CHILDREN'S APPAREL PRODUCT SAFETY GUIDELINES

SAFETY BY DESIGN | SAFETY IN USE | SAFETY ALWAYS

National Retail Association

Children's Apparel – Product Safety Guidelines

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Preface

This industry guide is designed to assist manufacturers, importers, suppliers, retailers and regulators to understand, identify and mitigate critical safety hazards associated with children's apparel designed, marketed and intended for children from birth up to and including 14 years of age.

This industry guide was developed in consultation with key stakeholders including industry suppliers, retailers, regulators, testing laboratories and consumer associations.

Risk management principles have been adopted from a variety of existing industry standards and frameworks: A process referred to as a "horizontal standards approach". The risk assessment model addresses a variety of hazards in a modular approach based on product features to ensure products are designed and engineered to a safe standard.

When designing children's apparel, it is essential to take into consideration the behaviours of the children, whose need for exploration and challenge drives them to use products in new and different ways. One common factor children share is that they are unaware of the cause and effect and are therefore substantially less cautious than adults in relation to hazards. Products must therefore be safe for their intended use and foreseeable conditions of misuse.

Ultimate responsibility for product safety remains with the supplier. Suppliers must ensure that products are not only safe-by-design, but that they are also manufactured to the same safe levels and standards as those samples reviewed and approved during the design and development stages.

Acknowledgements

This document is the result of the collective input from various retail organisations and their representatives, under the broader banner of the National Retail Association's Technical Standards Committee. Where external material is linked, the National Retail Association's Technical Standards Committee:

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National Retail Association's Technical Standards Committee

The National Retail Association's Technical Standards Committee is a group of quality assurance and product compliance specialists who come together from many of Australia's retail businesses to discuss the challenges of product safety and compliance.

The Committee is an important forum for the development of retail industry policy. It communicates regularly, on behalf of the industry, with government decision-makers and agencies, including Standards Australia, the ACCC, offices of Fair Trading and Consumer Affairs, the National Measurement Institute and others, conveying the issues and concerns of the retail sector.

Objective

To provide industry guidelines that assist manufacturers, importers, suppliers, retailers and regulators to understand, identify and mitigate critical safety hazards associated with children's apparel designed, marketed and intended for children from birth up to and including 14 years of age.

Scope

The requirements of this guide apply to Children's apparel designed, marketed and intended for children from birth up to and including 14 years of age. The guidelines provide a safety assessment framework that focusses on the known hazards, particularly relating to inhalation and ingestion, strangulation as well as other potential physical injuries.

Assessment of safety requirements applies initially to children's apparel during design and development phases, so items are safe-by-design. The assessment must not only consider hazards that occur during normal conditions of use, but also hazards arising from reasonably foreseeable conditions of misuse or abuse.

The requirements of this guide specify acceptable criteria and in some cases manufacturing "best practice" for children's apparel such as (but not limited to):

- Metal Trims, Buckles, Rivets & Snaps
- Draw Cords & Ties
- Applique, Badges, Embroidery, Pom poms, Fringing, Braids & Plaits
- Sequins

Aspects of safety covered by existing legislation are not included within the scope of this guide:

- Children's nightwear and limited daywear: Legislated requirements – performance and labelling
- Apparel labelling: Legislated requirements – care instructions, fibre content and country of origin
- Disguise costume: as these types of dress up's garment are captured in the scope of AS/NZS ISO 8421 Toy safety
- Safety frameworks covering products not typically associated with apparel (e.g. FSANZ, APVMA, TGA, Cosmetics) unless they are referenced in some way within certain sections of the guide

Reference Standards

Standards referenced during the compilation and building of these guidelines includes:

- AS/NZS ISO 8124 Safety of Toys
- AS/NZS ISO 31000:2009 Risk management—Principles and guidelines
- HB 295.1 Product Safety Framework
- BS 7907:2007 Code of practice for the design and manufacture of children's clothing to promote mechanical safety
- BS EN 14682:2007 Safety of children's clothing. Cords and drawstrings on children's clothing. Specifications

Part 1: Risk Assessment Modelling

1.1 Product Safety – Legal Framework

The following provides readers with a short overview of the regulatory environment that governs the supply of products and services in the Australian marketplace. The framework is more intricate and involved than can be captured fully within this overview. Readers are encouraged to seek additional information as determined by their specific requirements and not to rely exclusively on the information provide below.

To assist, a number of important links to relevant websites are provided at the end of this section.

1.1.1 Safety Framework Overview

The Australian Consumer Law ("ACL") commenced on 1 January 2011 and is a schedule in the Competition & Consumer Act 2010 ("CCA"). The ACL includes laws that relate to the safety of consumer products and product-related services. Product safety relates to how the product performs in normal use and also extends to the conditions of any reasonably foreseeable use (which may include foreseeable misuse).

The ACL also includes a combination of specific safety requirements (mandatory safety and information standards) and a general expectation that all products offered for sale must be inherently and intrinsically safe.

Compliance with some product safety requirements can be established and confirmed through visual inspections (e.g. the presence of warning labels on baby bath aids), whereas some standards require specialist laboratory testing to verify compliance (e.g. measuring the presence of lead and cadmium in toys). Where laboratory testing is required to validate compliance, copies of test reports should be obtained from independent &/or accredited laboratories.

The Australian Competition and Consumer Commission or ACCC works closely with government in the development of mandatory safety and information standards. These standards are often developed by using existing Australian Standards, Industry Standards or parts thereof, to regulate that products must comply with performance, quality, information, marking &/or labelling obligations. It is illegal for businesses to sell products that do not comply with a mandatory safety or mandatory information standards.

The ACCC has a number of remedies and enforcement options available to deal with product safety related offences. These include heavy fines (for corporations and individuals), the power to enforce product recalls and issue court enforceable undertakings.

1.1.2 Product recalls, product bans and Mandatory Reporting

The product safety legislation also covers product bans, recalls and mandatory reporting of product/service related injuries to the ACCC.

- **Product bans**: products may be banned on a permanent basis by the ACCC or on an interim basis where the regulator requires an opportunity to investigate further. It is illegal to sell products that are covered by either a permanent or interim ban.

- **Product Recalls:** where a product represents a significant safety risk for consumers or does not comply with a mandatory safety or information standard and where the product has already been offered and sold to the public, wholesalers and manufacturers may need to withdraw products from sale and conduct a public recall.

- **Mandatory Reporting:** where a person has suffered death, illness or serious injury whilst using a product (or service), upon becoming aware of the incident the supplier must submit a report with the ACCC within 48 hours.

1.1.3 Further information

The above provides a high level overview of the safety framework in Australia. For further details regarding the consumer laws, product safety and product recalls, it is recommended that you visit the following websites:

- Australian Consumer Law website: www.consumer.gov.au/
- Product Safety Australia website: www.productsafety.gov.au/
- Product Safety Recalls Australia website: www.recalls.gov.au/
- New Zealand Commerce Commission website: www.comcom.govt.nz/

1.2 Risk Assessment: The Theory

The risk assessment process is intended to steer product developers, designers and manufacturers through a series of safety-gateways to ensure safety is engineered into new products at the earliest possible stage of a product's lifecycle. By identifying and substantially eliminating potential safety hazards during the design and sample/prototype approval procedures, the risks of safety incidents arising through poor design is appreciably minimised.

1.2.1 Risk Assessment Methodology

Risk assessment modelling has been extensively captured through a variety of Australian and International standards.

The overall process of risk identification, risk analysis and risk evaluation is utilised to achieve a position of "tolerable risk", taking into consideration design, materials, components and construction. This is an iterative process requiring repeated application until a tolerable level of risk is achieved (see Figure 1).

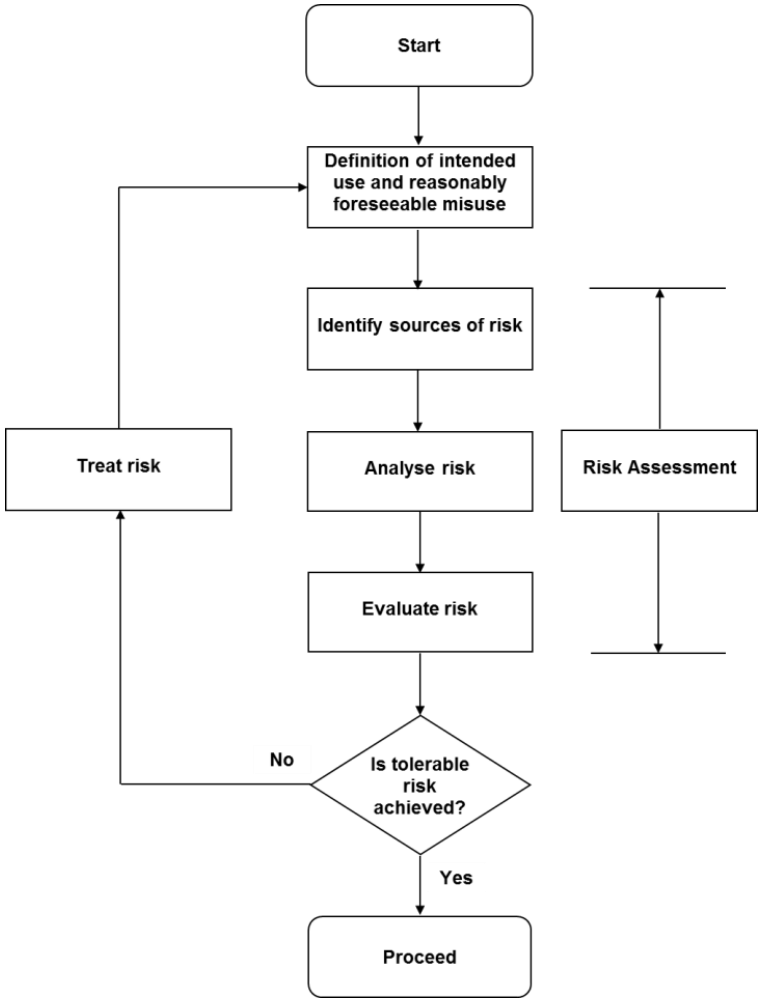
Before commencing the risk assessment, the "conditions of use" need to be defined. This includes an understanding of the expected conditions of use as well as the reasonably foreseeable conditions of misuse. Special considerations relating to children and infants include:

- Their inability to understand the consequences of their actions
- Their lack of knowledge and experience
- Their development and behaviour
- Their likelihood of being injured as compared with adults
- Their vulnerability compared with adults

The risk assessment involves consideration for 3 key criteria before determining whether a "tolerable level of risk" has been achieved:

- Identify the risk - What can happen?
- Analyse the risk - How probable is it?
- Evaluate the risk - How severe could the resulting injury be?

If a position of tolerable risk has not been achieved, then the risks need to be treated (i.e. eliminated or reduced) before the risk assessment cycle starts again.



1.2.2 Risk Assessment – Assessor Capabilities

The skills required to identify potential hazards are often acquired after many years of involvement with product development, in assessing and investigating problems, in implementing corrective action plans and in updating/creating product standards/specifications. For this reason, the safety- feature checklists have been created to assist those who have been less involved in assessments so they can identify hazards and conduct risk assessments to a high level of overall consistency and diligence.

For many organisations though, the concept of conducting detailed risk assessments may be daunting. Where an organisation feels that the skills required to conduct a thorough and accurate risk assessments do not exist within their organisation, it is recommended that the assistance of professional risk management services or product evaluation services are employed for these purposes.

1.2.3 Risk Assessment Model

The risk assessment modelling contained within these guidelines has drawn upon the principles of "consequence" and "likelihood" used within existing standards.

"**Consequence**" relates to the severity when an event causes injury or damage. For the purposes of these guidelines, "consequence" is categorised according to the following table:

Consequence (for an injury)	Injury Outcome & Treatment
Catastrophic	Permanent Disability or Death
Major	Extensive injuries requiring hospitalisation or substantial treatment by a registered physician
Moderate	Injuries requiring minor treatment by a registered physician but not requiring hospitalisation
Minor	First Aid Treatment
Insignificant	No Injuries. Mild discomfort or irritation

"Likelihood" relates to the chances or probability of an event occurring. "Likelihood" within the design and development processes relates to the expected or anticipated rate of failure. For the purposes of these guidelines, "Likelihood" is categorised according to the following table:

Likelihood Description	Expected frequency of fault/failure
Almost Certain	All Garments/Products
Likely	1 per 10 Garments/Products
Possible	1 per 100 Garments/Products
Unlikely	1 per 1000 Garments/Products
Rare	1 per 10,000+ Garments/Products

The **"Risk Rating"** is then determined based on the combination of consequence and likelihood according to the following table.

Likelihood	Consequence				
	Catastrophic	Major	Moderate	Minor	Insignificant
Almost Certain	High	High	Medium	Medium	Low
Likely	High	High	Medium	Medium	Low
Possible	High	High	Medium	Medium	Low
Unlikely	High	Medium	Medium	Low	Low
Rare	High	Medium	Medium	Low	Low

The **"Recommended Actions**" are then determined based upon the risk rating. The higher the risk rating, the greater the effort required to alter the design and to re-engineer the product to minimise or eliminate the identified risk.

Recommended Actions	
High Risk	To mitigate the known/anticipated HIGH risks and to achieve a position of "tolerable risk", actions should include: - Eliminate/remove the identified hazard - Modify, re-design or re-engineer the product - Introduce cautionary labelling & warnings (if appropriate) - Do not proceed with development of the product
Medium Risk	To mitigate the known/anticipated MEDIUM risks and to achieve a position of "tolerable risk", actions should include: - Eliminate/remove the identified hazard - Modify, re-design or re-engineer the product - Introduce cautionary labelling & warnings (if appropriate)
Low Risk	To mitigate the known/anticipated LOW risks and to achieve a position of "tolerable risk", actions should include: - Modify, re-design or re-engineer the product - Introduce cautionary labelling & warnings (if appropriate)

1.3 Risk Assessment: The Practical Application

The following section explains the process steps through which the risk assessment model is applied during the product design and development stages.

1.3.1 The Hazards

There are 4 main classes of hazards & some that can be classed as 'other sources' associated with children's apparel:

- Choking and Ingestion hazards
- Sharp Edges and Points hazards
- Strangulation and Entrapment hazards
- Chemical Toxicity hazards
- Other Sources of Hazards

Detailed explanations of the hazards are provided in the "Hazards" section of this document.

1.3.2 Product Features

A risk assessment template has been created for each of the features commonly associated with apparel products:

- Cords - Drawstrings, Decorative Cords, Functional Cords, Tied Belts and Sashes *(see Part 7)*
- Buttons and Toggles *(see 8.1)*
- Beads and Jewels *(see 8.2)*
- Pom Poms, Tassels, Fringing, Braids and Plaits *(see 8.3)*
- Bows, Fabric Loops, Hanger Loops, Hook and Loop Tape *(see 8.4)*
- Sequins *(see 8.5)*
- Diamantes, Glued and Heat-sealed Decorations *(see 8.6)*
- Metal Trims, Buckles, Rivets and Snaps *(see 8.7)*
- Applique (incl. Pinned Applique), Badges, Embroidery, 3D Motives and Float Threads *(see 8.8)*
- Faux Fur and Feathers *(see 8.9)*
- Elastics *(see 8.10)*
- Zips, Slide Fasteners and Pullers *(see 8.11)*

The detailed risk assessment templates are provided in the "Trim Worksheets" section of this document.

