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Standard Safety Specification for Clothing Storage Units^{1,2}

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INTRODUCTION

This consumer safety specification is intended to address incidents reported by the U.S. Consumer Product Safety Commission (CPSC) relating to clothing storage units. In response to the incident data compiled by the CPSC, this consumer safety specification attempts to minimize the hazards associated with these products. Test methods in this safety specification are intended to simulate the reaction of a clothing storage unit on carpet, loaded drawers, multiple open drawers, and a dynamic force from possible interaction of a child up to 72 months.

This consumer safety specification does not apply to products that are blatantly misused, nor does it apply to products used by consumers in a careless manner that violate normal practice or disregard the instructions or warnings provided with the product, or both.

1. Scope

1.1 This safety specification is intended to reduce injuries and deaths of children from hazards associated with tipover of free-standing clothing storage units, including but not limited to chests, chests of drawers, drawer chests, armoires, chifferobes, bureaus, door chests, and dressers, which are 27 in. (686 mm) or greater in height, 30 lb (13.6 kg) or greater in mass, and contain 3.2 ft³ (90.6 dm³) or greater of enclosed storage volume.

1.2 This safety specification does not cover shelving units, such as bookcases or entertainment furniture, office furniture, dining room furniture, jewelry armoires, underbed drawer storage units, occasional/accent furniture not intended for bedroom use, laundry storage/sorting units, or built-in units intended to be permanently attached to the building, nor does it cover “Clothing Storage Chests” as defined in Consumer Safety Specification F2598.

1.3 This safety specification is intended to cover children up to 72 months. See Note 1.

NOTE 1—The majority (approximately 80 %) of deaths relate to children 5 years or younger.

¹ This safety specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.42 on Furniture Safety.

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² This safety specification replaces PS 110 – 98.

1.4 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.

1.5 The following safety hazards caveat pertains only to the test procedure portion, Section 9, of this safety 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.*

1.6 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:³

D3359 Test Methods for Rating Adhesion by Tape Test
F2598 Consumer Safety Specification for Sealed Storage Chests such as Cedar Chests, Hope Chests, Blanket Chests, Keepsake Chests

³ 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.

F3096 Performance Specification for Tipover Restraint(s) Used with Clothing Storage Unit(s)

2.2 Other Standards:

ANSI Z535.4 American National Standard for Product Safety Signs and Labels⁴

ANSI UL 1678 Standard for Household, Commercial, and Institutional-Use Carts, Stands and Entertainment Centers for Use with Audio and/or Video Equipment⁵

ISO 3864-1 Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings⁴

ISO 3864-2 Graphical symbols — Safety colours and safety signs — Part 2: Design principles for product safety labels⁴

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 anti-tip device, *n*—supplemental device that aids in the prevention of tipover.

3.1.2 bin, *n*—a storage container that rests inside or on a product and is intended to be removed during normal use.

3.1.3 clothing storage unit, *n*—furniture item with drawers and/or hinged doors intended for the storage of clothing typical with bedroom furniture (see 1.1 for size references).

3.1.4 drawer, *n*—a storage compartment meant to slide in and out of a clothing storage unit and intended to stay with the product during normal use.

3.1.5 enclosed storage volume, *n*—the amount of storage inside drawers and behind doors intended for clothing storage; storage with no door or with a clear door (for example, clear glass door) is not included. See 5.4.

3.1.6 extendible element(s), *n*—a movable load-bearing storage component, including, but not limited to, drawers and pullout shelves; does not include bins.

3.1.7 height adjuster, *n*—support devices, similar to levelers, intended by the manufacturer for adjusting the unit's height by more than 1 in. (25 mm) as claimed in their instructions or marketing material with claims such as “height adjustable,” with or without a maximum adjustment, this feature cannot be inferred.

3.1.8 interlock, *n*—a feature that controls the simultaneous extension of one or more extendible elements and/or doors.

3.1.8.1 Discussion—An interlock may allow only one extendible element to open at a time, or may allow more than one, but fewer than all, to fully open simultaneously.

3.1.9 leveler, *n*—support devices for leveling and/or stabilizing a storage unit which are integral/affixed to the unit, alternatively referred to as adjustable glides, or adjustable supports, not including height adjusters.

3.1.10 operational sliding length, *n*—length measured from the inside face of the drawer back to the inside face of the

drawer front with measurements taken at the shortest drawer depth dimension (see Fig. 1).

3.1.11 outstop, *n*—any feature that limits outward motion of drawers or pullout shelves, or both.

3.1.12 tipover, *n*—event at which a furniture unit pivots forward to the point at which the unit continues to fall.

4. Performance Requirements

4.1 With the unit set up in accordance with 8.1, and without the anti-tip device, test the unit in accordance with 9.2.1, 9.2.2, and 9.2.3.

4.2 During the test, the unit shall not tip over or be supported by any component unless that component was specifically designed for that purpose.

4.3 If a failed component prohibits the completion of the test, then the failed component(s) shall be repaired or replaced to the original specifications, or the component replaced and the test repeated with the failed component secured as to not affect the test results but to prevent the component from failing.

4.4 An anti-tip device shall be included with each item of furniture covered under the scope of this safety specification for attachment by the consumer.

4.5 The anti-tip device provided shall meet the requirement of Specification F3096.

4.6 Interlock Requirements:

4.6.1 Interlocks shall not require additional consumer action to engage during normal operation of the extendible element, for example, opening and closing the drawer to access the interior volume.

4.6.1.1 Consumer action to reengage the interlock system after disengaging to allow removal of one or more extendible elements is allowed, for example, to install an anti-tip device or retrieve a lost sock.

4.6.1.2 An interlocked extendible element removed for such one-time action shall not require removal of components such as back panels and dust bottom to access the interlocking mechanism during reengagement. Reengagement shall not require tools unless those tools are also required for disengagement.

4.6.1.3 An interlocked extendible element removed for such one-time action shall either:

(1) Not be fully functional when reinstalled until the interlock is reengaged. (For example, it will not fully close or ride on tracks if interlock is not reengaged—which can be an automatic action when reinstalled in case.); or

(2) Include a separate warning or warnings as described in 10.2.3.10.

4.6.2 Interlocks shall not require consumer assembly and/or installation if the unit is shipped assembled, except as allowed in 4.6.1.1.

4.6.3 Consumer assembly and/or installation of interlock components as part of the normal consumer assembly process is allowed for items shipped/sold unassembled.

4.6.4 When tested to 9.1, the extendible element shall be considered interlocked to the open extendible element if either:

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

⁵ Available from Underwriters Laboratories (UL), 2600 N.W. Lake Rd., Camas, WA 98607-8542, <http://www.ul.com>.