteries.

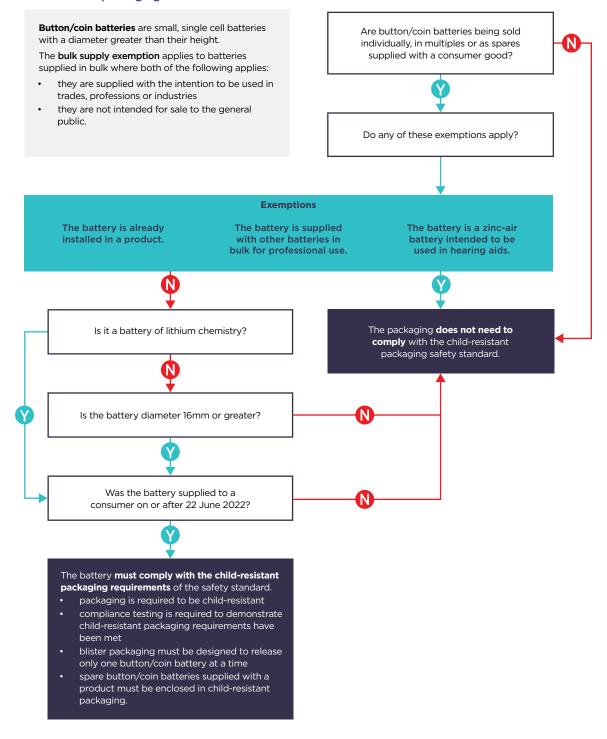
Warnings for products containing button/coin batteries



Do the child resistant packaging requirements apply to the batteries I supply?

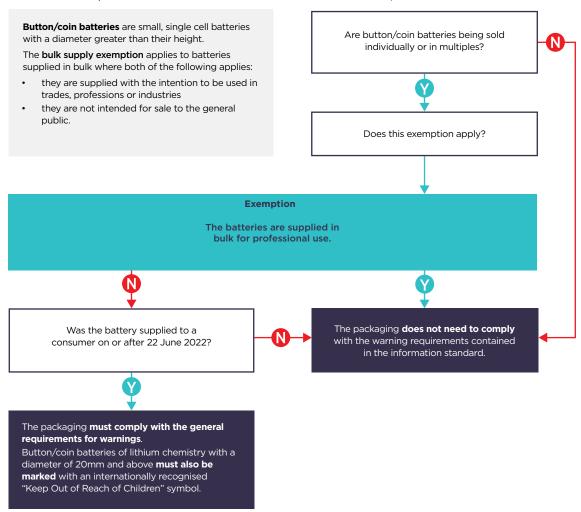
The flow chart below provides guidance on which batteries and battery packaging must comply with the design, construction and testing requirements in the safety standard for button/coin batteries.

Child-resistant packaging



Do the warning and information requirements apply to the batteries I supply?

The flowchart below provides guidance on which products must comply with the warning and information requirements in the information standard for button/coin batteries.



Meeting the mandatory requirements

Consumer goods that contain button/coin batteries

Applicable mandatory standards:

- Consumer Goods (Products Containing Button/Coin Batteries) Safety Standard 2020
- Consumer Goods (Products Containing Button/Coin Batteries) Information Standard 2020.

The standards apply to:

- products that use button/coin batteries (regardless of the chemistry or size of the button/coin battery)
- accessories of consumer goods, such as remote controls that contain button/coin batteries
- containers or other storage devices that are intended to store button/coin batteries (regardless of the chemistry or size of the button/coin battery intended to be stored, or whether the container is supplied with a battery at point of sale).

The mandatory safety and information standards for consumer goods containing button/coin batteries specify requirements for design and construction, performance, testing, safety markings and instructions. Unless subject to one of the standards' exemptions listed below, products that you supply must meet all of the requirements in order to comply.

Design and construction

The Consumer Goods (Products Containing Button/Coin Batteries) Safety Standard 2020 contains mandatory requirements for the construction of products to ensure that they are safe and do not pose a risk to children. The standard mandates the following 4 requirements:

- 1. Consumer goods containing button/coin batteries have a secure battery compartment and do not release the batteries during reasonably foreseeable use or misuse conditions, regardless of whether the batteries are intended to be replaceable.
- 2. Consumer goods containing button/coin batteries intended to be replaced by consumers have a secure battery compartment that is resistant to being opened by young children.
- 3. Consumer goods containing button/coin batteries that have the battery compartment secured by screws or similar fasteners must include captive fasteners to ensure that they remain with the battery compartment door, cover or equipment (unless they comply with one of the product specific standards listed in table 1).
- 4. Consumer goods with non-replaceable button/coin batteries that are accessible to the consumer must be tested to ensure that batteries are secure.

Compliance testing must demonstrate that products meet these safety requirements.

National and international standards include 2 different options for ensuring that button/coin batteries are secure and not easily accessible. These include a requirement that:

- battery compartments are secured with a screw or similar fastener and not accessible without the use of a tool, or
- button/coin batteries are not accessible without the use of a tool unless at least 2 independent movements have been applied simultaneously to the battery compartment.

The standard allows for flexibility in design and construction of battery compartments and access mechanisms. Provided they pass relevant compliance tests outlined below, all access mechanisms are permitted.

