

Test Report No.: DGC150428018F Date: May 04, 2015 Page 1 of 7 Applicant: Dong guan tong tian xia Rubber co., Ltd Address: Cunwei industrial area wanjiang district dongguan 523053, china Manufacturer: Dong guan tong tian xia Rubber co., Ltd Address: Cunwei industrial area wanjiang district dongguan 523053, china Sample Name: RUBBER PLAY Date of Sample Received: April 28, 2015 Test period: April 28, 2015 to May 04, 2015 **Test requested:** Please refer to next page. **Test method:** Please refer to next page. Test result: Please refer to next page. Written by: Checked by:

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Approved by:



Test Report

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Ŕ	Test requested	Results
1.	As specified by client, to determine Phthalates (DEHP, DBP, BBP, DINP, DNOP, DIDP) content on submitted sample in according with Annex XV II item 51&52 of the REACH regulation (EC) No.1907/2006 and amendment No.552/2009 (Formerly known as Directive 2005/84/EC).	Pass
2.	As specified by client, to determine the Cadmium content on submitted sample in according with Annex XVII item 23 of the REACH regulation (EC) No.1907/2006 and amendment No.494/2011 (Formerly known as Directive 91/338/EEC).	Pass
3.	As specified by client, to determine Polycyclic Aromatic Hydrocarbon (PAHs) for compliance with ZEK 01.4-08 issued by the Central Experience Exchange Committee (ZEK).	Pass
4.	As specified by client, to determine the Aromatic Amine content on submitted sample in according with Annex X VII item 43 of the REACH regulation (EC) No1907/2006 and amendment (EU) No 276/2010 (Formerly known as Directive 2002/61/EC).	Pass
5.	As specified by client, to determine Migration of certain elements on submitted sample in according with the European Standard on Safety of Toys EN71-3:2013.	Pass

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Test Result:

1. Phthalates content test

Test method: With reference to EN 14372:2004, and test by GC-MS.

40 40 40 40 40	, , , ()	, C	Accep	Results	
b, b, b, b, b,		<i>P</i> ,	P' P'	For toys and	b, b,
Test Items	Unit	MDL	For all toys	childcare articles	KO KO
χ ⁰ χ ⁰ χ ⁰ χ ⁰ χ	ζ [©]	70	and childcare	that can be	No.1
b, b, b, b, b.		6	articles	placed in the	b. b.
ato ato ato ato	X ^O	X ^O	KO KO	mouth	SO SO
Di (2-ethyl hexyl)-phthalate (DEHP)	mg/kg	30	, o, o ^	,	N.D.
Butylbenzyl phthalate (BBP)	mg/kg	30	b. b.	P. P. P.	N.D.
Dibutyl phthalate (DBP)	mg/kg	30	KO KO		N.D.
Di-iso-nonyl phthalate (DINP)	mg/kg	100	χο ,ο	20 2 0 20	N.D.
Di-n-octyl phthalate (DNOP)	mg/kg	30	<u>6. 6</u>	F F F	N.D.
Diisodecyl phthalate (DIDP)	mg/kg	100	K K		N.D.
Total (DEHP+ BBP+DBP)	mg/kg	χ 0-	ZO 1000	_O 1000 _O	N.D.
Total (DINP+DNOP+DIDP)	mg/kg	\\\-\	# 1	1000	N.D.
to to to	Conclus	sion	FY A FY		Pass

2. Cadmium content test

Test method: With reference to BS EN1122: 2001, tested by ICP-OES.

Test Item	Unit	MDL	Limit	Results
V Test item	ZO ZO	ZO ZO	, LIIIII	No.1
Cadmium (Cd)	mg/kg	2	100	N.D.
Pro Pro Pro	Conclusi	on	AT AT	Pass P

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3. PAHs content test (Unit: mg/kg)

Test method: With reference to ZEK 01.4-08 and measured by GC-MS.

