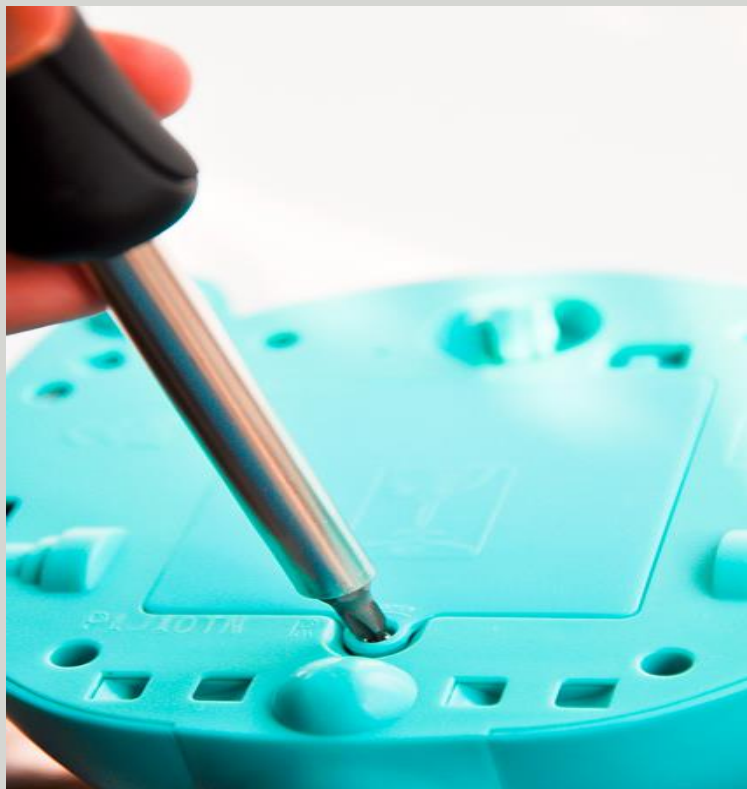




Button batteries in toys for children up to and including 36 months

Further consultation paper

November 2019



Disclaimer

The Australian Competition & Consumer Commission (ACCC) has developed this consultation paper to seek the views of stakeholders about button batteries in toys for children up to and including 36 months.

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1. Introduction

The Australian Competition and Consumer Commission (**ACCC**) is reviewing the mandatory safety standards for children's toys, including the [Consumer Protection Notice No. 14 of 2003 - Consumer Product Safety Standard: Toys for children up to and including 36 months of age](#) (the **mandatory standard**).

In February 2017 the ACCC consulted on the five mandatory safety standards for children's toys. We are now seeking further views specifically on toys for children up to and including 36 months of age which contain button batteries, before finalising any recommendation on revising the mandatory standard.

We invite feedback from business, consumers, associations, safety experts, government and interested members of the public. You do not need to answer the specific questions to make a valid submission.

This process may be the only opportunity for you to provide input into this consultation. We encourage you to make a submission to this consultation in relation to toys which contain button batteries separately from any submission you may have made to the general consultation on button batteries.

2. Background

Button batteries

Button batteries are flat, round, single cell batteries with diameters up to 32 mm and heights ranging from 1-11 mm. These batteries are generally referred to as button or coin batteries. Their small size, while suited to many uses, makes it easy for children to ingest them. Button batteries are used in a broad range of consumer and household products including toys, TV remote controls, cameras, watches, calculators, greeting cards, scales, torches, digital thermometers, novelty items and LED lights.

For the purposes of this paper, button batteries include all flat, disc-shaped cells or batteries regardless of their size or chemistry. 'Coin', 'disc' and 'button' cells or batteries are taken to be the same article. Button batteries generally operate using four chemistries: alkaline, lithium, silver oxide and zinc-air.

It is the combination of battery diameter size, battery voltage (including propensity to retain residual voltage), and mode of exposure (ingestion vs insertion into the body) that is critical for safety. Button batteries of all sizes, voltages and chemistries can cause caustic burns in contact with human tissue. However, it is the combination of a larger battery diameter, higher (and residual) voltage and exposure via swallowing that results in the most catastrophic injuries and death. This is because the larger batteries may lodge in a child's oesophagus, will have residual electrical charge and if burns ensue, they are in proximity to major blood supply.

While lithium and alkaline chemistry battery types are known to have caused more major injuries and fatalities, all button batteries present a risk when ingested or inserted. Button batteries can cause very serious injury and even death if ingested, particularly in children under the age of six years. Serious injury can occur in as little as two hours. There is a growing record of these injuries and deaths all over the world, including Australia, where two children, Summer Alice Steer and Isabella Estelle Rees, have died from button battery injuries.

Asphyxia in children

The key hazard currently addressed in the mandatory standard for toys for children up to and including 36 months of age relates to the potential ingestion of small parts generated by the toy. Asphyxia is defined as lack of oxygen in the blood due to interference with respiration. Specifically, choking is the interruption of respiration by an internal obstruction of the airway, usually a food item or a small object. Aspiration occurs when this object is inhaled into the respiratory system¹.

