

NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002804

Date:

May 15, 2017

TEST REPORT

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:

Sample description:

Date sample received:

Date information received:

One (1) set

Wooden toy

March 01, 2017

May 11, 2017

Client Information:

One (1) set of submitted sample said to be DANCING KANGAROO

Item Name: DANCING KANGAROO

Item Number: 5700



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

Ladtaka Wongwiboonporn Laboratory Manager Hardlines Department

Intertek Testing Services (Thailand) Ltd.

1285/5 Prachachuen Road, Wong-Sawang, Bangsue, Bangkok 10800 Thailand

Tel.: (662) 837-2999 Fax: (662) 837-2936



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Result

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

TEST REPORT

Conclusion:

Tested samples
Submitted sample

Standard

U.S. ASTM F963-16 for Physical and mechanical tests

U.S. ASTM F963-16 for Flammability test of materials

other than textile materials

U.S. ASTM F963-11 and F963-16 for Heavy elements Test

Standard - U.S. CFR title 16

(CPSC regulations)

Part 1303 total Lead content

Standard

U.S. Consumer product safety improvement Act 2008(H.R. 4040) Title I, Section 101

For total lead content in surface coating

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

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Phthalate Content Requirement base on the California Proposition 65

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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TEST REPORT

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		
Brown Coating On Wood	BKKH16006844	May 17,2016
ORANGE COATING ON WOOD	BKKH16008147	Jun 09,2016
LACQUER COATING ON WOOD	BKKH16008147	Jun 09,2016
BLACK COATING ON WOOD	BKKH16008148	Jun 09,2016
WHITE COATING ON WOOD	BKKH16008148	Jun 09,2016
BLUE COATING ON WOOD	BKKH16008768	Jun 21,2016
YELLOW COATING ON WOOD	BKKH16008768	Jun 21,2016
GRAY O RING	BKKH16014684	Oct 13,2016
ROPE COTTON	BKKH16016708	Nov 29,2016
Solid Wood	BKKH17000142	Jan 10,2017
ASTM F963-16: Heavy metal		
Brown Plastic	BKKH17003197	Mar 13,2017
ORANGE RUBBER	BKKH17003196	Mar 13,2017
Lead in surface coating		
Brown Coating On Wood	BKKH16006844	May 17,2016
ORANGE COATING ON WOOD	BKKH16008147	Jun 09,2016
LACQUER COATING ON WOOD	BKKH16008147	Jun 09,2016
BLACK COATING ON WOOD	BKKH16008148	Jun 09,2016
WHITE COATING ON WOOD	BKKH16008148	Jun 09,2016
BLUE COATING ON WOOD	BKKH16008768	Jun 21,2016
YELLOW COATING ON WOOD	BKKH16008768	Jun 21,2016
Lead in substrate		
GRAY O RING	BKKH16014684	Oct 13,2016
ROPE COTTON	BKKH16016708	Nov 29,2016
Brown Plastic	BKKH17003197	Mar 13,2017
Solid Wood	BKKH17000142	Jan 10,2017
ORANGE RUBBER	BKKH17003196	Mar 13,2017
Phthalate content		
ORANGE COATING ON WOOD	BKKH16008147	Jun 09,2016
LACQUER COATING ON WOOD	BKKH16008147	Jun 09,2016
BLUE COATING ON WOOD	BKKH16008768	Jun 21,2016
YELLOW COATING ON WOOD	BKKH16008768	Jun 21,2016
GRAY O RING	BKKH16014684	Oct 13,2016
BROWN PLASTIC	BKKH17003197	Mar 13,2017
ORANGE RUBBER	BKKH17003196	Mar 13,2017
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TEST REPORT

Test conducted:

1 Physical And Mechanical Tests A

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

Age group for testing: For age over 12 months

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

 Drop test
 Section 1500.51(b)
 10 x 4.5 ft

 Torque test
 Section 1500.53(e)
 4 in-lbf

 Tension test
 Section 1500.53(f)
 15 lbf

<u>Clause</u>	Testing items	<u>Assessment</u>
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	NA
4.12	Plastic film	NA
4.13	Folding mechanisms and hinges	NA
4.14	Cords, straps and elastics	Р
4.15	Stability and over-load requirements	NA
4.16	Confined spaces	NA
4.17	Wheels, tires and axles	Р
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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<u>Clause</u>	Testing items	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: March 01, 2017 to March 06, 2017

2 Flammability Test

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

<u>Sample</u>	Ignition point	Burn length (inch)	Time (sec)	Actual burn rate (inch/sec)	Rounded burn rate (inch/sec)	<u>Limit</u> (inch/sec)
Leg	End to end	3.4	48	0.07	-	0.10

The above result only showed the most severe burn rate of the samples and components.

