

TEST REPORT

Applicant: BEST LEARNING MATERIALS CORP.
9F, No. 303, Fu-Hsing N. Rd.,
Songshan District, Taipei City 105,
Taiwan, R.O.C.

Number : TWNH00066826

Date : Nov 15, 2017

Sample Description:

One (1) group of submitted samples said to be :

Item name	: Learning Clock
Item no.	: 3021,3022,3023,3024,3025,3026,3027,3028,3029
Quantity	: 1 Group
Country of origin	: China
Goods exported to	: USA
Date sample received	: Nov 06, 2017
Date test started	: Nov 06, 2017

Tests conducted:

As requested by the applicant, for details please refer to attached pages.

Conclusion:

Please see page two.

Remarks:

- #1 = Results were transferred from report No. TWNH00061708 dated Mar 10, 2017.
- #2 = Results were transferred from report No. TWNH00061952 dated Mar 21, 2017.

Authorized by:
On Behalf of Intertek Testing Services
Taiwan Limited



Matt Wang
Sr. Manager



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Conclusion:

<u>Tested sample</u>	<u>Standard</u>	<u>Result</u>
Submitted Samples	Physical And Mechanical Properties – ASTM F963-16 excluding section 7.1	Pass
	Flammability Test Of Materials Other Than Textile Materials – ASTM F963-16, section 4.2	Pass
	Battery – Operated Toys – As per section 4.25 Of ASTM F963-16	Pass
Tested components of submitted samples	Toxic Elements Analysis On Coating – As per ASTM F963-16 standard Consumer Safety Specification For Toy Safety	Pass
	Toxic Elements Analysis In Substrate – As per ASTM F963-16 standard Consumer Safety Specification For Toy Safety	Pass
	Total Lead (Pb) Content In Surface Coating – As Per U.S. Consumer Product Safety Improvement Act 2008, Title I, Section 101	Pass
	Total Lead (Pb) Content In Non-Surface Coating Materials (Substrate) – As Per U.S. Consumer Product Safety Improvement Act 2008, Title I, Section 101	Pass
	Phthalates content – As Per U.S. Consumer Product Safety Improvement Act 2008	Pass
	– As Per Applicant's Request With Reference To California Proposition 65 for toy (Consent Judgement no. BG-350969)	Pass

Note : Applicant is drawn to the attention that the name and address of producer, importer or distributor and the advice statement of keeping relevant information of the toy shall appear on it as specified in section 7.1 of ASTM F963-16.

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Test Conducted

1. Physical And Mechanical Properties

As per ASTM F963-16 standard consumer safety specification for toy safety.

Age labeling on package / toy : None.

Is age label appropriate*1 : No

Age grading specified by applicant for testing #3: For ages over 3 years.

<u>Section</u>	<u>Testing items</u>	<u>Assessment</u>
4.1	Material quality (visual check on cleanliness)	P
4.3.7	Stuffing material (visual check on contaminations)	NA
4.5*	Sound-producing toys	P
4.6	Small objects	
4.6.1*	Toys intended for children under 36 months	NA
4.6.2	Mouth-actuated toys	NA
4.6.3	Toys and games for 36 months to 72 months	NA
4.7*	Accessible edges	P
4.8*	Projections	NA
4.9*	Accessible points	P
4.10*	Wires or rods	NA
4.11	Nails and fasteners	P
4.12	Plastic film	NA
4.13*	Folding mechanisms and hinges	NA
4.14*	Cords, straps and elastics	NA
4.15*	Stability and over-load requirements	NA
4.16	Confined spaces	NA
4.17*	Wheels, tires and axles	NA
4.18*	Holes, clearance and accessibility of mechanisms	NA
4.19*	Simulated protective devices (such as helmets, hats and goggles)	NA
4.20	Pacifiers	NA
4.21*	Projectiles toys	NA
4.22*	Teethers and teething toys	NA
4.23*	Rattles	NA
4.24	Squeeze toys	NA
4.25*	Battery-operated toys	P
4.26	Toys intended to be attached to a crib or playpen	NA
4.27	Stuffed and beanbag-type toys	NA
4.28	Stroller and carriage toys	NA
4.30	Toy gun marking	NA
4.31	Balloons	NA



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1. Physical And Mechanical Properties

Section	Testing items	Assessment
4.32	Certain toys with nearly spherical ends	NA
4.33	Marbles	NA
4.34	Balls	NA
4.35	Pompoms	NA
4.36	Hemispheric-shape objects	NA
4.37	Yo Yo elastic tether toys	NA
4.38 *	Magnets	NA
4.39	Jaw entrapment in handles and steering wheels	NA
5.	Labeling requirements	P#3
6.	Instructional literature	P
7.	Producer's markings	See note

Remarks :

- * = The submitted samples were tested in accordance with the requirements of section 8.5 through section 8.23 e.g. Normal use testing, drop test, torque test, tension test, compression test, flexure test etc. whichever is applicable.
- *1 = Reference material CPSC's age determination guidelines 2002 and ASTM F963-16 annex A1. The most stringent test is applied if the toy or its package is not age labeled in a clear and conspicuous manner, or, based on such factors as marketing practiced and the customary patterns of usage of the toy.
- P = Pass
- NA = Not applicable
- #3 = The applicant has certified that proper age grading, label and marking will put on the final product, and the age grading, label and marking certified meet the requirement of this standard. It is applicant's responsibility to make sure the final product with the age grading, label and marking as certified.