1.3.3 Documentation & Record Keeping

It is recommended that accurate records are retained in order to:

- **Demonstrate due diligence:** Shows that there is structure and a defined process.
- **Provide traceability:** An auditable trail is valuable to demonstrate due-process to either internal or external parties.
- **Capture "Corrective Action Plans" (CAP's):** CAP's are used as a reference to ensure required changes and improvements have been actioned.
- **Confirm Management Accountability:** The documents should be signed or authorised by an appropriately qualified and authorised company delegate.

Records should be readily accessible to support any investigations into alleged product failure or reported safety incidents. It is recommended that record retention times should:

- Cover the period during which products are available for sale to customers, plus
- Cover an additional period that represents the anticipated lifespan of the product in use.

Part 2: Chemical Toxicity

2.1 Overview

Chemicals, toxins, impurities and contaminants are the hidden hazards in textile production, as these are invisible, often odourless and generally difficult to detect and understand. Research into the effects of certain chemicals and the determination of what levels should be considered hazardous is ongoing. There are inconsistent regulations internationally regarding acceptable limits and whether negative consequences outweigh the utility of certain chemicals, especially in view of substitution with less studied substances, therefore, standards currently vary between regions. The more stringent regulations and bans are in place in Europe and North America.

Generally young children are more vulnerable to chemical hazards. Their bodies, internal organs and major physiological systems are still developing. Metabolic, immunological, hormonal and reproductive systems are immature and more vulnerable to toxins. Innate behaviour such as sucking and frequent hand to mouth contact means they ingest substances present in their immediate surroundings.

The Regulatory Environment

The ACCC provides supplier guidance on safe concentrations of particular chemicals in consumer goods. Refer to *"Safety guidance on concentrations of particular chemicals in certain consumer goods"* www.productsafety.gov.au

For consumer goods, there are few chemical restrictions or guidelines. Heavy metal restrictions are found within the mandatory standard for toys and as part of import regulations.

The mandatory standard is based on certain sections of the voluntary Australian/New Zealand Standard AS/NZS 8124.3:2003 'Safety of toys, Part 3—Migration of certain elements'. Clause 4.4 covers 'Safety of toys Part 7 – Finger paints'. AS/NZS 8124.3:2003

In Europe, the REACH system (Registration, Evaluation, Authorisation and Restriction of Chemical substances) makes industry responsible for assessing and managing the risks posed by chemicals and providing appropriate safety information to their users. This is a more expansive and engaged framework than exists in Australia.

In the USA, there is a general requirement that children's products comply with testing and certification requirements as prescribed by their Consumer Product Safety Improvement Act.

International Best Practices

Harmful substances throughout the supply chain can be avoided by putting a number of risk management tools in place, such as:

- Assessing manufacturer compliance and accreditation before placing orders
- Engaging suppliers to undertake steps to ensure conformance
- Requesting test reports and certification from suppliers
- Conducting regular product testing

2.2 Restricted Substances

Below list shows harmful substances relevant to the Australia market:

Restricted Chemical	Test Method	CAS Number	Chemical Name/Restriction of Maximum Limit	Uses	Regulation
Azo Dyes	Textile: ISO 14362-1 Leather: ISO 17234	60-09-3 97-56-3 92-67-1 99-55-8 90-04-0 92-87-5 106-47-8 95-69-2 120-71-8 615-05-4 101-77-9 91-94-1 119-90-4 119-93-7 838-88-0 101-14-4 91-59-8 101-80-4 139-65-1 95-80-7 95-53-4 137-17-7 95-68-1 87-62-7	4-Amino azobenzene o-Aminoazotoluene 4-Aminodiphenyl 2-Amino-4-nitrotoluene o-Anisidine Benzidine p-Chloroaniline 4-Chloro-o-toluidine p-Cresidine 2,4-Diaminoanisole 4,4'-Diaminodiphenylmethane 3,3'-Dichlorobenzidine 3,3'-Dimethoxybenzidine 3,3'-Dimethylbenzidine 3,3'-Dimethyl-4,4'-diamino-diphenylmethane 4,4'-Methylene-bis-(2-chloroaniline) 2-Naphthylamine 4,4'-Oxydianiline 4,4'-Thiodianiline 2,4-Toluenediamine o-Toluidine 2,4,5-Trimethylaniline 2,4-Xylidine 2,6-Xylidine	Dyestuffs used in the dying process of textiles and leathers.	No specific regulations in Australia but ACCC Product Safety Guidelines are available. Regulated internationally. Applies to all products that may come in prolonged contact with the skin/body.
Formaldehyde	Textile: ISO 14184-1 Leather: ISO 17226-2	50-00-0	Infants/Children's wear (00000-6years) -less than 30ppm All others -less than 75ppm	Wrinkle resistant, shrink proof, stain release, waterproof, fire retardant treatments. Pigment and garment dyes.	No specific regulations in Australia. Regulated internationally.

				Pigment, plastisol, puff, flocked and impact prints.	
Heavy Metals	AS/NZS ISO 8124:3 Migration of certain elements: Heavy metals content in substrate	7439-92-1 7440-36-0 7440-38-2 7440-39-3 7439-97-6 7782-49-2 7440-47-3	Lead (Pb) - <90ppm Antimony (Sb) <60ppm Arsenic (As) <25ppm Barium (Ba) <1000ppm Mercury (Hg) <60ppm Selenium (Se) <500ppm Chromium III (Cr) <60ppm	Some plastics, metal trims such as buttons, studs, rivets, zippers, nail head type embellishments, etc.	Applies to all products that may come in prolonged contact with the skin/body or likely to be placed in the mouth / chewed.
Phthalates	ISO 14389	117-81-7	Di (2-ethylhexyl) phthalate (DEHP)	Flexible plastic components, PVC, polyurethane, polyethylene, plastisol prints, transfer prints and coatings.	Currently a mandatory requirement under Aust. Toy & Nursery standards. Applies to all products that may come in prolonged contact with the skin/body or likely to be placed in the mouth / chewed.

Part 3: Hazards

3.1 Overview

Hazards are defined as the potential source of harm. For children's apparel, the most prevalent hazards have been identified. For each, an overview is provided for the nature of the hazard and how it presents dangers for children.

The key hazards are:

- Choking & Ingestion
- Sharp Edges & Points
- Strangulation & Entrapment
- Other Sources of Hazards

HAZARD	OVERVIEW
Choking & Ingestion	One of the most prevalent and potentially dangerous hazards for young children is small parts or pieces that break-away or pull-away from garments. Once these small pieces become accessible to young children, they often find their way into children's mouths, upon which they present a choking or ingestion hazard. Detached small parts can arise through a number of circumstances: - **"Normal" use:** Where attachments or parts of items create small parts through the conditions of use. By example: Bows at the neckline being plucked or sucked; Toggles on drawstring being sucked or chewed; - **Washing treatments:** Garments are placed under physical duress whenever laundered. Any weaknesses in methods of attaching components can be exposed through the laundering process. By example: Diamantes glued to fabrics that become loose once washed. - **Fitting or removing a garment:** Attachments such as buttons or snaps that are placed under stress whenever used, have the potential to separate and thereby create a small part. Risks are greater for the very young. It is generally recognised that children under the age of three are most susceptible to severe outcomes from small part being swallowed. At young ages, the gag-reflex (i.e. the ability to cough to remove a blockage) has not adequately developed. If small parts are swallowed they can create a blockage that then becomes fatal. Unfortunately, children are often reluctant to confess to their actions. This can make it difficult to establish the circumstances leading to them feeling unwell or having a reaction to something they have swallowed. The location of trims or embellishments on garments can influence the risk assessment. If the potential small part is placed so it can easily find its way into the mouth (e.g. on a sleeve end or on a collar tip) then it is more likely to be mouthed or sucked by a child. The same components attached at lower risk zones where they cannot be easily mouthed (e.g. back of a garment, waist of pants) will logically be less risky. The ACCC has released a document to assist parents in identifying choking hazards, refer to: https://www.accc.gov.au/media-release/accc-releases-new-tool-to-help-parents-identify-choking-hazards-for-children

Sharp Edges & Points	Safety risks arise for children when buttons, trims and attachments create sharp edges or sharp points. These create potential risks for penetration, piercing or slicing of the skin. These risks can present themselves during regular use (e.g. a sharp corner edge on a buckle that causes a slicing risk when arms pass across the edge) or fitting/removing a garment (e.g. a star-shaped button on a front placket that creates a sharp point risk when removing the garment over the head). Risks are greater for the very young who are unable to communicate their discomfort or take action to remove/eliminate the risk (e.g. consider a zipper on a grow suit with sharp teeth that cause scratching and abrasions around the neckline, compared to the same zip issue for an older child's track top). Sharp points and edges should be identified through a risk assessment during the product development and approval stages, then eliminated through re-design, re-engineering or re-processing. Sharp edges and points can also arise via contamination during the production process (e.g. Broken needles, pins or staples). It is important that post-production quality controls are implemented to identify and rectify any risks introduced through the production process. Sharp edges and sharp points are often associated with the following: - Badges, brooches or decorative pins - Beads, diamantes, sequins - Buttons, studs, rivets - Zips, zip teeth, zip pullers - Contamination: Often metallic (e.g. broken needles, pins) but could also be non-metallic (e.g. nylon kimble residues) An attachment may be considered low-to-moderate risk from a sharp edge or sharp point perspective, but then be positioned on a garment in such a way that it increases the likelihood of the sharp edge or point causing an injury. Examples are sequins positioned at the neckline, when removing the garment over the head it passes across the face & eyes and this could cause injury.
Strangulation & Entrapment	Strangulation and entrapment hazards arise through the use of cords, bows or ties used functionally or as decoration on garments. Long ties and cords have the potential to either wrap around necks or, for ties used in hoods (for example), to tighten around necks and cause strangulation. Globally, there are reports of very serious injuries and deaths occurring when knots, toggles or cord-ends become snagged or caught into moving parts or closing doors. Ties and cords with bulky cord-ends are particularly susceptible to being entrapped, especially when their length and positioning on garments allows them to hang, drape or swing away from the body. To address the variety of hazards that arise from the use of cords and ties, consideration should be given to the following:

	- Eliminating functional ties & cords, especially for the younger age groups. - Limiting the length of both functional and non-functional ties and cords. - Securing functional ties so they are unable to be removed. As an example: Bar tack the draw cord at the centre back of a hood so it will not slide out through the channel. - Remove all knots, toggles, aglets etc. from the ends of draw cords to minimise potential entrapment hazards (NB: Also removes potential choking and ingestion hazards). - Cords and ties around the neckline are high risk zones for strangulation hazards. Long ties and cords at the extremities (wrists, ankles) or on waistbands of jackets are high risk zones for entrapment hazards. Older children are at risk from entrapment of cords that emerge from the back of the garment, particularly at lower hem, from moving vehicles such as bus or train doors. Cords that protrude from the hem at an ankle could easily become caught in bicycle wheels or chains.
Other Sources of Hazards	The hazards identified as being the most significant and relevant for children's apparel have been covered in this section. It is worth noting however that there are numerous other hazards which do not present risks generally for children's apparel. These hazards are listed below as an additional source of reference for risk-assessments. - **Burn hazards:** Hazards with the potential to cause injury by heat, friction, chemicals or solar radiation. Flammability hazards for children's nightwear are covered by a mandatory standard (AS/NZS 1249:2014 (regulated) + AS 1249:2014 AMD 3:2020). Sun protective fabrics can be tested and assessed according to the standard AS 4399:2020 - **Eye impact hazards:** Hazards arising from projectiles (e.g. objects shot or fired, usually from a toy). The toy standard (AS/NZS ISO 8124.1) contains test requirements for projectiles. - **Insertion hazards**: Hazards arising from children placing small objects into body openings (e.g. ears, nose, but not the mouth). Small parts create the risk, similar to choking and ingestion hazards. The toy standard (AS/NZS ISO 8124.1) provides methods to assess small parts. - **Pinching hazards:** Hazards arising from closing mechanisms that can pinch or squeeze the skin. (e.g. Alligator clips on suspenders, metal zips that are not adequately protected) - **Projection hazards:** Hazards arising from pieces or components of garments/products which protrude in a way that could cause them to push-into or penetrate the body. (e.g. long or elongated buttons or toggles) - **Tripping hazards:** Hazards arising from parts of garments that can float/sit on or near the feet (e.g. long belts on robes, draw-cords at/near ankles on pants) Risk assessments during the design of children's apparel can assist to identify any potential hazards. Designs can often be modified to minimise risk and provide a safer solution.

Part 4: Laboratory Test Methods

4.1 Overview

Laboratory testing is necessary to verify that the product meets any mandatory standards. In other instances, the use of laboratory testing is important to support the safety, quality and functionality of the item inclusive of subsequent consumer washing and expected duration of use or wear.

Children 3 years and under, where they are still mouthing objects are vulnerable due to their inability to make judgements, are the highest risk group in terms of trims and small parts that can detach readily from garments. Testing therefore, using calibrated equipment and to an industry-based standard is highly recommended to verify that the small parts or trims will remain attached within the reasonable life of the garment.

AS/NZS ISO 8124.1 Safety of Toys Part 1: Safety aspects related to mechanical and physical properties

This toy standard provides test methods for the assessment of Small Parts (section 4.4). The specific abuse tests in the standard can be used to test small parts on garments to ensure that they do not readily pull off.

The specific abuse tests involve the following:

- **Drop Test** (clause 5.24.2): Based on the product's intended age group, products are dropped from a height onto a specified hard surface for a number of drop cycles.
- **Torque (twist) test** (clause 5.24.5): The item is clamped, a specified torque/twist is applied. The test stops when the maximum torque (0.45 ± 0.02 Nm) is reached or when 180o rotation has been reached.
- **Tension Test** (clause 5.24.6): A clamp is applied. A pulling force of 70 ± 2 N is applied evenly over a period of 5 s and held for 10 s. The part being tested is pulled upwards & sidewards.

AS/NZS 8124.3:2003 Safety of toys, part 3 – migration of certain elements

Metal components, especially where coatings and enamel paints are used, should be testing to ensure that certain elements that are harmful to young children through mouthing are within tolerable levels. The below test can verify safety of use.

Part 3 of the toy standard covers safety aspects relating to harmful substances. These substances can migrate from objects, the standard highlights acceptable levels of elements Antimony, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury & Selenium. This standard should be considered when using trims that are enamel coated and certain metal components. Young children who are still mouthing are the highest risk group.

AS/NZS 1249:2014 (regulated) + AS 1249:2014 AMD 3:2020 Children's Nightwear and limited daywear having reduced fire hazard

Children's nightwear and some items of daywear require testing & evaluation to ensure that they meet the requirements of the below standard, both in design fabrication & use of trims. It is mandatory for garments in scope of the standard to have the correct labelling which is verified through the application of the standard and testing at accredited laboratories.

