



Overview of U.S. Requirements for Textiles/Apparel



Allyson Tenney

U.S. Consumer Product Safety Commission

September 2016

This presentation was prepared by CPSC staff, has not been reviewed or approved by, and may not reflect the views of the Commission.



Overview

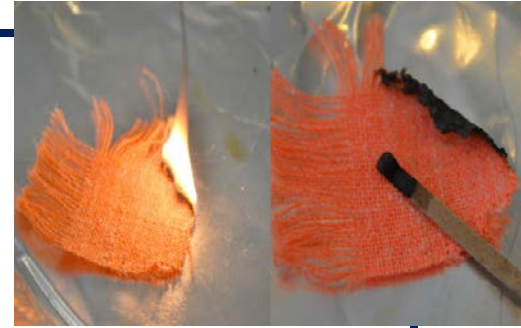
- ❖ **Flammable Fabrics Act**
- ❖ **Requirements for Apparel and Clothing in the United States**
 - Flammability Requirements for Apparel
 - Requirements for Children's Apparel and Sleepwear
- ❖ **Requirements for other Regulated Textile Products in the United States**



Flammable Fabrics Act (FFA)

❖ Regulated Products:

- Clothing Textiles, 16 CFR part 1610
- Vinyl Plastic Film, 16 CFR part 1611
- Children's Sleepwear, 16 CFR parts 1615/1616
- Carpets and Rugs, 16 CFR parts 1630/1631
- Mattresses and Mattress Pads, 16 CFR part 1632
- Mattress Sets, 16 CFR part 1633





Standard for the Flammability of Clothing Textiles (16 CFR part 1610)



- ❖ **16 CFR part 1610 – commonly known as the General Wearing Apparel Standard**
- ❖ **Enacted in the 1950s**
- ❖ **Keeps the most dangerously flammable textile products and garments out of the marketplace**



Part 1610 - Scope

❖ **Wearing Apparel:** The Standard applies to all textiles used for adult and children's wearing apparel.



❖ **Does not apply to:**

- Certain hats, gloves, footwear, interlining fabrics
- Children's sleepwear must meet a more stringent standard



Part 1610 - Specific Exemptions

❖ Fabrics that meet a specific exemption do not require testing.

- Determined by fabric type and specifications
 - Plain-surface textile fabric or raised-fiber surface
 - Fabric weight
 - Fiber content



❖ Plain-surface fabrics $\geq 88.2 \text{ g/m}^2$ (2.6 oz/yd²), regardless of fiber content

❖ Plain- and raised-fiber surface fabrics made of certain fibers:

- Acrylic, modacrylic, nylon, olefin, polyester, wool, or any combination of these fibers, regardless of weight



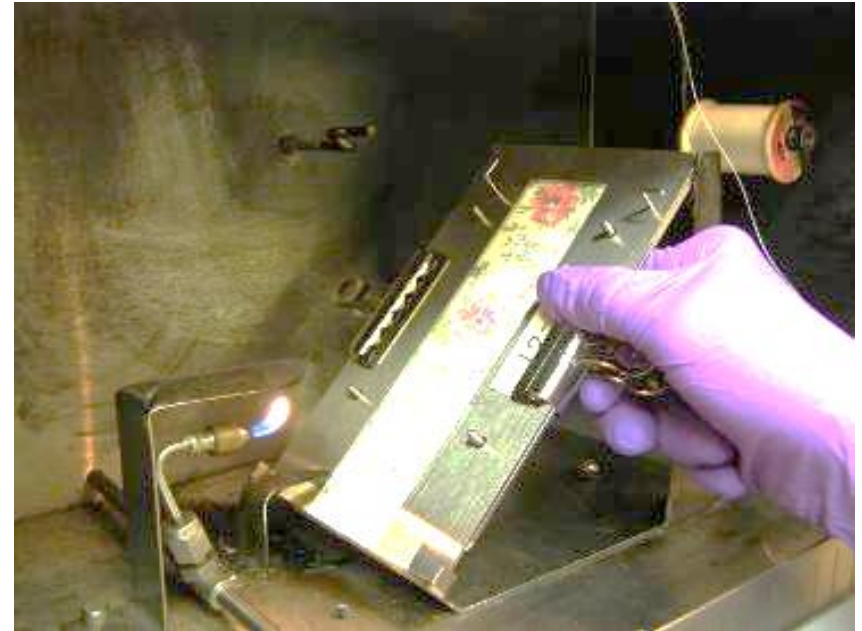
Part 1610-Classifications

- ❖ **The Standard specifies testing procedures and determines the relative flammability of textiles used in apparel using three classes of flammability.**
- ❖ **The burn time of several specimens is averaged and a Class (Class 1, 2, or 3) designation is made based on:**
 - Average burn time (speed of burning)
 - Surface characteristics
- ❖ **Class 3 textiles are considered dangerously flammable and are not suitable for use in clothing, due to their rapid and intense burning.**



