PROTOCOL # 411 - M

INFLATABLE CHAIR

Performance Test	Test Method	Samples	Requirement	Rating (Section or exec. Summary which failed items can be referenced)
LABELING				
Labeling / Packaging Review	FPLA 16 CFR 500 & 19 CFR 134	All Samples	Should be legibly marked with the following information: - Distributor's name, trademark or other means of identification of the manufacturer or packer & address (City, State & Zip) - Product identification - Net quantity of the contents in terms of weight, measure or numerical count (Metric & US Standard) or a combination so as to give accurate information and facilitate value comparison by the consumer - Country of origin (if imported)	
Instructional Literature/ Assembly Instruction	Visual Check	All Samples	Shall provide safe use, or proper assembly or both, and care instruction. Shall be legible and easy to read	
Cautionary Labeling	ASTM F 963	All Samples	Must be labeled "CAUTION: This Is Not A Life Saving Device. Do Not Leave Child Unattended While In Use.	
Verify Label Claims	Visual Check	All Samples	The labeling must comply and valid with all claims.	
Small Parts Warning (if applicable) * See pg 9 for Warning Labeling Requirements	ASTM F 963 5.11	All Samples	⚠ WARNING: CHOKING HAZARD – Small parts. Not for children under 3 yrs.	
CPSIA Tracking Label	Visual Check	All Samples	Kohls Tracking label Requirements – Includes "Kohl's", the product style number or name, the manufacturer's factory number and the month and year the product was manufactured. Shall be permanently and distinguishably marked on the product.	
California Flammability Labeling (if applicable)	CA Home Furnishings and Thermal Insulation Act	All Samples	All upholstered furniture sold in the State of California (except those that are exempt from the flammability requirements) must have a flammability label attached. During 2014 furniture may carry either a TB117 or a TB117-2013 flammability label depending on the standard that it meets. Furniture manufactured after January 1, 2015 must have a TB117- 2013 flammability label attached. Flammability label verbiage for upholstered furniture compliant with TB117-2013: **NOTICE** **THIS ARTICLE MEETS THE FLAMMABILITY REQUIREMENTS OF CALIFORNIA BUREAU OF ELECTRONIC AND APPLIANCE REPAIR. HOME FURNISHINGS AND THERMAL INSULATION TECHNICAL BULLETIN 117-2013. CARE SHOULD BE EXERCISED NEAR OPEN FLAME OR WITH BURNING CIGARETTES.** Flammability label for upholstered furniture compliant with both the TB116 and TB117-2013 (Note: TB116 is a voluntary standard, however if labeled as such, it must now comply): **NOTICE** **THIS ARTICLE MEETS ALL FLAMMABILITY REQUIREMENTS OF CALIFORNIA BUREAU OF ELECTRONIC AND APPLICANCE REPAIR. HOME FURNISHINGS AND THERMAL INSULATION TECHNICAL BULLETINS 116 AND 117-2013. CARE SHOULD BE EXERCISED NEAR OPEN FLAME OR WITH BURNING CIGARETTES**	
California Flammability Labeling (if applicable)	CA Home Furnishings and Thermal Insulation Act		Flammability warning label must be Labels shall be securely fastened onto completed articles and bulk materials in a manner approved by the Bureau in such an area as to be openly and easily visible to view. Labels are not to be concealed or obstructed from view in any manner. Label Material. Law labels shall be constructed of material approved by the Bureau and shall not be easily torn or defaced.	