This standard is mandatory for Children's nightwear & limited daywear inclusive of:

- Pyjamas
- Size 3-14 knitted nightwear all-in-ones
- Size 00-14 woven nightwear all-in-ones
- Knitted all-in-ones garments in size range 00-2 made from fabrics that have a pile or nap (or include fabrics with a pile or nap)
- Nightdresses & nighties
- Nightshirts
- Dressing gowns
- Bathrobes
- Boxer shorts of a loose style commonly used as nightwear
- Infant sleeping bags with sleeves or arm openings
- Blankets and towels that incorporate a sleeve or arm opening

These products must comply to requirements of the standard and the correct 'warning label' applied. Designers and Product developers should familiarise themselves with requirements in order to design garments correctly and to avoid regulatory issues.

AS 4399:2020 Sun Protective clothing and evaluation and classification

Clothing and materials that claim a UPF rating should meet the requirements of this standard to qualify the claim. The standard provides guidance regarding the information communicated to the consumer on UPF labels or swing tags about the relative sun protective capability of material and items of clothing. Additionally the standard specifies the minimum level of body coverage that an item of clothing needs to achieve in order to legitimately display or claim a UPF rating.

4.2 Summary of Laboratory Testing (can also be referenced in each trims worksheet)

Tests should be carried out by a certified test house. The testing facility can also provide recommendations on the standards that need to be achieved to minimise the risk of performance issues.

RECOMMENDATION	TEST METHOD	STANDARD
Children's nightwear and some daywear require mandatory testing to verify design compliance and correct fire danger rating labelling.	AS/NZS 1249:2014 (regulated) + AS 1249:2014 AMD 3:2020 Children's nightwear & limited daywear having reduced fire hazard	Must meet requirements of the standard in design, fabric, trims and to verify correct labelling.
Sun Protective Clothing evaluation and classification	Refer to standard AS 4399:2020	Refer to standard AS 4399:20
Small parts, Trims such as pom pom, tassel, jewel, bobble, fringing, buttons, snaps	AS/NZS ISO 8124 part 1 Test to confirm strength of attachment	70N (7.25kg) for 10 seconds
Enamel coated trims and metal components	AS/NZS ISO 8124 part 3 Migration of certain elements	Results must meet the 'acceptable' levels according to the standard
Garments with trims such as pom pom, tassel, jewel, bobble, fringing, buttons, snaps, diamantes, sequins. Printed garments	ISO 6330-2 Appearance after washing Confirm security of attachments and quality of print detail on printed garments	5x domestic wash according to care instructions No detachment or part detachment of trim. No deterioration of print on printed garments
Buttons and trims made from natural materials such as wood, shell, coconut	ASTM F963 (16FR) Bite testing	Minimum requirement 50lb (22kg), no cracking, deterioration or detachment or part detachment
Elastics	ASTM D4964 Tension & Elongation of elastics	75% elongation with no rupture
Metal trims and components	ISO 9227 Test for corrosion resistance	No pitting or corrosion under the test conditions

4.3 Additional Performance Testing

Whilst performance testing is not mandatory, it is important that fabrics, trims & linings should meet basic performance standards to ensure that garments are colour fast, do not shrink under the recommended care instructions and withstand general wear and tear from the wearer to avoid customer dissatisfaction and returns of the garments to retail. Tests should be carried out by a certified test house. The testing facility can also provide recommendations on the standards that need to be achieved to minimise the risk of performance issues.
The following tests are recommended to support the overall performance, wash and wear aspects of the garment:

RECOMMENDATION	TEST METHOD
Tests to check if textile fabric, linings & trims are colour fast, do not cross-stain & do not change shade significantly.	ISO 105 C06 Colour fastness to washing
	ISO 105 E01 Colour fastness to water
Test to check if the colour/dye from textile fabric, linings & trims does not transfer easily to adjacent materials or products	ISO 105X12 Colour fastness to wet and dry rubbing
Test to check that dyed/printed material does not fade when exposed to sunlight for example when hung out to dry on a washing line in sunny conditions. If the results are very poor, fading can also happen in a retail environment under store lighting.	ISO 105B02 Colour fastness to artificial light
Test to check that materials and garments do not shrink or have an unacceptable appearance when washed according to the recommended care instruction.	ISO 6330 & ISO 6330-2 Dimensional stability and Appearance after washing

4.4 Chemical Testing

Chemicals of concern that may be found in children's products & components are covered under AS/NZS 8124.3:2003 Safety of toys, part 3 – migration of certain elements. Additionally Formaldehyde, Chrome V1, Phalates and Azo dyes as well as other chemicals that could be hazardous are covered in *Part* 2 of this manual.

Part 5: Minimising Production Risks

5.1 Overview

The single most effective strategy for eliminating product safety risks is to incorporate safety in to the design of the product from its origin. On agreement that the sample meets requirements, it is essential that the manufacturer is provided with a prototype, usually known as a sealed or approval sample to follow as the standard required for bulk production.

It should be noted that regardless of design, safety hazards may also arise within the production process. To minimise the risk of unsafe or defective product, controls need to be implemented at pre-production, production and post-production points.

5.2 Pre-Production

Manufacturers should be selected carefully for their suitability to make the goods to the required standards. In the selection criteria, their capability in managing safety and quality through the entire end to end process needs to be established. Pre-production protocols should include the following:

- Audit of factories to establish suitability.
- Laboratory testing to validate the safety of the design.
- An approval or 'sealed' sample must be available as the prototype to follow for production.
- Manufacturers should have a pre-production meeting before production commences to ensure that all checks & measures have been implemented. Production risk assessment should be undertaken to establish any critical areas in production that require additional surveillance/inspection.
- A pilot run should be completed (sometimes known as a 'cut up'), to ensure that production can proceed meeting required safety and quality standards.

5.3 Production

To ensure that safety measures continue through the entire Production process, the manufacturer must have adequate control through the sewing lines and thorough inspection processes in place.

- Broken needles can pose a significant safety risk to children if accidently left in products, therefore the manufacturer must have good procedures in place to minimise this risk.
- Children's product should be passed through needle detection equipment prior to final packing.
- Small parts on products such as buttons, press-studs, trims can pose a safety risk if not attached securely as per the approved construction. Regular checks should be conducted during the production process to verify consistency and safety of attachment.
- It is recommended that the factory has an on-site pull tester to carry out the necessary due diligence checks.
- Inspection during the production process is critical to ensure that:
    - Production conforms to the approved sample

- The production area is free from any contaminants
- Defective units are identified and quarantined
- Critical operation points are monitored with frequent checks
- 100% of the finished goods are checked at final assembly

5.4 Post Production

Upon completion of production, after the product has passed through needle detection and when at least 80% of the goods are packed, an independent final inspection should be completed.

- Final inspection should be carried out by independent inspectors, not the factory production QC team. Independent Inspectors or QA Auditors can be engaged through 3rd party specialist service providers.
- Final inspection should be carried out to a recognised statistical sample plan and agreed AQL (acceptable quality level) criteria.
- Final inspection should include sighting and approval of records:
  - Broken needle
  - Needle detection
  - Attachment/pull-testing results
  - Pinch settings used in production to attach snaps/press-studs must conform to the report issued by the supplier.
  - Trims inventory reconciliation (all trims counted at the beginning of production must match the number of finished articles at the end)
- A pre-shipment sample is recommended to be inspected for conformity before the goods are shipped.

Despite every effort to ensure due diligence throughout the entire end to end process is managed carefully, monitoring consistency of the delivered goods is recommended through spot checks either at the receiving warehouse or at point of sale.

Part 6: Labelling

6.1 Legal Requirements

It is a legal requirement when selling apparel within Australia that it meets the following requirements:

- The label must be permanent.
- The label must withstand the cleaning treatment given as per the care instruction and remain legible and attached throughout its useful life.
- Type must be legible.
- Font must be of medium width lettering
- Font height must be a minimum of 1.5mm high.
- Font must be in English.
- Articles with multiple components must have separate permanent labels (e.g. items sold as a set must have each piece labelled).

The garment must include:

- Brand name
- Sizing
- Care labelling
- Fibre content; must be in descending order of mass with or without its percentage (e.g. Polyester/Cotton or 65% Polyester/35% Cotton)
- Country of origin; must be at centre back of garment & must not be obscured by another label

6.2 Fire Hazard

If your product is classified as children's nightwear, bathrobes and dressing gowns (size 00-14), is a predominately knitted all-in-one garment such as coverall, romper, onesie, shortall, blanket sleeper, jumpsuit, gro-suit or overall with a pile or nap (size 00-2), infant sleepbags or blankets and towels that incorporate a sleeve or arm opening you will need to reference the standard AS/NZS 1249:2014 (regulated) + AS 1249:2014 AMD 3:2020 Children's nightwear and limited daywear having reduced fire hazard standard to ensure it complies with all mandatory requirements including the relevant label.

Label requirements:

- Located the inside of the back neck and waist of garments.
- If multiple labels are used, they shall be adjacent to each other.
- Must be clearly visible and not obscured by any other label.
- Be positioned as close as possible to the top and centre of each piece as the design allows
- Meets durability testing in accordance with AS/NZS 1249:2014 (regulated) + AS 1249:2014 AMD 3:2020 Appendix B which includes attachment, colourfastness and print durability

Category 1, 2 & 3

Category 4

6.3 Warning Labels

In addition to the main label and fire warning label some product may require cautionary labels and warnings. The appropriateness of cautionary labels and warnings needs to be considered in context of the hazards and the conditions under which the warnings will impact upon the user. By example, it is not appropriate to place small parts warnings for attachments on garments where garments themselves are intended for children younger than 36 months of age. The following points should be considered to determine the adequacy and appropriateness of proposed warning labels and instructions.

- By providing a warning there will be an impact on the conditions of use and reduced safety risk. If not effective in reducing risk, then the use of warning labels may not be appropriate.
- Warnings must explain the danger/hazard for users and the safe conditions of use.
- Warnings are intended to provide cautions that influence the purchase decision. A warning must be prominent and visible at the point of sale.
- Warnings that provide advice and instructions regarding conditions of use should be prominent and visible during use.
- Some warnings need to be permanently attached to the product. These warnings and instructions must remain legible and visible throughout the expected life of the product.
- Warnings must be written in a way that is easily understood. Major callouts, e.g. CAUTION or WARNING must be stated in uppercase. Graphics and images may be needed to more clearly communicate the safety message.
- Safety warnings or instructions must meet mandatory standards, or they could be deemed misleading to customers.

6.4 Packaging

If the garment is offered for retail sale in a package that obscures the labelling, the item must have fibre, size, country of origin, care instruction, fire hazard and warning labels prominently marked on the packaging.

All claims made must be substantiated, e.g. fibre stated on the label must match the fibre composition test, if the claim is in relation to the function of the fabric or print such as Glow in the Dark, Moisture Wicking or Stain Resistant, etc. then the appropriate tests on finished items must be completed to confirm that claim is correct and verified. All product stating a UPF claim must ensure the rating matches the test report for all fabrication used per colour in the item. If promoting a fibre that is a registered trademark (eg Lycra, Coolmax, Tencel, Lurex) verification must be available that product has been supplied by the registered company.

Any product sold as a promotional item or as a gift with purchase is still required to meet all relevant product mandatory standards, e.g. a toy needs to meet toy standards even if the toy is at no additional charge to the customer.

For the safety of the consumer polybags with an opening size of 100mm or larger are recommended to have:

- A suffocation warning label printed on the bag
- To have 2 holes on each side of the bag

WARNING
TO AVOID DANGER OF SUFFOCATION KEEP AWAY FROM BABIES AND CHILDREN.
DO NOT USE IN CRIBS, BEDS, CARRIAGES OR PLAY PENS
THIS BAG IS NOT A TOY

6.5 Standards and Information for Further Reference

- AS/NZS 2392:1999 Textiles- Labelling of clothing, household textiles and furnishings
- AS/NZS 1182:1997 Size coding scheme for infants' and children's clothing-Underwear and Outerwear
- AS/NZS 1957:1998- Textiles- Care labelling
- AS/NZS 2622:2019 Textile products-Fibre content labelling
- AS/NZS 1249:2014 (regulated) + AS 1249:2014 AMD 3:2020 Children's nightwear and limited daywear having reduced fire hazard standard
- Consumer Protection Notice No.25 of 2010
- https://www.abf.gov.au/importing-exporting-and-manufacturing/importing/how-to-import/requirements/labelling
- https://www.accc.gov.au/publications/country-of-origin-claims-and-the-australian-consumer-law

Part 7: Cords – DRAWSTRINGS, DECORATIVE CORDS, FUNCTIONAL CORDS, TIED BELTS & SASHES

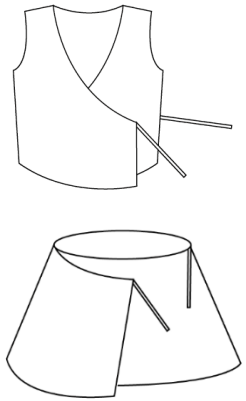
7.1 Overview

Cords, strings, loops or loose hanging trims can be a risk of strangulation, entrapment and entanglement. This section provides important guidelines on the length or 'free ends' of cords, drawstrings, tied belts and sashes on children's apparel to minimise these risks taking into consideration the behaviour and activities of children for their age and state of development. For example younger children are at risk of entrapment and strangulation in playground equipment, particularly from a hood or neck cord however older children are at risk through the entrapment of cords and strings from the waist and lower hems of garments in moving vehicles such as bus doors and bicycles.

7.2 Examples

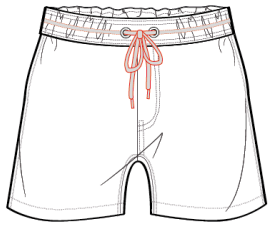
FUNCTIONAL CORD

Cord, chain, ribbon, string or tape made of any material which is used to adjust the size of the opening, or part of the garment or to fasten the garment itself.



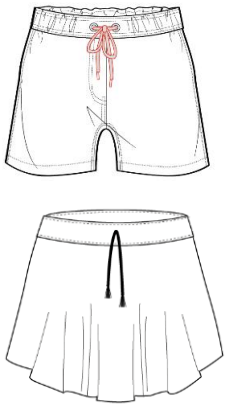
DRAWSTRING

Cord, chain ribbon, string or tape made of any material which passes through a channel, loop(s), eyelet(s) or similar, to adjust the size of the opening or part of the garment or to fasten the garment itself.



DECORATIVE CORD

Non-functional cord, chain, ribbon, string or tape, made of any material with free ends, with or without embellishments which is not intended to be used to adjust the size of the garment opening or fasten the garment itself.

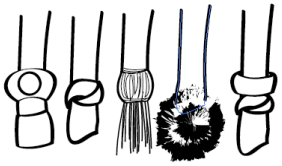


TIED BELTS & SASHES

Decorative or functional piece of any material not less than 3cm wide tied round the chest or waist area of a garment.