Young children are particularly at risk from these events because they have small and undeveloped airways. For infants the larynx is not only the narrowest part of the upper airway but is relatively smaller than in older children meaning that infants are particularly vulnerable to foreign objects becoming lodged leading to asphyxiation².

Additionally, the swallowing mechanism of infants and young children is still underdeveloped, and children lack the experience to prevent or abort a potential choking episode. As part of their development young children also explore the world through placing objects in their mouth with this mouthing behaviour most prevalent in children under three years of age³.

Previous toy consultation

In 2017 the ACCC released a consultation paper discussing options for the five mandatory standards for children's toys. This consultation included discussion about warnings for toys for children up to and including 36 months containing button batteries and the following question was asked:

Should we mandate a warning on toys containing button or coin cell batteries to draw attention to the hazards to young children?

At the time of consultation the paper identified that the United States regulations require toys that are powered by a button or coin battery to include a warning label on the product packaging or on a leaflet accompanying the packaging. The consultation paper also highlighted that although at the time of consultation the International Electrotechnical Commission (IEC) standard did not include requirements for warnings the IEC technical committee was actively considering this matter and a future standard was likely to include a similar requirement.

A total of 16 stakeholder submissions were received during the 2017 consultation process. Thirteen stakeholders supported the proposal to mandate a warning label due to the potential for and severity of injury and the number of incidents, which are more common than some other products for which warning labels are required.

One stakeholder supported a warning label but thought this should be extended to toys for children older than 36 months and another thought the warning should be on the toy as well as the packaging.

One stakeholder stated that warning labels are unlikely to be helpful as parents throw away the packaging, and that there are numerous other items which contain batteries that are also attractive to small children. This stakeholder also stated education would be a more effective tool.

¹ Cyr, C Preventing choking and suffocation in young children. Paediatrics & Child Health, Volume 17, Issue 2, February 2012,

² Emad M. Abdullat, Hasan A. Ader-Rahman, Rayyan Al Ali and Arwa A. Hudaib Choking among Infants and Young Children. Jordan Journal of Biological Sciences, Volume 8, Number 3, September 2015

³ Cyr, C op. cit.

Further consultation

A new IEC standard was made in 2018 and now includes requirements for warnings for button batteries. These requirements have also been adopted in an updated voluntary Australian standard. The ACCC is now consulting on the option of including a requirement in a new mandatory standard for children's toys containing button batteries to be accompanied by a warning label on the product packaging and with the user instructions. The ACCC is seeking views on permitting compliance with this requirement through reference to applicable voluntary Australian standards and trusted overseas standards made by an expert technical organisation. These options are discussed below in Parts 6 and 7 of this paper.

3. The hazard

Button batteries are hazardous because of their size, shape, design and electrical charge. When ingested or inserted, these batteries can get stuck or lodged in the body. When lodged in the body and in contact with bodily fluid, the energy contained within the battery can generate a chemical reaction called electrolysis. An electrical potential of as little as 1.229 volts is sufficient to cause the reaction.⁴ At the negative terminal of the battery, hydroxide ions and hydrogen gas will be produced. The hydroxide ions act like caustic soda, chemically burning tissues and causing liquefactive necrosis.⁵

The terminals of a button battery collectively cover almost the entire battery surface area and are often separated by less than a millimetre. This greatly increases the chances of bodily fluids completing a circuit between the terminals and releasing the energy in the battery to create the corrosive hydroxide ions. Other types of batteries that can be ingested (like AAA batteries) have comparatively smaller terminals separated by a greater distance, which decreases the chances of a circuit being completed between the terminals. Following ingestion, the caustic burn can go through the oesophageal wall in as little as two hours, causing severe and life threatening injuries, which may cause death. Death is typically by excessive blood loss and cardiac arrest.⁶

Children are at the greatest risk of injury due to their narrower oesophagus and tendency to place small objects into their mouths, ears and noses. Button batteries with diameters in the range of 16-23 mm can be ingested by a small child and are large enough to get stuck in their oesophagus. Many button battery ingestions go unwitnessed by parents and carers, and children are generally non-verbal or do not say that they ingested a battery. Symptoms of a button battery ingestion may include:

- gagging or choking
- drooling
- chest pain (this may present as grunting)
- coughing or noisy breathing
- unexplained vomiting or food refusal
- bleeding from the gut: black or red vomits or bowel motions

⁴ M Chaplin 2019, London South Bank University, London, <http://www1.lsbu.ac.uk/water/electrolysis.html>, viewed 1 August 2019

⁵ T Litovitz 2019, NCPCC, Washington DC, <https://www.poison.org/battery/mechanism-of-injury>, viewed 1 August 2019

⁶ NCPCC 2019, Washington DC, <https://poison.org/battery/fatalcases>, viewed 1 August 2019

- nose bleeds—sometimes this can be blood vomited from the nose
- unexplained fever.