Remark:

* Tested items are not included in the TISI Accreditation

Testing period : March 01, 2017 to March 06, 2017

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TEST REPORT

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, 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)	(3)	(4)	(5)			
Sol. Barium (Ba)	239	ND	ND	ND	ND	1	5	1000
Sol. Lead (Pb)	ND	ND	ND	ND	ND	1	5	90
Sol. Cadmium (Cd)	ND	ND	ND	ND	ND	1	5	75
Sol. Antimony (Sb)	ND	ND	ND	ND	ND	2	5	60
Sol. Selenium (Se)	ND	ND	ND	ND	ND	1	5	500
Sol. Chromium (Cr)	ND	ND	ND	ND	ND	2	5	60
Sol. Mercury (Hg)	ND	ND	ND	ND	ND	1	5	60
Sol. Arsenic (As)	ND	ND	ND	ND	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)

Tested components:

(1) =	Brown Coating On Wood	Refer	BKKH16006844
(2) =	ORANGE COATING ON WOOD	Refer	BKKH16008147
(3) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4) =	BLACK COATING ON WOOD	Refer	BKKH16008148
(5) =	WHITE COATING ON WOOD	Refer	BKKH16008148

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



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TEST REPORT

Test conducted:

Heavy Elements Analysis

As per clause 4.3.5.1(2) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11, 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
			<u>mg/kg</u>	<u>mg/kg</u>	mg/kg	
	(6)	(7)				
Sol. Barium (Ba)	<4	<4		1	5	1000
Sol. Lead (Pb)	ND	ND		1	5	90
Sol. Cadmium (Cd)	ND	<4		1	5	75
Sol. Antimony (Sb)	ND	ND		2	5	60
Sol. Selenium (Se)	ND	ND		1	5	500
Sol. Chromium (Cr)	ND	ND		2	5	60
Sol. Mercury (Hg)	ND	ND		1	5	60
Sol. Arsenic (As)	ND	ND		2	5	25

Remark: Sol. = Soluble

< = 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)

Tested components:

(6) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(7) =	YELLOW COATING ON WOOD	Refer	BKKH16008768

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



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TEST REPORT

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^{$^{\land}$}, acid extraction method was used and heavy elements migration content were determined by ICP-OES analysis.

			Result			LOD	LOQ	Limit mg/kg
			mg/kg			mg/kg	mg/kg	
	(8)	(9)	(10)	(11)	(12)			
Sol. Barium (Ba)	ND	ND	ND	ND	ND	1	5	1000
Sol. Lead (Pb)	ND	ND	ND	ND	ND	1	5	90
Sol. Cadmium (Cd)	ND	ND	ND	ND	ND	1	5	75
Sol. Antimony (Sb)	ND	ND	ND	ND	ND	2	5	60
Sol. Selenium (Se)	ND	ND	ND	ND	ND	1	5	500
Sol. Chromium (Cr)	ND	ND	ND	ND	ND	2	5	60
Sol. Mercury (Hg)	ND	ND	ND	ND	ND	1	5	60
Sol. Arsenic (As)	ND	ND	ND	ND	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)

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(8) =	GRAY O RING	Refer	BKKH16014684
(9) =	ROPE COTTON	Refer	BKKH16016708
(10) =	Brown Plastic	Refer	BKKH17003197
(11) =	Solid Wood	Refer	BKKH17000142
(12) =	ORANGE RUBBER	Refer	BKKH17003196

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

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TEST REPORT

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, 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</u>	<u>LOQ</u>	<u>Limit</u>
rested Component	<u>mg/kg</u>	<u>(mg/kg)</u>	(mg/kg)	<u>(mg/kg)</u>
(1)	ND	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	ND	2	13	90
(5)	ND	2	13	90
(6)	ND	2	13	90
(7)	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)

Tested components:

(1) =	Brown Coating On Wood	Refer	BKKH16006844
(2) =	ORANGE COATING ON WOOD	Refer	BKKH16008147
(3) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4) =	BLACK COATING ON WOOD	Refer	BKKH16008148
(5) =	WHITE COATING ON WOOD	Refer	BKKH16008148
(6) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(7) =	YELLOW COATING ON WOOD	Refer	BKKH16008768