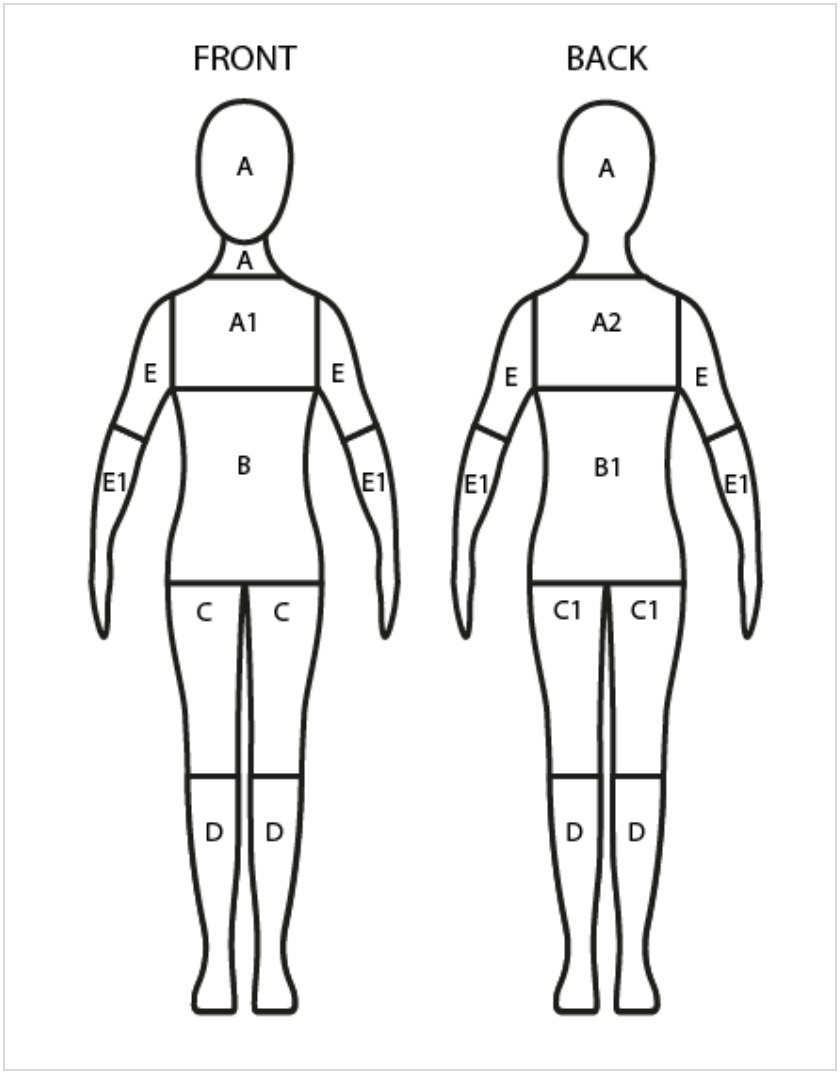
3D EMBELLISHMENTS

Decorative item attached to a cord that is thicker and/or wider than the cord itself such as toggles, knots, tassels, pom-poms, beads, etc.



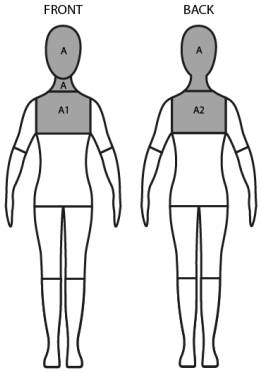
7.3 Zones

Depending on the location of the drawstring/decorative or functional cord on the garment guidelines have been applied to best manage or minimise any potential accident risk. These are indicated as body zones based on position and activity of the child with images below showing the relevant zones.



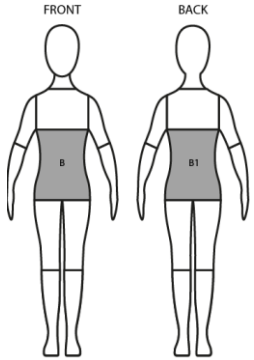
ZONE A

A- HEAD & NECK FRONT & BACK
A1 – UPPER CHEST & SHOULDER STRAPS – FRONT
A2 – UPPER CHEST & HALTERNECKS - BACK



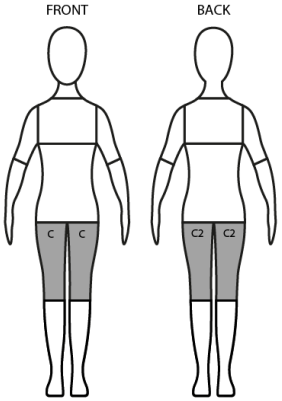
ZONE B

B- FRONT CHEST TO HIP
B1 – BACK CHEST TO HIP



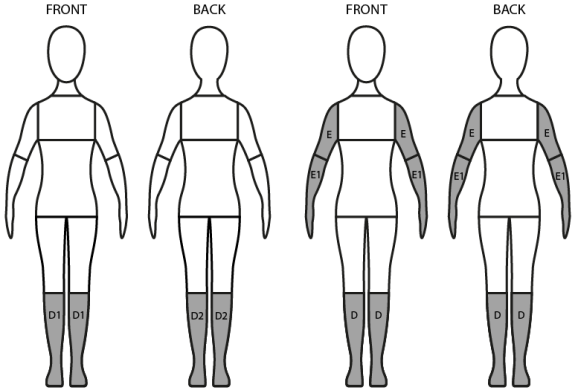
ZONE C

C- BELOW HIP & BELOW CROTCH FRONT & SIDE
C1 – BELOW HIP & BELOW CROTCH BACK



ZONE D & E

D- LEG KNEE TO FOOT FRONT, BACK & SIDE
E – SLEEVE SHOULDER TO ELBOW
E1 SLEEVE ELBOW TO HAND



7.4 How to Measure Guide

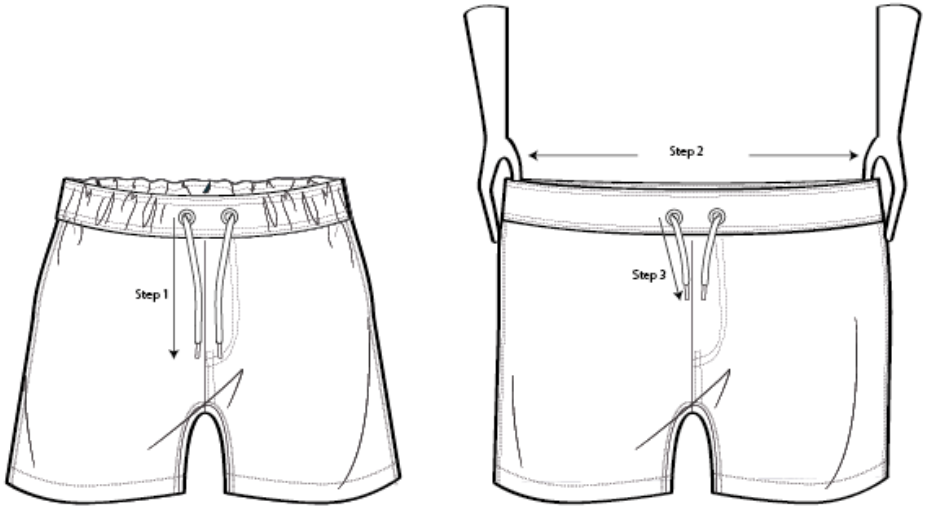
Open to its largest and laid flat-

Step 1- Drawstring shall be pulled so they are flat in the channel, with the garment in its relaxed natural state.

Step 2- Stretch the garment to its fullest size by removing any gathering or effect of elastication without deforming or stretching the fabric beyond its natural state, or damaging the garment construction or stitching.

Step 3- While maintaining this extended position, lay the garment flat on the table and without stretching the drawstring straighten the drawstring and measure its length from the exit point to the free end.

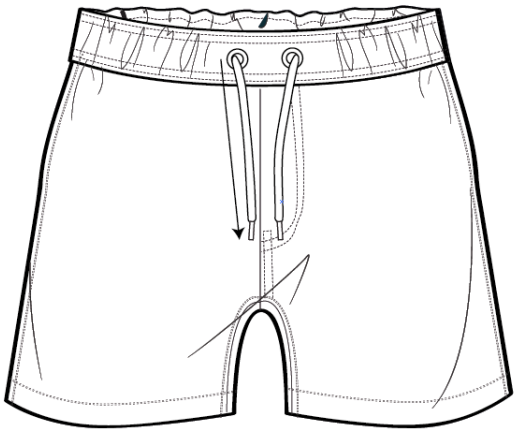
Note- for elasticated garments it is recommended that this measurement is taken with two people so one can hold the garment to its largest width while the other measures the drawstring.



Relaxed natural state-

Step 1- Drawstrings shall be pulled so that, without adjusting the size, they are flat in the channel.

Step 2- Lay the garment flat and without stretching the drawstring, straighten and measure the length of the drawstring from the exit point to the free end.



7.5 Guidelines for using the worksheets

- Use these worksheets for recommendations on products with drawstrings, functional cords, decorative cords, tied belts and sashes.
- Refer to the Risk Zone Diagram to show the position on the body and in order to determine if the zone is high risk.
- Follow the recommendations under general design considerations to minimise risks.

7.6 Hazards and Risks

Drawstrings, functional cords, decorative cords, tied belts & sashes relevant to the position on the garment/body, can create the risk of being caught, entangled or create a choking hazard. Design considerations can be adopted to minimise risks by:

- Removing the hazard entirely or avoid in high risk zones.
- Use of tabs that are adjustable in high risk zones to avoid any free ends.
- Adhere to the free end lengths recommended within this document.
- Eliminate attached trims such as 3D decorations (eg pom pom, bead, tassel) toggles & knots on the ends of cords, particularly in high risk zones.

7.7 General Design Considerations

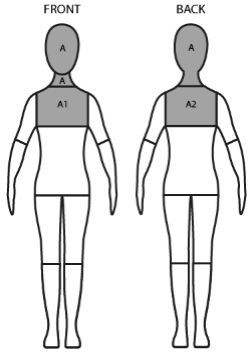
- Free ends of all cords and drawstrings should be considered carefully to take into consideration the range of hazards that children of all ages may be exposed to. Recommendations for free ends can be found within this section as well as examples of how to measure free ends.
- Drawstrings **where permitted**, should be sewn or securely attached to the garment at their midpoint so they cannot be pulled through.
- Toggles and knots at the ends of drawstrings, functional cords and decorative cords are not recommended as they can create a "hook" or stopper that may get caught in small spaces, or may become detached causing a choking hazard to young children. Other alternatives for finishing ends such as sealed ends should be considered.
- Decorative trims/items when attached to drawstrings and cords, in particular 3D decorations such as pom poms, can pose a choking hazard for young children. **It is recommended that decorative trims are not used on garments for ages 0-3 years.**
- No drawstring or cord should be made from elastic. Due to the extensibility of elastic, there is risk of injury to children of all ages.
- Drawstrings & functional cords around hood area of garments for all ages should not be permitted. If the hood draws over the face, this poses a significant hazard to children of all ages.
- Cords that draw from the back of the hood or neck area of a garment should not be permitted, due to the hazard of entrapment and the probability that cords from the back are not visible to the wearer & can lead to unforeseen situations that pose a safety risk.
- Cords designed to tie below the elbow and below the knee pose a high risk of entrapment and tripping hazard to children and considered high risk zones (refer to body zones diagram). Additionally, cords that are untied below the elbow can be a fire hazard where young children are beginning to explore activities such as cooking with their parents.
- When designing a garment with a sash or tied-belt the width should be no less than 30 mm. The length should be risk assessed where the sash or tied belt drops below the hemline when untied, especially for young children.
- When halter neck and shoulder ties are tied up their loose ends (where permitted) should be restricted to minimise the risk of entrapment hazards. Please note that these types of ties have a low risk associated with strangulation.

7.8 Zone A

ZONE A – HEAD AND NECK (FRONT AND BACK)

ZONE A1 – UPPER CHEST AND SHOULDER STRAPS (FRONT)

ZONE A2 – UPPER CHEST AND HALTERNECKS (BACK)

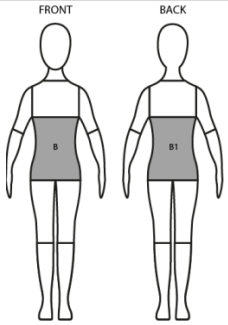


CORD TYPE/ZONE	AGE 0 – 7 (up to 6 yrs & 11 months)			AGE 7 – 14 (from 7 yrs to 14 yrs)		
	ZONE A	ZONE A1	ZONE A2	ZONE A	ZONE A1	ZONE A2
DRAWSTRING	Not Permitted	Not recommended	Not recommended	Not recommended	Not recommended	Not recommended
FUNCTIONAL CORD	Not recommended	Not recommended Shoulder straps to be permanently attached front & back of garment. Elastic cords are not recommended.	Not recommended at upper chest area Halter straps to be permanently attached front and back of garment. Use adjusting tabs or butterfly clip, hook and slider to secure. Elastic cords are not recommended.	Not recommended	Free ends considered at upper chest & no longer than 7.5cm. Shoulder straps are permissible provided any free ends are no longer than 14cm from point of which to be tied. Fixed loops no more than 7.5cm in circumference. Elastic cords are not recommended.	Free ends considered at upper chest & no longer than 7.5cm. Should not be made from elastic. Halter necks, fix cord at front and back of garment and use adjusting tabs or butterfly clip, hook and slider. Elastic cords are not recommended.
DECORATIVE CORD	Not permitted in hood or back of hood and must not be placed where they could be tied across the throat. Elastic cords are not recommended.	Free ends considered at upper chest only - no longer than 7.5cm at point of attachment. Elastic cords are not recommended.	Free ends considered at upper chest only - no longer than 7.5cm at point of attachment. Elastic cords are not recommended.	Free ends considered - no longer than 7.5cm at point of attachment. Elastic cords are not recommended.	Free ends considered - no longer than 7.5cm at point of attachment. Elastic cords are not recommended.	Free ends considered - no longer than 7.5cm at point of attachment. Elastic cords are not recommended.

7.9 Zone B

ZONE B – CHEST TO HIP (FRONT)

ZONE B1 – CHEST TO HIP (BACK)

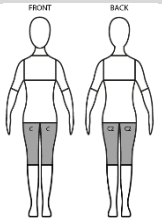


CORD TYPE/ZONE	AGE 0 – 7 (up to 6 yrs & 11 months)		AGE 7 – 14 (from 7 yrs to 14 yrs)	
	ZONE B	ZONE B1	ZONE B	ZONE B1
DRAWSTRING	Free ends should be no longer than 14cm when garment is open to its largest and laid flat. Drawstring must be stitched centrally. Embellishments attached to the free end are not recommended. Elastic cords are not recommended.	Not recommended	Free ends should be no longer than 20cm when garment is open to its largest and laid flat. Drawstring must be stitched centrally. Embellishments attached to the free end are not recommended. Elastic cords are not recommended.	Not recommended
FUNCTIONAL CORD	Free ends should be no longer than 14cm from exit point. Embellishments attached to the free ends are not recommended. Elastic cords are not recommended.	Not recommended	Free ends should be no longer than 20cm from exit point. Embellishments attached to the free ends are not recommended. Elastic cords are not recommended	Not recommended
DECORATIVE CORD	Free ends should be no longer than 14cm from point of attachment. Embellishments attached to the free end are not recommended. Elastic cords are not recommended.	Free ends should be no longer than 7.5cm from point of attachment. Embellishments attached to the free ends are not recommended. Elastic cords are not recommended.	Free ends considered - no longer than 7.5cm at point of attachment Embellishments attached to the free ends are not recommended. Elastic cords are not recommended	Free ends considered - no longer than 7.5cm at point of attachment Embellishments attached to the free ends are not recommended. Elastic cords are not recommended
TIED BELTS & SASHES	When untied should be no longer than 36cm in length measured from point where to be tied.	When untied should be no longer than 36cm in length measured from point where to be tied. Must not hang below the hem of the garment when untied.	When untied should be no longer than 36cm in length measured from point where to be tied.	When untied should be no longer than 36cm in length measured from point where to be tied.