PO PO PO PO		,	ZI	Results		
Compounds	CAS number	MDL	Category 1: Contact with food, indented to be put in the mouth and toys for children aged <36 months	Category 2: Contact time>30 seconds	Category 3: Contact time<30 seconds	No.1
(1) Naphthalene (NAP)	91-20-3	0.1	رن ہونے کی	رر رر	رر ۔۔۔ رن	N.D.
(2) Acenaphthylene (ANY)	208-96-8	0.1	, b, b,	P P	P P.	N.D.
(3) Acenaphthene (ANA)	83-32-9	0.1	(U , (L. , (U)	XO XO	χα χο	N.D.
(4) Fluorene (FLU)	86-73-7	0.1		k	y	N.D.
(5) Phenanthrene (PHE)	85-01-8	0.1		<u> </u>	<u> </u>	N.D.
(6) Anthracene (ANT)	120-12-7	0.1	<u></u> V		^	N.D.
(7) Fluoranthene (FLT)	206-44-0	0.1		10 - 29 10 - 29		N.D.
(8) Pyrene (PYR)	129-00-0	0.1				N.D.
(9) Benz(a)anthracene (BaA)	56-55-3	0.1		<u> </u>		N.D.
(10) Chrysene (CHR)	218-01-9	0.1			, ,	N.D.
(11) Benzo(b)fluoranthene (BbF)	205-99-2	0.1		S	\$ \$ S	N.D.
(12) Benzo(k)fluoranthene (BkF)	207-08-9	0.1	.c c. / .c.	C,	.6	N.D.
(13) Benzo(a)pyrene (BaP)	50-32-8	0.1	<0.2	<1	<20	N.D.
(14) Indeno(1,2,3-cd)pyrene (IPY)	193-39-5	0.1	.c / .c	4 ,0 	, ,,,, ,,	N.D.
(15) Dibenz(a,h)anthracene (DBA)	53-70-3	0.1	<i></i>	F F	P P	N.D.
(16) Benzo(g,h,i)perylene (BPE)	191-24-2	0.1	ر رہ ر	2020	2020	N.D.
(17) Benzo[j]fluoranthen	205-82-3	0.1	E	P P	P' P'	N.D.
(18)Benzo[e]pyren	192-97-2	0.1	(O	7 0 70	χ(χ(N.D.
Total PAHs	P' P'	8	<0.2	<10	<200	N.D.
	ζ ⁰ , Q	onclu	sion C	40 40	10 XC	Pass

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4. Aromatic Amine content test

Test method: With reference to BS EN14362-1:2012 & BS EN 14362-3:2012, tested by GC-MS.

			1 20		20 A)
Code	Aromatic Amine Substances	CAS No.	Unit	MDL	Limit	Results
2000	A STREET A STREET A STREET					No.1
1	4-aminobiphenyl xenylamine	92-67-1	mg/kg	20	Y	N.D.
2	benzidine	92-87-5	mg/kg	20	~~ ~\	N.D.
30	4-chloro-o-toluidine	95-69-2	mg/kg	_20	رن ره	N.D.
4	2-naphthylamine	91-59-8	mg/kg	20		N.D.
5	* o-aminoazotoluene	97-56-3	mg/kg	20	< < < < < < < <	N.D.
60	* 5-nitro-o-toluidine	99-55-8	mg/kg	20	ζO ζ	N.D.
7	4-chloroaniline	106-47-8	mg/kg	20		N.D.
8	4-methoxy-m-phenylenediamine	615-05-4	mg/kg	20	6	N.D.
9,0	4,4'-methylenedianiline	101-77-9	mg/kg	20	ÇO Ç	N.D.
10	3,3'-dichlorobenzidine	91-94-1	mg/kg	20	^P	N.D.
11	3,3'-dimethoxybenzidine	119-90-4	mg/kg	20	, ⁽¹ (1)	N.D.
120	3,3'-dimethylbenzidine	119-93-7	mg/kg	20	¿O ¿O	N.D.
13	4,4'-methylenedi-o-toluidine	838-88-0	mg/kg	20	P	N.D.
14	6-methoxy-m-toluidine p-cresidine	120-71-8	mg/kg	20	,<` <\	N.D.
15	4,4'-methylene-bis-(2-chloro-aniline)	101-14-4	mg/kg	20	, o , o	N.D.
16	4,4'-oxydianiline	101-80-4	mg/kg	20	🖺	N.D.
17	4,4'-thiodianiline	139-65-1	mg/kg	20	ر ^ن رز	N.D.
18	o-toluidine	95-53-4	mg/kg	20	, c	N.D.
19	4-methyl-m-phenylenediamine	95-80-7	mg/kg	20	6	N.D.
20 [°]	2,4,5-trimethylaniline	137-17-7	mg/kg	20	ر ^ن ر	N.D.
21	o-anisidine	90-04-0	mg/kg	20	c, (N.D.
22	4-amino azobenzene	60-09-3	mg/kg	20	P	N.D.
23		95-68-1	mg/kg	20	رن ــــ ر	N.D.
24	2,6-Xylidine	87-62-7	mg/kg	20		N.D.
S	sum of the above-mentioned Aromatic A	mine	mg/kg	K- 1	30	N.D.
رن	ζΟ ζΟ ζΟ Conclusi	ion C	رر	ړن	χC χ(Pass