Part 1610 - Testing

- ❖ 2 x 6 inch specimen
- ❖ 45-degree angle
- ❖ 16 mm flame
- ❖ 1 second ignition
- ❖ Surface ignition
- ❖ Burn time is recorded
- ❖ Prescribed sample preparation
- ❖ Refurbishing required





Common Noncomplying Fabrics

- ❖ **Sheer 100% rayon**
- ❖ **Sheer 100% silk**
- ❖ **100% rayon chenille**
- ❖ **Certain rayon/nylon chenille**
- ❖ **Certain polyester/cotton and 100% cotton fleece**
- ❖ **100% cotton terry cloth**





Standard for the Flammability of Vinyl Plastic Film (16 CFR part 1611)



- ❖ **16 CFR part 1611- Part of original FFA commercial standard from the 1950s, codified in 1975**
- ❖ **Applies to non-rigid, unsupported vinyl plastic film, including transparent, translucent, and opaque material used in wearing apparel subject to the FFA**
 - Disposable diapers
 - Raincoats



Summary of Requirements for Clothing

- ❖ **Wearing apparel is tested to either part 1610 or part 1611 (Flammability)**
 - Examples include daywear clothing (adults and children), outerwear, diapers, socks, infant garments

- ❖ **Children's sleepwear is subject to more stringent standards.**



Standards for the Flammability of Children's Sleepwear (16 CFR parts 1615/1616)

- ❖ The children's sleepwear standards (16 CFR Parts 1615 and 1616) were developed in the early 1970s to address the ignition of children's sleepwear, such as nightgowns, pajamas, and robes.
- ❖ The standards are designed to protect children from small open-flame sources, such as matches/lighters, candles, fireplace embers, stoves, and space heaters.
- ❖ The standards are not intended to protect children from large fires or fires started by flammable liquids, such as gasoline.





Parts 1615 & 1616 - Scope

- ❖ Children's sleepwear means any product of wearing apparel intended to be worn primarily for sleeping or activities related to sleep in size 0 through size 14.
- ❖ Nightgowns, pajamas, robes, or similar or related items, such as loungewear, are included.
- ❖ Several factors determine if a garment is sleepwear:
 - Suitability for sleeping, likelihood of garment to be used for sleeping
 - Garment and fabric features
 - Marketing, merchandising/display, intended use





Parts 1615 & 1616 - Flammability

- ❖ **Children's sleepwear must pass specified flammability requirements.**
- ❖ **All fabrics and garments must be flame resistant and self-extinguish (not continue to burn) when removed from a small, open-flame ignition source.**