Mandatory compliance testing

To demonstrate compliance with the standard's design/construction requirements, suppliers can choose to have their product/s assessed against the set of tests referenced in either:

- one of the product-specific industry standards that is, industry standards that apply to a specific product category, or
- a non-product specific industry standard that is, an industry standard that applies to products that contain button/coin batteries.

These mandatory compliance tests are intended to ensure that consumer goods are durable, that battery compartments are secure and that they will remain secure for the life of the product. To help ensure safety, it is important to test products at various stages of development and distribution. For more information on product testing including when to test and ongoing testing please refer to the ACCC's Guide to testing: product safety.

There are some products, such as medical devices, which are not specifically covered by the standards listed below. Any one of the tests in the standards outlined in table 1 below can be applied to **any good** in order to demonstrate compliance with the requirements.

The internationally recognised standards in table 1 are identified in the *Consumer Goods (Products Containing Button/Coin Batteries) Safety Standard 2020* as providing acceptable button/coin battery security and compliance testing requirements that can be met to demonstrate compliance with the following 2 design and construction requirements:

- 1. Consumer goods containing button/coin batteries are secure and do not release the batteries during reasonably foreseeable use or misuse conditions, regardless of whether the batteries are intended to be replaceable.
- 2. Consumer goods containing button/coin batteries intended to be replaced by consumers have a secure battery compartment that is resistant to being opened by young children.

Suppliers can demonstrate that their product is compliant by applying the specified testing methods outlined in ONE of the standards listed in table 1 and ensuring that the acceptance criteria is met.

Table 1: Industry standards with acceptable button/coin battery security and compliance testing requirements

Product specific standard	Applicable clauses	Comment	
IEC 62368-1: 2018 Audio/video, information and communication technology equipment—Part 1: Safety requirements	Clauses 4.8.3, 4.8.4, 4.8.5 *	The tests outlined in each of these standards are near identical and are designed to	
AS/NZS 62368.1:2018 Audio/video, information and communication technology equipment—Part 1: Safety requirements	Clauses 4.8.3, 4.8.4, 4.8.5 *	test security and durability of products that contain button/coin batteries, including certain tests which are focused on testing battery compartments.	
AS/NZS 60065:2018 Audio, video and similar electronic apparatus—Safety requirements	Clauses 12.7.2, 12.7.3, 12.7.4		
IEC 62115:2017 Electric toys—Safety and ISO 8124- 1:2018 Safety of toys—Part 1: Safety aspects related to mechanical and physical properties	Clause 13.4.1, 13.4.2, 13.4.6	Tests include pre-conditioning tests (stress relief test and	
	(IEC 62115:2017)	battery replacement test), abuse tests (drop test, impact test, crush test) and compliance test (force test applying a rigid test finger).	
	Clause 5.24 (ISO 8124-1:2018)		
AS/NZS 62115:2018 Electric toys—Safety and AS/ NZS 8124.1:2019 Safety of toys—Part 1: Safety aspects related to mechanical and physical properties	Clause 13.4.1, 13.4.2, 13.4.6		
	(AS/NZS 62115:2018)		
	Clause 5.24 (AS/NZS		
	8124.1:2019)		
AS/NZS 60598.1:2017 Luminaries Part 1: General requirements and tests	Clause 4.101.1 and 4.101.2		
Non-product specific standard	Applicable clauses		
UL 4200A UL Standard for Safety for Products Incorporating Button or Coin Cell Batteries of Lithium Technologies	Section 5 and 6		

Note:

UL4200A is an industry standard that applies to products incorporating lithium button/coin batteries. For the purposes of the Australian standard, products that contain both lithium and non-lithium button/coin batteries shall be tested in line with the applicable clauses.

See section on accessing mandatory and industry standards for information on accessing standards.

Acceptance criteria:

- Acceptance criteria for consumer goods that contain button/coin batteries that are intended to be replaced: the button/coin batteries contained in the product are not released after normal use and foreseeable abuse tests (stress relief, battery replacement, drop, impact, crush and force tests).
- Acceptance criteria for consumer goods that contain button/coin batteries that are not intended
 to be replaced: Button/coin batteries should not be released when a representative sample of the
 products are tested in accordance with use and abuse tests (stress relief, battery replacement, drop,
 impact, crush and force tests).

Note: A representative sample is a random selection of sufficient quantity to provide assurance of consistency across each product batch.

Products requiring alternative tests

Some products may require a specific compliance test not listed in table 1. An example is designer watches where impact and crush tests may not be economical to apply and there are alternative tests to demonstrate that a button/coin battery is not released during reasonably foreseeable use and misuse conditions. In such cases, an alternative compliance test may be applied. If an alternative compliance test is applied, it must demonstrate that the batteries are secure, are not accessible to children and do not become free when the product is subjected to reasonably foreseeable use or misuse conditions.

Who can perform compliance testing?

A manufacturer or supplier may engage a third party to conduct compliance testing, or undertake compliance testing in-house. Compliance testing, whether carried out by third parties or performed in-house, should follow best practices contained in ISO/IEC 17025. If compliance testing is performed in-house, you should also consider the possible legal implications of conducting in-house testing. This may include, but is not limited to, the credibility of internal testing reports in the event a matter proceeds to court, or your ability to make use of certain defences (such as reasonable reliance on information supplied by another person).¹

Testing criteria for products that use a screw or similar fastener to secure the battery compartment

Design and construction requirement:

3. Consumer goods that contain button/coin batteries that are secured by screws or similar fasteners shall be captive to ensure that they remain with the battery compartment door, cover or equipment.