However, these symptoms are similar to many other conditions and may not appear for some time, so it may not be suspected that the child has ingested a battery and there can be delays in diagnosis and removal of the battery. Since serious injury can occur in as little as two hours, a delayed presentation or diagnosis can result in serious injury or death.

4. Deaths and injuries

Information on injuries or deaths specifically relating to batteries contained in children’s toys is difficult to obtain as available data generally relates to incidents where button batteries from any product have been involved.

In Australia, two children, Summer Steer and Isabella Rees, have died from injuries caused by ingesting a button battery. State and territory Coroners have jurisdiction to investigate sudden and unexpected deaths, such as deaths from button battery ingestions. Coronial inquests have been conducted into both deaths.

There is a growing record of these injuries and deaths all over the world, including Australia. Globally, at least 64 children have died and thousands have been injured from ingesting button batteries.

There is no national database for consumer product-related injuries or attendances at Emergency Departments (EDs) in Australia. Consequently, there is no single point of reference for nationwide data on button battery exposures (ingestions or insertions) in Australia.

Since 1999, hundreds of Australian children have presented at hospital EDs after ingesting or inserting button batteries, with some of them sustaining serious injuries.

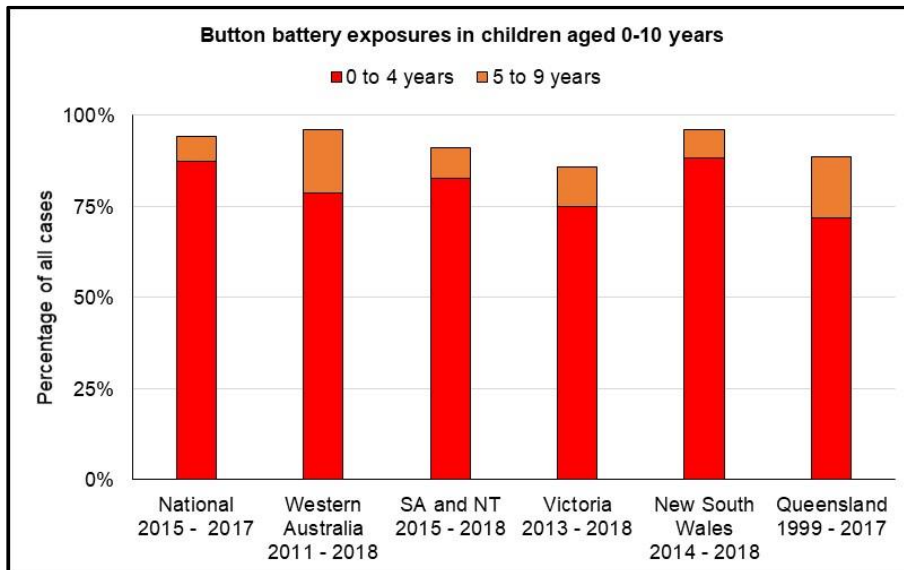
Poison Information Centre (PIC) data (see **Table 1**) indicates that button battery exposures occur all over Australia. The greatest numbers of exposures were in New South Wales (284 cases between 2015 and 2018) and Victoria (229 cases between 2015 and 2018). Young children under five years of age are most prone to button battery exposures.

Table 1: Reported button battery exposures across Australia from 2015 to 2018

State	No. of paediatric cases	Paediatric cases/100 000 people/year
New South Wales	284	4.88
Victoria	229	4.96
Queensland	180	4.70
Western Australia	87	4.42
South Australia	85	6.92
Australian Capital Territory	18	5.83
Tasmania	16	4.26
Northern Territory	6	2.90

Data from all of the organisations in Table 1 indicate that young children under five years of age are most prone to button battery exposures. As Figure 1 below shows, this pattern is consistent across all time periods measured and all of Australia.

Figure 1: Reported button battery exposures in children aged 0-10 years across Australia from 1999 to 2018



Long term data from Victoria (collected by VISU) and Queensland (collected by QISU) indicates that the number of button battery exposures in children under the age of five has been increasing (Figures 2 and 3).

