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Date: Jan 09, 2018

The results relate only to the item tested.

Applicant: PLAN CREATIONS CO., LTD.

8 MOO 8, TRANG-PALIAN RD.,

YANTAKAO, TRANG, THAILAND 92140 ATTN: K.NARONG, K.SUPAPORN

Sample description:

Quantity of sample: One (1) set Sample description: Wooden toy

Date sample received: November 21, 2017 Date information received: December 27, 2017 Date sample resubmitted: December 22, 2017

Client Information:

One (1) set of submitted sample said to be FOLDABLE ROCKING HORSE

Item Name: **FOLDABLE ROCKING HORSE**

Item Number: 3500



Test conducted:

As requested by the applicant, for details please refer to attached page(s)

To be continued

Authorized by:

For Intertek Testing Services (Thailand) Ltd.,

Hardlines Laboratory

Ladde N

Ladtaka Wongwiboonporn

Laboratory Manager

Hardlines Department

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Intertek Testing Services (Thailand) Ltd.



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Number: BKKH17014358

Pass

Pass

lusion:

Tested samples <u>Standard</u> Result Submitted sample U.S. ASTM F963-16 for Physical and mechanical tests **Pass** U.S. ASTM F963-16 for Flammability test of materials Pass other than textile materials U.S. ASTM F963-11 and ASTM F963-16 for **Pass Heavy elements Test** Standard - U.S. CFR title 16 (CPSC regulations) **Pass** Part 1303 total Lead content Standard **Pass** U.S. Consumer product safety improvement Act 2008(H.R. 4040) Title I, Section 101 For total lead content in surface coating **Pass** U.S. Consumer product safety improvement Act 2008(H.R. 4040) Title I, Section 101 For total lead content in non-surface coating material (substrate)

U.S. Consumer product safety improvement

Act 2008(H.R. 4040) Title I, Section 108 Requirement on phthalates

Phthalate Content Requirement base

on the California Proposition 65

Pass Illinois Lead Poisoning Prevention

Act 410 ILCS 45 section 6 (public act 095-1019)

Remark: As requested by the applicant, the test was conducted only on components listed in this report.

Other components were not tested.

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Remark:

The chemical test results was not conducted on the below components of samples. Applicant claimed the components were tested on our previous test report.

Components	Report No.	<u>Date</u>
ASTM F963-11: Heavy metal		
Solid Wood	BKKH17000142	Jan 10, 2017
ASTM F963-16: Heavy metal		
BROWN COATING ON WOOD	BKKH17008463	Jul 14, 2017
LACQUER COATING ON WOOD	BKKH17008950	Jul 26, 2017
Lead in surface coating		
BROWN COATING ON WOOD	BKKH17008463	Jul 14, 2017
LACQUER COATING ON WOOD	BKKH17008950	Jul 26, 2017
<u>Lead in substrate</u>		
STEEL	BKKH17014366	Nov 23, 2017
METAL PART	BKKH17015025	Dec 12, 2017
Solid Wood	BKKH17000142	Jan 10, 2017
Phthalate content		
BROWN COATING ON WOOD	BKKH17008463	Jul 14, 2017
LACQUER COATING ON WOOD	BKKH17008950	Jul 26, 2017

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Number: BKKH17014358

Test conducted:

1 Physical And Mechanical Tests *

Test Standard: ASTM Standard Consumer Safety Specification for Toy Safety F963-16.

Age group for testing: For age 18 months to 5 years.

The submitted samples were undergone the use and abuse tests in accordance with the Federal

Hazardous Substances Act (FHSA), Title 16, Code of Federal Regulations : -

 Test
 FHSA
 Parameter

 Tip over test
 3 times

 Torque test
 Section 1500.53(e)
 4 in-lbf

 Tension test
 Section 1500.53(f)
 15 lbf

 Compression test
 Section 1500.53(g)
 30 lbf

<u>Clause</u>	<u>Testing items</u>	Assessment
4.1	Material quality	Р
4.5	Sound-producing toys	NA
4.6.1	Toys intended for children under 36 months (small objects)	Р
4.6.2	Mouth-actuated toys	NA
4.6.3	Toys and games for 36 months to 72 months (small part warning)	NA
4.7	Accessible edges	Р
4.8	Projections	NA
4.9	Accessible points	Р
4.10	Wires or rods	NA
4.11	Nails and fasteners	Р
4.12	Plastic film	Р
4.13	Folding mechanisms and hinges	NA
4.14	Cords, straps and elastics	NA
4.15	Stability and over-load requirements	Р
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	NA
4.20	Pacifiers	NA
4.21	Projectile toys	NA
4.22	Teethers and teething toys	NA