This requirement only applies to products that comply with the non-product specific industry standard. Products that meet the compliance requirements of one of the product specific standards listed in table 1 that do not include captive fastener requirements are not required to comply with this requirement.

The use of captive screws is considered best practice and will help to ensure that battery compartments remain secure after battery replacement and for the life of the product. This requirement is currently included in some product specific standards and suppliers are encouraged to comply with this requirement.

Suppliers can demonstrate their product meets this requirement by applying the testing methods specified in ONE of the standards listed in table 2 below and ensuring that the acceptance criteria is met.

Table 2: Industry standards with acceptable captive screw compliance testing requirements

Product specific standard	Applicable clauses	Comment	
IEC 62115:2017 – Electric toys - Safety	Clause 13.4.6	The tests outlined in each of these standards are near identical and are designed to	
IEC 62115:2017 Electric toys – Safety and ISO 8124- 1:2018 Safety of toys – Part 1: Safety aspects related to mechanical and physical properties	Clause 13.4.6	ensure the screw or fastener remains with the compartment door or cover before and after battery replacement. The test includes a force being applied to screw/fastener after the compartment has been opened/removed. The screw/fastener should not become separated from the door/cover.	
AS/NZS 60598.1:2017 Luminaries Part 1: General requirements and tests	Clause 4.101.2		

For more information on product compliance testing, see https://www.productsafety.gov.au/system/files/786_A%20 guide%20to%20testing_Product%20safety_Text_FA3.pdf.

Acceptance criteria:

 Acceptance criteria for consumer goods that contain button/coin batteries that are secured by screws or similar fasteners: Battery compartment fasteners should remain secure when a representative sample of the products are tested in accordance with captive fastener tests.

Note: A representative sample is a random selection of sufficient quantity to provide assurance of consistency across each product batch.

Testing criteria for all products where the battery is accessible and where the battery is not intended to be replaced

Design and construction requirement:

4. Consumer goods with non-replaceable button/coin batteries that are accessible to the consumer must be tested for secureness.

Where products contain a button or coin battery that is not intended to be replaced by the user, but is accessible (i.e. the product has an opening that allows a consumer to reach the battery), a secureness test must be performed in addition to the design and construction requirements listed in 1, 2 and 3 above.

A battery is accessible where the consumer good has an opening and the battery is not contained in a secure battery compartment or otherwise fully enclosed inside the consumer good. An example of when this test should be applied is for musical greeting cards which include a button/coin battery that is not intended to be replaced but that may be accessible to consumers through an opening.

Suppliers can demonstrate their product is compliant with secureness requirements by applying the test in the below standard and meeting the acceptance criteria.

Table 3: Industry standard with acceptable secureness test

Name of standard	Applicable clauses	Comment
UL4200A – Products Incorporating Button or Coin Cell Batteries of Lithium Technologies	Section 6.4 (Secureness test)	This test involves a force being applied to the battery with a test hook to ensure that battery does not become separated from the product.

Note:

UL4200A is an industry standard that applies to products incorporating lithium button/coin batteries. For the purposes of the Australian standard, products that contain both lithium and non-lithium button/coin batteries shall be assessed against the secureness test.

Acceptance criteria:

Button/coin batteries should not become separated from the product when a representative sample
of the products are tested in accordance with the secureness test.

Note: A representative sample is a random selection of sufficient quantity to provide assurance of consistency across each product batch.

Exemptions from design and construction requirements

The Consumer Goods (Products Containing Button/Coin Batteries) Safety Standard 2020 includes exemptions from design and construction and compliance testing requirements for the following products:

- Second-hand consumer goods—that is, consumer goods that were first supplied before the requirements of the standard become mandatory.
- Consumer goods supplied in a one-off transaction by a supplier who had acquired the goods as a consumer—for example when a consumer sells an unused product on an online platform, such as a private sale.
- Hearing aids and hearing instruments/accessories—that is, equipment that picks up sound and delivers processed sound to the ear canal through air-conduction. An example of a hearing aid accessory is a hearing aid battery pack for a cochlear implant.
- Audio-visual and information and communications technology equipment containing button/coin batteries that are soldered in place, such as personal computers, electronic musical instruments, smartphones, cash registers, calculators and copying machines.
- Professional equipment—that is, equipment to which all of the following applies:
 - The equipment is intended to be used in trades, professions or industries.
 - The equipment is not intended for sale to the general public.
 - The equipment is not intended to be used where children are present.

Note: Suppliers should be aware that the criteria for 'professional equipment' listed above does not necessarily align with the definition of 'professional equipment' or 'professional apparatus' in existing industry standards. Suppliers will only be eligible for the professional equipment exemption where each of the above criteria is satisfied.

Warnings and information requirements

The Consumer Goods (Products Containing Button/Coin Batteries) Information Standard 2020 sets out the requirements for warnings that must be provided on consumer goods that contain a button/coin battery. In addition to mandatory requirements for warnings, this information standard also includes best practice recommendations for additional safety information to include when supplying consumer goods that contain a button/coin battery.

