

Test Report

Report No.: TJD01F000775a

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Applicant : CARPENTERS MANUFACTORY LIMITED
Address : HUANG JIN JI INDUSTRIAL ZONE, SHANG JIE VILLAGE, QI SHI TOWN,
DONGGUAN CITY, GUANGDONG PROVINCE, P.R.CHINA

Report on the submitted sample(s) said to be:

Sample Name : School Bus/Ambulance/Camper Van/Dump Truck/Police Car/
Fire Truck/Tow Truck/Recycling Truck
Item/Lot No. : TC0A01/TC0A02/TC0A03/TC0A04/TC0A06/TC0A08/TC0A10/
TC0A11
Manufacturer : Carpenters Manufactory Limited
Quantity of Sample : 2pcs/style
Country of Origin : China
Exported to : Europe
Client Specified Age Grading : 2Y +
Labeled Age Grading : Not stated
Age Group Applied in Testing : Over 2 years
Sample Received Date : Jun. 18, 2013
Sample Tested Date : Jun. 18, 2013 to Jun. 21, 2013

Test Conducted:

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

Tested by 

Reviewed by 

Approved by 
Victor Wang
Lab Manager

Date 2013-06-24

No. 1622549348

Centre Testing International (Shenzhen) Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China

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Executive Summary:

TEST REQUEST

- 1) European Standard on Safety of Toys:
 - EN 71-1:2011 Mechanical and Physical Properties
 - EN 71-2:2011 Flammability of Toys
 - EN 71-3:2013 Migration of certain elements
- 2) European Regulation(EC) No. 1907/2006, REACH & amendment No.552/2009 Annex XVII
 - Cadmium and its compounds
 - Phthalates in toys and childcare articles

CONCLUSION

PASS

PASS

PASS

PASS

PASS

***** For Further Details, Please Refer To the Following Page(s) *****

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1) EUROPEAN STANDARD ON SAFETY OF TOYS

▼ Mechanical and physical properties

As specified in European Standard on Safety of Toys EN 71 part 1:2011.

Clause	Description	Assessment
4	General requirements	
4.1	Material cleanliness.....	Pass
4.7	Edges	Pass
4.8	Points and metallic wires	Pass
4.10	Parts moving against each other:	
	4.10.3 Hinges	N/A
	(Not applicable to products with a hinged part that has a mass less than 250g.)	
5	Toys intended for children under 36 months	
5.1	General requirements:	
	5.1a Small part requirement on toys & removable Components (Test method 8.2)	Pass
	5.1b Torque test (Test method 8.3)	Pass
	Tension test (Test method 8.4)	Pass
	Drop test (Test method 8.5)	Pass
	Impact test (Test method 8.7)	Pass
	Sharp edge (Test method 8.11)	Pass
	Sharp point (Test method 8.12)	Pass
	5.1e Glued wooden toys and toys with glued on plastic decals	Pass
5.4	Cords, chains and electrical cables in toys.....	Pass
7	Warnings and instructions for use	
7.1	General	N/A

N/A = Not Applicable

Note:

- Only applicable clause(s) was/ were shown.

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▼ Flammability of Toys

As specified in European Standard on Safety of Toys EN 71 part 2:2011.

Clause	Description	Assessment
4	Requirements	
4.1	General (The following materials shall not be used in the manufacture of toys except as provided in EN 71-2:2011 : Celluloid, materials with the same behaviour in fire as celluloid, materials with a piled surface which produce surface flash, flammable gases, extremely flammable liquids, highly flammable liquids, flammable liquids and flammable gels.)	Pass

Note:

- Only applicable clause(s) was/ were shown.

▼ Migration of certain elements※

As specified in European standard on safety of toys EN 71-3:2013 – Migration of certain elements, acid extraction method was used and toxic elements content were determined by ICP-OES, ICP-MS, LC-ICP-MS and GC-MS.

Category III: scraped-off toy material

Tested Item	Result (mg/kg)							MDL	Limit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(mg/kg)	(mg/kg)
Aluminium (Al)	87	ND	60	257	ND	ND	ND	50	70000
Antimony (Sb)	ND	ND	ND	ND	ND	ND	ND	5	560
Arsenic (As)	ND	ND	ND	ND	ND	ND	ND	5	47
Barium (Ba)	ND	ND	ND	ND	ND	ND	ND	50	18750
Boron (B)	ND	ND	ND	ND	ND	ND	ND	50	15000
Cadmium (Cd)	ND	ND	ND	ND	ND	ND	ND	1	17
Chromium (Cr ³⁺)	ND	ND	ND	ND	ND	ND	ND	0.16	460
Chromium (Cr ⁶⁺)	ND	ND	ND	ND	ND	ND	ND	0.16	0.2
Cobalt (Co)	ND	ND	ND	ND	ND	ND	ND	5	130
Copper (Cu)	ND	ND	ND	ND	ND	ND	ND	50	7700