California Flammability Labeling - Font Size and Font Type (if applicable)	CA Home Furnishings and Thermal Insulation Act		All words in Flammability Notice section shall be: - 1/8" in height and - Must be in capital letters - Minimum size of the label shall be 2" x 3"	

Labeling for Presence or Absence of Flame Retardants (if applicable)	California Bill SB 1019		The following “flame retardant chemical statement” shall be included on the flammability label: “The upholstery materials in this product: _____contain added flame retardant chemicals _____contain NO added flame retardant chemicals The State of California has updated the flammability standard and determined that the fire safety requirements for this product can be met without adding flame retardant chemicals. The state has identified many flame retardant chemicals as being known to, or strongly suspected of, adversely impacting human health or development.” The absence or presence of added flame retardant chemicals shall be indicated by placing an “X” in one of the appropriate blanks by the manufacturer. The statement is not required to be in all capital letters and shall follow the requirements that required for TB 117-2013 label. **Kohl’s does NOT allow flame retardants applied to any of their products	
Law Label - Except Stuffed Toy, Stuffed Pet Toy (if applicable)	US Various State Law / With reference to IABFLO		Stuffed article, bedding or furniture with filling materials shall have law label attached to the product. NOTE: It is the vendor's responsibility to register the product as required	
PHYSICAL CHARACTERISTICS				
Overall Dimension (LXWXH)	Std. Measure (in/cm)	3 Samples	Max. +5% / -0% of claimed dimension. Record actual data if there is no claim.	Claim: Actual:
CONSTRUCTION QUALITIES				
Kohl’s Workmanship Review	Visual Check / Actual Use	All Samples	- All components shall be provided as claimed and shall not be deformed or fractured. - All hardware shall be provided - All welds shall be smoothly finished and free from pits and splatter - All components shall not contain any burrs or sharp edges (test by touch or sight) - Product shall not contain any loose components or unsecured fastening where rigidity is required	
Small Parts	16 CFR 1501	1 Sample	No safety hazard at as received condition. Products intended for children under 36 months of age] Shall not include removable, liberated components or fragments of products before or after use and abuse that are small part.	
Sharp Points & Edges	16 CFR 1500	1 Sample	No safety hazard at as received condition. Items intended for children under 8 years of age shall not have accessible, potentially hazardous sharp points / edges before or after use and abuse testing.	
PERFORMANCE **(Notes: All samples shall be inflated as intended to full extent before testing)**				
Effects of Low and High Temperature	Visual Check		No change after 24 hrs. @ 0° F and 120° F/95% RH	
Ease Of Assembly/ Installation (if applicable)	Actual Use		- Shall present no difficulties during assembly and installation when following instructions. - Shall include assembly, use, maintenance, and safety information as required with no errors or spelling mistakes.	
Functionality	Actual Use		Shall function as intended as received.	
Cycle Test / Test for Buttons, Switches, and/or Moving Components (if applicable)	Actual Use		Shall have no breakage, loss of functionality, loss of serviceability after 200 times / cycles use of buttons, switches, and/or moving components.	
Inflation and Deflation - Cyclic Test	Actual Use		Inflatable product shall be inflated to its claimed inflation pressure or per the instructions then fully deflated. Total 10 cycles. No loss of functionality.	
Static Load of Inflatable Product	Actual Use		-Products shall withstand 1.3 times the claimed load without collapsing to produce a hazardous condition. Load shall be evenly distributed over the seating area. -If no claimed load, shall be 430 lbs for single chair. For double chair shall be 860 lbs. Shall be applied for one hour.	
Impact Durability (Seat)	Refer to BIFMA X5.1:2017 Clause 7	1 Sample	For each individual seat, no structural breakage when dynamic test load free falls from 6" to the center of the seat with static load in other seat area specified in the test method. The Dynamic load: -For adult samples, the test load shall be 225 lb. For children’s samples, the test load shall be 100 lb. The Static test load: For adult and children shall be 225 lb. and 135 lb. respectively.	Chair Weight: Tipping Force:
Resistance To Deflating	SGS In House Method 123	1 Sample	The inflatable chair shall be inflated as intended and allowed to stand for 2 hours prior to test. A 300-lb load (or claimed weight) shall be applied to the seat for 2 hours without visible deflating.	
