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Standard Consumer Safety Specification for Infant and Cradle Swings[1]

This standard is issued under the fixed designation F2088; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

This consumer safety specification addresses incidents associated with swings intended for infants identified by the U.S. Consumer Product Safety Commission (CPSC).

In response to incident data compiled by the CPSC, this specification attempts to minimize the following hazards: (*1*) swings tipping over or collapsing, (*2*) structural failures, and (*3*) entanglement in the restraints or entrapment in leg holes.

This specification is intended to cover normal use and reasonably foreseeable misuse or abuse of swings.

This specification is written within the current state-of-the-art of swing technology and will be updated whenever substantive information becomes available that necessitates additional requirements or justifies the revision of existing requirements.

1. Scope

1.1 This consumer safety specification establishes safety performance requirements, test methods, and labeling requirements to minimize the hazards to infants presented by swings as identified in the introduction.

1.2 This consumer safety specification is intended to minimize the risk of injuries to infants resulting from normal use and reasonably foreseeable misuse or abuse of swings. It is not intended to address all incidents and injuries resulting from the interaction of other persons with the infant in the swing.

1.3 This consumer safety specification covers products with a powered mechanism used for the purpose of providing a swinging or gliding seat in any direction relative to the frame (that is, front to back, side to side, arc, etc.) for an infant. The powered mechanism can be through batteries, AC adapter, wind-up mechanism, or other means. This specification does not cover products that are intended to provide sleeping accommodations for the occupant.

1.4 No swing produced after the approval date of this consumer safety specification shall, either by label or other means, indicate compliance with this specification unless it conforms to all requirements contained herein.

1.5 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.6 The following precautionary caveat pertains only to the test methods portion, Section 7, of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D3359 Test Methods for Rating Adhesion by Tape Test

F406 Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards

F963 Consumer Safety Specification for Toy Safety

F2194 Consumer Safety Specification for Bassinets and Cradles

[1] This consumer safety specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.21 on Infant Carriers, Bouncers and Baby Swings.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

2.2 *Federal Regulations:*[3]

16 CFR Part 1303 Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint

16 CFR Part 1500 Hazardous Substances Act Regulations including sections:

1500.48—Technical Requirements for Determining a Sharp Point in Toys or Other Articles Intended for Use by Children Under Eight Years of Age

1500.49—Technical Requirements for Determining a Sharp Metal or Glass Edge in Toys or Other Articles Intended for Use by Children Under Eight Years of Age

1500.50-.51—Test Method for Simulating Use and Abuse of Toys and Other Articles Intended for Use by Children

16 CFR Part 1501 Method for Identifying Toys and Other Articles Intended for Use by Children Under Three Years of Age Which Present Choking, Aspiration, or Ingestion Hazards Because of Small Parts

29 CFR 1910.7 Definition and requirements for a nationally recognized testing laboratory

2.3 *ANSI Standards:*[4]

ANSI A100.1-2018 American National Standard for Safety of Corded Window Covering Products

ANSI Z535.1 Safety Colors

ANSI Z535.4 Product Safety Signs and Labels

ANSI Z535.6 Product Safety Information in Product Manuals, Instructions, and Other Collateral Materials

2.4 *Other Documents:*

CAMI Infant Dummy, Mark II (see Fig. 1)[5]

CAMI Newborn Dummy (see Fig. 2)[6]

UL 1310 Standard for Class 2 Power Units[7]

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *combination swing, n*—a swing that has a cradle swing use, mode, or position and an infant swing use, mode, or position.

3.1.2 *conspicuous, adj*—visible, when the product is in all manufacturer's recommended use position(s), to a person standing near the product at any one position around the swing but not necessarily visible from all positions.

3.1.3 *cord, n*—a length of slender flexible material including monofilaments, rope, woven and twisted cord, plastic and textile tapes, ribbon, and those materials commonly called string.

3.1.4 *cradle swing, n*—a swing which is intended for use by an infant lying flat to swing or glide and is intended for use with infants from birth until infant begins to push up on hands and knees (approximately 5 months).

3.1.5 *dynamic load, n*—application of impulsive force through free fall of a weight.

3.1.6 *infant swing, n*—a swing that enables an infant in a seated position to swing or glide and is intended for use with infants from birth until infant attempts to climb out of the swing (approximately 9 months).

3.1.7 *manufacturer's recommended use position, n*—any position, that is presented as a normal, allowable, or acceptable configuration for the use of the product by the manufacturer in any descriptive or instructional literature; this specifically excludes positions that the manufacturer shows in a like manner in its literature to be unacceptable, unsafe, or not recommended.

3.1.8 *non-paper label, n*—any label material (such as plastic or metal) which either will not tear without the aid of tools or tears leaving a sharply defined edge.

3.1.9 *occupant, n*—that individual who is in a product that is set up in one of the manufacturer's recommended use positions.

3.1.10 *paper label, n*—any label material which tears without the aid of tools and leaves a fibrous edge.

3.1.11 *protective component, n*—any component used for protection from sharp edges, points, or entrapment of fingers or toes.

3.1.11.1 *Discussion*—Examples of protective components include caps, sleeves, and plugs.

3.1.12 *static load, n*—vertically downward load applied by weights or other means.

3.1.13 *strap, n*—a piece of flexible material of which the width is significantly greater than the thickness.

3.1.13.1 *Discussion*—The strap may consist of monofilaments, rope, woven and twisted cord, plastic and textile tapes, ribbon, or similar materials.

3.1.14 *structural component, n*—any load bearing member or part of the product that supports the weight or portion of the weight of the occupant.

3.1.15 *tethered strap and/or cord, n*—an accessible and exposed strap or cord below or behind the occupant support surface with both ends secured to the product or to itself. (See 6.9.)

3.1.15.1 *Discussion*—This specifically excludes straps or cords that are only attached on one end and are not intended to be attached to another component according to the manufacturer's instructions.

3.1.15.2 *Discussion*—This specifically excludes straps or cords that are a part of the restraint system that are attached solely to the front of the seat (occupant's seat bottom or occupant's seat back) and do not pass through openings in the seat bottom or seat back.

3.1.15.3 *Discussion*—This specifically excludes straps or cords that are not accessible or are covered by other product

[3] Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401.

[4] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

[5] Department of Transportation Memorandum Report AAC-119-74-14, Revision II, Drawing No. SA-1001 by Richard Chandler, July 2, 1974. Federal Aviation Administration, Civil Aeromedical Institute, Protection and Survival Laboratory, Aeromedical Center, Oklahoma City, OK 73125.

[6] Drawing numbers 126-0000 through 126-0015 (sheets 1 through 3), 126-0017 through 126-0027, a parts list entitled "Parts List for CAMI Newborn Dummy", and a construction manual entitled, "Construction of the Newborn Infant Dummy" (July 1992). Copies of the materials may be inspected at NHTSA's Docket Section, 400 Seventh Street, SW., Room 5109, Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

[7] Available from Underwriters Laboratories (UL), 2600 N.W. Lake Rd., Camas, WA 98607-8542, http://www.ul.com.