

NSC-TISI-TIS 17025 TESTING 0417

Number: BKKH16005534

May 11, 2016

Date:

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: One (1) set
Sample description: Wooden toy
Date sample received: April 19, 2016
Date Information received: May 09, 2016

Client Information:

One (1) set of submitted sample said to be NOAH'S ARK

Item Name: NOAH'S ARK

Item Number: 6116



Tests conducted:

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

Authorized by:

For Intertek Testing Services (Thailand)

Ladtaka Wongwiboonporn

Laboratory Manager

Hardlines Department

Intertek Testing Services (Thailand) Ltd.

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

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E-mail Address: tfh.thailand@intertek.com

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The results relate only to the item tested.



TEST REPORT

Number: BKKH16005534

Conclusion:

Tested samplesStandardResultSubmitted samplesEN71-1: 2014Pass*

Mechanical and physical properties

EN71-2: 2011 + A1: 2014 Pass

Flammability test

EN71-3: 2013 + A1: 2014 Pass**

Migration of certain elements

Remark: * = Please draw your attention on clause 7 in test report.

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Note: ** = The components as below was comply to EN71-3 : 2013 + A1 : 2014.

Report No.	<u>Date</u>
BKKH15000568	Jan 21, 2015
BKKH15002905	Mar 09, 2015
BKKH15009442	Jul 27, 2015
BKKH15010102	Aug 07, 2015
BKKH15010877	Aug 28, 2015
BKKH15014517	Nov 20, 2015
BKKH15014517	Nov 20, 2015
BKKH15014508	Nov 25, 2015
BKKH15014516	Nov 27, 2015
BKKH15014516	Nov 27, 2015
BKKH15014512	Nov 27, 2015
BKKH15014510	Nov 27, 2015
BKKH15014509	Nov 27, 2015
BKKH15014509	Nov 27, 2015
BKKH15014509	Nov 27, 2015
BKKH15014513	Nov 30, 2015
BKKH15014513	Nov 30, 2015
BKKH15014513	Nov 30, 2015
BKKH16000771	Jan 26, 2016
BKKH15014515	Nov 27, 2015
	BKKH15000568 BKKH15002905 BKKH15009442 BKKH15010102 BKKH15010877 BKKH15014517 BKKH15014517 BKKH15014516 BKKH15014516 BKKH15014516 BKKH15014510 BKKH15014509 BKKH15014509 BKKH15014509 BKKH15014513 BKKH15014513 BKKH15014513

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TEST REPORT

Number: BKKH16005534

Test conducted:

1 Mechanical and Physical Test

As per European Standard on Safety of toys EN71-1: 2014.

Applicant's specified age group for testing: For age over 3 years

Clause	Requirements Property of the Requirements	Results
4	General requirements	
4.1	Material cleanliness	Pass
4.8	Points and metallic wires	Pass
7	Warnings, markings and instructions for use	See remark
7.1	General	Pass
7.2	Toys not intended for children under 36 months	Pass #

Note: The above clauses appropriate to this item. Those clauses not referred to were considered not applicable.

= Age warning statement, graphical symbol and the indication of hazard was found on the packaging.

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Test conducted:

Remark:

Below are additional information according to the Toy Safety Directives 2009/48/EC requirement. These information also appears as a note within the EN71 but are not standard requirements:

1. Marking

The manufacturer's and importer's name, registered trade name or registered trade mark, the address and type, batch, serial or model number or other element allowing their identification shall be indicated on the product itself. In addition, toys or packagings shall also bear the CE-marking.

After checking, it was found that:

- Manufacturer's name was on the packaging & toy.
- Manufacturer's address was on the packaging.
- Importer's name was missed on the packaging & toy.
- Importer's address was missed on the packaging & toy.
- Product identification code was on the packaging.
- CE-marking was on the packaging.
- CE-marking was in correct format.

Testing period: April 19, 2016 to April 25, 2016

Sting period . April 13, 2010 to April 23, 2010

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TEST REPORT

Number: BKKH16005534

Test conducted:

2 Flammability Test

As per European Standard on Safety of Toys EN71-2: 2011 + A1: 2014.