MATERIAL STRENGTH				
Puncture Strength (lbs.)	SGS In House Method 122	1 Sample	Min. 25 lbs. Using a ¼ in. mandrel push with 25 lb. perpendicular force; there shall be no puncturing of the product. 5.5 lbf shall be used instead for light duty PVC; if claimed.	
Seam Strength	ASTM D1683	1 Sample	Min. 30 lbs.	
Tensile Strength (if applicable)	ASTM D5034		Sample shall withstand a minimum of 20 lbf, report actual.	

Tear Strength – Inflatable Products Only (if applicable)	ASTM D1424		Sample shall withstand a minimum of 5 lbf, report actual.	
Surface Abrasion – Inflated Diaphragm Method	ASTM D 3886	1 Sample	No failure @ 100 cycles (0 grit sand paper, 3 lbs. pressure)	
Flammability Of Solid	16 CFR 1500.44	1 Sample	Burn rate<0.1"/sec.	
Flammability For Vinyl Material (if applicable)	16 CFR 1611		Shall not exceed 1.2 inch/second of average rate of burning	
#Claim Verification (If Claimed)	Visual Check / Actual Use	1 Sample	All designs and features must conform to actual claim	Claim:
*Tech Pack Verification	Visual Check / Std. Measurement	1 Sample	Verify all claims mentioned in Tech Pack File	
Fiber Composition (If applicable)	AATCC 20 / AATCC 20A		Textile product (For fiber labeling): - Single fiber: No tolerance - Blended fiber: +/- 3% Textile component of non-textile product (If claimed): - If percentage of fiber is specified: Recommend following the tolerance applied for textile product. - If percentage of fiber is not specified: Report actual fiber composition (qualitative) of the textile component. Shall meet label claims (If applicable).	
CALIFORNIA TECHNICAL BULLETIN 117 (If Applicable)				
***Cover Fabric**				
Section 1	C.T.B. 117-2013	1 Sample	(See attached test results / requirements)	
***Barrier Materials:**				
Section 2	C.T.B. 117-2013	1 Sample	(See attached test results / requirements)	
***Resilient Filling Material**				
Section 3	C.T.B. 117 -2013	1 Sample	(See attached test results / requirements)	
***Decking Material**				
Section 4	C.T.B. 117 -2013	1 Sample	(See attached test results / requirements)	
COLORFASTNESS				
*Dry Crocking (If Printed)	AATCC 8/116	1 Sample	Min. Class 4	
*Wet Crocking (If Printed)	AATCC 8/116	1 Sample	Min. Class 3	
*Colorfastness To Light (If Printed)	AATCC 16E	1 Sample	Min. Class 3.5. Report actual data at 20/40 hrs.	
Colorfastness to Perspiration	AATCC 15		For fabric intended to be in contact with skin: Color change: Grade 4 min. Color staining: Grade 3 min.	
ANALYTICAL				
*Lead In Scrapable Surface Coating	CPSC-CH-E1003-09	1 Sample	≤ 90 ppm (0.009% by weight) (CPSA – 16 CFR 1303)	
*Lead In Substrate Material (Accessible Component)	CPSC-CH- E1001-08 and/or CPSC-CH- E1002-08	1 Sample	≤100 ppm (0.010% by weight).	
Formaldehyde – For Textile (if applicable)	AATCC 112		Recommended for textile. Shall not exceed below limits. - Baby (up to 36 months of age): Not detected (< 16 ppm) - Direct contact with skin: 75 ppm - Without direct contact with skin: 300 ppm - Decoration material: 300 ppm	
* CA Prop 65	Refer to Protocol 1300	All Samples	All samples shall be reviewed against the requirements of California Proposition 65 to determine if additional testing or labeling is required.	