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Test conducted:

Clause	<u>Testing items</u>	Assessment
4.23	Rattles	NA
4.24	Squeeze toys	NA
4.25	Battery-operated toys	NA
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
4.29	Art materials	NA
4.30	Toy gun marking	NA
4.31	Balloons	NA
4.32	Certain toys with nearly spherical ends	NA
4.33	Marbles	NA
4.34	Balls	NA
4.35	Pompoms	NA
4.36	Hemispheric-shaped objects	NA
4.37	Yoyo elastic tether toys	NA
4.38	Magnets	NA
4.39	Jaw entrapment in handles and steering wheels	NA
4.40	Expanding materials	NA
4.41	Toy chests	NA
5	Labelling requirement	Р
6	Instructional literature	Р
7	Producer's markings	
	- name of producer (toy and package)	Yes
	- address (package)	Yes

Remark: P = Pass NA = Not applicable

▲ = Tested items are not included in the TISI Accreditation

The submitted samples were undergone the tests in accordance with clause 8.5 through clause 8.17 and 8.19 through 8.26 on normal use, abuse and specific tests for different types of toys whichever is applicable.

Testing period: November 21, 2017 to December 25, 2017

2 Flammability Test [▲]

Test Standard : Clause 4.2 of the ASTM Standard Consumer Safety Specification for Toy Safety F963-16.

Results: Did not ignite

Remark: Tested items are not included in the TISI Accreditation

Testing period: November 21, 2017 to November 23, 2017

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Number: BKKH17014358

Test conducted:

3 Heavy Elements Analysis

As per clause 4.3.5.1(2) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11 and F963-16^A, acid extraction method was used and heavy elements migration content were determined by ICP-OES analysis.

		<u>Result</u>		<u>LOD</u>	<u>LOQ</u>	Limit mg/kg
		mg/kg		mg/kg	mg/kg	
(1)	(2)					
264	ND			1	5	1000
ND	ND			1	5	90
ND	ND			1	5	75
ND	ND			2	5	60
ND	ND			1	5	500
ND	ND			2	5	60
ND	ND			1	5	60
ND	ND			2	5	25
	264 ND ND ND ND ND	264 ND	mg/kg mg/kg (1) (2)	mg/kg (1) (2)	mg/kg mg/k	mg/kg mg/k

Remark: Sol. = Soluble

mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million
LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD) <= Less than

Tested items are not included in the TISI Accreditation

Tested components:

(1) =	BROWN COATING ON WOOD	Refer	BKKH17008463
(2) =	LACQUER COATING ON WOOD	Refer	BKKH17008950

Note: The results of soluble toxic elements were adjusted by subtracting the analytical correction factor.





The results relate only to the item tested.



Test conducted:

Heavy Elements Analysis

As per clause 4.3.5.2(2)(b) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11 and F963-16^A, acid extraction method was used and heavy elements migration content were determined by ICP-OES analysis.

		<u>Result</u> mg/kg	<u>LOD</u> mg/kg	LOQ mg/kg	Limit mg/kg
	(3)				
Sol. Barium (Ba)	ND		1	5	1000
Sol. Lead (Pb)	ND		1	5	90
Sol. Cadmium (Cd)	ND		1	5	75
Sol. Antimony (Sb)	ND		2	5	60
Sol. Selenium (Se)	ND		1	5	500
Sol. Chromium (Cr)	ND		2	5	60
Sol. Mercury (Hg)	ND		1	5	60
Sol. Arsenic (As)	ND		2	5	25

Remark: Sol. = Soluble

> mg/kg =Milligram per kilogram based on weight of sample; = ppm = Parts per million LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD) Less than < =

Tested items are not included in the TISI Accreditation

Tested components:

Solid Wood BKKH17000142 (3) =Refer

Note: The results of soluble toxic elements were adjusted by subtracting the analytical correction factor.





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Number: BKKH17014358

Test conducted:

Total Lead (Pb) Content

As per clause 4.3.5.1(1) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11 and F963-16 $^{\blacktriangle}$, test method CPSC-CH-E1003-09.1:2011 was used and total Lead content was determined by ICP-OES analysis.

(I) Surface coating

Tested Component	<u>Result</u>	<u>LOD LOQ</u>	<u>Limit</u>
resteu Component	mg/kg	(mg/kg) (mg/kg)	(mg/kg)
(1)	ND	2 13	90
(2)	ND	2 13	90

Remark: mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD) <= Less than

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(1) = BROWN COATING ON WOOD Refer BKKH17008463 (2) = LACQUER COATING ON WOOD Refer BKKH17008950



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Number: BKKH17014358

Test conducted:

Total Lead (Pb) Content ▲

As per clause 4.3.5.2(2)(a) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11 and F963-16, test method CPSC-CH-E1001-08.3:2012, CPSC-CH-E1002-08.3:2012 were used and total Lead content was determined by ICP-OES analysis.

