



SUN LIN ELECTRONIC CO., LTD

Technical Report: (8814)132-0200

May 22, 2014

Date Received: May 12, 2014

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SUN LIN ELECTRONIC CO., LTD
SUN LIN INDUSTRIAL BLDG., QIAO TOU INDUSTRIAL
DISTRICT, ANHAI, JINJIANG, FUJIAN, CHINA

Sample Description: GIGANTIC KEYBOARD PLAYMAT
Vendor: N/A
Manufacturer: N/A
Buyer: N/A
Labeled Age Grade: 3+ YEARS
Appropriate Age Grade: N/A
Client Specified Age Grade: 3+
Tested Age Grade: OVER 3YEARS OF AGE
UPC Code: N/A
Test Starting Date: MAY 12, 2014
Sample Size: N/A
Style No(s): SLW928
SKN/SKU No.: N/A
PO No.: N/A
Ref #: N/A
Country of Origin: N/A
Assortment No.: N/A
Test Finished Date: MAY 22, 2014

EXECUTIVE SUMMARY:

The sample(s) MEETS the following requirement(s):

- (#)- The labeling requirements of ASTM F963-11, "Standard consumer safety specification for toy safety".
(#)- The mechanical hazards requirements of ASTM F963-11, "Standard consumer safety specification for toy safety".
(#)- The flammability requirements of ASTM F963-11, "Standard consumer safety specification on toy safety", Section 4.2 and 16 CFR 1500.3(c)(6)(vi), "Flammable solid".

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RT/MW
REMARK

If there are questions or concerns on this report, please contact the following persons:
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Business Contact: (86) 0769 85893595
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EXECUTIVE SUMMARY:

The sample(s) MEETS the following requirement(s):

- The battery-operated toys test requirements of ASTM F963-11, "Standard consumer safety specification for toy safety", Section 4.25 (exclude 4.25.10).

(#)- The total lead content in substrate requirements of ASTM F963-11, "Standard consumer safety specification for toy safety", Section 4.3.5.2(2)(a).

(#)- The soluble heavy metals content in substrate requirements of ASTM F963-11, "Standard Consumer Safety Specification for Toy Safety," Section 4.3.5.2(2)(b).

Note: Tests with (#) accredited under CNAS testing standard.

Note: At the request of the client, the sample(s) was evaluated for use by children 3+.

Note: The sample(s) was not evaluated to the Normal Use testing requirements specified in ASTM F963-11, Section 8.5. It is the responsibility of the manufacturer, vendor or distributor to conduct tests that will simulate normal use conditions. These tests shall ensure that hazards are not generated through normal wear and deterioration of the sample(s). These tests shall also simulate the normal play mode of the toy and to simulate the expected mode of use of the particular toy. The tests shall be conducted in an expected use environment. These normal use tests shall simulate the intended use of the toy based on its estimated lifetime.



RESULTS:

APPROPRIATE AGE GRADE DETERMINATION

The Appropriate Age Grade is determined with reference to the Age Determination Guidelines of the Consumer Product Safety Commission (CPSC); and the ASTM F963-11, "Standard Consumer Safety Specification on Toy Safety". Annex A1	
Note :	The most stringent age grade from the Labeled Age Grade and the Appropriate Age Grade will be used for testing.
Note :	If the client does not specify an age grade for testing or request Bureau Veritas Consumer Products Services, Inc. to determine an appropriate age grade, the labeled age grade will be used for testing.

USE AND ABUSE TESTS

The samples were undergo the tests in accordance with section 8.6 through 8.16, whichever is applicable		
Test	Test Parameters	Standard Reference
Impact Test	4 x 3 ft	1500.53(b)
Torque Test	4 in-lbs	1500.53(e)
Tension Test	15 lbs	1500.53(f)
Compression Test	30 lbs	1500.53(g)



RESULTS:

PHYSICAL AND MECHANICAL HAZARDS (ASTM F963-11)

Section	Requirement	Result
4.1	Material Quality	M
4.3.7	Stuffing Materials	M
4.5	Sound-Producing Toys	M
4.6	Small Objects	N/A
4.7	Accessible Edges	M
4.8	Projections	N/A
4.9	Accessible Points	M
4.10	Wires and Rods	N/A
4.11	Nails and Fasteners	M
4.12	Plastic Film	M
4.13	Folding Mechanisms and Hinges	N/A
4.14	Cords, Straps and Elastics	N/A
4.15	Stability and Over-Load Requirements	M
4.16	Confined Spaces	N/A
4.17	Wheels, Tires, and Axles	N/A
4.18	Holes, Clearances and Accessibility of Mechanisms	N/A
4.19	Simulated Protective Devices	N/A
4.20	Pacifiers	N/A
4.21	Projectile Toys	N/A
4.22	Teethers and Teething Toys	N/A
4.23	Rattles	N/A
4.24	Squeeze Toys	N/A
*4.25	Battery-Operated Toys (exclude section 4.25.10 Battery-powered ride-on toys)	M
4.26	Toys Intended to be Attached to a Crib or Playpen	N/A
4.27	Stuffed and Beanbag-Type Toys	M
4.30	Toy Gun Marking	N/A
4.32	Certain Toys with Nearly Spherical Ends	N/A
4.34	Small Balls	N/A
4.35	Pompoms	N/A
4.36	Hemispheric-Shaped Objects	N/A
4.37	Yo Yo Elastic Tether Toys	N/A
4.38	Magnets	N/A
4.39	Jaw Entrapment in Handles and Steering Wheels	N/A