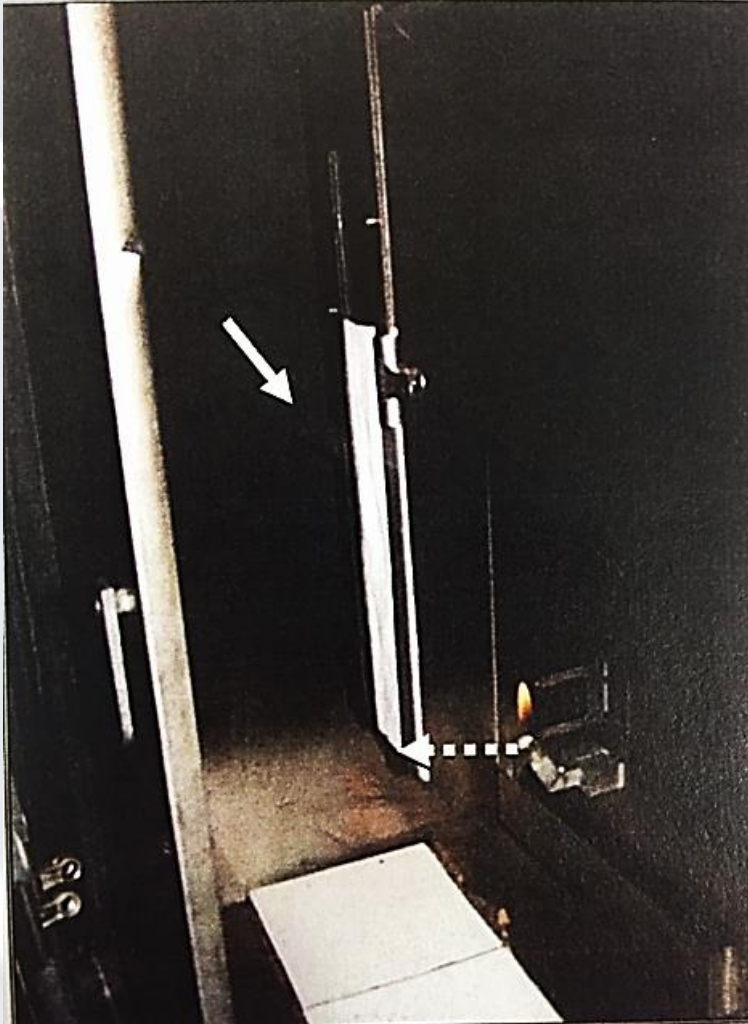


Parts 1615 & 1616 - Summary

- ❖ **Fabric, seams, trims, and garments must pass certain flammability tests**
- ❖ **Tests conducted in original state and after 50 laundering cycles (if the sample passes the original state test)**
- ❖ **Tested samples are required to be retained**
- ❖ **Standards include production testing and recordkeeping requirements**



Parts 1615 & 1616 Testing



- ❖ 3.5 x 10 inch specimen
- ❖ Vertical position
- ❖ 38 mm flame
- ❖ 3 second ignition
- ❖ Bottom edge ignition
- ❖ Char length is measured
- ❖ Prescribed sample preparation
- ❖ Required laundering



Parts 1615 & 1616 Exemptions

Category Exceptions

❖ Diapers and Underwear (exempt)

- Must comply with 16 CFR Part 1610

❖ Infant garments (exempt)

- Sizes 9 months or younger
- One-piece garment does not exceed 64.8 cm (25.75") in length
- Two-piece garment has no piece exceeding 40 cm (15.75") in length
- Must comply with 16 CFR Part 1610





Tight-Fitting Sleepwear

Tight-Fitting Sleepwear (exception)

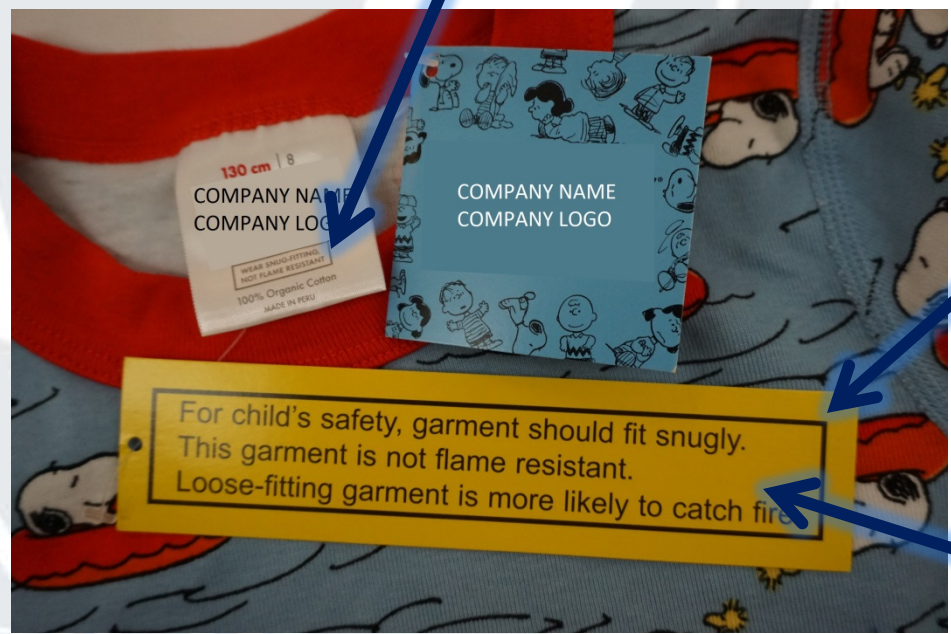
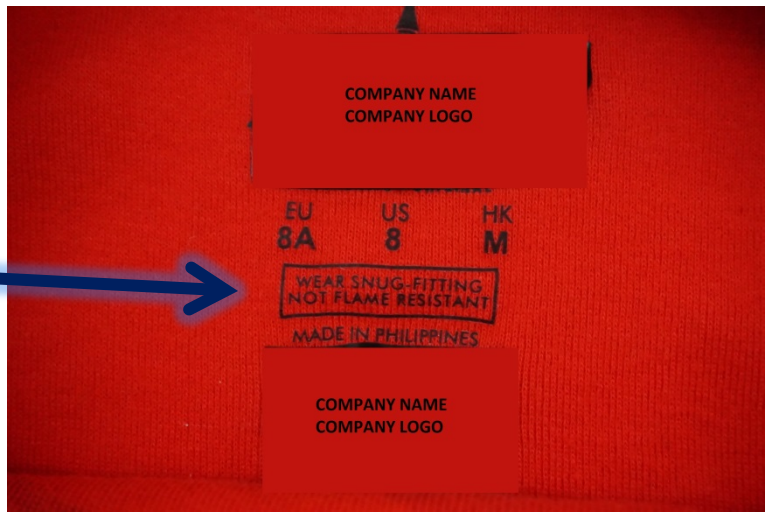
- ❖ **Tight-fitting garments (defined by the Standards) are exempt from testing to the sleepwear requirements.**
- ❖ **Must meet specific maximum dimensions**
- ❖ **Must comply with 16 CFR part 1610**
- ❖ **Must meet tight-fitting label and hang tag requirements**