Figure 2: Reported button battery exposures per year from 1999 to 2018 in Victorian children under five years of age (VISU)

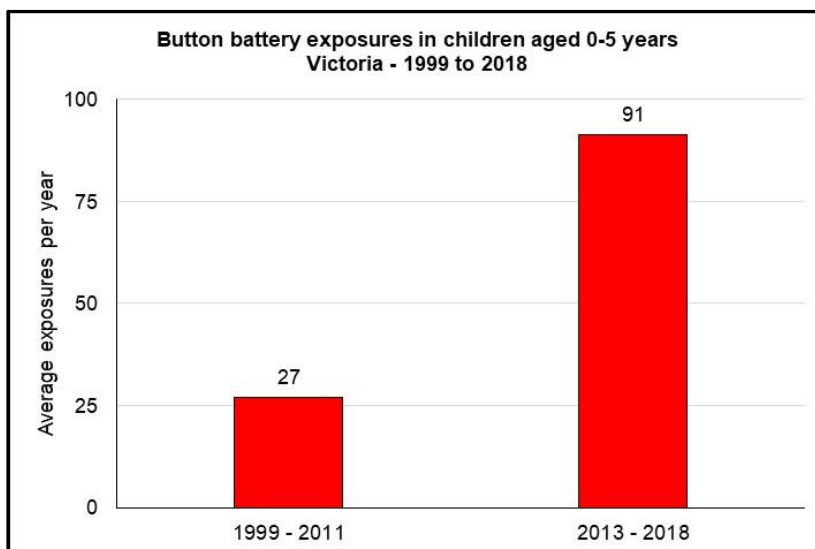
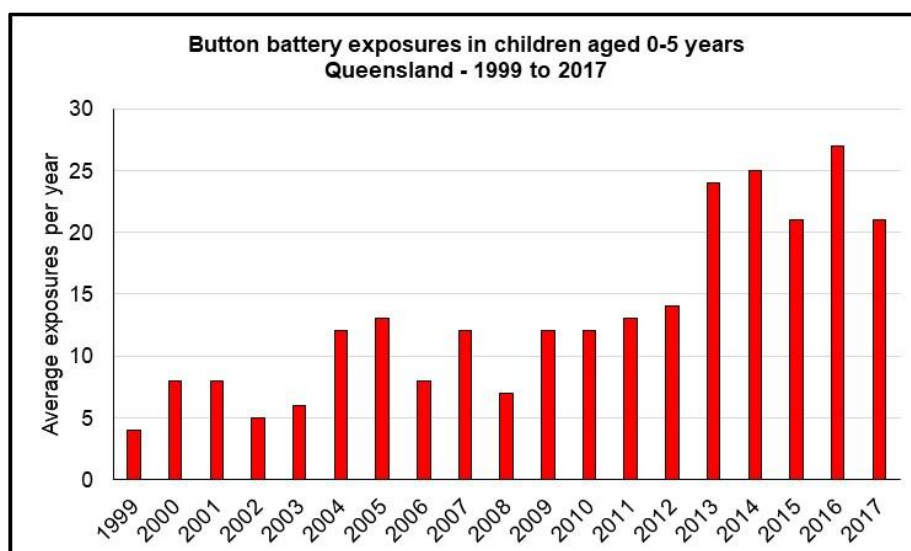


Figure 3: Reported button battery exposures per year from 1999 to 2016 in Queensland children under five years of age (QISU)



Poison Information Centre data also indicates how the children gained access to the button batteries that caused injury. Of the 99 cases where the source of the battery was known, the child most often gained access to the battery directly from the product compartment (31 per cent). The next most frequent method of access was the child removing the button battery directly from the packaging (21 per cent).

Long term and recent exposure data indicates that in about 80 per cent of the cases, the visit to the emergency department does not result in immediate admission to hospital and further treatment. This could be because the battery is either removed from an orifice without the need for admission or has passed through the body without immediate incident.

Most recent data provided by QISU⁷ in relation to injuries associated with toy products in children under the age of 36 months indicates that for the period 2013-2017, 1269 validated injuries occurred. Of these 21 were categorised as being as a result of “Battery from toy”. All 21 involved the patient being discharged. This QISU data is collected from participating emergency departments across Queensland. QISU indicate the data is estimated to represent one quarter to one fifth of all emergency department presentations in Queensland.

It also should be noted that the relatively low numbers of validated incidents with this specific category (toys for children under 36 months) is likely to be as a result of the protections already in place in the standard in terms of battery compartment security.

However, the damage caused by button battery exposure can manifest well after the event, even if there is no immediate effect.

The Australian Paediatric Surveillance Unit (APSU) is conducting an ongoing study into severe injury related to button batteries⁸. The purpose of the study is to collect information about injuries resulting from ingested or inserted button batteries. The study commenced in December 2017.

Between December 2017 and August 2019, the study has identified 26 individual cases of serious injury following exposure to a button battery. It is likely that this is an under

⁷ Data report commissioned by ACCC from QISU, September 2019: Toy and Nursery Product Injuries

⁸ APSU 2017, Sydney, <http://www.apsu.org.au/assets/new-studies/SIRDB-APSU-Protocol-FINAL-V5.1.pdf>, viewed 1 August 2019.

representation of the number of cases nationally as the study relies on doctors and individuals reporting serious incidents.

5. The regulatory environment

Toy standards around the world, including Australia, typically include requirements to address the hazard of asphyxiation from children's toys. This hazard is addressed through requirements that prevent young children from being exposed to small parts that present a choking hazard to children.