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Lead (Pb)	ND	ND	ND	ND	ND	ND	ND	5	160
Manganese (Mn)	ND	ND	ND	ND	ND	ND	79	50	15000
Mercury (Hg)	ND	ND	ND	ND	ND	ND	ND	5	94
Nickel (Ni)	ND	ND	ND	ND	ND	ND	ND	5	930
Selenium (Se)	ND	ND	ND	ND	ND	ND	ND	5	460
Strontium (Sr)	ND	ND	ND	ND	ND	ND	ND	50	56000
Tin (Sn)	ND	ND	ND	ND	ND	ND	ND	2	180000
Organic tin	ND	ND	ND	ND	ND	ND	ND	5	12
Zinc (Zn)	292	129	302	62	9460	3177	ND	50	46000

Tested Item	Result (mg/kg)						MDL	Limit
	(8)	(9)	(10)	(11)	(12)	(13)	(mg/kg)	(mg/kg)
Aluminium (Al)	ND	ND	ND	108	ND	ND	50	70000
Antimony (Sb)	ND	ND	ND	ND	ND	ND	5	560
Arsenic (As)	ND	ND	ND	ND	ND	ND	5	47
Barium (Ba)	ND	ND	ND	ND	ND	ND	50	18750
Boron (B)	ND	ND	ND	ND	ND	ND	50	15000
Cadmium (Cd)	ND	ND	ND	ND	ND	ND	1	17
Chromium (Cr ³⁺)	ND	ND	ND	ND	ND	ND	0.16	460
Chromium (Cr ⁶⁺)	ND	ND	ND	ND	ND	ND	0.16	0.2
Cobalt (Co)	ND	ND	ND	ND	ND	ND	5	130
Copper (Cu)	ND	ND	ND	ND	ND	ND	50	7700
Lead (Pb)	ND	ND	ND	ND	ND	ND	5	160
Manganese (Mn)	ND	ND	ND	ND	ND	ND	50	15000
Mercury (Hg)	ND	ND	ND	ND	ND	ND	5	94
Nickel (Ni)	ND	ND	ND	ND	ND	ND	5	930
Selenium (Se)	ND	ND	ND	ND	ND	ND	5	460
Strontium (Sr)	ND	ND	ND	ND	ND	ND	50	56000
Tin (Sn)	ND	ND	ND	ND	ND	ND	2	180000
Organic tin	ND	ND	ND	ND	ND	ND	5	12
Zinc (Zn)	ND	ND	803	323	ND	ND	50	46000

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Tested Component(s):

- (1) Light yellow coating(A3Y)
- (2) Dark green coating(A5Y)
- (3) Bright red coating(A1Y)
- (4) White coating(A14Y)
- (5) Black coating(A19Y)
- (6) Orange coating(A2Y)
- (7) Brown MDF
- (8) Natural wood
- (9) Beige cord
- (10) Natural veneer(surface of pieces)
- (11) Dark blue coating(A7Y)
- (12) Black soft plastic(wheel)
- (13) Beige plastic(hub)

Remark:

- mg/kg = milligram per kilogram = ppm
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- Unless specified, Cr species (Cr^{3+} and Cr^{6+}) and organic Tin were determined based on elemental analysis.
- As received, the test portion of grey coating(A15Y) is less than 10mg, therefore such components were not tested for migration of certain elements.
- “※” indicates the method(s) is (are) not applied for CNAS accreditation yet.
- Result(s) shown of tested component(s) (1)~(3), (6), (8) and (11) is/are quoted from CTI test report TLSZF00067791a.
- Result(s) shown of tested component(s) (4) is/are quoted from CTI test report TLSZF00066799a.
- Result(s) shown of tested component(s) (5) is/are quoted from CTI test report TLSZF00066802a.
- Result(s) shown of tested component(s) (7) and (10) is/are quoted from CTI test report TLSZF00066790a.

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2) REACH ANNEX XVII

▼ Cadmium and its compounds

As specified in entry 23, annex XVII of European regulation (EC) No. 1907/2006 (REACH) with amendments No.552/2009 & No.494/2011, method EN 1122:2001 Method B was used and total Cadmium content was determined by ICP-OES and/or AAS.

