U.S. Consumer Product Safety Commission

Toy Safety

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Consumer Product Safety Improvement Act (Lead)

- Bans lead beyond a minute amount in products intended for children 12 years of age and under.
  - 100 ppm for lead content in children's products and toys
  - 90 ppm for surface paint on children's products and toys.

Consumer Product Safety Improvement Act (Phthalates)

- Permanent ban of three phthalates in toys and child care articles; interim ban of three other phthalates
  - No more than .1 percent of DEHP, DBP, or BBP—permanently banned
  - No more than .1 percent of DINP, DIDP, or DnOP—temporarily banned pending adoption of final rule based on CHAP recommendation

Consumer Product Safety Improvement Act (ASTM Toy Standard)

- ASTM toy standard developed by members from industry, consumer groups, and government
- ASTM toy standard is a mandatory standard under Consumer Product Safety Improvement Act
- Deems ASTM toy standard as the foundation for toy safety

Consumer Product Safety Improvement Act (Other Requirements)

- Mandates that the CPSC issue mandatory federal safety standards for durable infant or toddler products
- Requires tracking labels on children's products
- Mandates premarket testing by certified laboratories of children's products for lead and for compliance with a wide range of safety standards.

Mandatory Standards

- Toy Labeling - 16 C.F.R. § 1500.19
- Small Balls for Children under 3 years - 16 C.F.R. § 1500.18(a)
- Small Parts - 16 C.F.R. § 1501

Toy Labeling - Child Safety Protection Act (CSPA)

- Certain toys and games containing small parts must contain cautionary labeling 16 C.F.R. § 1500.19
- Labeling must be prominent and conspicuous 16 C.F.R. § 1500.121
- Must be exact wording

Ball Requirements - < 1.75” diameter

- Intended for under 3 years: BANNED
- Older than 3 years - CSPA LABELING
- If ball is > 1.75” diameter - NO REQUIREMENTS

Labeling for Small Balls

WARNING:

CHOKING HAZARD-This toy is a small ball.

Not for children under 3 years.

WARNING:

CHOKING HAZARD-Toy contains a small ball.

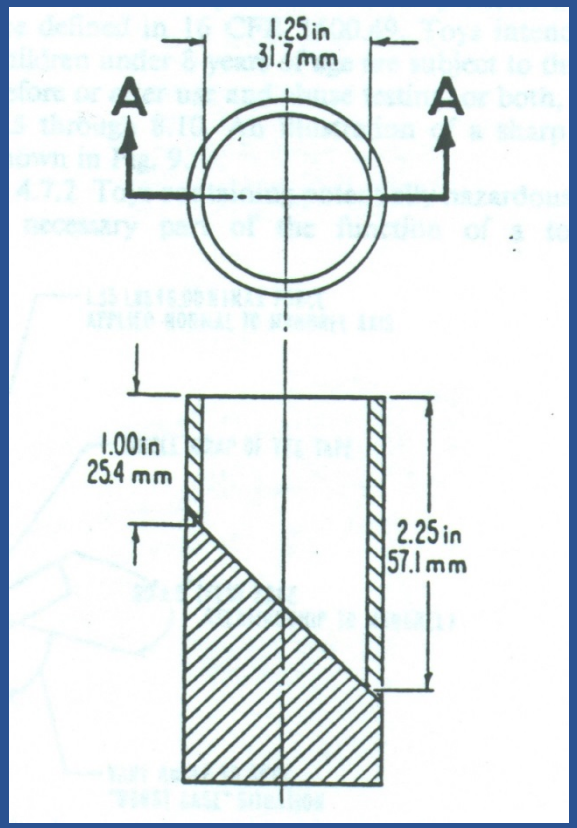
Not for children under 3 years.

Small Parts Regulation
16 C.F.R. § 1501

- Bans toys intended for use by children under 3 years that have small parts
- Small parts present a choking, aspiration, and ingestion hazard
- A small part is one that can fit into a small parts cylinder specified in the regulation
- Toys intended for children from 3 - 5 years with small parts: CSPA LABELING

Small Parts Test Cylinder

Cylinder



Failed sample

Toys or Games with Small Parts
Age Graded 3 through 5 years

WARNING:

CHOKING HAZARD - Small parts.

Not for children under 3 years.

Three Ways Small Parts Are Encountered

- Toy contains a small part in itself
- Generated during drop test
- Generated during tension test

Drop Test Produced Small Parts, Red Wheel - Under 3 Years - Banned

Tension Test Produced Small Part, Pin - Under 3 Years - Banned

Buttons On Stuffed Bear Produced Small Parts

Age Grading of Toys

- All toys must be age graded to determine what regulations apply
- Goal is to match the attributes of the toy to the attributes of the child
- The Commission looks at:
  - the manufacturer's stated intent
  - the advertising, promotion, & marketing
  - how the article is commonly recognized as being intended for children

ASTM F963 - Process to Revise

- ASTM F963-11: Effective June 12, 2012
- Next release anticipated late 2016 / early 2017
  1. ASTM notifies CPSC of proposed revisions.
  2. CPSC must incorporate proposed revisions unless CPSC notifies ASTM within 90 days proposed revisions do not improve product safety.
  3. If CPSC notifies ASTM, existing standard remains in effect.
  4. If CPSC does not object, revised standard becomes effective 180 days after ASTM notified CPSC of proposed revisions.