Labeling Requirements for Tight-Fitting Sleepwear

Neck label must be at least 5 point sans serif font, all capital letters, set apart from other text by line border, on a contrasting background and not covered by other labels.

**WEAR SNUG-FITTING
NOT FLAME RESISTANT**



Hangtag must be yellow (specified color code) and measure 1.5" x 6.25" with a 1" x 5.75" text box Arial/Helvetica black 18 point font

For child's safety, garment should fit snugly. This garment is not flame resistant. Loose-fitting garment is more likely to catch fire.



CPSIA Requirements for Children's Apparel and Sleepwear

- ❖ **Comply with all applicable children's product safety rules**
 - Flammability
 - Lead content and lead surface coating limits must be met
 - Child care articles (for children 3 and under) are subject to phthalate requirements
- ❖ **Issue a Children's Product Certificate (CPC)**
 - CPC shows conformance to applicable requirements (*e.g.*, flammability, lead, phthalates) based on third party testing
- ❖ **Use accredited third party CPSC-accepted laboratory**
- ❖ **Have permanent tracking information affixed to the product and its packaging, when practicable**



Lead - Clothing and Textiles

- ❖ **Lead content and surface coating limits must be met for certain accessible components of textile products, clothing, and clothing accessories.**
 - Buttons, snaps, grommets and zippers must meet total lead content requirements.
 - Painted buttons and snaps, painted zippers, heat transfers, and screen prints are subject to the lead in surface coating ban.
 - Inaccessible lead component parts are exempt.
- ❖ **Component part testing permitted**





Lead Determinations - Textiles

- ❖ **16 CFR Section 1500.91: Certain materials will not exceed lead limits**
 - Includes dyed or undyed textiles and nonmetallic thread
- ❖ **Currently do not require third party testing**





Screen Printing

❖ Screen printing—generally considered to be a surface coating

- Subject to the lead in paint and surface coating limits (90 ppm)

❖ Compliance and Testing

- Test finished product at accredited CPSC-accepted laboratory
- Component part testing—Obtain testing results or CPC from print ink, paint, pigment supplier



❖ Screen printing on children's sleepwear for children under 3 (child care article) also subject to phthalate requirements.



Phthalates - Child Care Articles

- ❖ **Phthalates are chemical plasticizers that are often used in the production of many types of plastics, certain inks, paints, and other products.**
- ❖ **Applies to plasticized component parts in toys and child care articles (facilitates eating, sleeping)**
 - Accessible component parts
 - Children's bibs
 - Children's sleepwear for children under 3
 - Mattresses for children under three



www.cpsc.gov/phthalates



Tracking Information

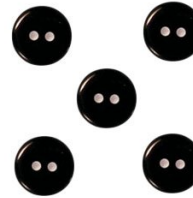




Small Parts on Clothing

❖ CPSC regulations for small parts used on products for children under 3

- Regulation prevents deaths and injuries to children from choking



❖ Children's Clothing and Accessories

- Fabrics and buttons are exempted from small parts regulations and testing requirements.
- Buttons and other fasteners are not required to be tested for small parts conformity but should be secure.
- If buttons start falling off due to poor construction, they may pose a substantial product hazard; this should be reported to the CPSC as a possible hazard.