Clause	Testing items		<u>Assessment</u>
4.1	General	Р	
4.2	Toys to be worn of	NA	
4.3	Toy disguise cost	NA	
4.4	Toys intended to	NA	
4.5	Soft filled toys		NA
Remark :	P = Pass	NA = Not applicable	

Testing period: April 19, 2016 to April 25, 2016

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THAILAND NSC-TISI-TIS 17025 TESTING 0417

Number: BKKH16005534

TEST REPORT

Test conducted:

3 <u>19 Toxic elements migration test</u>

(A) Test result

With reference to BS EN 71-3: 2013 +A1 : 2014. Determined by ICP-MS and GC-MS. Category (III): Scraped-off toy material

Element (Soluble)		<u>R</u>	esult (mg/k	<u>g)</u>		<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
	(1)	(2)	(3)	(4)	(5)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminium (Al)	ND	146	38	<5	193	1	5	70000
Antimony (Sb)	ND	ND	ND	ND	ND	1	5	560
Arsenic (As)	ND	0.3	ND	ND	<0.1	0.02	0.1	47
Barium (Ba)	ND	20	6	ND	<5	1	5	18750
Boron (B)	<5	<5	7	ND	6	1	5	15000
Cadmium (Cd)	ND	ND	0.6	ND	<0.1	0.02	0.1	17
Chromium (Cr) Δ	0.06	0.254	4.107	0.017	0.326	0.001	0.005	-
Chromium (III) (Cr III) [▲]	NC	NC	NC	NC	NC	-	-	460
Chromium (VI) (Cr VI) [▲]	NC	<0.2#	<0.2#	NC	<0.2#	-	-	0.2
Cobalt (Co)	ND	ND	ND	ND	ND	0.2	1	130
Copper (Cu)	<5	<5	<5	128	<5	1	5	7700
Lead (Pb)	ND	ND	32	ND	<1	0.2	1	160
Manganese (Mn)	<5	<5	7	<5	<5	1	5	15000
Mercury (Hg)	ND	ND	ND	ND	ND	0.2	1	94
Nickel (Ni)	ND	ND	ND	ND	ND	1	5	930
Selenium (Se)	ND	ND	ND	ND	ND	1	5	460
Strontium (Sr)	ND	<5	<5	ND	ND	1	5	56000
Tin (Sn) ΔΔ	<1	1	ND	ND	ND	0.2	1	180000
Organic tin	NC	NC	NC	NC	NC	1	3	12
Zinc (Zn)	14	126	14	ND	87	1	5	46000

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TEST REPORT Test conducted:

19 Toxic elements migration test

(A) Test result

With reference to BS EN 71-3: 2013 +A1: 2014. Determined by ICP-MS and GC-MS.

Category (III): Scraped-off toy material

Element (Soluble)		<u>R</u>	esult (mg/k	<u>g)</u>		<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
	(6)	(7)	(8)	(9)	(10)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminium (Al)	<5	<5	237	123	16	1	5	70000
Antimony (Sb)	ND	ND	ND	ND	ND	1	5	560
Arsenic (As)	ND	0.21	<0.1	<0.10	ND	0.02	0.1	47
Barium (Ba)	ND	<5	6	256	411	1	5	18750
Boron (B)	ND	43	5	15	<5	1	5	15000
Cadmium (Cd)	<0.1	<0.1	0.39	<0.10	<0.10	0.02	0.1	17
Chromium (Cr) Δ	0.025	0.041	0.319	1.101	0.095	0.001	0.005	-
Chromium (III) (Cr III) [▲]	NC	NC	NC	NC	NC	-	-	460
Chromium (VI) (Cr VI) [▲]	NC	NC	<0.2#	<0.2#	NC	-	-	0.2
Cobalt (Co)	ND	ND	ND	ND	ND	0.2	1	130
Copper (Cu)	ND	ND	<5	ND	ND	1	5	7700
Lead (Pb)	1	11	<1	<1	ND	0.2	1	160
Manganese (Mn)	40	46	32	33	6	1	5	15000
Mercury (Hg)	ND	ND	ND	ND	ND	0.2	1	94
Nickel (Ni)	ND	ND	ND	<5	ND	1	5	930
Selenium (Se)	ND	ND	ND	ND	ND	1	5	460
Strontium (Sr)	22	14	<5	75	<5	1	5	56000
Tin (Sn) ΔΔ	3	<1	ND	ND	ND	0.2	1	180000
Organic tin	NC	NC	NC	NC	NC	1	3	12
Zinc (Zn)	8	9	8265 *******	20	8	1	5	46000

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TEST REPORT

Test conducted:

19 Toxic elements migration test

(A) Test result

With reference to BS EN 71-3: 2013 +A1: 2014. Determined by ICP-MS and GC-MS.