Warnings are necessary when supplying consumer goods containing button/coin batteries to:

- alert consumers to the button/coin battery hazard, and
- provide relevant information so that appropriate action can be taken when it is suspected that a child has swallowed or inserted a button/coin battery.

Size, durability and colour of warnings

Warnings provided on products, packaging and instructions should be designed to comply with the design principles for warnings, including size, legibility and durability. Compliant warnings and safety symbols can be found in the following standard.

 ISO 3864-2:2004 - Graphical Symbols - Safety Colours and Safety Signs - Part 2: Design Principles for Product Safety Labels - Annex D, Sections D.5 and D.7.

An example of an internationally recognised safety alert symbol is provided in table 4. This example aligns with the safety colour recommended for warning symbols in the voluntary industry standard ISO 3864-2:2016 *Graphical symbols – Safety colours and safety signs – Part 2: Design principles for product safety labels.*

While not mandatory, the use of colour in safety signs is considered best practice as this helps to draw attention rapidly to objects and situations affecting safety and health and to gain swift understanding of a specific message.

Required warning content

The information standard does not specify exact wording that must be used, but rather gives a list of matters that must be included in warnings. Suppliers are able to determine the design and specific wording of their warnings. Table 4 lists the required warning types. The sections following table 4 explain which warnings are required where, based on product type.

Table 4: Warnings on consumer goods

Warning	Example
a. An alert word	WARNING

b. An internationally recognised safety alert symbol



- A statement to the effect that the battery is hazardous and is to be kept away from children (whether the battery is new or used)
- d. If the battery is a lithium button/coin battery—a statement to the effect that the battery can cause severe or fatal injuries in 2 hours or less if it is swallowed or placed inside any part of the body
- e. If the battery is a non-lithium button/coin battery—a statement to the effect that the battery can cause serious injuries if it is swallowed or placed inside any part of the body
- f. Advice to the effect that medical attention should be sought immediately if it is suspected the battery has been swallowed or placed inside any part of the body.

Note: A suitable example of an *internationally recognised safety alert symbol* includes a combination of symbol ISO 7010-W001 and symbol IEC 60417-636.7

Warnings on packaging

Packaged consumer goods containing button/coin batteries are required to be marked clearly with a warning. At a minimum, the front panel of the packaging must display symbol warnings. The warning symbol alone may also be used if there is text to advise the reason for the warning. For example:



Warning: Contains button or coin cell battery. Hazardous if swallowed - see instructions.

Where a consumer good is supplied with accompanying instructions, the additional required warning content (including a) and from c) to f) in table 4) can be provided in the instructions.

Where consumer goods are supplied without instructions, the additional required warning content (including a) and from c) to f) in table 4) must be provided on the product packaging.

All warnings must be clearly visible, prominent and legible.

Unpackaged goods

Where consumer goods are unpackaged, all warnings and information listed in table 4 must be attached to the product, which may be by way of a sticker or a swing tag.

Lower risk products

Some categories of consumer goods that contain button/coin batteries pose a lower risk in terms of battery accessibility and more flexible warning requirements apply. Consumer goods that are deemed to pose a lower risk include:

- hearing aids and associated hearing instruments/accessories
- where the button/coin battery is fully enclosed in the product and is not accessible to the consumer
- where the button/coin battery is not intended to be removed or replaced by a consumer
- where a specialist is required to install or remove the button/coin battery.

For lower risk products, the warning content in table 4 can be provided in the accompanying instructions.

If a consumer good falls within a category that is deemed to pose a lower risk and is not accompanied by instructions, the warning must be attached to, or included with, the consumer good.

Exemptions from warning requirements

The Consumer Goods (Products Containing Button/Coin Batteries) Information Standard 2020 includes exemptions from warning requirements for the following products:

- Second-hand consumer goods—that is, consumer goods that were first supplied before the requirements of the instrument become mandatory.
- Audio-visual and information and communications technology equipment containing button/coin batteries that are soldered in place such as personal computers, electronic musical instruments, smartphones, cash registers, calculators and copying machines.
- Professional equipment—that is, equipment to which all of the following applies:
 - The equipment is intended to be used in trades, professions or industries.
 - The equipment is not intended for sale to the general public.
 - The equipment is not intended to be used where children are present.

Note: Suppliers should be aware that the criteria for 'professional equipment' listed above does not necessarily align with the definition of 'professional equipment' or 'professional apparatus' in existing industry standards. Suppliers will only be eligible for the professional equipment exemption where each of the above criteria is satisfied.

Warnings and information recommendations

The Consumer Goods (Products Containing Button/Coin Batteries) Information Standard 2020 also contains the following best practice recommendations. While not mandatory, the ACCC encourages suppliers to comply with these best practice recommendations in the interests of making consumers as aware as possible of the button/coin battery hazard.

Warnings on products

It is recommended that consumer goods that contain a button/coin battery also include a warning on the product itself located on or close to where the battery is accessible. A warning attached to the product is considered best practice as it provides ongoing awareness of the button/coin battery hazard over the lifetime of the product. This is recommended in addition to warnings on packaging and instructions as these are often disposed of once the product has been purchased.

It is recommended that the warning includes the matters covered in a) to f) of table 4 above.