Drawstrings

- ❖ **Young children can be seriously injured or subject to fatal entanglement if the drawstrings of the upper outerwear they are wearing catches or snags.**
- ❖ **In 2012, the Commission determined that drawstrings on children's upper outerwear present a substantial product hazard and issued a rule under 15(j) of the Consumer Product Safety Act (CPSA).**
- ❖ **Children's upper outerwear sold in the United States should comply with the voluntary safety standard, ASTM F-1816 Standard Consumer Safety Specification for Drawstrings on Children's Upper Outerwear.**



Drawstrings Definitions

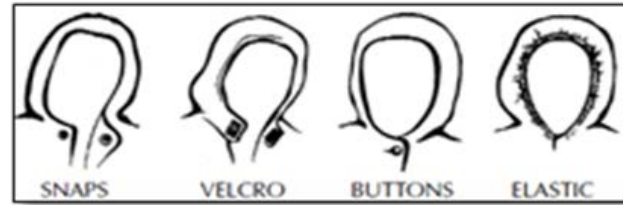
- ❖ CPSC defines “upper outerwear” as clothing such as jackets, ski vests, anoraks, and sweatshirts that generally are intended to be worn on the exterior of other garments, including lightweight outerwear that is appropriate for use in warmer climates.
- ❖ Underwear, inner clothing layers, pants, shorts, swimwear, dresses and skirts are not considered upper outerwear.
- ❖ Belts are not considered drawstrings and are not subject to the requirements.
- ❖ Ties are considered drawstrings and are subject to the requirements.



Drawstring Requirements

❖ Drawstrings are not allowed at the hood and neck area on children's upper outerwear in sizes 2T through 12.

- Children's upper outerwear should use alternative closures, such as snaps, buttons, Velcro, and elastic



❖ Waist and bottom drawstrings in upper outerwear for sizes 2T to 16 must meet certain requirements.

- The length of the drawstring must not extend more than three inches from the channel when the garment is expanded to its fullest width. Drawstrings that are one continuous string must be bar tacked or stitched through to prevent the drawstring from being pulled through its channel.
- Cord locks, knots, toggles, or other attachments at the free ends of drawstrings are prohibited (even on fully retractable drawstrings).



Upper Outerwear

Violative

Non-Violative





Adult Apparel-Summary

- ❖ **Wearing apparel is tested to either Part 1610 or Part 1611 (Flammability)**
- ❖ **Certification (GCC) is Required**
 - Enforcement policy for products that meet testing exemptions, March 2016



Adult Wearing Apparel





Children's Apparel-Summary

- ❖ **16 CFR part 1610 or part 1611 (Flammability)**
- ❖ **A CPC is required showing third party testing**
- ❖ **Lead Content**
- ❖ **Lead Surface Coating**
- ❖ **Tracking Labels**
- ❖ **Drawstring Requirements**
- ❖ **Phthalate Requirements (bibs)**



Children's Clothing Examples





Children's Sleepwear-Summary

- ❖ **16 CFR parts 1615 and 1616 (Flammability)**
- ❖ **A CPC is required showing third party testing.**
- ❖ **Lead Content**
- ❖ **Lead Surface Coating**
- ❖ **Tracking Labels**
- ❖ **Phthalate Requirements (under age of 3)**





Children's Sleepwear Examples





Carpets and Rugs

❖ 16 CFR part 1630/1631 Standard for the Surface Flammability of Carpets and Rugs/Small Carpets and Rugs



❖ Enacted in the 1970s

❖ Applies to large and small carpets and rugs

- Large rugs have a side greater than 1.83 m (6ft) in length and an area greater than 2.23m² (24 ft²)
- Small carpets do not have a specified dimension

❖ Small ignition source used to determine relative flammability; uses frame and measures char

❖ Labeling provisions:

- “T” on label indicates treated with a fire retardant treatment
- Non compliant small carpet or rug must be labeled FLAMMABLE



Mattresses and Mattress Pads

- ❖ **16 CFR part 1632 – Standard for the Flammability of Mattresses and Mattress Pads**
- ❖ **Enacted in the 1970s**
- ❖ **Requires mattresses and mattress pads to resist ignition by smoldering cigarettes**
- ❖ **Measures char length; must not be >2 inches in any direction from cigarette**





Mattress Sets (Open-Flame)

- ❖ **16 CFR part 1633 – The Standard for the Flammability (open-flame) of Mattress Sets**
- ❖ **Effective in 2007**
- ❖ **Mattress sets include mattress and foundation**
- ❖ **Requires full scale flammability performance:**
 - Total heat release must not exceed 15MJ for first 10 minutes of test
 - Peak Rate of Heat Release must not exceed 200kW during the 30 minute test
- ❖ **Recordkeeping, Labeling, and Quality Assurance Requirements**