Penta-BDE, Octa-BDE (if applicable)	Various US State Law		Penta-BDE, Octa-BDE - Products or flame-retardant parts thereof: ≤ 0.1% by weight (For HI, MD, MN (exempt medical device), RI) - Products: ≤ 0.1% by weight (For CA, IL, MI, NY, OR, VT) NOTE: Select above requirement(s) prior to test application. **In lieu of testing a letter of guarantee must be provided – and sent to product development team	
Deca-BDE (if applicable)	Various US State Law		- Products: ≤ 0.1% by weight (For MD, OR) - Mattresses, mattress pads or upholstered furniture: ≤ 0.1% by weight (For VT) - Plastic housing of televisions or computers: ≤ 0.1% by weight (For VT) - Plastic shipping pallets: ≤ 0.1% by weight (For VT) NOTE: Select above requirement(s) prior to test application. **In lieu of testing a letter of guarantee must be provided – and sent to product development team	

PBDEs - State of Washington (if applicable)	US State Law, Revised Code of Washington (RCW), Chapter 70.76.020 & 70.76.030		PBDEs except Deca-BDE - Non-comestible (i.e. non-edible) products (exempt medical devices): Not detected 5mg/kg Deca-BDE - Mattresses, residential upholstered furniture, plastic enclosure of electronic products: Not detected NOTE: 1) PBDEs include, but are not limited to, Penta-BDE, Octa-BDE and Deca-BDE. 2) Mattresses include mattress sets, box springs, futons, crib mattresses, youth mattresses, and mattress pads. 3) Residential upholstered furniture means seating intended for indoor use in home. **In lieu of testing a letter of guarantee must be provided – and sent to product development team	
PFAS Supplemental Protocol	Refer to Protocol 1600	All Samples	All samples shall be reviewed against the requirements of PFAS Supplement Protocol to determine if additional testing or labeling is required	

Protocol Version	**Description of Change**	**Revised by / Date**	**Approved by / Date**
411 – 0	Initial Release	CY Chan Feb 10, 2004	Roger Mayerson Mar 08, 2004
411 – A	Added 19 CFR 134, Instructional Literature/Assembly Instruction and Overall Dimension. Add Flammability of Solid & Colorfastness to Light Test. Changed the Lead in Surface Coating Limit to 90 ppm. Price Adjustment. Changed protocol number from 411-2 to 411-A, price adjustment	Simon Leung April 1, 2010	Ro Jain April 1, 2010
411 – B	Changed the Test Method for Lead in Scrapable Surface Coating from ASTM to CPSC.	Simon Leung September 15, 2011	Ro Jain September 15, 2011
411 - C	Sample Size is updated	John Wong Mar 26, 2013	Ro Jain Apr 15, 2013
411-D	Revised the strength and stability test of seating with reference to the update standards. Rephrased the requirement of puncture strength test	Bill Wang Apr 15, 2013	Ro Jain May 27, 2013
411 - E	Added Flammability requirements TB 117-2013 for products with filling material inside.	Hary Nie Dec 13, 2013	Ro Jain Feb 10, 2014
411 - F	Added Tech Pack Verification	Candy Chan Feb 10, 2014	Ro Jain Mar 7, 2014
411 – G	Updated lead content and colorfastness tests pricing	Candy Chan Jul 30, 2014	Jeetendra Shelatkar Aug. 4, 2014
411-H	Renamed all in house methods updated CA Technical Bulletin 117 labeling (if applicable)	Candy Chan Oct 24, 2014	Jeetendra Shelatkar Oct 27, 2018
411-I	Updated protocol with new performance testing requirements more applicable to inflatable furniture	Elizabeth Armstrong Sept 12, 2018	Elizabeth Armstrong Sept 12, 2018
411-J	Added testing requirements for children's testing requirements	Elizabeth Armstrong Nov 21, 2018	Elizabeth Armstrong Nov 21, 2018
411-K	Added PFAS Test Line	Kevin Makocy March 18, 2022	Kevin Makocy March 18, 2022
411-L	Removed year from ASTM F963 test	Violet Nelson / Feb 2024	Violet Nelson / Feb 2024
411-M	Updated Static Load of Inflatable Product to state it shall be applied for one hour	Charlene Swanson / October 2024	Charlene Swanson / October 2024