M = Meet NM = Not Meet N/A = Not Applicable R = Refer to Comment Section



RESULTS:

LABELING AND INSTRUCTIONAL REQUIREMENT (ASTM F963-11)

Section	Requirement	Result
5.4 & 5.3	Aquatic Toys	N/A
5.5 & 5.3	Crib and Playpen Toys	N/A
5.6 & 5.3	Mobiles	N/A
5.7 & 5.3	Stroller and Carriage Toys	N/A
5.8 & 5.3	Toys Intended to be Assembled by an Adult	N/A
5.9 & 5.3	Simulated Protective Devices	N/A
5.10 & 5.3	Toys with Functional Sharp Edges or Sharp Points	N/A
5.11	Small Objects, Small Balls, Marbles and Balloons (16 CFR 1500.19)	N/A
5.12	Toy Caps (16CFR1500.86)	N/A
5.13	Art Materials (16 CFR 1500.14(b)(8))	N/A
5.15	Battery-Operated Toys (exclude 5.15.1)	N/A
5.15.1 & 5.3	Battery-Powered Ride-On Toys	N/A
5.16	Promotional Materials	M
5.17 & 5.3	Magnets	N/A
6.1	Definition and Description	M
6.2	Crib and Playpen Toys	N/A
6.3	Mobiles	N/A
6.4 & 5.3	Toys Intended to be Assembled by an Adult	N/A
*6.5.1-2	Battery-Operated Toys	M
6.5.3	Battery-Powered Ride-On Toys	N/A
6.6	Toys in Contact with Food	N/A
7.1	Producer's Name and Address	M
7.2	Battery-Powered Ride-on Toys	N/A

M = Meet NM = Not Meet N/A = Not Applicable R = Refer to Comment Section

* Note: Subclause indicated with * are not accredited.



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RESULTS:

FLAMMABILITY (16 CFR SECTION 1500.3(c)6)(vi))

Requirement	Test Method Reference	Findings
Burn rate no greater than 0.1 of an inch per second	16 CFR 1500.44	Most rapid burn rate less than 0.1 of an inch per second.



RESULTS:

Total Lead Content in Substrate – ASTM International Standard ASTM F963-11, Section 4.3.5.2(a)

Test Method : ASTM International Standard ASTM F963-11, Section 8.3.1 and Annex A7.

Test Item(s)	Item / Component Description(s)	Location(s)	Style(s)
I001	Clear laminated multi color printed white paper sticker	Paper sticker	-
I002	Black plastic	Case of control & battery cover of control	-
I003	Off black plastic	Switch on control	-
I004	Translucent red plastic	LED body	-
I005	Clear laminated multi color coated transparent plastic	Vamp of dancing blanket	-
I006	Grey plastic	Backing of dancing blanket	-
I007	Black foam with adhesive	Foot pad	-
I009	Silvery metal	Screw	-

Maximum Allowable Limit :	100 mg/kg
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Test Item(s)	Result	Unit	Conclusion
	Total Lead (Pb)		
I001	ND	mg/kg	PASS
I002	ND	mg/kg	PASS
I003	ND	mg/kg	PASS
I004	ND	mg/kg	PASS
I005	ND	mg/kg	PASS
I006	ND	mg/kg	PASS
I007	ND	mg/kg	PASS
I009	40	mg/kg	PASS

Note / key:

- ND = Not detected
- mg/kg = milligram(s) per kilogram
- Detection Limit (mg/kg) : 10



RESULTS:

Soluble Heavy Metals Content in Substrate – ASTM International Standard ASTM F963-11, Section 4.3.5.2(2)(b)

Test Method : ASTM International Standard ASTM F963-11, Section 8.3.5 (Excluding 8.3.5.5(3))

Test Item(s)	Item / Component Description(s)	Location(s)	Style(s)
Type I: Substrate other than modeling clay			
I001	Clear laminated multi color printed white paper sticker	Paper sticker	-
I002	Black plastic	Case of control & battery cover of control	-
I003	Off black plastic	Switch on control	-
I004	Translucent red plastic	LED body	-
I005	Clear laminated multi color coated transparent plastic	Vamp of dancing blanket	-
I006	Grey plastic	Backing of dancing blanket	-
I007	Black foam with adhesive	Foot pad	-
I008	Blue thread/ dark blue fabric	Binding	-

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se
Max. Limit Type I (mg/kg)	25	1000	75	60	60	90	60	500
Max. Limit Type II (mg/kg)	25	250	50	25	25	90	60	500
Analytical Correction (%)	60	30	30	30	50	30	60	60



RESULTS:

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se	Mass of Trace Amount	Conclusion
Test Item(s)	Result (mg/kg)								(g)	
I001	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I002	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I003	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I004	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I005	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I006	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I007	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I008	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS

Note / key:

As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium
 Hg = Mercury Pb = Lead Sb = Antimony Se = Selenium
 ND = Not detected g = gram(s) % = percent
 mg/kg = milligram(s) per kilogram (ppm=parts per million)
 Detection Limit (mg/kg) :
 For Type I – As : 2.5; Ba : 100; Cd : 7.5; Each (Cr, Hg, & Sb) : 6.0; Pb : 9.0; Se : 50
 For Type II – Each (As, Cr & Hg) : 2.5; Ba : 25; Cd : 5.0; Sb : 6.0; Pb : 9.0; Se : 50

Remark:

- Textiles (natural or synthetic) are exempted for lead content requirement according to clarification of Toy Industry Association for ASTM F963-11. The lead content analysis result of corresponding material herein is for client's reference only.



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RESULTS:



END OF REPORT