7.10 Zone C

ZONE C – BELOW HIP & BELOW CROTCH (FRONT & SIDE)

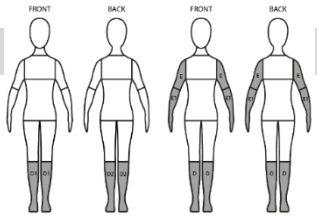
ZONE C1 – BELOW HIP & BELOW CROTCH (BACK)



CORD TYPE/ZONE	AGE 0 – 7 (up to 6 yrs & 11 months)		AGE 7 – 14 (from 7 yrs to 14 yrs)	
	ZONE C	ZONE C1	ZONE C	ZONE C1
DRAWSTRING	Should not hang below the lower edge of the garment inclusive of any toggle or trim. Should lie flat against the garment when the garment is tightened or fastened.	Not recommended	Should not hang below the lower edge of the garment inclusive of any toggle or trim. Should lie flat against the garment when the garment is tightened or fastened.	Not recommended
FUNCTIONAL CORD	Should not hang below the lower edge of the garment inclusive of any toggle or trim. Should lie flat against the garment when the garment is tightened or fastened.	Not recommended	Should not hang below the lower edge of the garment inclusive of any toggle or trim. Should lie flat against the garment when the garment is tightened or fastened.	Not recommended
DECORATIVE CORD	Should not hang below the lower edge of the garment inclusive of any toggle or trim. Should lie flat against the garment when the garment is tightened or fastened.	Should be no longer than 7.5cm It is not recommended to use a knot, toggle or three dimensional trims. Adjusting tabs should be no longer than 7.5cm, and should not hang below the lower edge of the garment. Buttons, toggles, buckles or three dimensional trims on the ends of adjusting tabs are not recommended.	Should not hang below the lower edge of the garment inclusive of any toggle or trim. Should lie flat against the garment when the garment is tightened or fastened.	Should be no longer than 7.5cm It is not recommended to use a knot, toggle or three dimensional trims. Adjusting tabs should be no longer than 7.5cm, and should not hang below the lower edge of the garment. Buttons, toggles, buckles or three dimensional trims on the ends of adjusting tabs are not recommended

7.11 Zone D & E

ZONE D – LEG KNEE TO FOOT (FRONT, BACK & SIDE)
ZONE E – SLEEVE SHOULDER TO ELBOW
ZONE E1 – SLEEVE ELBOW TO HAND



CORD TYPE/ZONE	AGE 0 – 7 (up to 6 yrs & 11 months)			AGE 7 – 14 (from 7 yrs to 14 yrs)		
	ZONE D	ZONE E	ZONE E1	ZONE D	ZONE E	ZONE E1
DRAWSTRING	Should not be outside the garment when the garment is fastened.	Maximum protruding length 7.5cm measured when sleeve is open to its largest and laid flat.	Should not be outside the garment when the garment is fastened.	Should not be outside the garment when the garment is fastened.	Maximum protruding length 14cm measured when sleeve is open to its largest and laid flat	Should not be outside the garment when the garment is fastened. Adjusting tabs should finish on the inside of the garment.
FUNCTIONAL CORD	Should not be outside the garment when the garment is fastened Adjusting tabs should be no longer than 14cm, should not hang below the lower edge of the garment. Toggles, button, buckle on the free end is not recommended.	Maximum protruding length 7.5cm measured when sleeve is open to its largest and laid flat. Adjusting tabs should be no longer than 10cm, when open should not hang below the sleeve edge. Toggles, button, buckle on the free end is not recommended	Should not be outside the garment when the garment is fastened. Adjusting tabs should be no longer than 10cm, when open should not hang below the sleeve edge. Toggles, button, buckle on the free end is not recommended.	Should not be outside the garment when the garment is fastened Adjusting tabs should be no longer than 14cm, should not hang below the lower edge of the garment. Toggles, button, buckle on the free end is not recommended.	Maximum protruding length 14cm measured when sleeve is open to its largest and laid flat. Adjusting tabs should be no longer than 10cm, when open should not hang below the sleeve edge. Toggles, button, buckle on the free end is not recommended	Should not be outside the garment when the garment is fastened. Adjusting tabs should finish on the inside of the garment.
DECORATIVE CORD	Should not be outside the garment when the garment is fastened Adjusting tabs should be no longer than 14cm, should not hang below the lower edge of the garment. Toggles, button, buckle on the free end is not recommended.	Maximum protruding length 7.5cm measured when sleeve is open to its largest and laid flat. Adjusting tabs should be no longer than 10cm, when open should not hang below the sleeve edge. Toggles, button, buckle on the free end is not recommended	Should not be outside the garment when the garment is fastened. Adjusting tabs should be no longer than 10cm, when open should not hang below the sleeve edge. Toggles, button, buckle on the free end is not recommended.	Should not be outside the garment when the garment is fastened Adjusting tabs should be no longer than 14cm, should not hang below the lower edge of the garment. Toggles, button, buckle on the free end is not recommended.	Maximum protruding length 14cm measured when sleeve is open to its largest and laid flat. Adjusting tabs should be no longer than 10cm, when open should not hang below the sleeve edge. Toggles, button, buckle on the free end is not recommended	Should not be outside the garment when the garment is fastened. Adjusting tabs should finish on the inside of the garment.

Part 8: Trim Worksheets

Trim worksheets are provided for the most common garment trims and treatments that have the potential to cause harm. The worksheets are the practical tools and guides to be used during the risk assessment. For each trim / treatment, guidance is provided for the design of safe products. Where such trims / treatments are then used in garments, methods for identifying risks and testing performance is outlined.

Trim worksheets are provided for the following trims and treatments:

8.1 Buttons and Toggles

Overview

Buttons & toggles though commonly used for all forms of apparel, have the potential to create safety hazards, especially for young children.

Buttons that are poorly attached to garments or that easily break or separate can become a 'small part' that is easily mouthed and swallowed by young children.

Sharp or pointy edges that can scratch or pierce a child's skin can arise through poor design (e.g. star shapes) or when buttons break too easily.

Coatings and materials used for buttons or toggles may contain chemicals that are hazardous for children who are known to frequently mouth such items.

Hazards

Choking, ingestion, sharp edges and points, inhalation, chemical toxicity etc……

Risks

- Buttons may detach by pulling, sucking and unravelling
- Multi component buttons may separate into pieces
- Button components can crack or break
- Button may be manufactured with sharp edges or points
- Button materials or coatings may contain chemicals known to cause irritation or health problems
- Buttons resembling food may be enticing for young children to place in the mouth
- Buttons made from natural materials can break easily and cause injury

Images

Tests and Standards

Name	Tests	Standard	Requirements
Torque and Tension Test	Tests strength of attachment	AS/NZS ISO 8124.1:2013 torque and tension tests	Minimum 7.25kg (70N) for 10 seconds
Migration of certain elements	Test for hazardous chemicals of concern	AS/NZS ISO8124.3:2012 Migration of certain elements	Must meet requirements of the standard for permitted levels of certain chemicals

8.1 Buttons and Toggles (cont.)

Safety Requirements and Design Considerations	Preliminary Assessment	Additional Assessment / Testing	
		≤ 3 years	4 - 14 years
Button must be securely attached	Pull and twist button to assess ease with which it detaches	Torque and Tension Test – Mandatory	Torque and Tension Test – Recommended
Buttons should not have sharp or pointy edges	Tactile review for sharp or pointy edges	Recommended	Recommended
Enamel coated buttons	Consider chemicals used in coating	Migration of certain elements - Recommended	Migration of certain elements - Recommended

Application Notes

- Buttons should not be attached to uneven surfaces; this compromises the attachment.
- Toggle buttons must be risk assessed for shape, if too pointy they can be hazardous. Check they can be easily & securely attached.
- For lightweight fabrics & knitted constructions, it may be necessary to attach buttons through at least two layers of fabric or a suitable fusible backing should be used. Buttons should not tear the fabric when pull test is conducted.
- All buttons to be securely lock-stitched. Minimum of 8 stitches for 2-hole buttons & 16 stitches for 4-hole buttons is recommended in production.
- Any buttons/toggles attached using cord or tape must be secured using bar tacking.
- Cut cords used on buttons & toggles, must be covered with a triangular piece of fabric (sprat head) that is sewn over the cord and stitched to the product.
- Buttons should remain attached under the allocated care instruction, and throughout the reasonable life of the product.
- Special consideration should be given to the shape and profile of buttons that pass across the face when a garment is removed.
- On the front of any garment, it is recommended that if a two-part composite button is required that only flat "pig nose" covered buttons are used (pull tests apply when using for young children)
- Spare buttons should not be attached directly on to children's garments. A button bag attached by string or kimble can be used.
- Buttons made from natural materials such as shell, wood, coconut or rubber as well as buttons made from glass should not be used for young children. They splinter and break easily causing injury.
- Buttons must be free of injection mould "flash" or rough edges that could lacerate.
- Buttons that imitate/resemble food should not be used on garments for children 3 years and under.

Production Notes

- Buttons must be checked regularly in production to ensure that the attachment method is consistent, and they are securely attached
- All garments with feet, pockets or any other areas where a loose button could be found should be checked thoroughly. The garment may need turning inside out.
- It is highly recommended that manufacturers keep records of any internal testing such as pull testing where this is conducted during production of garments.
- Garments should pass through metal detection equipment prior to final packing into cartons to ensure there is no contamination from foreign parts or broken needles.

8.2 Beads and Jewel Trims

Overview

Beads and jewel trims are used for all forms of apparel as a form of decoration, they have the potential to create safety hazards, especially for young children.

Beads and jewel trims poorly attached to garments or that easily break or separate can become a 'small part' that is easily mouthed and swallowed by young children.

Sharp or pointy edges that can scratch or pierce a child's skin can arise through poor design (e.g. star shapes) or when beads break too easily.

Coatings and materials used for beads may contain chemicals that are hazardous for children if placed in the mouth.

Beads and jewel trims made from materials such as glass, rubber, wood, seashell or real pearl break & split more readily and are not recommended

Images

Hazards

Choking, ingestion, sharp edges and points, inhalation, chemical toxicity etc…

Risks

- Beads and jewel trims become detached by pulling, sucking and unravelling
- Beads and jewel trim components may crack or break
- Beads and jewel trims may have sharp edges or points
- Beads and jewel trim materials or coatings may contain chemicals known to cause irritation or health problems

Tests and Standards

Name	Tests	Standard	Requirements
Torque and Tension Test	Tests strength of attachment	AS/NZS ISO 8124.1:2013 torque and tension tests	Minimum 7.25kg (70N) for 10 seconds
Migration of certain elements	Test for hazardous chemicals of concern	AS/NZS ISO8124.3:2012 Migration of certain elements	Must meet requirements of the standard for permitted levels of certain chemicals
Durability Wash	Wash x5 according to care instructions	In-house method	Appearance and attachment must not vary from original sample

8.2 Beads and Jewel Trims (cont.)

Safety Requirements and Design Considerations	Preliminary Assessment	Additional Assessment / Testing	
		≤ 3 years	4 - 14 years
Beads and jewels must be securely attached	Pull and twist bead to assess ease with which it detaches	Torque and Tension Test – Mandatory	Torque and Tension Test – Recommended
Beads and jewels should not have sharp or pointy edges	Tactile review for sharp or pointy edges	Recommended	Recommended
Coated beads and jewels	Consider chemicals used in coating	Migration of certain elements - Recommended	Migration of certain elements - Recommended

Application Notes

- Beads & jewels should not be attached to uneven surfaces, this compromises the attachment.
- Beads & jewels should not tear the fabric when pull test is conducted.
- Beads & jewels should remain attached under the allocated care instruction, and throughout the reasonable life of the product.
- Special consideration should be given to the shape and profile of beads & jewels that pass across the face when a garment is removed.
- Spare beads & jewels should not be attached directly on to children's garments. A small bag attached by string or kimble can be used.
- Beads & jewels made from natural materials such as wood, glass and shell should not be used for young children. They splinter and break easily causing injury.
- Beading must be securely attached, and threads should be knotted-off after every 3-4 beads using a double knot.
- Beads & Jewels must meet pull strength test requirements for age 0-3 years.
- Claws of jewels should be avoided as they can open and become a sharp point. When used, claws should be fully clamped to ensure that they remain fully closed.
- Monofilament thread is not recommended, because of its rigidity it could cut into the skin.
- Sewing needle must pass through the bead a minimum of 3 times to secure the beading.
- If beads are applied singly, double knot off after each bead.
- If beads are attached in a group - knot off every third bead.
- In hand stitching, double knot two strands of thread together, stitch through fabric to form a small stitch before applying bead. To finish off, stitch through and double stitch, finish and knot.
- It is recommended that thread length start and finish to be 3mm to 5mm.
- Float length - maximum of 1cm. Threads on internal or external areas of product should be secure and trimmed. Thread end - after cutting 0.5cm to 1cm.
- Beading or jewels should not be applied to neck area unless neck stretch measurement requirement can be achieved without beads or jewels becoming detached.
- A suitable backing material may be required to conceal long float threads, knots or stitching and to fully secure a bead or jewel trim from detaching. For example, backing fabrics may be required for reinforcement in instances where the base fabric is light weight.
- Beads or jewels should be attached post heavy industrial washing or otherwise their attachment could be severely compromised.

8.2 Beads and Jewel Trims (cont.)

Production Notes
- Beads and Jewels must be checked regularly in production to ensure that the attachment method is consistent, and they are securely attached. - All garments with feet or pockets or any other areas where a loose bead or jewel could be found should be checked thoroughly. The garment may need turning inside out. - Garments should pass through metal detection equipment prior to final packing into cartons to ensure there is no contamination from foreign parts or broken needles.

8.3 Pom Poms, Tassels, Fringing, Braids and Plaits

Overview

3 dimensional trims such as Pom Poms, Tassels, Fringing, Braids and Plaits ("3D Trims) have the potential to create safety hazards, especially for small children. If 3D Trims are poorly attached to garments or if they easily break or separate, they can become a "small part" that is easily mouthed and swallowed.

This section provides recommendations to promote safety and minimise potential hazards with 3D Trims.

Refer also to Part 7 Cords in relation to anything that is hanging loose e.g. image 5

Images

Hazards

Choking, entrapment, ingestion, inhalation, insertion, strangulation, tourniquet.