TEST REPORT

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, 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	<u>mg/kg</u>	(mg/kg) (mg/kg)	<u>(mg/kg)</u>
(8)	ND	1 13	100
(9)	ND	1 13	100
(10)	ND	1 13	100
(11)	ND	1 13	100
(12)	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)

▲ = Tested items are not included in the TISI Accreditation

Tested components:

	00		
(8) =	GRAY O RING	Refer	BKKH16014684
(9) =	ROPE COTTON	Refer	BKKH16016708
(10) =	Brown Plastic	Refer	BKKH17003197
(11) =	Solid Wood	Refer	BKKH17000142
(12) =	ORANGE RUBBER	Refer	BKKH17003196
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TEST REPORT

Test conducted:

4 Total Lead (Pb) content[▲]

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	<u>Result</u>	<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
(1)	ND	0.0002	0.0013	0.009
(2)	ND	0.0002	0.0013	0.009
(3)	ND	0.0002	0.0013	0.009
(4)	ND	0.0002	0.0013	0.009
(5)	ND	0.0002	0.0013	0.009
(6)	ND	0.0002	0.0013	0.009
(7)	ND	0.0002	0.0013	0.009

Remark: % = percentage

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	BKKH16006844
(2)	=	ORANGE COATING ON WOOD	Refer	BKKH16008147
(3)	=	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4)	=	BLACK COATING ON WOOD	Refer	BKKH16008148
(5)	=	WHITE COATING ON WOOD	Refer	BKKH16008148
(6)	=	BLUE COATING ON WOOD	Refer	BKKH16008768
(7)	=	YELLOW COATING ON WOOD	Refer	BKKH16008768
	******	***********************	******	******

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TEST REPORT

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>	<u>LOQ</u>	<u>Limit mg/kg</u>
	<u>mg/kg</u>	mg/kg	mg/kg	
(1)	ND	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	ND	2	13	90
(5)	ND	2	13	90
(6)	ND	2	13	90
(7)	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)

Tested components:

(1) =	Brown Coating On Wood	Refer	BKKH16006844
(2) =	ORANGE COATING ON WOOD	Refer	BKKH16008147
(3) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4) =	BLACK COATING ON WOOD	Refer	BKKH16008148
(5) =	WHITE COATING ON WOOD	Refer	BKKH16008148
(6) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(7) =	YELLOW COATING ON WOOD	Refer	BKKH16008768



NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002804

TEST REPORT

Test conducted:

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

Remark: mg/kg = Milligram per kilogram = 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

Tested components:

(1) =	GRAY O RING	Refer	BKKH16014684
(2) =	ROPE COTTON	Refer	BKKH16016708
(3) =	Brown Plastic	Refer	BKKH17003197
(4) =	Solid Wood	Refer	BKKH17000142
(5) =	ORANGE RUBBER	Refer	BKKH17003196

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TEST REPORT

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>	NPR
			(%, w/w)			(%, w/w)	(%, w/w)	<u>(%, w/w)</u>	(%, w/w)
	(1)	(2)	(3)	(4)	(5)				
Dibutyl Phthalate (DBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	0.1
Diethyl hexyl Phthalate (DEHP)	ND	ND	ND	ND	0.0226	0.0015	0.003	0.1	0.1
Benzyl butyl Phthalate (BBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1	0.1
Di-n-octyl Phthalate (DNOP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	
Di-iso-decyl Phthalate (DIDP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1	
Di-isobutyl phthalate (DIBP) [▲]	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Di-n-pentyl phthalate (DnPP) [▲]	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Di-n-hexyl phthalate (DnHP) [▲]	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Di-cyclohexyl phthalate (DCHP) [▲]	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Diisooctyl phthalate (DIOP) [▲]	ND	ND	ND	ND	ND	0.0015	0.009		

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.

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) =	ORANGE COATING ON WOOD	Refer	BKKH16008147
(2) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(3) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(4) =	YELLOW COATING ON WOOD	Refer	BKKH16008768
(5) =	GRAY O RING	Refer	BKKH16014684

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TEST REPORT

Test conducted:

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.