The Australian mandatory standard [Consumer Protection Notice No. 14 of 2003 - Consumer Product Safety Standard: Toys for children up to and including 36 months of age](#) prescribes requirements for the design and construction of toys for children of ages up to and including 36 months. The mandatory standard prohibits the supply of toys to this age group if that toy contains a small part that accompanies the toy, where the small part is removable or where a small part would be liberated from a toy as a result of reasonable wear and tear.

The mandatory standard includes requirements for testing compliance with these requirements. A small part is one that is less than 31 mm in diameter and 57 mm long as these are the dimensions identified below for a part that presents as a choking hazard. To address the choking hazard presented by a battery there are specific requirements for battery enclosures in toys. It is based on certain sections of the voluntary Australian/New Zealand Standard *AS/NZS ISO 8124.1:2002 'Safety of toys Part 1: Safety aspects related to mechanical and physical properties'*.

A key requirement of the mandatory standard designed to prevent children from obtaining a battery through access to a toy, is that a tool or at least two independent and simultaneous movements must be required to open a battery compartment. As greater awareness has developed about the hazards of button or coin batteries, international standards now include requirements to warn of these hazards through labelling requirements. The mandatory standard does not currently include a requirement that a toy containing a button or coin battery is accompanied by a warning label on either on the packaging or with the toy's instructions or both.

ACCC Priorities

The ACCC identified button batteries as one of its product safety priorities in 2018 and 2019, and has been working on improving button battery safety for a number of years.

From 2016 to 2018, the ACCC led the *National strategy for improving the safety of button battery consumer products* (the **National Strategy**) with the assistance of other Australian Consumer Law (**ACL**) regulators.

The overarching objective of the National Strategy was to examine whether it was possible to reduce child exposure to unsecured button batteries through voluntary safety improvements made by suppliers and to raise awareness to eliminate button battery related injuries in Australia. The National Strategy included:

- co-surveillance with Australian Consumer Law regulators and assessment of products containing button batteries
- promotion of information to assist suppliers source safer products
- voluntary recalls of unsafe products by suppliers
- creation and promotion of safety awareness resources such as the 'Button Battery Safety in the Home' YouTube video

- collection of evidence sufficient to consider the need for regulatory intervention.

During the implementation of the National Strategy, the ACCC and the other ACL regulators strongly encouraged and supported industry to develop and implement voluntary safety improvements, including the voluntary [Industry Code for Consumer Goods that Contain Button Batteries](#).

In 2019 a Safety Warning Notice was issued warning the Australian public on the dangers of button batteries.

In 2019, the ACCC evaluated the impact of the National Strategy on button battery safety, as demonstrated by goods available in the market place and trends in injury and exposure data. The ACCC concluded that there was evidence of market failure in the safety of button battery consumer goods.

The ACCC has established a Button Battery Taskforce to examine the wider safety issues around all button batteries. That Taskforce has now consulted with stakeholders and is considering options for further action based on these responses.

Voluntary Industry Code

In 2016 an industry working group of retailers, associations and product safety consultants developed the voluntary Industry Code (the **Code**), with input from the ACCC and other ACL regulators. The Code sets out best practice for supplying safer button battery related products and is available on the ACCC's Product Safety Australia website. The Commonwealth Safety Warning Notice on button batteries, published in March 2019, also encouraged suppliers to adopt the principles of the Code.

The Code is a guide for suppliers (i.e. manufacturers, distributors, importers, retailers, and online suppliers) in making responsible decisions about button battery safety when procuring, designing, developing or retailing button battery-powered devices. The essential requirements for compliance with the Code include:

- Consumer goods that use one or more replaceable button batteries must be designed and manufactured such that batteries in the device are not accessible to young children under normal use or foreseeable misuse.
- Consumer goods that use one or more replaceable button batteries must either:
 - have a battery compartment (or other enclosure) that is secured (preferably with a captive screw, a bolt or mechanism) such that it requires a tool to gain access to the batteries
 - have a battery compartment that requires two or more independent, and simultaneous actions to remove its cover.
- Any button batteries supplied with consumer goods must be in packaging that is not accessible to young children under normal use or foreseeable misuse.
- Inform consumers at the point of sale, including for online sales, if the product they are purchasing requires button batteries to operate and that these are hazardous to young children.

Toys for children up to and including 36 months are a subset of products which already include requirements to prevent access to battery compartments and batteries.

Button Battery Taskforce

The ACCC's preliminary view is that there is a market failure with regard to the safety of button battery products and that government needs to consider available remedies, including whether regulation should be considered to address the button battery hazard. The ACCC has identified a range of key safety measures that could improve safety of consumer products containing button batteries (including batteries themselves at first supply). These include:

- secure battery compartments so that children cannot access button batteries from these products
- child-resistant packaging to prevent children from accessing button batteries
- specific warnings and information alerting consumers to the dangers of button batteries and guidance on what to do in the event of a button battery ingestion, on products and at point of sale
- means of safe disposal of used batteries in households
- improved design and technology of battery manufacture to eliminate the hazard.