Risks

- 3D Trims come detached by pulling, sucking and unravelling
- 3D Trim component pieces separate eg pompom or tassel threads
- 3D Trims attached to a cord are hazardous. Please refer to the cords section in this document for recommendations.
- 3D Trims that fit in to a small parts cylinder pose a choking hazard. Please refer to the hazards section in this document for details.

Tests and Standards

Name	Tests	Standard	Requirements
Torque and Tension Test	Tests strength of attachment	AS/NZS ISO 8124.1:2013 torque and tension tests	Minimum 7.25kg (70N) for 10 seconds
Small Parts	To ensure diameter of 3D trim (eg pom-pom or tassel) is not considered a choking hazard on a product intended for young children.	AS/NZS ISO 8124.1:2016	Pom poms over 44.5mm in diameter are not considered a choking hazard & therefore safer on product intended for young children (provided the pompom cannot be compacted down to less than 44.5mm in diameter eg through becoming wet by sucking).
Durability to Washing	To ensure security of attachment post-laundering, based on expected life of the product.	Wash 5 times (x5) in accordance with the care label instruction.	No detachment or part detachment, fraying No deterioration of trim

8.3 Pom Poms, Tassels, Fringing, Braids and Plaits (cont.)

Safety Requirements and Design Considerations	Preliminary Assessment	Additional Assessment / Testing	
		< 3 years	4 - 14 years
3-Dimensional trim must be securely attached. Children up to and including 36 months of age are at the highest risk of detached 3D trims posing a hazard	Pull and twist 3-D trim to assess the ease with which it detaches.	Torque and Tension Test – Mandatory	Torque and Tension Test – Recommended
	Conduct wash testing to confirm attachment is still adequate	Durability wash - Mandatory Torque and Tension Test – Mandatory after washing	Durability wash - Recommended Torque and Tension Test – Recommended
3-D trim must be securely made so that it does not separate into components (see construction guidelines below) or partially detach to form a loop or loose thread	Pull and twist actual trim (pom-pom, tassel, braid or fringing) to assess the ease with which the trim separates or deteriorates.	Torque and Tension Test – Mandatory	Torque and Tension Test – Recommended
The attachment of a 3D Trim must not cause a potential entrapment hazard, for example when attached to a decorative or functional cord	Refer to Part 7 - Cords	Refer to Part 7 - Cords	Refer to Part 7 - Cords

Application Notes

- Sewing thread ends must be secure & long loops & threads on internal or external area of product must be trimmed off.
- Machine lock-stitching is recommended for all trims irrelevant of their size and shape in order to maintain consistency throughout production.
- Hand stitching methods are difficult to control between operators. Achieving consistency of hand stitching throughout the production process is risky.
- Attaching trims using hot-fix or glue is not permitted due to the high risk of detachment.
- Raw ends of flat-applied trims should be enclosed in a seam, turned under and machine-stitched or heat-sealed to prevent fraying.
- Any trim including Pom Poms, Tassels, Fringing, Braids and Plaits should remain attached under the allocated care instruction and throughout the reasonable life of the product.
- Pom poms over 44.5mm in diameter that do not fit in the pompom test template as per ISO 8124 are not considered a choking hazard & therefore safer on product intended for young children, however, they must still remain attached to the product under the intended care instruction and throughout the reasonable life of the product.
- Pom poms, tassels & bobbles must be constructed in a way where the fibres cannot readily be removed.
- The attachment of pom-poms, tassels etc. must not cause a potential entrapment hazard, for example when attached as an embellishment to a decorative or functional cord (refer to the cord section in this document for rules)

8.3 Pom Poms, Tassels, Fringing, Braids and Plaits (cont.)

Construction Guide

- This construction method below aims to minimise the risk of fibres and yarns being easily removed or pulled out. Pompoms are used as an example but the rationale can be adapted to other 3D Trims.

Step 1: Cut yarn to required length. Add cotton strap or ribbon and then top stitch 4-6 times for security		**Step 2:** Roll and tie the bundle by using matching yarn	
Step 3: Cut to shape pompom to required size		**Step 4**: Trim to required size and shape	
Step 5: Finished Pompom			
Step 6: Attachment Machine attach pompom as follows: - 4 hole lockstitch button sew attach - thread ends must not be able to be pulled out. - The centre cotton strap / ribbon could be extended to aid attachment to the product – extension shown in red on diagram 1 - The centre cotton strap / Ribbon can then be threaded to the reverse of the garment and lock stitched down as diagram 2 - Attachment strength testing must pass before production starts - Pom Poms can be lock stitched at the centre position during construction for extra security		Diagram 1 	Diagram 2 

8.3 Pom Poms, Tassels, Fringing, Braids and Plaits (cont.)

Production Notes

- Garments that have been the subject of testing must not be placed back in production.
- Records should be kept of any in-house testing such as durability washing and pull testing.
- It is recommended that manual checks be carried out on garments to confirm that there is consistency of attachment throughout the production line.
- Pull testing during production is highly recommended to ensure that pom pom, bobble, braid or fringing meets the attachment strength requirement.
- The factory should be encouraged to keep records of pull tests where conducted during production.
- Garments should pass through metal detection equipment prior to final packing into cartons to ensure there is no contamination from foreign parts or broken needles.

8.4 Bows, Fabric Loops, Hanger Loops, Hook and Loop Tape

Overview

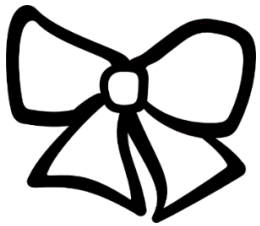
Bows, Fabric Loops, Hanger Loops and loop tape, are used in all forms of apparel for decoration and functional purposes. Due to their size and design, loops have the potential to create safety hazard, especially for small children.

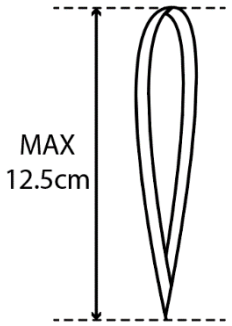
Bows, Fabric Loops, Hanger Loops & loop tape poorly attached to garments that easily detach or separate can become a "small part" that is easily mouthed and swallowed by young children.

Bows, Fabric Loops & Hanger Loops due to their length and position can pose an entrapment, entanglement, or strangulation hazard of appendage and loops can become caught on obstacles.

Inappropriate use of components such as wire in ribbon can cause injury by piercing or scratching the skin.

Images





Hazards

Choking, ingestion, laceration, entrapment/ entanglement

Risks

- Bows and Fabric Loops become detached by pulling, sucking and unravelling.
- Bows and Fabric Loops too long can pose entrapment, entanglement & strangulation of appendages.
- Bows and Fabric Loops if size and design are not risk managed, can be caught on obstacles.
- Loop and hook tape with sharp edges can cause laceration.
- Wire ribbon is not recommended due to inability to conceal sharp edges.
- Hanger loops that are not removed prior to wearing the garment, can cause entrapment, entanglement & strangulation.

Tests and Standards

Name	Tests	Standard	Requirements
Torque and tension test	Tests strength of attachment	AS/NZS 8124.2013 Torque and tension tests	Minimum 7.25kg (70N) for 10 seconds
Durability Wash	Confirms that the bow or loop will not detach, fray or unravel during laundering	Wash 5 times (x5) in accordance with the care label instruction.	No detachment or part detachment, no fraying or unravelling

8.4 Bows, Fabric Loops, Hanger Loops, Hook and Loop Tape (cont.)

Safety Requirements and Design Considerations	Preliminary Assessment	Additional Assessment / Testing	
		< 3 years	4 - 14 years
Bows should be engineered so free ends should not fall within the high-risk zones as referenced in the cord section of this manual	Assess the feature for free end lengths and position on garment	Max tail of bow to be 7.5cm	Max tail of bow to be 14 cm
The circumference of the bow loop should fall within the high-risk zones as referenced in the cord section of this manual	Review the circumference of the bow loop and position of the bow on garment.	Max circumference of loop 15cm	Max circumference of loop 28cm
Decorative loops & bows must be securely constructed and securely attached	Pull & twist on trim to assess ease with which it detaches	AS/NZS 8124.2013 Torque and tension tests - Mandatory	AS/NZS 8124.2013 Torque and tension tests - Recommended
Hanging loop length	Ensure appropriate Warnings have been applied to hanger loops (i.e. to advise removal of hanger loops)	Recommended	Recommended
Hook and loop tape	Tactile review for sharp or pointy edges.	Recommended	Recommended

Application Notes

- Bows, fabric loops, hanger loops, hook & loop tape, should remain attached under the allocated care instruction and throughout the reasonable life of the product.
- Wired ribbon should not be used, it poses a risk of injury to the child if the wire protrudes from the fabric.
- Heat sealed ends or laser cut fabrics/ribbons should not have sharp edges.
- Free ends of any bows or loops must comply with the requirements within the cords and drawcords section of this manual.
- Bows, fabric loops, hanger loops, hook & loop tape must be machine lock stitched attached.
- Bows and fabric loops should be securely constructed and stitched down so that they do not unravel.
- Bow ends and ribbon trims to be adequately sealed, or, single/ double turned and stitched down or bar tacked to prevent fraying.
- Thread ends must be secure and trimmed.
- A suitable backing material may be required to conceal long float threads, knots or stitching. Backing fabrics are recommended in instances where the base
- Where using rouleau loops it is recommended to use elasticated material. Loop size must match button size.
- Rouleau loops greater than 1cm are not recommended.
- Where hanger tape is used the loop measurement should be controlled as follows:
    - Maximum loop circumference 25cm
    - Maximum length of loop + tail 25cm
    - Mobilon/jelly tape is not recommended due to its extensibility

8.4 Bows, Fabric Loops, Hanger Loops, Hook and Loop Tape (cont.)

Production Notes

- Bows, loops, hanger tape must be checked regularly in production to ensure that the attachment method is consistent, and they are securely attached.
- Manufacturers are encouraged to keep records of any in-house testing such as pull testing.
- Garments should pass through metal detection equipment prior to packing into cartons to ensure there are no foreign objects or broken needles present.

8.5 Sequins

Overview

Sequins are used for all forms of apparel as a form of decoration; they have the potential to create safety hazards, especially for young children.

Sequins poorly attached to garments or that easily break or separate can become a 'small part' that is easily mouthed and swallowed by young children.

Sharp or pointy edges that can scratch or pierce a child's skin can arise through poor design (e.g. star shapes) or when sequins break too easily.

Coatings and materials used for sequins may contain chemicals that are hazardous for children who are known to frequently mouth such items.

Hazards

Choking, ingestion, sharp edges and points, inhalation, chemical toxicity etc…

Risks

- Sequins become detached by pulling, sucking and unravelling
- Sequins components crack or break
- Sequins design or manufactured with sharp edges or points
- Sequin materials or coatings may contain chemicals known to cause irritation or health problems

Images

Tests and Standards

Name	Tests	Standard	Requirements
Migration of certain elements	Test for hazardous chemicals of concern	AS/NZS ISO8124.3:2012 Migration of certain elements	Must meet requirements of the standard for permitted levels of certain chemicals
Durability Wash	Wash x5 according to care instructions	In house method	Appearance and attachment must not vary from original sample. No detachment or damage to sequins post washing.

8.5 Sequins (cont.)

Safety Requirements and Design Considerations	Preliminary Assessment	Additional Assessment / Testing	
		< 3 years	4 - 14 years
Sequins must be securely attached	Pull and twist bead to assess ease with which it detaches	Recommended	Recommended
Sequins should not have sharp or pointy edges	Tactile review for sharp or pointy edges	Recommended	Recommended
Sequin substrate	Consider chemicals used in coating	Migration of certain elements - Recommended	Migration of certain elements - Recommended

Application Notes

- Sequins should remain attached under the allocated care instruction, and throughout the reasonable life of the product.
- Sequins must not have sharp, rough edges or burrs and be free of mould 'flash'. Shaped sequins such a star shapes must not be sharp.
- Sequins should not contain any of the known irritants: as listed in AS/NZ ISO 8124.3 Migration of certain elements.
- Sequins are generally made from PVC, PET or acetate & should be free from Phthalates, a chemical used to make plastics more flexible and harder to break.
- Strips of sequins to be attached by lockstitch machine – bar-tack at start and finish.
- Consideration should be given to the positioning of sequins that pass across the face when a garment is removed.
- For children 3 years and under, sequins with a centre hole are preferred and they should be machine lock-stitched flat.
- Flip type sequins are not recommended for children 3 years and under.
- For children 3 years and under, it is recommended that sequins are within 3mm diameter to prevent chocking or inhalation hazards.
- Hand stitched sequins should be back-stitched and secured thoroughly with stitching knotted off adequately to avoid detachment.
- For continuous sequins, stitching must be locked off every 10th stitch.
- Long loops and threads on internal or external areas of product should be trimmed off.
- A suitable backing material may be required for comfort to conceal long float threads, knots or stitching and to fully secure the sequin from detaching. Backing fabrics may be required for reinforcement in instances where the base fabric is light weight.
- The neck stretch must be unaffected if sequins are applied to the neck area of the garment.

Production Notes

- Sequins must be checked regularly in production to ensure that the attachment method is consistent, and they are securely attached.
- Garments with feet or pockets or any other areas where loose sequins could be found should be checked thoroughly. The garment may need turning inside out.
- Garments should pass through metal detection equipment prior to final packing into cartons to ensure there is no contamination from foreign objects or broken needles.

8.6 Diamantes, Glued and Heat-sealed Decorations

Overview	Images
Glued/heat-sealed decorations, commonly used for all forms of apparel, have the potential to create safety hazards: Especially for small children. Glued/heat-sealed decorations that are poorly attached to garments can peel away become detached, creating a "small part" that could easily be mouthed and swallowed by young children. Sharp or pointy edges as a result or poor design choices, can scratch or pierce a child's skin (e.g. star shapes). Coatings and materials used for glued/heat-sealed decorations may contain chemicals that are hazardous for children who are known to frequently mouth such items.	 
Hazards	
Choking, ingestion, sharp edges and points, inhalation, chemical toxicity, insertion	
Risks	
- Decorations can become detached by pulling, sucking and in time after laundering - Attachment may be compromised on different fabric types and different thicknesses of fabric or trims (bonding may be affected) - Decorations can chip or crack	

Tests and Standards			
Name	**Tests**	**Standard**	**Requirements**
Torque and Tension Test	Tests strength of attachment	AS/NZS ISO 8124.1:2013 torque and tension tests	Minimum 7.25kg (70N) for 10 seconds
Migration of certain elements	Test for hazardous chemicals of concern	AS/NZS ISO8124.3:2012 Migration of certain elements	Must meet requirements of the standard for permitted levels of certain chemicals
Durability Wash	Confirms security of attachment post laundering	Wash x5 according to care instructions	No detachment or part detachment. No broken or damaged diamantes.