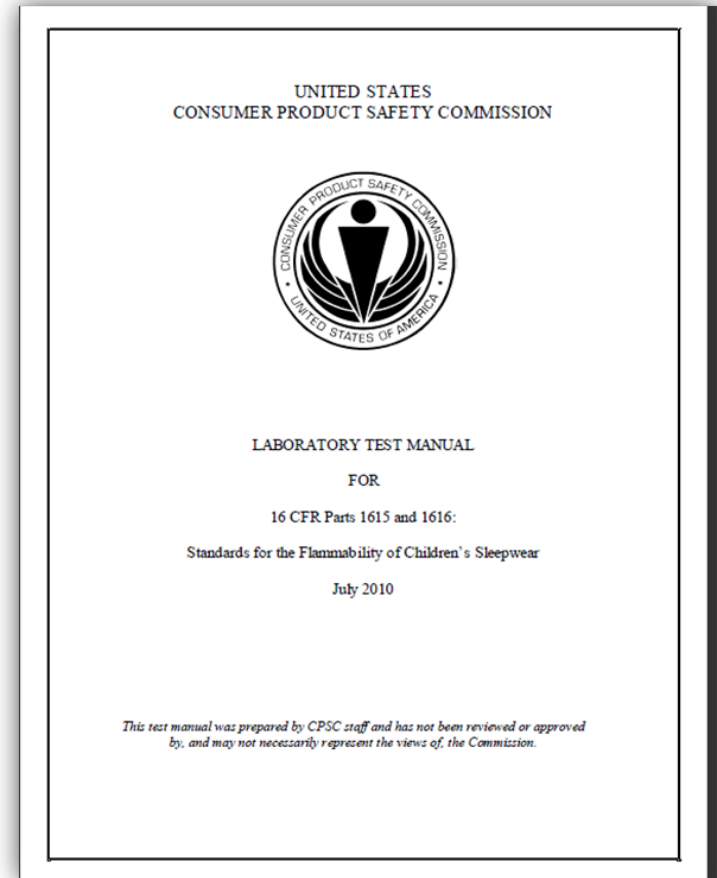
Available Resources

❖ CPSC Laboratory Manuals:

<http://www.cpsc.gov/testmanuals>

❖ Loungewear Guidance:

<http://www.cpsc.gov/businfo/loungewear.pdf>





Children's Clothing Requirements in the United States

Drawstrings in Children's Upper Outerwear Must Conform to ASTM F 1816

Upper Outerwear

- Is defined by CPSC as clothing such as jackets, ski vests, anoraks, and sweatshirts that generally are intended to be worn over other garments.
- Includes lightweight outerwear that is appropriate for use in warmer climates.
- Excludes underwear, inner clothing layers, pants, shorts, swimwear, dresses and skirts.

Head/Neck Drawstrings

- Drawstrings are not allowed at the hood and neck area on children's upper outerwear in sizes 2T through 12.
- Children's upper outerwear should use alternative closures such as snaps, buttons, and Velcro.
- Fully retractable drawstrings are permitted and are exempt from the drawstring requirements. They must completely and automatically retract into the garment after being adjusted and released.

Waist/Bottom Drawstrings

- Drawstrings at the waist or bottom of upper outerwear in sizes 2T to 16 cannot exceed 75mm (3 inches) in length outside drawstring channel.
- Cord locks, knots, toggles, or other attachments that could pose a catch hazard at the free ends of drawstrings are prohibited.
- Drawstrings that are one continuous string must be bar tacked or stitched through to prevent the drawstring from being pulled through its channel.

Notify suppliers of these requirements and do not manufacture upper outerwear with drawstrings for shipment to the United States.



Avoid manufacturing children's clothing that will be refused entry or recalled in the United States

- Check garment prototypes *before manufacture* against all appropriate standards, even designs requested by U.S. importers and retailers. Make modifications for incorrectly designed products to meet U.S. standards.
 - ⇒ *Third Party Testing*
 - ⇒ *Children's Product Certification*
 - ⇒ *Flammability Requirements for General Wearing Apparel*
 - ⇒ *Flammability Requirements for Children's Sleepwear*
 - ⇒ *Lead Content Requirements*
 - ⇒ *Lead in Paint Surface Coating Requirements*
 - ⇒ *Phthalates Requirements*
 - ⇒ *Drawstring Requirements in Children's Upper Outerwear*

- Tracking information is required on all children's clothing. The information must be permanent. Hangtags and adhesive labels are not considered permanent.
- Know your supply chain and keep your suppliers informed of technical requirements and your expectations.
- ALL products that have a defect and may pose a hazard to consumers or create an unreasonable risk of injury or death must be reported to the CPSC immediately by the importer or retailer under U.S. law.