Some of these measures could be subject to safety regulation, however others, such as battery disposal and improved battery design are outside the remit of consumer law, or simply not available.

The Australian Consumer Law enables development of regulation to address the safety of consumer goods, including through application of mandatory safety standards, mandatory information standards, interim bans and permanent bans. The ACCC, through the mechanism of a dedicated Button Battery Taskforce, is now separately investigating various regulatory options under the ACL to universally improve the safety of button batteries and products that contain them. The Taskforce is separately consulting on options to reduce the hazard of button batteries for non-toy products and the supply of loose batteries not captured by the mandatory standard.

6. International standards

When making recommendations for new and amended regulations *The Australian Government Guide to Regulation 2014* requires policy makers to consider international standards as an option for regulation.

The ACCC has assessed the US regulations (including the ASTM standard), European, ISO and IEC standards against the following criteria⁹:

- Addressing safety concerns: Is there evidence that the international standard provides an acceptable level of consumer safety?
- Comparable jurisdiction to Australia: Is the international standard published or developed by a legitimate standards body or government agency from an economy or nation with comparable economic and regulatory processes to Australia?
- Applicability to the Australian context: Is the international standard applicable and sufficient in the Australian context?

The European Union (EU) and the United States (US) are among a number of jurisdictions with a standards focus on button batteries. The US requirements, as contained in the US

⁹ ACCC, International standards for the safety of consumer products - criteria for acceptance, ACCC policy principles, 22 July 2015, www.productsafety.gov.au/content/index.phtml/itemId/1014180

standard ASTM F963 have been mandated via legislation. The EU has in place a specific Toy Safety Directive which, as part of a General Product Safety Directive establishes the principal that only safe consumer goods, including toys can be supplied in EU member nations.

As part of its review the ACCC has undertaken a detailed assessment of the following standards:

- IS EN 71-1: 2014 (+A1:2018)- Safety of toys – Part 1: Mechanical and physical properties (the **European toy standard**)
- ASTM F963-17 Standard Consumer Safety Specification for Toy Safety (brought into effect by US Code of Federal Regulations Part 1250) (the **US toy standard**)
- ISO 8124-1 2018 Safety of toys Part 1: Safety aspects related to mechanical and physical properties (the **International toy standard**)
- AS/NZS ISO 8124.1:2019 (the **voluntary Australian toy standard**)
- AS/NZS 62115: 2018 (IEC 62115) Electric toys-Safety (the **voluntary Australian electric toy standard**)

Treatment of button battery safety in toy standards

The **International toy standard** for the safety of toys, is the basis for similar voluntary toy standards across Europe and Australia, as these jurisdictions have adopted the same requirements. The **voluntary Australian toy standard** mirrors the **International toy standard**. The **European toy standard** is substantially the same as the **International toy standard**. The **US toy standard** also has similar requirements. All these toy standards fundamentally address common products and safety issues.

The International, Australian and European toy standards all make direct reference to the safety of electric toys being described in the **voluntary Australian electric toy standard** and reference this standard. The **US toy standard** however contains its own requirements for electric toy safety.

The **voluntary Australian electric toy standard** provides requirements for warnings on toys for children under 36 months of age – on the packaging and with the instructions – and for the security of the battery compartment.

The **US toy standard** (mandated by US legislation: CFR Part 1250) incorporates requirements for the battery compartment of toys for children less than 3 years old and for warnings on packaging and with instructions.

7. Issues/Discussion

During the previous consultation in 2017 we noted it was likely that the voluntary Australian and international toy standards would incorporate warning requirements for button batteries in future revisions. This work has been completed and these warnings have been incorporated in international toy standards and mirrored in a revised **voluntary Australian electric toy standard** (now published as AS/NZS 62115:2018 (IEC 62115)). The following is a comparative assessment of this standard and the latest version of the relevant **US toy standard** with respect to warnings and battery security.

Warnings

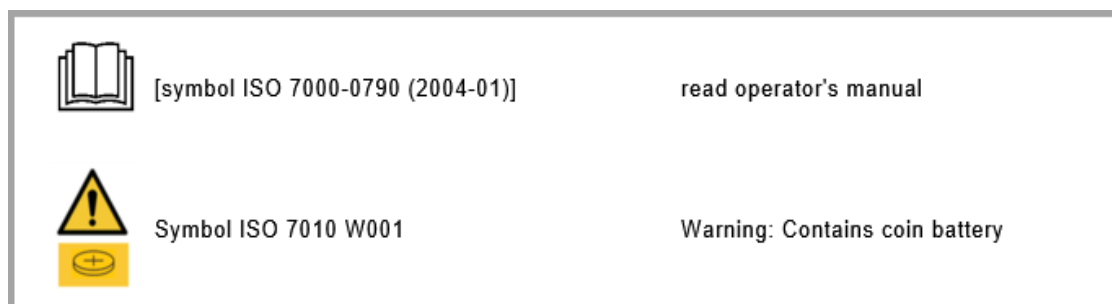
Voluntary Australian electric toy standard