Warnings on packaging

It is recommended that packaged consumer goods containing button/coin batteries be marked clearly with a warning that includes both text and symbols. In addition to the required safety alert symbol, it is recommended that where space permits, product packaging should also include the information listed in table 4 above including a) and from c) through to f).

Warnings for products sold online

It is recommended that consumer goods containing button/coin batteries supplied via an electronic platform include a warning in the product description that is clearly visible, prominent and legible. The warning should alert consumers to the fact that the product they are purchasing contains a button/coin battery and that these are hazardous. It is recommended that the warnings and information provided online should include the information listed in a) to f) of table 4 above.

Providing warning information online gives consumers access to the same information prior to purchase that they would have if purchasing from a physical store. This allows consumers to make informed purchasing decisions.

Example of an online warning provided in the product description (Catch.com.au)

WARNING - KEEP BUTTON BATTERIES OUT OF REACH OF CHILDREN

- Swallowing may lead to serious or fatal injury in as little as 2 hours, due to chemical burns and potential perforation of the oesophagus.
- · Never allow children to replace button batteries of any device.
- If you suspect your child has swallowed or inserted a button battery immediately call the 24-hour Poisons Information Centre on 13 11 26 (Australia) or 0800 764 766 (New Zealand) for fast, expert advice.
- Regularly examine devices and make sure the battery compartment is correctly secured, e.g. that the screw or other mechanical fastener is tightened. Do not use if compartment is not secure.
- Dispose of used button batteries immediately and safely out of the reach of children. A battery can still be dangerous even when it can no longer operate the device.
- Tell others about the risk associated with button batteries and how to keep their children safe

See Product Safety Australia website for further information on selling products online.

Contact information for the Australian Poisons Information Centre

It is recommended that consumer goods containing button/coin batteries be supplied with a warning containing the contact information for the Australian Poisons Information Centre.

For example the warning should include advice such as:

'If it is suspected a button/coin battery has been swallowed or otherwise placed inside any part of the body, a person should contact the Australian Poisons Information Centre on 13 11 26 immediately for 24/7 fast, expert advice.'

This is considered best practice advice as it provides consumers with guidance on what action to take if it is suspected that a button/coin battery has been swallowed or inserted. The Australian Poison Information Centre can provide expert and timely advice to callers in emergency situations.

Advice about the safe disposal of button/coin batteries

It is recommended that consumer goods containing a button/coin battery be supplied with advice about how to safely dispose of the battery. Button/coin batteries can still pose a threat when old or spent so it is important to safely dispose of them immediately. Current recycling advice is to put sticky tape around both sides of the battery, secure them out of reach of children and take them to your nearest recycling facility.

Warnings on safe disposal may cover the following advice:

- Dispose of used button/coin batteries immediately.
- Place sticky tape around both sides of the battery and dispose of it immediately in an outside bin, out of reach of children, or recycle safely.

Button/coin batteries

Applicable mandatory standard:

Consumer Goods (Button/Coin Batteries) Safety Standard 2020.

The safety standard applies to:

- button/coin batteries that are lithium, or non-lithium with a diameter of 16mm or greater, when:
 - supplied as replacements (i.e. not with a consumer good), or
 - provided with a consumer good unless the battery is preinstalled in a secure compartment.

Applicable mandatory standard:

Consumer Goods (Button/Coin Batteries) Information Standard 2020.

The information standard applies to:

all button/coin batteries regardless of size or chemistry.

The mandatory safety and information standards for button/coin batteries specify requirements for child-resistant packaging, testing, and safety markings and instructions. Unless subject to one of the standards' exemptions listed below, button/coin batteries that you supply must meet all of the requirements in order to comply.

Child-resistant packaging

The Consumer Goods (Button/Coin Batteries) Safety Standard 2020 contains mandatory child-resistant packaging requirements to ensure that they are safe and do not pose a risk to children. Packaging refers to all types of packaging or containers used when supplying applicable button/coin batteries. The standard requires that:

- 1. button/coin battery packaging/containers shall be designed to be resistant to being opened by young children
- 2. button/coin battery blister packaging shall be designed to release only one battery at a time.

Compliance testing must demonstrate that the product meets the child-resistant packaging requirements.

This safety standard allows flexibility in design and construction of battery packaging. Any design is acceptable as long as it meets the safety requirements regarding child accessibility and passes relevant compliance tests outlined below.

For example, the requirement might be met by a product using one of the following battery compartment designs:

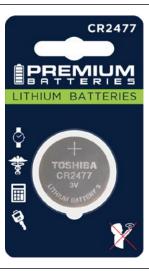
- Button/coin batteries supplied in blister packaging (see figure 3).
- Button/coin batteries supplied in a non-blister packaging/container-like devices.

Figure 1: Examples of blister-type packaging









Source: Duracell, Energizer, Panasonic and https://baby.lithiumbattery.info.

Compliance testing

Compliance requirement:

1. Button/coin battery packaging/containers shall be designed to be resistant to being opened by young children.

Suppliers can demonstrate their product meets the requirement by applying the testing methods specified in ONE of the standards listed in table 5 below and ensuring that the acceptance criteria is met.

Internationally recognised standards in table 5 are identified in the *Consumer Goods (Button/Coin Batteries) Safety Standard 2020* as providing acceptable child resistant packaging and testing requirements that can be met to demonstrate compliance.