Category (III): Scraped-off toy material

Element (Soluble)		<u>R</u>	esult (mg/k	<u>g)</u>		<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
	(11)	(12)	(13)	(14)	(15)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminium (Al)	7	222	1383	2194	173	1	5	70000
Antimony (Sb)	ND	ND	ND	ND	ND	1	5	560
Arsenic (As)	<0.1	<0.1	<0.1	0.11	<0.1	0.02	0.1	47
Barium (Ba)	7	7	<5	5	9	1	5	18750
Boron (B)	29	35	16	23	24	1	5	15000
Cadmium (Cd)	<0.1	0.25	<0.1	<0.1	<0.1	0.02	0.1	17
Chromium (Cr) Δ	0.262	0.329	0.204	0.242	0.196	0.001	0.005	-
Chromium (III) (Cr III) [▲]	NC	NC	NC	NC	NC	-	-	460
Chromium (VI) (Cr VI) [▲]	<0.2#	<0.2#	<0.2#	<0.2#	NC	-	-	0.2
Cobalt (Co)	ND	ND	ND	ND	ND	0.2	1	130
Copper (Cu)	<5	<5	<5	<5	25	1	5	7700
Lead (Pb)	<1	<1	1	<1	<1	0.2	1	160
Manganese (Mn)	27	14	9	12	11	1	5	15000
Mercury (Hg)	ND	ND	ND	ND	ND	0.2	1	94
Nickel (Ni)	<5	<5	ND	ND	ND	1	5	930
Selenium (Se)	ND	ND	ND	ND	ND	1	5	460
Strontium (Sr)	5	<5	<5	<5	<5	1	5	56000
Tin (Sn) ΔΔ	ND	ND	ND	ND	ND	0.2	1	180000
Organic tin	NC	NC	NC	NC	NC	1	3	12
Zinc (Zn)	12	115	11	187	84	1	5	46000

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TEST REPORT

Test conducted:

19 Toxic elements migration test

(A) Test result

With reference to BS EN 71-3: 2013 +A1: 2014. Determined by ICP-MS and GC-MS.

Category (III): Scraped-off toy material

Element (Soluble)		<u>R</u>	esult (mg/k	<u>g)</u>		<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
	(16)	(17)	(18)	(19)	(20)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminium (Al)	493	584	539	150	1599	1	5	70000
Antimony (Sb)	ND	ND	ND	ND	ND	1	5	560
Arsenic (As)	<0.1	<0.1	0.1	0.25	<0.10	0.02	0.1	47
Barium (Ba)	7	6	<5	<5	67	1	5	18750
Boron (B)	37	15	11	<5	<5	1	5	15000
Cadmium (Cd)	0.16	0.17	<0.1	ND	<0.10	0.02	0.1	17
Chromium (Cr) Δ	0.341	0.257	0.279	0.376	0.25	0.001	0.005	-
Chromium (III) (Cr III) [▲]	NC	NC	NC	NC	NC	-	-	460
Chromium (VI) (Cr VI) [▲]	<0.2#	<0.2#	<0.2#	<0.2#	<0.2#	-	-	0.2
Cobalt (Co)	ND	ND	ND	ND	ND	0.2	1	130
Copper (Cu)	<5	<5	12	ND	ND	1	5	7700
Lead (Pb)	<1	<1	<1	<1	ND	0.2	1	160
Manganese (Mn)	18	13	9	<5	7	1	5	15000
Mercury (Hg)	ND	ND	ND	ND	ND	0.2	1	94
Nickel (Ni)	<5	ND	ND	ND	ND	1	5	930
Selenium (Se)	ND	ND	ND	ND	ND	1	5	460
Strontium (Sr)	<5	<5	<5	ND	10	1	5	56000
Tin (Sn) ΔΔ	ND	ND	ND	ND	ND	0.2	1	180000
Organic tin	NC	NC	NC	NC	NC	1	3	12
Zinc (Zn)	177	228	221	7	5	1	5	46000

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TEST REPORT

Test conducted:

Remark: mg/kg = Milligram per kilogram = ppm

< = Less than NC = Not conducted

ND = Not detected (Less than LOD)

LOD = Limit of Detection LOQ = Limit of Quantitation

= Tested items are not included in the TISI Accreditation

 Δ = If the migration of total Chromium is below the maximum limit for Chromium (VI), it can be inferred that the material complies with the requirements for both Chromium (III) and Chromium (VI).

 $\Delta\Delta$ = If the migration of total Tin is below the maximum limit for Organic Tin, it can be inferred that the material complies with the requirements for Organic Tin.