8.6 Diamantes, Glued and Heat-sealed Decorations (cont.)

Requirements and Considerations			
Safety Requirements and Design Considerations	**Preliminary Assessment**	**Additional Assessment / Testing**	
		< 3 years	**4 - 14 years**
Decorations must be securely attached	Pull and twist to assess ease with which it detaches	Torque and Tension Test - Mandatory	Torque and Tension Test – Recommended
	Conduct wash testing to confirm bonding is still adequate	Durability Wash Recommended	Durability Wash - Recommended
Decorations should not have sharp or pointy edges	Tactile review for sharp or pointy edges	Recommended	Recommended
Decorations should not be made from or have coatings made from hazard chemicals	Consider chemicals used in coating	Migration of certain elements - Recommended	Migration of certain elements - Recommended

Application Notes

- Shaped diamantes such as stars must have smooth edges.
- Both ultra-sonic and heat transfer methods are acceptable for attaching the diamante to the garment.
- Big diamantes, i.e. larger than 5mm should be sewn (see sequin/bead worksheet for sewing attachment guidelines) and meet torque and tension test standards.
- Diamantes and other glued/heat sealed decorations should remain attached under the allocated care instruction, and throughout the life of the product.
- Avoid heat-sealed decorations made from glass as they crack and break easily.
- Diamantes & other glued/heat sealed decorations should not resemble food. This is important for young children who may place them in the mouth.
- Acrylic stones should not be used as they do not react well to heat application.
- Diamantes should not be attached directly over prints as this affects the bonding of the diamante to the fabric.
- Diamantes must not be attached on uneven surfaces, eg seams, velour, piles, flocked prints, ribs, brushed and printed fabrics this may compromise attachment.
- Nail head diamantes (also called Rhinestones or Rhine studs) can be used. Application requirements as explained for diamantes to be followed.
- Coloured diamantes are not as durable due to the films and backing used. Ensure they are tested independently of the clear diamantes if you are using both on the same garment.
- Diamantes need to be attached after heavy industrial garment washing to ensure that they remain secure.
- If used, spare diamantes should be placed in a separate bag attached to the garment with kimble or string.

Production Notes

- Diamantes should be inspected for cracks, chips & blackened edges prior to application.
- Heat sealed diamantes & other glued/heat attached decorations must be checked regularly in production to ensure that the attachment method is consistent, and they are securely attached.
- Garments with feet, pockets or any other areas where a lose diamantes could be found should be checked thoroughly. The garment may need turning inside out.
- It is recommended that manufacturers keep records of any in-house testing such as pull testing.
- Garments should pass through metal detection equipment before final packing into cartons to ensure there is no contamination from foreign objects or broken needles.

8.7 Metal Trims, Buckles, Rivets and Snaps

Overview

Metal trims, buckles, rivets, snaps & hook & eyes though commonly used on all forms of children's clothing have the potential to create safety hazards, especially for young children.

Metal trims that are poorly attached to garments or are poorly constructed can become a safety risk.

Sharp or pointy edges that can scratch or pierce a child's skin can arise through poor quality or construction of metal trims.

Coatings and materials used for metal trims may contain chemicals that are hazardous for children due to known irritants through oral or skin contact.

Snaps require attaching using specific machinery and correct settings in order for them to be safe and remain attached for the reasonable life of the garment.

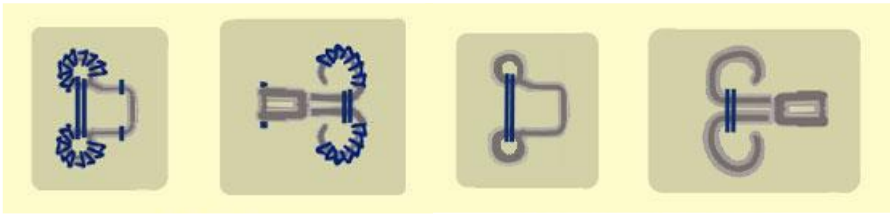
Hazards

Choking, ingestion, sharp edges and points, inhalation, chemical toxicity, insertion

Risks

- Metal trims can become detached by pulling, sucking and in time after laundering
- With snaps in particular, attachment may be compromised on different fabric types and different thicknesses of fabric or trims (pinch settings need to be established)
- Buckle prongs must not be pointed and sharp

Images



8.7 Metal Trims, Buckles, Rivets and Snaps (cont.)

Tests and Standards			
Name	**Tests**	**Standard**	**Requirements**
Torque and Tension Test	Tests strength of attachment	AS/NZS ISO 8124.1:2013 torque and tension tests	Minimum 7.25kg (70N) for 10 seconds
Migration of certain elements	Test for hazardous chemicals of concern	AS/NZS ISO8124.3:2012 Migration of certain elements	Must meet requirements of the standard for permitted levels of certain chemicals
Durability Wash	Confirms security of attachment post laundering	Wash 5 times (x 5) in accordance with the care label instruction.	No detachment or part detachment No broken or damaged components
Test for corrosion	Tests the metal trim for resistance to corrosion	ISO9227:2012 corrosion test	No pitting, no corrosion, no discolouration

Safety Requirements and Design Considerations	Preliminary Assessment	Additional Assessment / Testing	
		< 3 years	**4 - 14 years**
Metal trims must be securely attached	Pull and twist to assess ease with which it detaches	Torque and Tension Test – Mandatory	Torque and Tension Test – Recommended
	Conduct wash testing to confirm method of attachment is adequate when the garment is laundered	Durability Wash - Recommended	Recommended
Metal trims should not have sharp or pointy edges	Tactile review for sharp or pointy edges	Recommended	Recommended
Metal trims should not be made from or have coatings made from hazard chemicals	Consider chemicals used in coating	Migration of certain elements - Recommended	Migration of certain elements - Recommended
Metal trims must be nickel free & non – ferrous to allow the use of conveyor metal detector equipment.	Ensure this is made clear to the supplier when sourcing all metal trims.	Must be nickel free and non-ferrous	Must be nickel free and non-ferrous

8.7 Metal Trims, Buckles, Rivets and Snaps (cont.)

Application Notes

- Brace clips and strap adjusters for straps should ideally be one piece welded.
- Buckles with moving parts ie. two or more pieces, is not recommended for children 3 years & under due to the risk of one part detaching and creating a choking hazard.
- Components should not be applied to uneven surfaces, e.g. half-on half/off the seam allowance, because their application could be compromised.
- Use prong fasteners on knitted fabrics to prevent laddering. Post fasteners are not recommended on knitted fabrics.
- The size & type of the snap and shank fasteners should be suited to the fabric weight and thickness
- Some fabrics may need reinforcing to attach metal components securely. For example, knitted fabrics may require woven bias-cut interlining to stabilise the base.
- Metal trims, buckles, rivets, snap fasteners & hook & eye should remain attached under the allocated care instruction, and throughout the reasonable life of the product.
- Metal trims should be stitched using adequate stitch tension & density to prevent detachment. Reinforced treatments should be considered for light-weight fabrics.
- Metal chain lengths/belts and positioning should be considered to reduce the risk of being caught on other objects.
- Prongs on buckles should not protrude beyond the rim of the buckle. Buckle rims should be indented to allow the prong to lay flush
- Prongs should not be pointed and sharp.
- Metal components & trims should not contain any of the known chemical irritants that are hazardous when in oral contact. Materials may also cause irritation when in contact with the skin. Refer to Migration of Toxic Elements test.
- All metal components & trims should be free of rough or sharp edges.
- Roll setting eyelets (as opposed to split setting eyelets) is recommended to be used on garments.

Production Notes

- Manufacturers are encouraged to keep records of any in-house testing such as durability washing and pull testing.
- With the application of snaps/press fastener, regular checks of equipment is recommended throughout production to ensure equipment has been set up in accordance with the pinch setting requirements, this should be done every two hours.
- A manual check should be carried out on every garment to ensure that the snap fastener prongs have all been pierced into the base fabric - and none are left protruding.
- All garments with feet/pockets or other areas where snaps or small metal trims (or other hazardous parts) could be found need to be turned inside out to check that no loose objects are trapped inside.
- Press fastener data sheets should be obtained and used at pre-production and production stages.
- Garments should pass through metal detection equipment prior to final packing in to cartons to ensure that no foreign objects or broken needles have been left in garments.

8.8 Applique (incl. Pinned Applique), Badges, Embroidery, 3D Motives and Float Threads

Overview

Applique, badges, embroidery, liquid filled patches, 3D motifs are used for all forms of apparel as a form of decoration; they have the potential to create safety hazards, especially for young children.
Applique, badges, liquid filled patches, 3D motifs poorly attached to garments or separate can become a 'small part' that is easily mouthed and swallowed by young children.
Coatings and materials used in applique, badges, 3D motifs may contain chemicals that are hazardous for children who are known to frequently mouth such items.
Liquid filled patches should not contain chemicals with known health impacts.

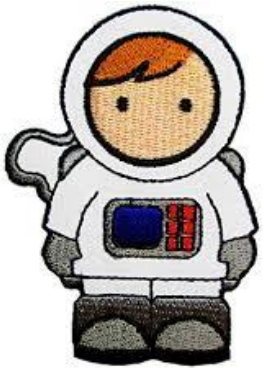
Hazards

Choking, ingestion, sharp edges and points, inhalation, chemical toxicity etc

Risks

- Applique, badges, embroidery, liquid filled patches, 3D motifs become detached by pulling, sucking and unravelling
- Applique, badges, embroidery, liquid filled patches, 3D motifs come apart or unravel
- Applique, badges, embroidery, liquid filled patches, 3D motifs materials or coatings may contain chemicals known to cause irritation or health problems
- Badges with pins should not be used for children 3 years and under

Images




Tests and Standards

Name	Tests	Standard	Requirements
Torque and Tension Test	Tests strength of attachment	AS/NZS ISO 8124.1:2013 torque and tension tests	Minimum 7.25kg (70N) for 10 seconds
Migration of certain elements	Test for hazardous chemicals of concern	AS/NZS ISO8124.3:2012 Migration of certain elements	Must meet requirements of the standard for permitted levels of certain chemicals
Durability Wash	Wash x5 according to care instructions	In house test method	Appearance and attachment must not vary from prewashing

8.8 Applique (incl. Pinned Applique), Badges, Embroidery, 3D Motives and Float Threads (cont.)

Safety Requirements and Design Considerations	Preliminary Assessment	Additional Assessment / Testing	
		< 3 years	4 - 14 years
Applique, badges, embroidery, liquid filled patches,3D motifs must be securely attached.	Pull and twist applique, badges, embroidery, liquid filled patches, 3D motifs to assess ease with which it detaches or pulls away from base.	Torque and Tension Test – Mandatory	Torque and Tension Test – Recommended
Applique, badges, embroidery, 3D motifs should have sealed edges, free from loose threads. Liquid filled patches should be sealed and not leak.	Tactile review	Recommended	Recommended
Liquid filling	Consider chemicals used in the filling	Migration of certain elements - Recommended	Migration of certain elements - Recommended
Badge with pin	Consider the safety of the pin and risk of injury	Mandatory	Mandatory

Application Notes

- On appliques & embroidery, thread ends/loops should be trimmed. If over 2.5cm, thread ends/loops can potentially become a tourniquet risk. Thread ends/loops should not exceed 1cm
- Adhesive must not be used, all motifs, badges, appliques to be stitched.
- Applique/badges and embroidery should remain attached under the allocated care instruction, and throughout the reasonable life of the product.
- All edges must be sealed to prevent fraying.
- Soft plastic badges must have groove line to allow for stitching.
- On garments intended for older children (4 years and older) where badges with pins, kilt pins or decorative pins are used, they must have a locking mechanism and the end of the pin is to be enclosed.
- Any motif, badge or applique must withstand a pull test as outlined in the tests required for pull testing unless it's sewn in a way that it cannot be gripped.
- Badges that require pins should never be used on garments for children 3 years and under.
- Kilt pins and decorative pins should never be used on garments for children 3 years and under.
- Design motifs on stretch fabrics must be designed with breaks in the pattern. This will avoid the breaking of the thread when worn.
- Applique/badges and embroidery stitching is to be neat and securely sewn. Stitch type, density and tension should be controlled to ensure complete enclosure and to avoid potential finger probing, detachment and loop forming. There should be adequate knotting off to avoid any unravelling.
- The reverse side of an embroidery/applique/badge stitching area should be nonabrasive: Especially if likely to be in direct contact with the skin. A suitable backing/fusing material may be required to provide a layer of protection. Consider irritation points, neck, knees, elbows etc
- A suitable backing/fusing material may be required to conceal long float threads, knots or stitching. The backing should completely conceal the stitched area. The backing or fusing material should be securely attached.
- Backing paper/fusing used during the embroidery process should be completely removed on the finished product. Ideally wash away backing/fusing material should be used

8.8 Applique (incl. Pinned Applique), Badges, Embroidery, 3D Motives and Float Threads (cont.)

Production Notes

- All badges, motifs & appliques must be checked regularly in production to ensure that the attachment method is consistent and they are securely attached.
- Manufacturers should keep records of any in-house testing conducted such as pull testing.
- Embroidery must be inspected to ensure that float yarns are not long and loose ends are adequately trimmed.
- Garments should pass through metal detection equipment prior to final packing in to cartons to ensure there is no contamination from foreign objects or broken needles.

8.9 Faux Fur and Feathers

Overview

Pile fabrics should be carefully considered in terms of pile length and pile retention.
If the pile pulls out easily, this can pose a choking or inhalation hazard. The longer the pile length, the more readily fibre will migrate and cause a choking hazard.
The position of the pile fabric in the garment and age of the wearer, particularly in garments for children under 12 months should be carefully considered. Children of this age are mouthing and pulling at items frequently.
Flammability of fabric should be considered before selected for use. Feathers should not be used on garments for children 3 years and under.

Images

Hazards

Perceived choking and aspiration, inhalation, piercing

Risks

- If the pile can be removed through pulling gently by hand, this poses a choking or inhalation risk.
- Pile length should be reviewed and risk assessed, particularly for infants who are still mouthing and pulling at items.
- The tail of a feather must not be sharp or it may pierce the skin, or cause injury.
- Feathers should never be used around the face of a garment in case of eye injury.
- Garments made from long pile fabrics should be considered for risk of it catching alight near an open flame.

Tests and Standards

Name	Tests	Standard	Requirements
Durability Wash	Wash x5 according to care instructions	In house test method	Appearance must not vary from original sample. There should be no pile loss. Minimal fibre shedding should be observed.

8.9 Faux Fur and Feathers (cont.)

Safety Requirements and Design Considerations	Preliminary Assessment	Additional Assessment / Testing	
		< 3 years	4 - 14 years
The pile should not shed	Pull the surface of the pile gently by hand and assess ease of removal.	Durability washing – inhouse method	Durability washing – inhouse method
The pile length should be measured	Use a measuring device such as a tape measure or ruler to determine the length of the pile	Should be <20mm	N/A
The potential for the pile fabric to ignite should be reviewed. Addition of a warning 'keep away from open flame' can be considered.	Review the fibre content. Cotton or cellulosic fabrics pose a higher risk. Review the fibre length. Long fibres can ignite more easily.	Recommended	Recommended

Application Notes

- The pile length of Faux Fur & pile fabrics should be considered based on age of the child.
- If pile shedding is observed on faux fur or pile fabrics, intended for children 3 years and under an alternative quality should be sourced.
- Faux fur made from cellulosic material is not recommended due to the higher flammability risk.
- Pile fabrics are deemed to be more flammable than flat fabrics and longer pile fabrics are easier to ignite. The length of the pile must be considered for this potential hazard as well as the garment styling.
- Warning labels could be considered to flag the hazard "keep away from open flame". This is not obligatory but it does provide the consumer with information that they should be aware of.
- For children 3 years and under, the pile length should be a maximum of 20mm in order to minimise risk of fibre shedding.
- It is not recommended that feathers are used on any garments intended for children 3 years and under.
- Feathers used for older children must be thoroughly and hygienically processed to ensure they are fit for purpose and do not pose any health risks.
- Feathers should not have sharp tails and they should be adequately held within a trim to avoid hazards resulting from sharp points.