Table 5: Industry standards with acceptable child resistant packaging compliance testing requirements

Standards for reclosable and non-reclosable packaging	Applicable clauses	Comment
AS 5808–2009 Child-resistant packaging – Requirements and testing procedures for non-reclosable packages for non-pharmaceutical products	Clause 3.2.1	Tests in these standards are similar and include product/packaging being tested by a child test panel.
EN 862:2016 Packaging – Child resistant packing – Requirements and testing procedures for nonreclosable packages for non-pharmaceutical products	Clause 3.2.1	
ISO 28862:2018 Packaging – Child-resistant packaging – Requirements and testing procedures for non-reclosable packages for non-pharmaceutical products	Clause 4.2.1	_
AS 1928-2007 Child-resistant packaging - Requirements and testing procedures for reclosable packages	Clause 4.3.1	_
ISO 8317-2015 Child-resistant packaging - Requirements and testing procedures for reclosable packages	Clause 3.3.1	
USA: 16 CFR §1700 Poison Prevention Packaging Standard	paragraphs 1700.15(a) and (b) (1) and section 1700.20.	

Acceptance criteria:

An individual child test shall be considered a failure in relation to a single-use package if within 10 minutes, or 5 minutes when no demonstration has been given, the child gains access to one or more units from the packaging provided. When tested and evaluated, the packaging shall be deemed child-resistant if:

- at least 85% of the children in the test panel are unable to access one or more units within 5 minutes without a demonstration, and
- at least 80% of the children in the test panel are unable to access one or more units within 10 minutes (5 minutes without a demonstration and 5 minutes after a demonstration, if appropriate).

Testing criteria for products in blister packaging

Compliance requirement:

2. button/coin battery blister packaging shall be designed to release only one battery at a time.

Suppliers can demonstrate their products meet this requirement by applying the testing methods in the following standard and ensuring that the acceptance criteria is met.

Table 6: Industry standard with acceptable blister packaging compliance testing requirements

Standards for blister packaging	Applicable clauses	Comment
IEC 60086-4:2019 Primary Batteries Part 4: Safety of lithium batteries	Annex E	Tests in this standard include bending, torsion, tearing and pushing tests to ensure batteries are not easily released from blister packaging.

Note:

The policy intent of the Consumer Goods (Button/Coin Batteries) Safety Standard is to allow blister packaging to comply with either the tests in the standards outlined in table 5 or comply with the tests at annex E of IEC 60086-4:2019 Primary Batteries Part 4: Safety of lithium batteries. Some stakeholders have suggested there is an issue with how this is drafted and the ACCC is evaluating what steps are necessary to ensure the standard strictly reflects the policy intent.

Acceptance criteria:

Each of the test samples shall meet all of the following criteria:

- 1. Each battery shall be kept in its packaging until the end of the test series.
- 2. In order to prevent a child from pulling the battery out from its compartment, the packaging shall not open sufficiently wide or long to allow a child to extract the battery.
- 3. Each battery containment in a multi-battery package shall be in compliance with point 1, even when another battery containment is removed from the package.

Exemptions from child resistant packaging requirements

The Consumer Goods (Button/Coin Batteries) Safety Standard 2020 includes exemptions from the child resistant packaging requirements and compliance testing requirements for:

- button/coin batteries of zinc-air chemistry designed for, or intended to be used in, hearing aids
- button/coin batteries supplied in bulk if:
 - the button/coin batteries are supplied with the intention to be used in trades, professions or industries, and
 - the button/coin batteries are not intended for sale to the general public.

Note:

An example of when this exemption might be applied is for professions such as jewellers, watchmakers or services persons that may receive button/coin batteries in bulk in order to install and replace button/coin batteries on behalf of consumers

Warnings and information requirements

The Consumer Goods (Button/Coin Batteries) Information Standard 2020 sets out the requirements for warnings that must be provided on batteries and battery packaging. In addition to mandatory requirements for warnings, the standard also outlines best practice recommendations for additional safety information that should be included.

Warnings are necessary when supplying button/coin batteries to:

- alert consumers to the button/coin battery hazard, and
- provide relevant information so that appropriate action can be taken when it is suspected that a child
 has swallowed or inserted a button/coin battery.

All button/coin batteries, other than those supplied in bulk for professional use, are required to have appropriate warnings and information on the front panel of button/coin battery packaging or containers.

Size, legibility and durability of warnings

Warnings provided on batteries and battery packaging should be designed to comply with the design principles for warnings, including size, legibility and durability. Compliant warnings and safety symbols can be found in the following standard.

• ISO 3864-2:2004 - Graphical Symbols - Safety Colours and Safety Signs - Part 2: Design Principles for Product Safety Labels - Annex D, Sections D.5 and D.7.

An example of an internationally recognised safety alert symbol is provided in table 7. This example aligns with the safety colour recommended for warning symbols in the voluntary industry standard ISO 3864-2:2016 *Graphical symbols—Safety colours and safety signs—Part 2: Design principles for product safety labels*.

While not mandatory, the use of colour in safety signs is considered best practice as this helps to draw attention rapidly to objects and situations affecting safety and health and to gain swift understanding of a specific message.