(II) Non-surface coating

Tested Component	<u>Result</u>	<u>LOD LOQ</u>	<u>Limit</u>
rested component	mg/kg	(mg/kg) (mg/kg)	<u>(mg/kg)</u>
(1)	ND	1 13	100

Remark: mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD) <= Less than

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(1) = Solid Wood Refer BKKH17000142

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Number: BKKH17014358

Test conducted:

4 <u>Total Lead (Pb) content</u> [▲]

As per U.S. Code of Federal Regulations title 16 Part 1303. Acid digestion method was used and total Lead content was determined by Inductively Couple Plasma Optical Emission Spectrometry.

Tested component	Result %	LOD %	<u>LOQ %</u>	<u>Limit %</u>
(1)	ND	0.0002	0.0013	0.0090
(2)	ND	0.0002	0.0013	0.0090

Remark: % = percentage < = Less than

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD)

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(1) = BROWN COATING ON WOOD Refer BKKH17008463 (2) = LACQUER COATING ON WOOD Refer BKKH17008950



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Number: BKKH17014358

Test conducted:

5 Total lead (Pb) content in surface coating

As per U.S. Consumer Product Safety Improvement Act of 2008 (H.R. 4040), Title I, Section 101 for children's products containing Lead, CPSC-CH-E1003-09.1:2011 method was used and total Lead content was determined by Inductively Couple Plasma Optical Emission Spectrometry.

Tested component	<u>Result</u>	<u>LOD</u>	LOQ	<u>Limit mg/kg</u>
	mg/kg	mg/kg	mg/kg	
(1)	ND	2	13	90
(2)	ND	2	13	90

Remark: mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD) <= Less than

Tested components:

(1) = BROWN COATING ON WOOD Refer BKKH17008463 (2) = LACQUER COATING ON WOOD Refer BKKH17008950



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Number: BKKH17014358

Test conducted:

6 Total Lead (Pb) Content in Substrate Material- Children's Metal Product

As per U.S. Consumer Product Safety Improvement Act of 2008 (H.R. 4040), Title I, Section 101 for children's products containing Lead, CPSC-CH-E1001-08.3:2012 method was used and total Lead content was determined by Inductively Couple Plasma Optical Emission Spectrometry.

Tested component	<u>Result</u>	<u>LOD</u>	LOQ	<u>Limit mg/kg</u>
	mg/kg	mg/kg	mg/kg	
(1)	ND	2	13	100
(2)	ND	2	13	100

Remark: mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD) <= Less than

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(1) = STEEL Refer BKKH17014366 (2) = METAL PART Refer BKKH17015025



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Number: BKKH17014358

Test conducted:

6 Total lead (Pb) content in substrate material- non-metal children's product As per U.S. Consumer product safety improvement Act of 2008 (H.R. 4040), Title I, Section 101 for children's products containing lead, CPSC-CH-E1002-08.3:2012 method was used and total lead content was determined by Inductively Couple Plasma Optical Emission Spectrometry.

Tested component	<u>Result</u>	LOD	LOQ	Limit mg/kg
	mg/kg	mg/kg	mg/kg	
(1)	ND	1	13	100

mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million Remark:

> LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD) Less than < =

Tested items are not included in the TISI Accreditation

Tested components:

(1) =Solid Wood Refer BKKH17000142

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Number: BKKH17014358

Test conducted:

7 Phthalate content

As per CPSC-CH-C1001-09.3:2010 and U.S. Consumer Product Safety Improvement Act 2008 (H.R. 4040), Title I, Section 108 requirement on Phthalates, solvent extraction method was used and Phthalate content was determined by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

			Result	<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>	<u>NPR</u>
			<u>(%, w/w)</u>	(%, w/w)	(%, w/w)	(%, w/w)	(%, w/w)
	(1)	(2)					
Dibutyl Phthalate (DBP)	ND	ND		0.0015	0.0030	0.1	0.1
Diethyl hexyl Phthalate (DEHP)	ND	ND		0.0015	0.0030	0.1	0.1
Benzyl butyl Phthalate (BBP)	ND	ND		0.0015	0.0030	0.1	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND		0.0015	0.0090	0.1	0.1
Di-n-octyl Phthalate (DNOP)	ND	ND		0.0015	0.0030	0.1	
Di-iso-decyl Phthalate (DIDP)	ND	ND		0.0015	0.0090	0.1	
Di-isobutyl phthalate (DIBP) ▲	ND	ND		0.0015	0.0090		0.1
Di-n-pentyl phthalate (DPENP) ▲	ND	ND		0.0015	0.0090		0.1
Di-n-hexyl phthalate (DHEXP) ▲	ND	ND		0.0015	0.0090		0.1
Di-cyclohexyl phthalate (DCHP) ▲	ND	ND		0.0015	0.0090		0.1
Diisooctyl phthalate (DIOP)	ND	ND		0.0015	0.0090		