Production Notes

- Manufacturers are encouraged to keep records of any in-house testing carried out such as Durability Washing.
- Certification should be provided for Feathers to confirm their origin and hygienic method of production.
- Garments should pass through Metal Detection equipment before final packaging in cartons to ensure no contamination from foreign objects or broken needles.

8.10 Elastics

Overview	Images
This section provides recommendations for the design and manufacture of children's clothing in relation to the use of elastic to promote safety and minimise risks. Elastic, though commonly used for all forms of apparel, has the potential to create safety hazards if not applied or specified correctly, especially for small children. Entrapment or pinching, can occur if safety considerations and requirements are not considered in the application of elastic thus acting as a tourniquet.	  ***Elastic used in cords is not recommended anywhere on a garment.***
Hazards	
Entrapment, pinching, skin irritation, tourniquet	
Risks	
- Reduction of blood flow - Discomfort through poor stretch and recovery of elastic - Flick back when used as cord	

Tests and Standards			
Name	**Tests**	**Standard**	**Requirements**
Tension & Elongation of Elastic Fabrics	Test quality of elastic to ensure comfort and functionality in the garment.	ASTM D4964-1996 (2012 el)	Adequate stretch and recovery with no rupture Recovery should be approx. 75%
Durability Wash	Confirms that the elastic does not loose shape, breakdown or rupture post laundering.	Wash 5 times (x 5) in accordance with the care label instruction.	Must retain shape and function. No breakdown or rupture.

8.10 Elastics (cont.)

Safety Requirements and Design Considerations	Preliminary Assessment	Additional Assessment / Testing	
		< 3 years	4 - 14 years
Elastics can reduce blood flow	Ensure that the specification and design is comfortable for the opening. Hand stretch the elastic to ensure that the elastic can be extended and relaxed adequately. Elastic cuffs must not be too tight as this can affect blood flow to the hands and feet.	Mechanical testing Stretch and Recovery evaluation	Mechanical testing Stretch and Recovery evaluation
Decorative elastics must not have overly long loops that may cause entrapment of fingers or toes.	Ensure that elastics are suitable for young children	Visual assessment & selection of elastic very important for young children	N/A
Elastics should never be used as a cord	Do not use	Not suitable	Not suitable

Application Notes

- Elastic should be latex free
- Where elastic is used in garment necklines it must meet minimum neck stretch measurements.
- Elastic should be appropriate for the purpose of the garments and fit without introducing a risk to the wearer.
- Shirring must be secured at the cut-off edge by lock-stitch/Bar tack to prevent stitches running back.
- It is recommended that elastic which is not fully enclosed in a channel or waistband must have a soft brushed surface if worn next to the skin to avoid skin irritations and discomfort.
- Where elastics are used, control measures must be in place to ensure relaxed and stretched measurements are achieved.
- Elastic must not roll or twist in the casing.

Production Notes

- Manufacturers are encouraged to keep records of any in-house testing such as durability washing.
- The elastic used in production must match the quality that was approved to ensure adequate functionality and conformance to any tests.
- Garments should pass through metal detection equipment prior to final packing to ensure there are no foreign objects or broken needles.

8.11 Zips, Slide Fasteners and Pullers

Overview

Slide fasteners, though commonly used for all forms of apparel, have the potential to create safety hazards: Especially for young children.

Poor quality components of zippers can easily break or become, a detached "small part" that is easily mouthed and swallowed by young children. Sharp or pointy edges can scratch or pierce a child's skin can arise through poor quality componentry or poor design choice.

Coatings and materials used for slide fasteners may contain chemicals that are hazardous for young children who are known to frequently mouth such items.

Any slide fastener or puller poorly attached or are poorly constructed can become a safety risk.

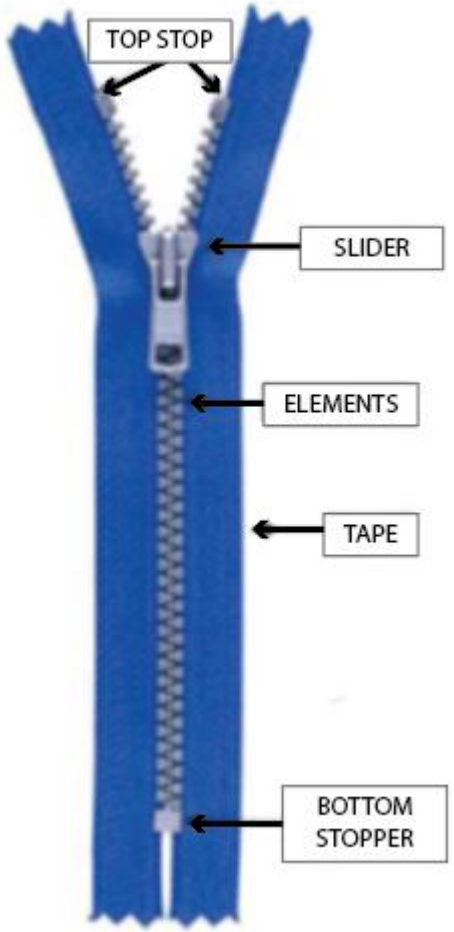
Hazards

Choking, ingestion, sharp edges and points, entrapment, chemical toxicity, insertion

Risks

- Zips & pullers that have sharp edges can cause injury to children, in particular metal zips and pullers.
- Decorative pullers should be risk assessed, and where appropriate a design hazard assessment conducted.
- Zip pullers should not resemble food to avoid the temptation of young children placing in the mouth.
- Slide fasteners/Pullers should remain attached under the allocated care instruction, and throughout the reasonable life of the product.
- Zip pullers made from rubber or other natural material such as wood are not recommended because they can crack and break easily causing a potential choking hazard.
- Metal top stoppers on slide fasteners must be firmly clamped with no sharp or pointy edges that can cause injury

Images



8.11 Zips, Slide Fasteners and Pullers (cont.)

Tests and Standards			
Name	**Tests**	**Standard**	**Requirements**
Torque and Tension Test	Tests strength of attachment	AS/NZS ISO 8124.1:2013 torque and tension tests	Minimum 7.25kg (70N) for 10 seconds
Migration of certain elements	Test for hazardous chemicals of concern	AS/NZS ISO8124.3:2012 Migration of certain elements	Must meet requirements of the standard for permitted levels of certain chemicals
Durability Wash	Confirms security of attachment post laundering	Wash x5 times in accordance to care instructions	No detachment or part detachment No broken or damaged components
Test for corrosion	Tests the metal trim for resistance to corrosion	ISO9227:2012 corrosion test	No pitting, no corrosion, no discolouration

Safety Requirements and Design Considerations	**Preliminary Assessment**	**Additional Assessment / Testing**	
		< 3 years	**4 - 14 years**
Zip pullers must be securely attached	Pull and twist to assess ease with which it detaches	Torque and Tension Test – mandatory	Torque and Tension Test – recommended
	Conduct wash testing to confirm method of attachment is adequate when the garment is laundered	Durability Wash - mandatory	Durability Wash - recommended
Metal zips & pullers should not have sharp or pointy edges	Tactile review for sharp or pointy edges	Recommended	Recommended
Zips & pullers should not be made from or have coatings made from hazard chemicals	Consider chemicals used in coating	Migration of certain elements - recommended	Migration of certain elements - recommended
Metal trims must be nickel free & non – ferrous to allow the use of conveyor needle detector equipment.	Ensure this is made clear to the supplier when sourcing all metal trims.	Must be nickel free and non-ferrous	Must be nickel free and non-ferrous

8.11 Zips, Slide Fasteners and Pullers (cont.)

Application Notes

- Open ended zips must include a permanent stopper to prevent the zip puller from coming off
- It is recommended that the zip puller is attached to the slider so that it cannot be pulled free by using a twisting or straight force
- Ensure channel stoppers are fully effective in preventing the zip slider from detaching and becoming a small part
- Metal top stoppers on slide fasteners must be firmly clamped with no sharp or pointy edges that can cause injury
- Top and bottom stops should prevent zipper slider/zipper head from detachment
- Metal zips when used for infants should not be in direct contact with the skin. A zip guard should be used to ensure there is no risk of irritation or injury.
- 3D trims (such as pompom, tassel), must not be attached to the end of zip pullers, because they can be easily removed and pose a choking hazard to young children
- Materials threaded through the zip puller must be bar tacked and secure and meet pull test requirements. The length of the material should be carefully controlled
- All boy's garments with a zip fly should have a zip guard of 2cm in width
- In general, it is recommended depending on styling that zips should have a zip guard, especially if they are positioned around the face, neck area or groin area.
- Top and bottom stops should not be claw type
- D stops, injection moulded or welded stops, must be used
- Cut coil ends must not protrude above the top stop
- Invisible zips should not be cut to length, they should be ordered by size

Production Notes

- Manufacturers are encouraged to keep records of any in-house testing such as durability washing and pull testing
- Components must be nickel free & non – ferrous to allow the use of conveyor metal detectors
- A separate quality inspection should be carried out on the quantity of zips to be used for the production to ensure that they are free from defects and faults
- Garments should pass through metal detection equipment prior to final packing into cartons to ensure that they are free from foreign objects or broken needles

Part 9: Appendix

9.1 Definitions

The following definitions should be used within the context of safety assessment for children's apparel.

Apparel
Items of clothing that are worn to protect, wrap, or beautify the body.

Applique
A decoration made by cutting pieces of one material and applying them to the surface of another.

Backing Material
1 - A substrate (typically paper) used with embroidery to provide structural stability for fabrics during the embroidery process.
2 - Small pieces of material used to reinforce attachment of trims to prevent them pulling through or damaging the main fabric.

Badge
A patch made from different types of material that is either a) permanently attached with adhesive or stitching or b) is detachable (e.g. a badge with a pin).

Beads
A small, often round piece of material, such as glass, plastic, or wood, that is pierced for grouping, stringing, threading and attachment.

Braid
A decorative band created from interlacing strips or strands of textile material.

Channel Stopper
A device attached to the top or bottom of a zip to prevent the zip puller from detaching when pulled to the upper/lower limits.

Chemical Toxicity
An adverse reaction to residual chemicals that may be toxic.

Choking Hazard
The mechanical obstruction of the flow of air to the lungs.

Decorative Tie
Non-functional cord, chain, ribbon, string or tape, made of any material with free ends, with or without embellishments which is not intended to be used to adjust the size of the garment opening or fasten the garment itself.

Diamante
A small, glittering ornament, such as a rhinestone or a sequin, applied to (usually adhered to) fabric or a garment.

Draw cord/Drawstring
Cord, chain ribbon, string or tape made of any material which passes through a channel, loop(s), eyelet(s) or similar, to adjust the size of the opening or part of the garment or to fasten the garment itself.

Embroidery
Ornamental designs created on fabric surfaces using hand or machine needlework and stitching

Entrapment
A situation where a garment, part of a garment is unexpectedly caught, trapped or snagged.

Free end
An attached fabric/textile trim with an unsecured end that is able to sit or hang loosely from its point of attachment.

Functional cord/tie
Cord, chain, ribbon, string or tape made of any material which is used to adjust the size of the opening, or part of the garment or to fasten the garment itself.

Fusing
A layer of fabric which is adhered by heat and pressure to the reverse side of a fabric, typically to provide stability and shape to the main fabric. Refer Backing Material.

Hanger loops
Fabric strips or ribbons sewn to garments near the shoulder, neck or waist area that is looped onto hangers to prevent garments from falling off when hung.

Harm
Physical injury or damage to the health of the wearer.

Hazard
Potential source of harm to the wearer of the garment.

Hook & Loop
A fastening system consisting of two pile- fabric tapes which are sealed by pressing the pile sides of the two tapes together. Velcro is a brand name of such a system.

Horizontal standards approach
The use of safety and performance standards created for specific product types to conduct a product risk assessment on an unrelated product (e.g. the application of AS/NZS ISO 8124.1 toy standard to identify a small part on a garment).

Ingestion
Taking something in by swallowing.

Injury
Damage to the body caused by (acute) exchanges with environmental energy that are beyond the body's resilience.

Insertion
The placing of a small object into the nose, ear or mouth.

Interlining
Refer to *fusing*

Laceration
A cut, scratch or graze

Press Fastener
A fastening device that consists of a male component and a female component, attached to different parts of a garment. The garment is fastened when the two components are aligned and pressed together. These devices can be attached to a garment mechanically or can be sewn on. They include studs and snaps.

Risk
A combination of the probability of occurrence of a hazard and the severity of the harm, which that hazard could be expected to cause.

Risk assessment
The overall process of risk identification, risk analysis and risk evaluation utilised to achieve "tolerable risk", taking into consideration design, materials, components and construction. This is an iterative process requiring repeated application until a tolerable level of risk is achieved.

Rivets
Small metallic trim, which is comprised of two parts, one part is attached to the outer side of the garment by a tack which passes through the fabric from the reverse side. This is typically used on the pockets of denim jeans.

Safety
Safety is achieved by reducing risk to a tolerable level, referred to in this document as tolerable risk.

Sash or Tied Belt
Decorative or functional piece of any material not less than 3cm wide tied round the chest or waist area of a garment.

Sequin
A small shiny ornamental disk, often sewn onto fabrics as decoration

Slide Fastener
Refer to *Zip Slider*

Snaps (Snap Fastener)
Refer to *Press Fastener*

Studs
Refer to *Press Fasteners*

Suffocation
Stoppage of breathing or asphyxia.

Strangulation
Injury caused by constriction of the throat that restricts breathing.

Supplier
Designer, manufacturer or distributor of a product. (Consideration of anyone in the supply chain)

Tab
A small flap or strip of material/fabric used to hold or fasten a part of a garment.

Tactile review
A process of feeling, rubbing and pressing against components to assess whether there are any sharp or pointy edges that could cause irritation, aggravation or injury.

Toggle
1 - A short rod of wood or plastic sewn to one side of a coat or other garment, that is pushed through a hole or loop on the other side to join or close a garment.
2 - An attachment to the end of a cord or tie intended to improve appearance of the cord end, to protect the cord end or to restrict cord ends from being pulled into a hem or casing.

Tolerable Risk
An acceptance that there are residual safety risks associated with a product's design or function that are approved given the utility/benefits provided.

Zip slider
The device that moves up and down to open/close the zip.

Zip puller
The tab that is held to move the zip slider up and down.