			<u>Result</u>	<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>	NPR
			<u>(%, w/w)</u>	<u>(%, w/w)</u>	(%, w/w)	<u>(%, w/w)</u>	(%, w/w)
	(6)	(7)					
Dibutyl Phthalate (DBP)	ND	ND		0.0015	0.003	0.1	0.1
Diethyl hexyl Phthalate (DEHP)	ND	0.029		0.0015	0.003	0.1	0.1
Benzyl butyl Phthalate (BBP)	ND	ND		0.0015	0.003	0.1	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND		0.0015	0.009	0.1	0.1
Di-n-octyl Phthalate (DNOP)	ND	ND		0.0015	0.003	0.1	
Di-iso-decyl Phthalate (DIDP)	ND	ND		0.0015	0.009	0.1	
Di-isobutyl phthalate (DIBP) [▲]	ND	ND		0.0015	0.009		0.1
Di-n-pentyl phthalate (DnPP) [▲]	ND	ND		0.0015	0.009		0.1
Di-n-hexyl phthalate (DnHP) [▲]	ND	ND		0.0015	0.009		0.1
Di-cyclohexyl phthalate (DCHP) [▲]	ND	ND		0.0015	0.009		0.1
Diisooctyl phthalate (DIOP) [▲]	ND	ND		0.0015	0.009		

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.

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:

(6) =	BROWN PLASTIC	Refer	BKKH17003197
(7) =	ORANGE RUBBER	Refer	BKKH17003196



NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002804

TEST REPORT

Test conducted:

8 Phthalate content test 8

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

			Result			<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
			(%, w/w)			(%, w/w)	(%, w/w)	(%, w/w)
	(1)	(2)	(3)	(4)	(5)			
Dibutyl Phthalate (DBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Diethyl hexyl Phthalate (DEHP)	ND	ND	ND	ND	0.0226	0.0015	0.003	0.1
Benzyl butyl Phthalate (BBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1
Dioctyl Phthalate (DNOP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Di-iso-decyl Phthalate (DIDP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1
Di-n-hexyl Phthalate (DnHP)	ND	ND	ND	ND	ND	0.0015	0.003	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) =	ORANGE COATING ON WOOD	Refer	BKKH16008147
(2) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(3) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(4) =	YELLOW COATING ON WOOD	Refer	BKKH16008768
(5) =	GRAY O RING	Refer	BKKH16014684

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NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002804

TEST REPORT

Test conducted:

Phthalate content test^{*}

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

			Result	<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
			(%, w/w)	(%, w/w)	(%, w/w)	(%, w/w)
	(6)	(7)				
Dibutyl Phthalate (DBP)	ND	ND		0.0015	0.003	0.1
Diethyl hexyl Phthalate (DEHP)	ND	0.029		0.0015	0.003	0.1
Benzyl butyl Phthalate (BBP)	ND	ND		0.0015	0.003	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND		0.0015	0.009	0.1
Dioctyl Phthalate (DNOP)	ND	ND		0.0015	0.003	0.1
Di-iso-decyl Phthalate (DIDP)	ND	ND		0.0015	0.009	0.1
Di-n-hexyl Phthalate (DnHP)	ND	ND		0.0015	0.003	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:

(6) =	BROWN PLASTIC	Refer	BKKH17003197
(7) =	ORANGE RUBBER	Refer	BKKH17003196



NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002804

TEST REPORT

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.

I Surface coating material

Tested component	Result	<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
	<u>mg/kg</u>	mg/kg	mg/kg	<u>mg/kg</u>
(1)	ND	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	ND	2	13	90
(5)	ND	2	13	90
(6)	ND	2	13	90
(7)	ND	2	13	90

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)

▲ = 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	BKKH16006844
(2)	=	ORANGE COATING ON WOOD	Refer	BKKH16008147
(3)	=	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4)	=	BLACK COATING ON WOOD	Refer	BKKH16008148
(5)	=	WHITE COATING ON WOOD	Refer	BKKH16008148
(6)	=	BLUE COATING ON WOOD	Refer	BKKH16008768
(7)	=	YELLOW COATING ON WOOD	Refer	BKKH16008768
	*****		*****	******



NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002804

TEST REPORT

Test conducted:

II Non-surface coating material (substrate)

Tested component	Result	LOD	<u>LOQ</u>	<u>Limit</u>
	<u>mg/kg</u>	mg/kg	mg/kg	<u>mg/kg</u>
(8)	ND	1	13	100
(9)	ND	1	13	100
(10)	ND	1	13	100
(11)	ND	1	13	100
(12)	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:

(8)	=	GRAY O RING	Refer	BKKH16014684
(9)	=	ROPE COTTON	Refer	BKKH16016708
(10)	=	Brown Plastic	Refer	BKKH17003197
(11)	=	Solid Wood	Refer	BKKH17000142
(12)	=	ORANGE RUBBER	Refer	BKKH17003196

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

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