- Organic tin test result was expressed as tributyl tin.
- As per EC decision 2013/492/EU of 7 October 2013 and in accordance with Court's Order of 15 May 2013 in case T-198/12R, the European Commission authorizes that the national provisions notified by the Federal Republic of Germany concerning limit values for Antimony(Sb)(60mg/kg), Arsenic (As)(25mg/kg), Mercury (Hg)(60mg/kg),

Barium (Ba)(1000mg/kg) and Lead (Pb)(90mg/kg) in toys be maintained beyond 20 July 2013.

- # = Confirmation of Chromium (VI) test was performed on the tested component. And the reported value of migration of Chromium (III) = migration value of total Chromium migration value of Chromium(VI).
- * = Confirmation test was performed on the tested component. The reported value was the sum of the migration values of Methyl tin, Butyl tin, Dibutyl tin, Tributyl tin, Tetrabutyl tin, n-Octyl tin, Di-n-octyl tin, Di-n-propyl tin, Diphenyl tin and Triphenyl tin after converted to Tributyl tin by calculation.

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TEST REPORT

Test conducted:

Tested components:

			Report	Date
(1)	5020038 : Lacquer Water Base	REFER	BKKH15000568	Jan 21, 2015
(2)	5320055 : Blue Coating On Wood	REFER	BKKH15002905	Mar 09, 2015
(3)	5029094 Brown coating on wood	REFER	BKKH15009442	Jul 27, 2015
(4)	White elastic	REFER	BKKH15010102	Aug 07, 2015
(5)	5020031 Green coating on wood	REFER	BKKH15010877	Aug 28, 2015
(6)	Solid wood	REFER	BKKH15014517	Nov 20, 2015
(7)	Plywood	REFER	BKKH15014517	Nov 20, 2015
(8)	5140010 Blue Coating On Wood	REFER	BKKH15014508	Nov 25, 2015
(9)	5329116 Orange Coating On Wood	REFER	BKKH15014516	Nov 27, 2015
(10)	5329128 Brown Coating On Wood	REFER	BKKH15014516	Nov 27, 2015
(11)	5029037 Red Coating On Wood	REFER	BKKH15014512	Nov 27, 2015
(12)	5020035 Yellow Coating On Wood	REFER	BKKH15014510	Nov 27, 2015
(13)	5020029 White Coating On Wood	REFER	BKKH15014509	Nov 27, 2015
(14)	5020032 Blue Coating On Wood	REFER	BKKH15014509	Nov 27, 2015
(15)	5020033 Orange Coating On Wood	REFER	BKKH15014509	Nov 27, 2015
(16)	5029064 Violet Coating On Wood	REFER	BKKH15014513	Nov 30, 2015
(17)	5029080 Gray Coating On Wood	REFER	BKKH15014513	Nov 30, 2015
(18)	5029095 Blue Coating On Wood	REFER	BKKH15014513	Nov 30, 2015
(19)	5029149 Pink coating on wood	REFER	BKKH16000771	Jan 26, 2016
(20)	5320018 White Coating On Wood	REFER	BKKH15014515	Nov 27, 2015

Note:

- 1. The toxic elements of EN71-3(2013) was not conducted on the above components of samples. Applicant claimed the components were tested on our previous test report.
- 2. According to European standard on safety of toys EN71-3 (2013). As received, the test portion of the components are less than 10 mg, therefore such components were not tested for toxic.
- 3. As requested by the applicant, EN71-3 (2013) test was conducted only on components listed in this report. Other components were not tested.

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TEST REPORT

Test conducted:

(B) Categories of various toy materials

Category I: dry, brittle, powder like or pliable

Solid toy material from which powder-like material is released during playing and semi-solid materials that may also leave residues on the hands during play. the material can be ingested. contamination of the hands with the material may contribute to the oral exposure of the material. (e.g. the cores of colouring pencils, chalk, crayons, modelling clays and plaster).

Category II: Liquid or Sticky

Fluid or viscous toy material, which can be ingested or to which dermal exposure may occur during playing. (e.g. liquid paints, finger paints, liquid ink in pens, glue sticks, slimes, bubble solution).

Category III: Scraped-off

Solid toy material with or without a coating, which can be ingested as a result of biting, tooth scraping, sucking or licking. (e.g. coatings, lacquers, plastics, paper, textiles, glass, ceramic, metallic, wooden, bone, leather and other materials).

Comment:

When tested as specified, the results of the tested components MET the 19 toxic elements limits of the European Council Directive 2009/48/EC and amendment 2012/7/EU on the Safety of Toys.

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