

Test Report

Report No.: TJD01F002539a

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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 : Excavator
Item/Lot No. : TC2D02
Manufacturer : Carpenters Manufactory Limited
Quantity of Sample : 2pcs/style
Country of Origin : China
Exported to : Europe
Client Specified Age Grading : 3Y +
Labeled Age Grading : Not stated
Age Group Applied in Testing : Over 3 years (As per client's request)
Sample Received Date : Jul. 15, 2013
Sample Resubmission Date : Jul. 23, 2013
Sample Tested Date : Jul. 15, 2013 to Jul. 25, 2013

Test Conducted:

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

Tested by Jessy

Reviewed by Conghu

Approved by Victor Wang

Date 2013-07-26



Victor Wang
Lab Manager

No. 1622539447

Centre Testing International (Shenzhen) Co., Ltd.

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

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Executive Summary:

TEST REQUEST

CONCLUSION

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

<u>Clause</u>	<u>Description</u>	<u>Assessment</u>
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.)	
7	Warnings and instructions for use	
7.1	General	N/A
7.2	Toys not intended for children under 36 months	N/A
	(Remark: No small part was found before and after test.)	

N/A = Not Applicable

Note:

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

▼ Flammability of Toys

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

<u>Clause</u>	<u>Description</u>	<u>Assessment</u>
4	Requirements	
4.1	General	Pass
	(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.)	

Note:

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

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▼ 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, HPLC-ICP-MS and GC-MS.

Category III: scraped-off toy material

Tested Item	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)
	(1)	(2)	(3)	(4)		
Aluminium (Al)	ND	ND	87	ND	50	70000
Antimony (Sb)	ND	ND	ND	ND	5	560
Arsenic (As)	ND	ND	ND	ND	5	47
Barium (Ba)	ND	ND	ND	ND	50	18750
Boron (B)	ND	ND	ND	ND	50	15000
Cadmium (Cd)	ND	ND	ND	ND	1	17
Chromium (Cr ³⁺)	ND	ND	ND	ND	0.16	460
Chromium (Cr ⁶⁺)	ND	ND	ND	ND	0.16	0.2
Cobalt (Co)	ND	ND	ND	ND	5	130
Copper (Cu)	ND	ND	ND	ND	50	7700
Lead (Pb)	ND	ND	ND	ND	5	160
Manganese (Mn)	ND	ND	ND	79	50	15000
Mercury (Hg)	ND	ND	ND	ND	5	94
Nickel (Ni)	ND	ND	ND	ND	5	930
Selenium (Se)	ND	ND	ND	ND	5	460
Strontium (Sr)	ND	ND	ND	ND	50	56000
Tin (Sn)	ND	ND	ND	ND	2	180000
Organic tin	ND	ND	ND	ND	5	12
Zinc (Zn)	ND	3177	292	ND	50	46000

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Tested Item	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)
	(5)	(6)	(7)	(8)		
Aluminium (Al)	ND	ND	ND	ND	50	70000
Antimony (Sb)	ND	ND	ND	ND	5	560
Arsenic (As)	ND	ND	ND	ND	5	47
Barium (Ba)	ND	ND	ND	ND	50	18750
Boron (B)	ND	ND	ND	ND	50	15000
Cadmium (Cd)	ND	ND	ND	ND	1	17
Chromium (Cr ³⁺)	ND	ND	ND	ND	0.16	460
Chromium (Cr ⁶⁺)	ND	ND	ND	ND	0.16	0.2
Cobalt (Co)	ND	ND	ND	ND	5	130
Copper (Cu)	ND	ND	ND	ND	50	7700
Lead (Pb)	ND	ND	ND	ND	5	160
Manganese (Mn)	ND	ND	88	ND	50	15000
Mercury (Hg)	ND	ND	ND	ND	5	94
Nickel (Ni)	ND	ND	ND	ND	5	930
Selenium (Se)	ND	ND	ND	ND	5	460
Strontium (Sr)	ND	ND	ND	ND	50	56000
Tin (Sn)	ND	ND	ND	ND	2	180000
Organic tin	ND	ND	ND	ND	5	12
Zinc (Zn)	ND	ND	ND	857	50	46000

Tested Component(s):

- (1) Natural wood
- (2) Orange coating(A2Y)
- (3) Light yellow coating(A3Y)
- (4) Brown MDF
- (5) Black soft plastic(wheels)
- (6) Yellow plastic(hub of wheels)
- (7) Beige bamboo(axle of shovel)
- (8) Natural veneer

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Remark:

- mg/kg = milligram per kilogram = ppm
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- Unless specified, Cr species (Cr³⁺ and Cr⁶⁺) and organic Tin were determined based on elemental analysis.
- As received, the test portion of bright red coating(A1Y) and dark green coating(A5Y) are less than 10mg, therefore such components were not tested for migration of certain elements, as specified in the European standard on safety of toys EN71-3:2013, clause 7 – selection of test portions.
- Result(s) shown of tested component(s) (1)~(3) is/are quoted from CTI test report TLSZF00066791a.
Result(s) shown of tested component(s) (4) is/are quoted from CTI test report TLSZF00066790a.
- “※” indicates the method(s) is (are) not applied for CNAS accreditation yet.

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)		
Cadmium (Cd)	ND	ND	ND	0.0005	0.01

Tested Item	Result (%)		MDL (%)	Limit (%)
	(6)/(7)	(8)		
Cadmium (Cd)	ND	ND	0.0005	0.01

Tested Component(s):

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

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- (6) Black soft plastic(wheels)
- (7) Yellow plastic(hub of wheels)
- (8) Natural veneer

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)~(3) is/are quoted from CTI test report TLSZF00066791a.
- Result(s) shown of tested component(s) (4) 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).

<u>Tested Item</u>	<u>Result (%)</u>			<u>MDL</u>	<u>Limit</u>
	(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

<u>Tested Item</u>	<u>Result (%)</u>			<u>MDL</u>	<u>Limit</u>
	(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
	(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 Component(s):

- (1) Bright red paint(A1Y)
- (2) Orange paint(A2Y)
- (3) Light yellow paint(A3Y)
- (4) Dark green paint(A5Y)
- (5) Black soft plastic(wheels)
- (6) Yellow plastic(hub of wheels)

Remark:

- % = percentage
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- Result(s) shown of tested component(s) (1)~(4) is/are quoted from CTI test report TLSZF00061943a.

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Photo of the sample



*** End of Report ***

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