Remark: The above limit was quoted according to US Consumer Product Safety Improvement Act 2008 for prohibition on sale of certain products containing specified phthalates.

The Phthalate no.7-11 are not included in US Consumer Product Safety Improvement Act 2008 and was conducted as per applicant requested only.

NPR = Notice of proposed rulemaking %, w/w = Percentage weight by weight

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD)

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(1) =	BROWN COATING ON WOOD	Refer	BKKH17008463
(2) =	LACQUER COATING ON WOOD	Refer	BKKH17008950





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Number: BKKH17014358

Test conducted:

8 Phthalate content test A

By solvent extraction and Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

			<u>Result</u>	<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
			<u>(%, w/w)</u>	(%, w/w)	(%, w/w)	<u>(%, w/w)</u>
	(1)	(2)				
Dibutyl Phthalate (DBP)	ND	ND		0.0015	0.0030	0.1
Diethyl hexyl Phthalate (DEHP)	ND	ND		0.0015	0.0030	0.1
Benzyl butyl Phthalate (BBP)	ND	ND		0.0015	0.0030	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND		0.0015	0.0090	0.1
Dioctyl Phthalate (DNOP)	ND	ND		0.0015	0.0030	0.1
Di-iso-decyl Phthalate (DIDP)	ND	ND		0.0015	0.0090	0.1
Di-n-hexyl Phthalate (DnHP)	ND	ND		0.0015	0.0030	0.1

Remark: %, w/w = Percentage weight by weight

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD)

▲ = Tested items are not included in the TISI Accreditation

Note: The above limit was quoted according to the California Proposition 65

Tested components:

(1) =	BROWN COATING ON WOOD	Refer	BKKH17008463
(2) =	LACQUER COATING ON WOOD	Refer	BKKH17008950





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Number: BKKH17014358

Test conducted:

9 Total Lead (Pb) Content

As per Illinois Lead poisoning prevention act 410 ILCS 45 section 6 (public act 095-1019), acid digestion method was used and total Lead content was determined by Inductively Couple Plasma Optical Emission Spectrometry.

Surface coating material

Tested component	<u>Result</u>	LOD LOQ	<u>Limit</u>
	mg/kg	mg/kg mg/kg	mg/kg
(1)	ND	2 13	90
(2)	ND	2 13	90

Remark: < = Less than

Milligram per kilogram based on weight of sample; = ppm = Parts per million

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD)

▲ = Tested items are not included in the TISI Accreditation

Requirement:

According to Illinois Lead poisoning prevention act 410 ILCS 45 section 6 (public act 095-019), appropriate warning statement is required when the Lead content of the submitted sample is more than 40 ppm but less than 90 ppm for surface coatings and less than 100 ppm for substrates by total weight or a lower standard for Lead content as may be established by federal or state law or regulation.

Tested components:

(1) =	BROWN COATING ON WOOD	Refer	BKKH17008463
(2) =	LACQUER COATING ON WOOD	Refer	BKKH17008950



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Number: BKKH17014358

Test conducted:

II Non-surface coating material (substrate)

Tested component	<u>Result</u>	<u>LOD</u> <u>LOQ</u>	<u>Limit</u>
	mg/kg	mg/kg mg/kg	mg/kg
(3)	ND	1 13	100
(4)	ND	1 13	100
(5)	ND	1 13	100

Remark: < = Less than

mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD)

Requirement: According to Illinois Lead poisoning prevention act 410 ILCS 45 section 6

(public act 095-019), appropriate warning statement is required when the Lead content of the submitted sample is more than 40 ppm but less than 90 ppm for surface coatings and less than 100 ppm for substrates by total weight or a lower standard for Lead content as may be established by federal

or state law or regulation.

Tested components:

(3)	=	Solid Wood		Refer	BKKH17000142
(4)	=	STEEL		Refer	BKKH17014366
(5)	=	METAL PART		Refer	BKKH17015025

Note: LOD and LOQ value in this test report were effective since October, 2014

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