Tested Item	Result (%)			MDL (%)	Limit (%)
	(1)/(2)	(3)	(4)/(5)/(6)		
Cadmium (Cd)	ND	ND	ND	0.0005	0.01

Tested Item	Result (%)				MDL (%)	Limit (%)
	(7)/(8)/(9)	(10)	(11)	(12)		
Cadmium (Cd)	ND	ND	ND	ND	0.0005	0.01

Tested Component(s):

- (1) Black soft plastic(wheel)
- (2) Beige plastic(hub)
- (3) Grey paint(A15Y)
- (4) Bright red coating(A1Y)
- (5) Orange coating(A2Y)
- (6) Light yellow coating(A3Y)
- (7) Dark green coating(A5Y)
- (8) Dark blue coating(A7Y)
- (9) White paint(A14Y)
- (10) Black paint(A19Y)
- (11) Brown MDF(pieces)
- (12) Beige cord

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Remark:

- % = Percentage
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- The limit for composite test should be divided by the mixed number.
- Result(s) shown of tested component(s) (4)~(9) is/are quoted from CTI test report TLSZF00067791a.
- Result(s) shown of tested component(s) (10) is/are quoted from CTI test report TLSZF00064663a.
- Result(s) shown of tested component(s) (11) is/are quoted from CTI test report TLSZF00066790a.

▼ Phthalates in toys and childcare articles

As specified in entry 51 & entry 52, annex XVII of European regulation (EC) No. 1907/2006 (REACH) with amendment No.552/2009, method EN 14372:2004 was used and phthalates were determined by gas chromatograph with mass spectrometer (GC-MS).

Tested Item	Result (%)			MDL (%)	Limit (%)
	(1)	(2)	(3)		
Di-2-ethylhexyl Phthalate (DEHP)	ND	ND	ND	0.003	--
Dibutyl Phthalate (DBP)	ND	ND	ND	0.003	--
Benzylbutyl Phthalate (BBP)	ND	ND	ND	0.003	--
SUM(DEHP+DBP+BBP)	ND	ND	ND	--	0.1

Tested Item	Result (%)			MDL (%)	Limit (%)
	(4)	(5)	(6)		
Di-2-ethylhexyl Phthalate (DEHP)	ND	ND	ND	0.003	--
Dibutyl Phthalate (DBP)	ND	ND	ND	0.003	--
Benzylbutyl Phthalate (BBP)	ND	ND	ND	0.003	--
SUM(DEHP+DBP+BBP)	ND	ND	ND	--	0.1

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Tested Item	Result (%)			MDL (%)	Limit (%)
	(7)	(8)/(9)	(10)		
Di-2-ethylhexyl Phthalate (DEHP)	0.034	ND	ND	0.003	--
Dibutyl Phthalate (DBP)	ND	ND	ND	0.003	--
Benzylbutyl Phthalate (BBP)	ND	ND	ND	0.003	--
SUM(DEHP+DBP+BBP)	0.034	ND	ND	--	0.1

Tested Item	Result (%)			MDL (%)	Limit (%)
	(1)	(2)	(3)		
Diisononyl Phthalate (DINP)	ND	ND	ND	0.005	--
Di-n-octyl Phthalate (DNOP)	ND	ND	ND	0.003	--
Diisodecyl Phthalate (DIDP)	ND	ND	ND	0.005	--
SUM(DINP+DNOP+DIDP)	ND	ND	ND	--	0.1

Tested Item	Result (%)			MDL (%)	Limit (%)
	(4)	(5)	(6)		
Diisononyl Phthalate (DINP)	ND	ND	ND	0.005	--
Di-n-octyl Phthalate (DNOP)	ND	ND	ND	0.003	--
Diisodecyl Phthalate (DIDP)	ND	ND	ND	0.005	--
SUM(DINP+DNOP+DIDP)	ND	ND	ND	--	0.1

Tested Item	Result (%)			MDL (%)	Limit (%)
	(7)	(8)/(9)	(10)		
Diisononyl Phthalate (DINP)	ND	ND	ND	0.005	--
Di-n-octyl Phthalate (DNOP)	ND	ND	ND	0.003	--
Diisodecyl Phthalate (DIDP)	ND	ND	ND	0.005	--
SUM(DINP+DNOP+DIDP)	ND	ND	ND	--	0.1

Tested Component(s):

- (1) Bright red paint(A1Y)
- (2) Orange paint(A2Y)
- (3) Light yellow paint(A3Y)
- (4) Dark green paint(A5Y)
- (5) White paint(A14Y)

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- (6) Grey paint(A15Y)
- (7) Black paint(A19Y)
- (8) Black soft plastic(wheel)
- (9) Beige plastic(hub)
- (10) Dark blue paint(A7Y)

Remark:

- % = percentage
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- The limit for composite test should be divided by the mixed number.
- Result(s) shown of tested component(s) (1)~(6) and (10) is/are quoted from CTI test report TLSZF00061943a.
- Result(s) shown of tested component(s) (7) is/are quoted from CTI test report TLSZF00065029b.

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Photo of the sample



*** End of Report ***

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