Required warning content

The information standard does not specify exact wording that must be used, but rather gives a list of matters that must be included in warnings. Suppliers are able to determine the design and specific wording of their warnings. Table 7 lists the required warning types. The sections following table 7 explain which warnings are required where, based on battery and product type.

Table 7: Warnings on batteries and battery packaging

Warning	Example
a. An alert word	WARNING
 A combination of an internationally recognised safety alert symbol and an internationally recognised "Keep out of reach of children" safety symbol 	

- A statement informing the consumer that button/coin batteries are hazardous and should be kept away from children (whether the battery is new or used)
- d. If the battery is a lithium button/coin battery, a statement informing the consumer that the battery can cause severe or fatal injuries in 2 hours or less if swallowed or placed inside any part of the body
- e. If the battery is a non-lithium button/coin battery, a statement informing the consumer that the battery can cause serious injuries if swallowed or placed inside any part of the body
- f. Advice to seek medical attention immediately if the consumer suspects that a button/coin battery might have been swallowed or placed inside any part of the body

A suitable example of an *internationally recognised safety alert symbol* includes a combination of symbol ISO 7010-W001 and symbol IEC 60417-6367

Note:

Although suppliers are able to determine the specific wording of warnings, the *Consumer Goods* (*Button/Coin Batteries*) *Information Standard 2020* makes reference to a number of industry standards which include examples of warning text and safety symbols that may be used exclusively or in combination.

For example IEC 60086-4:2019 - Primary batteries - Part 4: Safety of lithium batteries - Section 7.2(a) includes the following warning that would be considered appropriate for both lithium and non-lithium button/coin batteries.



WARNING

KEEP OUT OF REACH OF CHILDREN

Swallowing can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately.



IEC

Warnings on battery packaging

Button/coin batteries are required to include relevant warnings on the packaging or container they are supplied in. If there is enough space, all the required warnings should appear on the **front panel** of the packaging. However if space is limited, at a minimum an alert word, symbol and statement outlining the button/coin battery hazard should appear on the **front panel** of the packaging, with the rest of the warnings provided elsewhere on the packaging.

Warnings on lithium button/coin batteries with diameter of 20mm or more

Lithium button/coin batteries with a diameter of 20mm or more must be marked with an internationally recognised "keep out of reach of children" symbol that is clearly visible, prominent and indelible. The symbol should be at least 6mm in diameter.

Example: Duracell lithium battery with symbol



Warnings and information recommendations

As well as the requirements set out above, the *Consumer Goods (Button/Coin Batteries) Information Standard 2020* contains the following best practice recommendations. While these warnings and information are not mandatory, the ACCC encourages suppliers to comply with them in the interests of making consumers as aware as possible of the button/coin battery hazard.

Warnings on button/coin batteries

It is recommended that, where size permits, all button/coin batteries, including lithium batteries smaller than 20mm and all non-lithium button/coin batteries, should be marked with an internationally recognised "keep out of reach of children" symbol. The symbol should have a diameter of at least 6mm in order to be clearly visible to consumers. A warning provided on the battery is considered best practice as it provides ongoing awareness of the button/coin battery hazard over the lifetime of the product and importantly raises awareness of the risk at the critical time when a button/coin battery is being removed or replaced. As button/coin batteries come in a range of sizes, it will not always be practical to include the warning on smaller batteries. Where markings are practical, the symbol should have a diameter of at least 6mm to ensure that it is clearly visible.

The "keep out of reach of children" symbol reminds consumers of the risk posed by these batteries after the packaging has been discarded and at the time of battery replacement.



This recommendation does not apply to lithium button/coin batteries with a diameter of 20mm or more as these batteries must be marked with the above symbol.

Warnings for products sold online

It is recommended that button/coin batteries supplied via an electronic platform include a warning in the batteries' description that is clearly visible, prominent and legible. The warning should alert consumers to the fact that button/coin batteries are hazardous. It is recommended that the warnings and information provided online should include all of the matters covered in table 7.

Providing warning information online gives consumers access to the same information prior to purchase that they would have if purchasing from a physical store. This allows consumers to make informed purchasing decisions.

Contact information for the Australian Poisons Information Centre

It is recommended that button/coin battery packaging be supplied with a warning containing the contact information for the Australian Poisons Information Centre.

For example the warning should include advice such as:

'If it is suspected a button/coin battery has been swallowed or otherwise placed inside any part of the body, a person should contact the Australian Poisons Information Centre on 13 11 26 immediately for 24/7 fast, expert advice.'

Advice about the safe disposal of button/coin batteries

It is recommended that button/coin battery packaging be supplied with advice about how to safely dispose of the batteries. Button/coin batteries can still pose a threat when old or spent so it is important to safely dispose of them immediately. Current recycling advice is to put sticky tape around both sides of the battery, secure them out of reach of children and take them to your nearest recycling facility.

Warnings on safe disposal may cover the following:

- Dispose of used button/coin batteries immediately.
- Tape both sides of used button/coin batteries and dispose of them immediately in an outside bin, out of reach of children or recycle safely.

Supplier responsibilities

Under the ACL, supply includes being in the business of sale, exchange, lease, or hire or hire-purchase of goods, or the provision, granting or conferring of services. This definition includes retailers and may extend to goods held for the purposes of resupply.