2. Flammability Test

As per section 4.2 of ASTM F963-16 standard consumer safety specification on toy safety.

Specimen	Burn length (inch)	Time (second)	Burn rate (inch/second)	Round burn rate (inch/second)	Limit (inch/second)	Assessment
Submitted Samples	-	-	IBE	-	0.10	P

Remarks :

- P = Pass
- IBE = Ignite but self-extinguished

In order to pass this criteria the test product shall meet one of the following conditions :

- A) Have burn rate of less than 0.10 inch/second. (Round the burn rate to the nearest tenth ,that is round 0.04 up to 0, 0.06 up to 0.10, 0.15 up to 0.2)
- B) DNI = Did not ignite.
- C) IBE = Ignited but self-extinguished in a very short period which cannot be measured accurately.



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3. Battery-Operated Toys

As per ASTM standard consumer safety specification on toy safety F963-16 section 4.25, 5.15.

Labelled age group : None.

Is labelled age group appropriate : No

Age grading for testing #3: For ages over 3 years.

<u>Section</u>	<u>Testing items</u>	<u>Assessment</u>
<u>4.25.1</u>	Battery marking	P
	Instruction requirement	
	- 5.15 Non-replaceable batteries	NA
<u>4.25.2</u>	Maximum allowable direct current potential	P
<u>4.25.3</u>	Protection against charging non-Rechargeable battery	P
<u>4.25.4</u>	Accessible batteries	NA
<u>4.25.5</u>	Accessible batteries that can fit completely within small part cylinder	P
<u>4.25.6</u>	Isolation of batteries of different types or capacities	P
<u>4.25.7</u>	Temperature of battery surface	P
<u>4.25.8</u>	Temperature of battery surface or combustion hazard after normal use and Abuse test	P
<u>4.25.9</u>	Instruction requirement	P
	- 6.5 Instruction on safe battery usage	NA
<u>4.25.10</u>	Battery-powered ride on toys	NA

Remark : P = Pass ; NA = Not applicable
 #3 = The applicant has certified that proper age grading, label and marking will put on the final product, and the age grading, label and marking certified meet the requirement of this standard. It is applicant's responsibility to make sure the final product with the age grading, label and marking as certified.



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4. Toxic Elements Analysis On Coating

As per section 8.3.2,8.3.3 and 8.3.4 of the ASTM F963-16 and CPSIA Test Method: CPSC-CH-E1003-09.1, acid digestion and extraction methods were used and toxic elements content were determined by Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES) and Atomic Absorption Spectrophotometer (AAS).

Element	Result (mg/kg)			DL	Limit
	(1)(#1)	(2)(#2)	(6)	(mg/kg)	(mg/kg)
Tot. Lead (Pb)	ND	ND	ND	20	90
Sol. Lead (Pb)	ND	ND	ND	5	90
Sol. Cadmium (Cd)	ND	ND	ND	5	75
Sol. Antimony (Sb)	ND	ND	ND	5	60
Sol. Chromium (Cr)	ND	ND	ND	5	60
Sol. Barium (Ba)	ND	ND	ND	5	1000
Sol. Mercury (Hg)	ND	ND	ND	5	60
Sol. Selenium (Se)	ND	ND	ND	5	500
Sol. Arsenic (As)	ND	ND	ND	2.5	25

Remarks: mg/kg = Milligram per kilogram based on dry weight of sample
 Tot. = Total
 Sol. = Soluble
 ND = Not detected
 DL = Detection limit

The results of soluble elements content were adjusted by subtracting analytical correction factor.



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5. Toxic Elements Analysis In Substrate

As per section 8.3.5 of the ASTM F963-16 and CPSIA Test Method: CPSC-CH-E1001-08.3 (metal substrates) and CPSC-CH-E1002-08.3 (non-metal substrates), acid digestion and extraction methods were used and toxic elements content were determined by Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES) and Atomic Absorption Spectrophotometer (AAS).

Element	Result (mg/kg)						DL (mg/kg)	Limit (mg/kg)
	(3)	(4)	(5)	(7)	(8)	(9)		
Tot. Lead (Pb)	ND	ND	ND	ND	ND	ND	20	100
Sol. Lead (Pb)	ND	ND	ND	ND	ND	ND	5	90
Sol. Cadmium (Cd)	ND	ND	ND	ND	ND	ND	5	75
Sol. Antimony (Sb)	ND	ND	ND	ND	ND	ND	5	60
Sol. Chromium (Cr)	ND	ND	ND	ND	ND	ND	5	60
Sol. Barium (Ba)	ND	ND	ND	ND	ND	ND	5	1000
Sol. Mercury (Hg)	ND	ND	ND	ND	ND	ND	5	60
Sol. Selenium (Se)	ND	ND	ND	ND	ND	ND	5	500
Sol. Arsenic (As)	ND	ND	ND	ND	ND	ND	2.5	25

Remarks: mg/kg = Milligram per kilogram based on weight of sample
 Tot. = Total
 Sol. = Soluble
 ND = Not detected
 DL = Detection limit

The results of soluble elements content were adjusted by subtracting analytical correction factor.