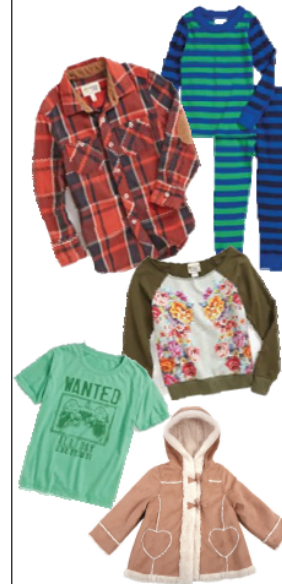
This is a simple summary that highlights some children's clothing requirements and standards and does not replace the requirements found in applicable U.S. laws and regulations. It does not include all of the details in those requirements. Please refer to the regulations and requirements on the CPSC website www.cpsc.gov. This summary has not been reviewed or approved by the Commission.

Rev. 2/2014



U.S. Consumer Product Safety Commission

Children's Clothing Requirements in the United States



www.CPSC.gov

www.cpsc.gov/clothing

U.S. Consumer Product Safety Commission



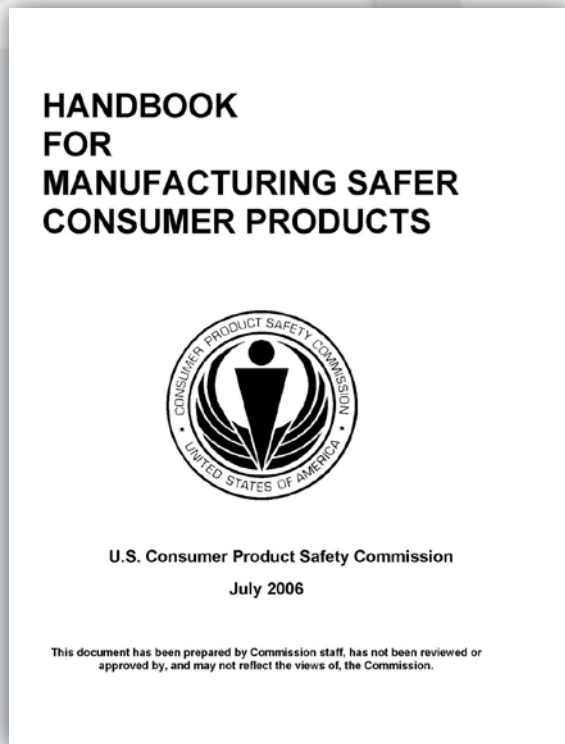
CPSC Resources

Go to CPSC's website: www.cpsc.gov/cpsia and find a step-by-step guide to navigate the CPSIA and links to other subject matter websites, such as:

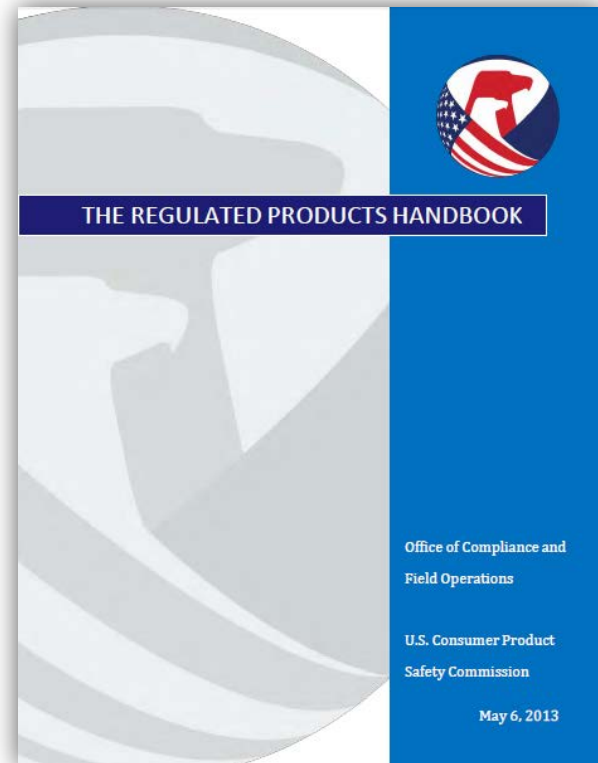
- ❖ www.cpsc.gov/gcc (for non-children's products)
- ❖ [Standards/Statutes/Flammable-Fabrics-Act/](#)
- ❖ <http://www.cpsc.gov/Business--Manufacturing/Business-Education/Business-Guidance/Drawstrings-in-Childrens-Upper-Outerwear/>
- ❖ <http://www.cpsc.gov/Regulations-Laws--Standards>