A mandatory standard on a particular product applies to anyone in the business of supplying that product, including manufacturers, importers, distributors and retailers. As a supplier, you are legally responsible for ensuring that button/coin batteries and consumer goods containing button/coin batteries you supply meet the mandatory standard requirements, which are enforceable by law. Failure to comply with mandatory standards can result in legal action, penalties and/or recalls.

All suppliers are equally responsible for ensuring that products they supply meet the mandatory standard.

To do this, we strongly advise you to take the following steps:

- Read the requirements specified in the Standards.
- Have systems in place to visually check these products to ensure they comply with the requirements
 of the Standards.
- Where necessary, use reports from reliable, independent testing laboratories to verify compliance.
- Register to receive automatic email updates from the Product Safety Australia website (<u>www.</u> productsafety.gov.au) to help ensure you are aware of the latest product safety information.

Proof of compliance

Suppliers must be able to prove that any consumer goods containing button/coin batteries are compliant with the Standards. While no certification of compliance is required at the point of supply, a supplier must be able to produce evidence of compliance certification if requested to do so by a regulator such as the ACCC or a state/territory office of fair trading.

Please refer to the sections on compliance testing for further detail (pages 10-13).

Product sourcing, testing and other compliance measures

If you supply consumer products in Australia at any stage in the supply chain, you are legally responsible for product safety. There are a number of measures you can take to ensure products you purchase for supply are safe, compliant and of acceptable quality including:

- sourcing safe products
- testing for safety and
- implementing robust quality assurance processes.

For more information please refer to the ACCC's guidance on <u>responsible sourcing of products</u> and ACCC's Guide to testing: product safety.

Information for retailers

If you are a retailer, you are responsible for ensuring that the products you supply meet the requirements of mandatory safety and information standards. To ensure that the products you sell comply with the Standards, you should always:

- stipulate that any button/coin batteries or consumer goods containing button/coin batteries you order must meet the Standards
- undertake visual checks of delivered stock where possible to check compliance with the requirements of the Standards
- obtain and keep reliable written verification from independent sources that products have been tested to, and meet, the mandatory requirements.

Information for linguistically-diverse consumers

To assist consumers with a first language other than English, warnings and information should be provided in the form of text **and** a safety symbol that is clearly visible, prominent and legible.

Non-compliance

Supplying consumer goods which fail to comply with the Standards is likely to contravene the ACL and expose a party to potential enforcement action by the ACCC.

For corporations, the maximum financial penalty for a breach of the ACL will be the greater of:

- \$10,000,000
- 3 times the value of the benefit received
- 10% of annual turnover in the preceding 12 months where the benefit cannot be calculated.

For individuals, the maximum financial penalty for a breach of the ACL will be \$500,000.

For more information please see ACCC's guidance on fines and penalties.

Product liability

A manufacturer may be liable under the product liability provisions in the ACL if they supply a product with a safety defect. A product has a safety defect if it does not meet the level of safety the public is generally entitled to expect. Visit the Product Safety Australia website for more information on product liability.

Accessing mandatory and industry standards

The 4 mandatory safety and information standards are available online via the following links:

Consumer Goods (Products Containing Button/Coin Batteries) Safety Standard 2020

Consumer Goods (Products Containing Button/Coin Batteries) Information Standard 2020

Consumer Goods (Button/Coin Batteries) Safety Standard 2020

Consumer Goods (Button/Coin Batteries) Information Standard 2020

Applicable industry standards referenced in the Standards are available for purchase online from their respective standards-making organisations:

- SAI Global's website (https://www.saiglobal.com)
- International Organization for Standardization's website (https://www.iso.org)
- Standards Australia (https://www.techstreet.com/sa).

The ACCC can make copies of industry standards available for viewing at one of its offices, subject to licensing conditions.

Mandatory safety standard for toys

The mandatory standard for toys for children up to and including 36 months of age currently prescribes requirements for the design and construction of toys for children up to and including 36 months.

This mandatory standard includes specific requirements for secure battery compartments on toys that contain button/coin batteries.

Existing regulations

Mandatory safety and information standards for consumer goods that contain button/coin batteries would have broad application to a wide range of products, including some medical devices and electrical appliances that are subject to regulatory control by specialist regulators, such as state-based electrical safety regulators and the Therapeutic Goods Administration (TGA).

Specific guidance for medical devices on meeting the new standards' requirements as well as the general requirements under the TGA's regulatory framework is available from the TGA website at www.tga.gov.au

Although some state-based electrical equipment safety regulations require compliance with applicable industry standards, regulations vary significantly between states and territories in their scope and requirements for consumer goods that contain button/coin batteries. This results in regulatory gaps for products that are commonly distributed throughout Australia which these standards serve to close. Suppliers are responsible for ensuring they meet any relevant electrical safety regulations in addition to the requirements of these standards.

Further information

More information about the <u>mandatory safety and information standards</u> is available from the Product Safety Australia website.

Email updates

Subscribe to updates on the Product Safety Australia website to receive automatic notifications when new information is available on button/coin batteries and other product safety issues. Email subscription is available at: www.productsafety.gov.au/newsletter/subscribe.

Would you like to keep up with the latest ACCC news and events? The ACCC has a number of free newsletters that you can sign up to. Subscribe online by visiting www.accc.gov.au/media/subscriptions.