The **voluntary Australian electric toy standard** defines a coin battery as a product with an electrochemical system that contains lithium, whereas a button battery is one that does not contain lithium. It distinguishes between the hazards arising from these products and includes separate warning requirements for button batteries and coin batteries. The requirements of the **voluntary Australian electric toy standard** with respect to the provision of safety warnings are that toys should 'carry the substance' of the following warnings:

Packaging

Packaging labelling applies to coin batteries only and may comprise either of the following requirements.

- **WARNING:** Contains coin battery. Hazardous if swallowed - see instructions; or
- The packaging shall be marked with the symbol ISO 7000-0790 (an open book with the instruction 'read operators manual') and warning sign ISO 7101 W0001 (triangle with exclamation point), see below, in conjunction with a supplementary sign containing a coin battery symbol (coin shaped disc with + on it). The meaning of this symbol combination shall be explained in the instructions.



Instructions

The requirements for warnings in instructions differentiate between a coin battery and a button battery.

- Coin battery (both warnings are required):

WARNING: This product contains a coin battery. A coin battery can cause serious internal chemical burns if swallowed.

WARNING: Dispose of used batteries immediately. Keep new and used batteries away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.
- Button battery:

WARNING: Dispose of used batteries immediately. Keep new and used batteries away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

US toy standard

The **US toy standard** also defines button cell (non-lithium) and coin cell (lithium) batteries on the basis of whether or not the battery is comprised of an electrochemical system that contains lithium. Although the **US toy standard** distinguishes between these batteries it treats them on the same basis in terms of the warning requirements.

Packaging

In the **US toy standard** toys that operate from such button or coin cell batteries shall indicate the following warning on the packaging. Graphical icons conveying the same information can be substituted.



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

Instructions

For instructions the warning shall consist of the alert symbol (prescriptive) followed by the signal word WARNING (prescriptive) and contain at a minimum, the following text or equivalent text which clearly conveys the same information (non-prescriptive):



WARNING

This product contains a Button or Coin Cell Battery. A swallowed Button or Coin Cell Battery can cause internal chemical burns in as little as two hours and lead to death. Dispose of used batteries immediately. Keep new and used batteries away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

Comment

For coin batteries, in the warning requirements on a product's packaging and the warning requirements for instructions, the **voluntary Australian electric toy standard** makes explicit reference to the identified hazard of a lithium battery through the statements 'hazardous if swallowed' on the packaging and 'A coin battery can cause serious internal chemical burns if swallowed' in a product's instructions. For button batteries there are no requirements for warnings on the packaging of a product and the warning in the instructions does not identify a particular hazard.

In other respects the warnings for button and coin batteries are identical as they recommend the disposal of used batteries, that batteries are kept from children, and to seek immediate medical attention where a battery has been swallowed or inserted in the body.

The **US toy standard** includes a requirement for the same warning to be included on the packaging of a product for both button and coin batteries. The warning states that the coin or button battery is hazardous if swallowed.

The **US toy standard** requires the same warning in instructions for both button and coin batteries. The warning states that a swallowed battery can cause serious chemical burns which can lead to death. In other respects the warning is the same as the **voluntary Australian electric toy standard** for button and coin batteries as it recommends the disposal of used batteries, that batteries are kept from children, and to seek immediate medical attention where a battery has been swallowed or inserted in the body.

The primary difference between the two standards is that the **voluntary Australian electric toy standard** makes a distinction between the two battery categories and restricts the hazard warning about chemical burns to products that use lithium batteries. The **US toy standard** conflates the two types of batteries for the purpose of providing a single warning and therefore this information is provided for both lithium and non-lithium batteries. Otherwise the two warnings in the **voluntary Australian electric toy standard** and the single warning in the **US toy standard** are the same.

The options to consider for warning requirements are to either adopt the requirements of the **voluntary Australian electric toy standard** only, to adopt the requirements of the **US toy standard** only, or to permit compliance through either of the two standards.

Our assessment is that both standards have been made in a comparable jurisdiction to Australia by a recognised technical association. Both standards provide for an acceptable level of safety on the basis that we are not aware of injuries or deaths that have occurred the cause of which has been attributed to a deficiency in either of the warnings. Our preliminary view is that both standards are applicable to the Australian context when taken in isolation. It is possible to construct an argument that the differences in the two labelling conventions could lead to consumer confusion.

However, all warnings are consistent about the required course of action and state that where a battery is swallowed the parent/carer is directed to seek immediate medical attention. Following ingestion parents/carers may not be able to readily ascertain the type of battery ingested or inserted and are unlikely to resolve the problem without expert intervention. Given the time critical nature of any potential reaction we assess the appropriate requirement to seek immediate medical attention is properly characterised in each of the warning options.