Remark: " * " The o-aminoazotoluene(97-56-3) and 5-nitro-o-toluidine (99-55-8) are further reduced to o-toluidine(95-53-4) and 4-methyl-m-phenylenediamine (95-80-7).

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5. Migration of certain elements test

	Measuring	La	MDL	Limit	Results	
Test Items O O O	Instrument	Unit		In scraped-off material	No.1	
Soluble Aluminium (Al)	ی کی	mg/kg	2.0	o _c70000 c	N.D.	
Soluble Antimony (Sb)		mg/kg	2.0	560	N.D.	
Soluble Arsenic (As)		mg/kg	0.5	O 20 4720 20	N.D.	
Soluble Barium (Ba)		mg/kg	2.0	18750	N.D.	
Soluble Boron (B)		mg/kg	2.0	15000	N.D.	
Soluble Cadmium (Cd)		mg/kg	0.1	c, c, 17 c, c	N.D.	
Soluble Cobalt (Co)	ICP-OES	mg/kg	2.0	130	N.D.	
Soluble Copper (Cu)		mg/kg	€2.0	0 077000	N.D.	
Soluble Lead (Pb)	ICF-UE3	mg/kg	2.0	160	N.D.	
Soluble Manganese (Mn)	to to	mg/kg	2.0	15000	N.D.	
Soluble Mercury (Hg)		mg/kg	1.0	94	N.D.	
Soluble Nickel (Ni)		mg/kg	2.0	930	N.D.	
Soluble Selenium (Se)		mg/kg	2.0	460	N.D.	
Soluble Strontium (Sr)		mg/kg	2.0	56000	N.D.	
Soluble Tin (Sn)		mg/kg	2.0	180000	N.D.	
Soluble Zinc (Zn)		mg/kg	0.1	46000	573	
Soluble Chromium(III) (Cr ³⁺)	LO 1 LO	mg/kg	2.0	460	N.D.	
Soluble Chromium(VI) (Cr ⁶⁺)	UV-Vis	mg/kg	0.005	0.2	N.D.	
Soluble Organic tin	GC-MS	mg/kg	0.1	12	N.D.	
Conclusion CO CONCLUSION CO						

Remark:

- (1) The results of Soluble Chromium(III) (Cr^{3+}) = Soluble Chromium(Cr)-Soluble Chromium(Cr^{6+});
- (2) The migration of organic tins content is expressed as Tributyltin(TBT) in this test report.

Test Part Description:

No.1: Black rubber mat

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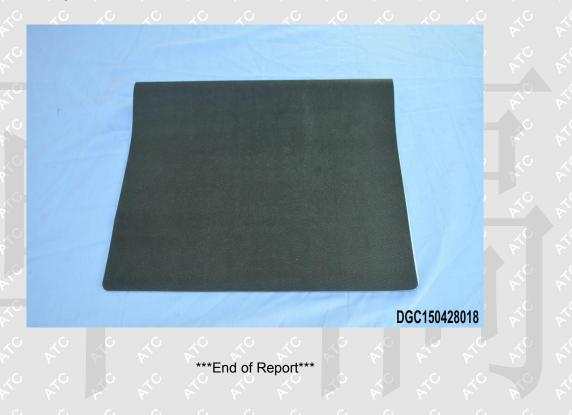


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Note:

- (1) mg/kg=ppm=0.0001%;
- (2) N.D.=Not Detected(<MDL);
- (3) MDL=Method Detection Limit;
- (4) "---"=Not Conducted.

Photograph of Sample:



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