6. Total Lead (Pb) Content In Surface Coating

According to CPSIA Test Method: CPSC-CH-E1003-09.1, by acid digestion method and Atomic Absorption Spectrophotometer (AAS) analysis.

Tested Component	Result (ppm)	Limit (ppm)
(1)(#1)	ND	90
(2)(#2)	ND	90
(6)	ND	90

Remarks: ppm = Parts per million = mg/kg
 ND = Not detected
 Detection limit = 20 ppm



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7. Total Lead (Pb) Content In Non-Surface Coating Materials (Substrate)

According to CPSIA Test Method: CPSC-CH-E1002-08.3(non-metal) and CPSC-CH-E1001-08.3(metal), by acid digestion and Atomic Absorption Spectrophotometer (AAS) analysis.

<u>Tested Component</u>	<u>Result (ppm)</u>	<u>Limit (ppm)</u>
(3)	ND	100
(4)	ND	100
(5)	ND	100
(7)	ND	100
(8)	ND	100
(9)	ND	100

Remarks: ppm = Parts per million = mg/kg
 ND = Not detected
 Detection limit = 20 ppm

8. Phthalates Content

According to CPSIA Test Method: CPSC-CH-C1001-09.3, by solvent extraction and Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

<u>Compound</u>	<u>Result (%)</u>				<u>Limit^A</u>	<u>Limit^B</u>
	<u>(3)</u>	<u>(4/5/7)</u>	<u>(6)</u>	<u>(8/9)</u>	<u>(%)</u>	<u>(%)</u>
Diethyl Hexyl Phthalate (DEHP)	ND	ND	ND	ND	0.1	0.1
Dibutyl Phthalate (DBP)	ND	ND	ND	ND	0.1	0.1
Benzyl Butyl Phthalate (BBP)	ND	ND	ND	ND	0.1	0.1
Di-(Iso-Nonyl) Phthalate (DINP)	ND	ND	ND	ND	0.1	--
Di-(Iso-Decyl) Phthalate (DIDP)	ND	ND	ND	ND	0.1	0.1
Di-(N-Octyl) Phthalate (DNOP)	ND	ND	ND	ND	0.1	--
Di-(N-Hexyl) Phthalate (DNHP)	ND	ND	ND	ND	--	0.1

Remarks: % = Percentage based on weight of tested sample
 ND = Not detected
 A = Limit of CPSIA
 B = Limit of California Proposition 65
 Detection limit = 0.010% (for each compound)
 The above limit of California Proposition 65 was quoted from the Consent Judgement no. BG-350969 and RG-356892 settled by the Superior Court of the state of California for the County of Alameda, for toys based on the California Proposition 65.



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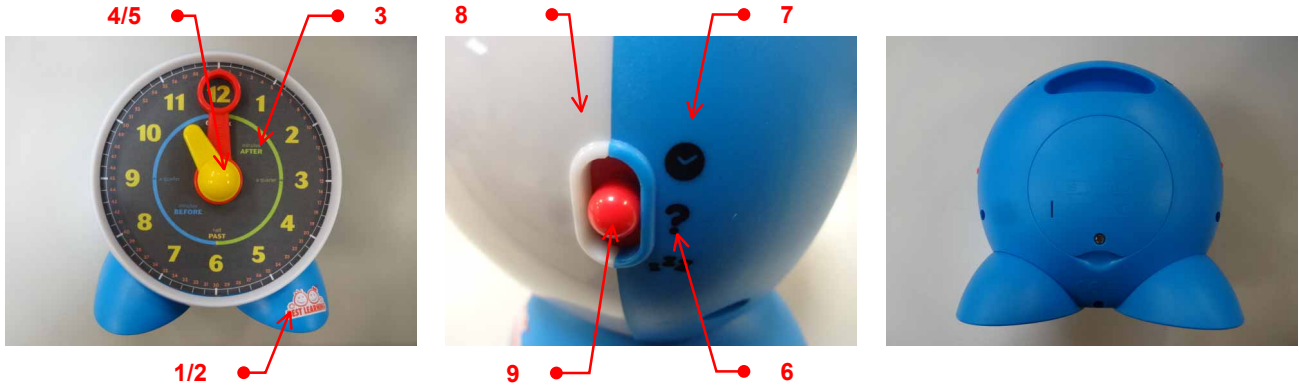
Tested Components:

- (1) White coating on casing
 - (2) Red coating on casing
 - (3) Colorful paper sticker
 - (4) Yellow plastic pointer
 - (5) Red plastic pointer
 - (6) Black coating on casing
 - (7) Blue plastic casing
 - (8) White plastic casing
 - (9) Red plastic switch
-



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End of Report

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