Unlike the **US toy standard** the **voluntary Australian electric toy standard** does not include a requirement, for a toy containing a button battery, to have a warning on the packaging. Both standards require a warning on the packaging to identify the hazard of chemical burns associated with coin or lithium batteries. As with the warning requirements above we are not aware of injuries or deaths that have occurred the cause of which has been attributed to a deficiency in either of the approaches to packaging requirements.

Battery compartment security

Requirements for the security of the compartment containing button batteries are already called up in the mandatory standard. It includes a requirement that the compartment of a battery operated toy, intended for children up to 36 months, shall not be accessible without the use of a tool or at least two independent movements applied simultaneously to the battery compartment. This paper considers allowing compliance with the requirements for battery compartments in either the current **voluntary Australian electric toy standard** or the **US toy standard**.

The **voluntary Australian electric toy standard** includes similar requirements for access to a battery compartment but distinguishes between 'small' batteries that fit wholly within the small parts cylinder and 'other' batteries.

For 'small' batteries (ie button batteries) the **voluntary Australian electric toy standard** requires accessibility only through the use of a tool

For 'other' batteries access to a battery compartment shall require the use of a tool unless the security of the battery compartment is adequate.

The **US toy standard** requires that for toys intended for children less than 3 years old, all batteries shall not be accessible before or after testing without the use of a coin, screwdriver, or other common household tool. Testing is performed using the recommended batteries installed.

Comment

The **US toy standard** is similar to the **voluntary Australian electric toy standard** as it permits only the use of a tool for assessing battery compartment security for 'small' (button) batteries, although the **voluntary Australian electric toy standard** does offer an alternate method of securing the compartment for 'other' battery types through requirements for two independent movements to be applied simultaneously.

The options to consider for button battery compartment security are to either adopt the requirements of the **voluntary Australian electric toy standard** only, to adopt the requirements of the **US toy standard** only, or to permit compliance through either of the two standards.

The **voluntary Australian electric toy standard** has stricter requirements than the mandatory standard, has been made in a comparable jurisdiction to Australia (via ISO), does not raise safety concerns and is now applicable to the Australian context. On this basis, adoption of the small (button) battery compartment requirements in the **voluntary Australian electric toy standard** or the **US toy standard** both appear suitable.

8. Preliminary position

After considering the various issues and following the initial consultation process, our preliminary view, subject to further consultation and assessment, is that a new **mandatory standard** could permit suppliers of toys to comply with either the **voluntary Australian electric toy standard** or the **US toy standard** for both the warning requirements and for battery compartment security.

This would only be with respect to button battery safety in toys intended for children up to and including 36 months of age.

The basis for this position is that both standards have been made by recognised technical standards making bodies which operate in similar jurisdictions to Australia. We are also not aware of evidence of injuries or deaths to children which have been attributed to the inadequacy of the requirements in either standard.

In considering this option for warning requirements we are conscious that the regulatory approach in Australia would differ from the overseas jurisdictions in that it would permit comparable but differing approaches to apply whereas the overseas jurisdictions permit one regulatory regime for warning requirements.

Given the warning requirements in each jurisdiction direct consumers to the same outcome, namely to seek immediate medical attention, our preliminary view is that this approach is not likely to create consumer confusion or diminish consumer safety. We are interested to obtain the views of interested stakeholders on this issue.

Mandating this option would provide suppliers with the choice of meeting the relevant requirements of either the **voluntary Australian electric toy standard** (AS/NZS 62115:2018) or **the US toy standard** (ASTM F963-17) for toys intended for children up to and including 36 months of age with respect to packaging and instruction warnings on battery safety and battery compartment security.

9. Key questions

Please consider the following questions in your submission. Submissions do not need to answer all or any of these questions and may include any information that might be relevant for this review.

1. Do you support the proposed option to allow compliance with either one of the **voluntary Australian electric toy standard** or the **US toy standard**, or both, for battery compartments? If not, why not?
2. Do you support the proposed option to allow compliance with either one of the **voluntary Australian electric toy standard** or the **US toy standard**, or both, for warnings? If not, why not?
3. Would allowing compliance with the warning requirements of either the **voluntary Australian electric toy standard** or the **US toy standard** lead to consumer confusion about the hazards associated with button batteries and the appropriate action to address this hazard?
4. Do you support some other option? If so, please provide details.

10. Have your say

The ACCC invites you to comment on this review. This consultation is open from 14 November 2019 to 13 December 2019.

The ACCC prefers that you submit your answers and other feedback online on our consultation hub at consultation.accc.gov.au.

Submissions can also be posted to:

Director
Standards and Policy
Consumer Product Safety Branch
Australian Competition and Consumer Commission
GPO Box 3131
CANBERRA ACT 2601

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