Best Manufacturing Practices



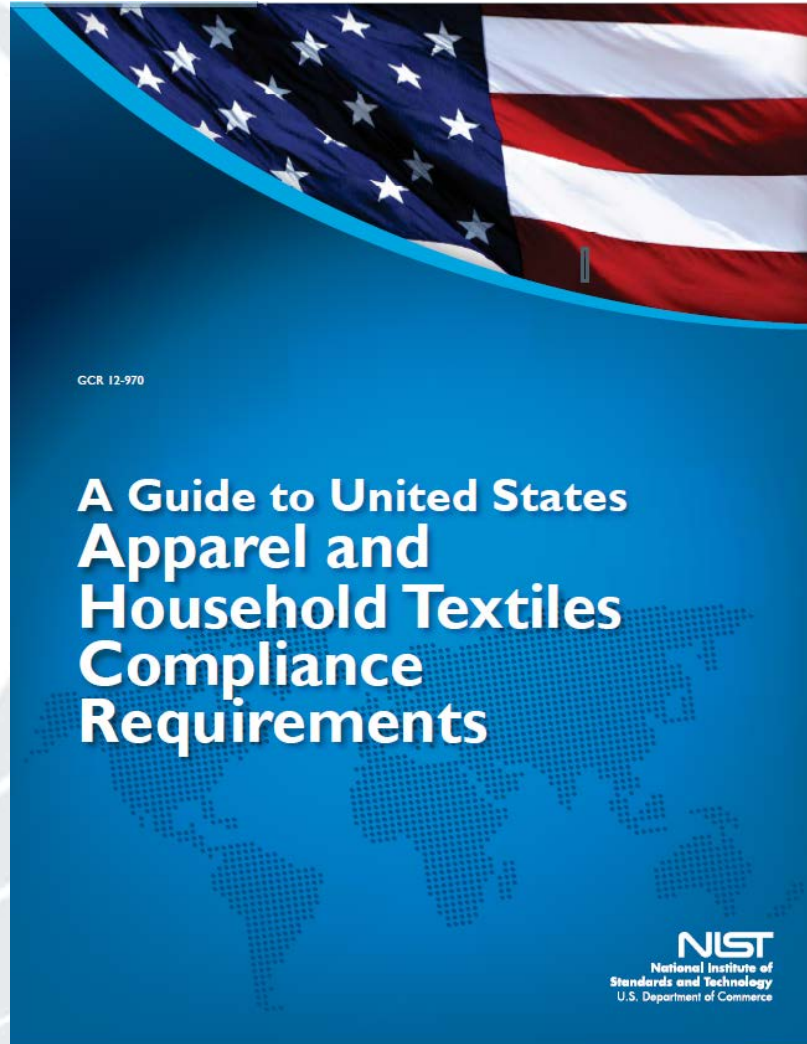
<http://www.cpsc.gov/pagefiles/113818/handbookenglishaug05.pdf>



<http://www.cpsc.gov//Global/Business-and-Manufacturing/Business-Education/RegulatedProductsHandbook.pdf>



A Guide to United States Apparel and Household Textiles Compliance Requirements



http://gsi.nist.gov/global/docs/apparel_guide.pdf



CPSC Website

The screenshot shows the CPSC website homepage with the following elements:

- Address bar: www.cpsc.gov
- Navigation: Report an Unsafe Product, Contact CPSC, Website Design Feedback, Consumers: Español, Businesses: Español, 中文, Tiếng Việt
- Header: UNITED STATES CONSUMER PRODUCT SAFETY COMMISSION, Search CPSC.gov, Connect with Us (social media icons)
- Menu: Home, Recalls, Safety Education, Regulations, Laws & Standards, Research & Statistics, Business & Manufacturing, Newsroom, About CPSC
- Main Banner: Advertisement for Tommee Tippee sippy cups with text: "More than 3 Million Tommee Tippee Sippee Cups Recalled. Check your child's cup today for mold." Includes "Learn More" and "En Español" links.
- Right Column: "Report an Unsafe Product" section with buttons for Consumers and Businesses, and a search box for SaferProducts.gov. Below it is a "Connect with Us" section with social media links and "Join the Neighborhood Safety Network".
- Bottom Left: "Recalls" section with a sub-section for "News" featuring a recall for "Deboo Bag Recalls Ceramic Mugs Due to Burn and Laceration Hazards" dated JUNE 02 2016.
- Bottom Middle: "Business Education" section with links for "Get Started" and "Testing and Certification", and "Business Guidance for" Toys, Cribs, Clothing, Sleepwear, and More Products.
- Bottom Right: "View CPSC Injury Statistics" and "Safer Products Start" section.

<http://www.cpsc.gov/>



Contact Information

U.S. Consumer Product Safety Commission



Allyson Tenney
Division of Engineering
301-987-2769
atenney@cpsc.gov

www.CPSC.gov