ASTM F963-11 Partial List of Requirements

- Sound-Producing Toys
- Battery-Operated Toys
- Small Objects
- Stuffed and Beanbag-type Toys
- Projections
- Marbles and Balls
- Folding Mechanisms and Hinges
- Hemispheric-Shaped Objects
- Cords and Elastics in Toys
- Yo-Yo Elastic Tether Toys
- Bath Toy Projections
- Wheels, Tires, and Axles
- Magnets
- Pacifiers
- Balloons
- Projectile Toys
- Certain Toys with Spherical Ends
- Rattles
- Teethers and Teething Toys
- Squeeze Toys
- Toxicology: Heavy Elements in Paint and Substrate

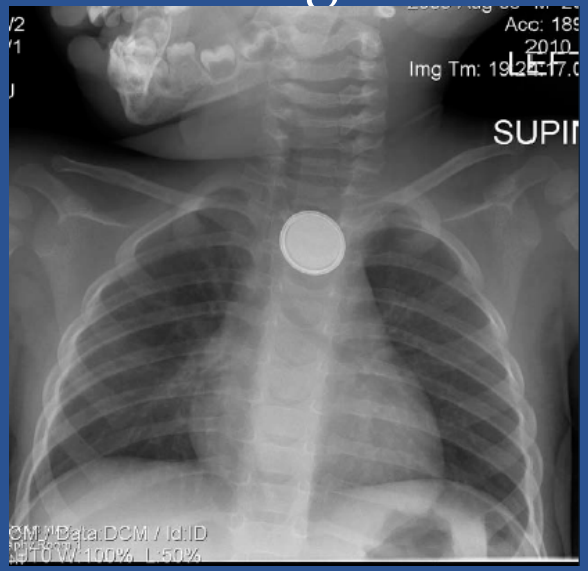
ASTM F963: New Issues and Emerging Hazards

- Magnets – magnet strength, flux index, labeling
- Projectiles – kinetic energy, improvised projectiles
- Batteries – coin/button cell battery - stronger labeling, lithium-ion batteries - fire prevention
- Microbiological safety
- Heavy elements – HD-XRF screen polymers
- Impaction/squeeze toys – clarifying changes
- Acoustics – clarifying changes
- Stuffing cleanliness – test method simplified
- Cords and elastics - clarifying changes
- Miscellaneous Changes – ride-on toys and others
- Toy Chests – add back to F963
- Expanding materials

NOTE: Several of the new or revised requirements in the anticipated release of ASTM F963 are an effort to align ASTM F963, ISO 8124, and EN71 toy standards.

Case Study - Coin Cell Battery Ingestions

Ingestions of small batteries (like button and coin cells) were causing serious internal injuries, sometimes resulting in deaths.



- Button/coin cell batteries lodged in the esophagus can cause electrical current to hydrolyze fluid, leading to hydroxide burns.
- Can lead to severe injuries and death in as little as 2 hours
  - Victims can present nonspecific flu-like symptoms
  - Delayed treatment causes fistulas, perforations, necrosis, stricture, and vocal cord paralysis.

Multipronged Safety Approach

Case Study: Button/coin cell battery ingestions

1. Educate consumers on the hazard
2. Improve battery compartment design
   - Require a screw or two independent simultaneous motions to access battery
3. Improve packaging
   - Child-resistant packaging
4. Improve warning copy or labeling
   - Hazard
   - Message
5. Improve battery design to mitigate or remove the hazard

Multipronged Safety Approach

Case Study: Button/coin cell battery ingestions

Coin cells are easily removed from older coin cell packaging

Multipronged Safety Approach

Case Study: Button/coin cell battery ingestions

- New child-resistant coin cell packaging requires scissors to open
- Improved warnings and "Keep out of reach" pictogram

Multipronged Safety Approach

Case Study: Button/coin cell battery ingestions

- Pictograms and warning
  - Safety tabs – need to be removed before using coin cell
  - Stamped or etched on battery

Case Study - Coin Cell Battery Ingestions

- Button/Coin cells are used in more than 50 product categories that have a voluntary standard
- Four standards have the requirement to prevent access by children
  - ASTM F963 *Toy Safety;*
  - ASTM F2923-11 *Children's Jewelry*
  - UL 60065 *Audio Video Equipment*
  - UL 4200A *Products Incorporating Button Cell Batteries of Lithium or Similar Technologies*
    - New horizontal standard will be adopted by other product standards

Any questions?

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