



Vantin Testing



中国认可  
国际互认  
检测  
TESTING  
CNAS L9713

# Test Report

Report No.: W2206913

Date: 2022-06-07

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**Applicant** : Shantou Chenghai Xinhang Toys Industrial Co., Ltd

**Address** : Guangfeng Industrial zone, Dengfeng Road, Chenghai District

## Sample Description:

Name of Product / Item : Engineering vehicle series  
 Item No. : 688-1A,688-2A,688-3A,688-4A,688-5A,688-6A,688-7A,688-8A,  
 688-9A,688-10A,688-11A,688-12A,688-13A,688-14A,688-15A,  
 688-16A,688-17A,688-18A,688-19A,688-20A,677-31B,  
 677-31C,677-31D

Above sample information was submitted and/or identified by client

Quantity of Sample : 2 sets  
 Other Information : WT20220510078-01  
 Labeled Age Grading : 3+  
 Requested Age Grading : 3+  
 Age Group Assessed As Per Age Guideline : Over 3 years  
 Age Group Applied in Testing : Over 3 years  
 Sample Receiving Date : 2022-05-12  
 Sample Resubmitted Date : 2022-05-27  
 Testing Period : 2022-05-12 TO 2022-05-31

## TEST REQUESTED

Standard of Consumer Safety Specification for Toy Safety :

- ASTM F963-17 : Physical and Mechanical Tests
- ASTM F963-17 : Clause 4.2 Flammability Test
- ASTM F963-17 : Clause 4.3.5 Heavy elements

## CONCLUSION

**PASS**  
 (ex. Clause 7.1)  
**PASS**  
**PASS**

\*\*\*\* AS REQUESTED BY THE APPLICANT, PLEASE REFER TO THE FOLLOWING PAGE(S) FOR DETAILS\*\*\*\*

Signed for and on behalf of  
 Guangdong Vantin Testing Co., Ltd.  
 Shantou Branch



Nancy Wang  
 Toy Laboratory Manager



# Test Report

## **ASTM F963 - 17 Standard Consumer Safety Specification for Toy Safety**

As specified in ASTM F963-17 Standard Consumer Safety Specification for Toys Safety.

<b><u>Clause</u></b>	<b><u>Description</u></b>	<b><u>Assessment</u></b>
4	<u>Safety Requirements</u>	
4.1	Material Quality	Pass
4.2	Flammability Test	Pass Refer to Appendix 1 for details
4.3	Toxicology	
4.3.5	Heavy Elements	
4.3.5.1	Heavy Elements in Paint/Similar Surface Coating Materials on the tested specimen(s)	Pass Refer to Appendix 2 for details
4.3.5.2	Heavy Elements in Substrate Materials on the tested specimen(s)	Pass Refer to Appendix 2 for details
4.7	Accessible Edges	
4.7.1	Accessible sharp edges of metal or glass	Pass
4.7.3	Edges on metal toys	Pass
4.7.4	Edges on molded toys	Pass
4.8	Projections	Pass
4.9	Accessible Points	
4.9.1	Accessible Sharp Points	Pass*
4.11	Nails & Fasteners	Pass
4.12	Plastic Film	Pass
4.17	Wheels, Tires & Axles	Pass
4.18	Holes, Clearance & Accessibility of Mechanisms	

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<u>Clause</u>	<u>Description</u>	<u>Assessment</u>
4.18.1	Accessible Clearances for Moveable Segments	Pass
4.18.2	Circular Holes in Rigid Materials	Pass
4.18.4	Inaccessibility of Mechanisms	Pass
5.	<u>Safety Labeling Requirements</u>	Pass
6.	<u>Instructional Literature</u>	Pass
7.	<u>Producer's Markings</u>	
7.1	Producer's Markings	See Remark
8.	<u>Test Method</u>	
8.5	Normal Use Testing	Pass
8.6	Abuse Test	Pass*
8.7	Impact Test	Pass*
8.8	Torque Test	Pass
8.9	Tension Test	Pass*
8.10	Compression Test	Pass

Remark: It is drawn to your attention that either a principal component of a toy or the package of a toy shall be marked with the name and address of the producer or the distributor.

**Note:**

- Only applicable clauses was/were shown.
- \* The test results are determined by the sample submitted by the client on 2022-05-27.



# Test Report

**Appendix 1:**

**Flammability Test (Clause 4.2)**

**A5. Flammability Testing procedure for Solids and Soft Toys**

<u>Sample</u>	<u>Burning Rate (inch/sec)</u>	<u>Limit (inch/sec)</u>
<u>Engineering car series</u>	<u>DNI</u>	0.1
<u>Forklift car series</u>	<u>DNI</u>	0.1
<u>Accessories</u>	<u>DNI</u>	0.1

Requirement

<u>Classification:</u>	<u>Acceptable Criteria</u>
Solid and Soft goods	DNI/ IBE Burning Rate ≤ 0.1 in/sec.

\* The submitted sample(s) was/were tested, the above result only showed the most severe burn rate of the sample(s).

- DNI = Did Not Ignite
- IBE = Ignite But Self-Extinguished
- Ave. = Average



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## Appendix 2:

### ASTM F963-17 Standard Consumer Safety Specification for Toy Safety

#### **▼ Heavy elements test - Total Lead content**

Method: ASTM F963-17 Clause 8.3

The item(s) was/were analyzed by ICP-OES.

Toy substrate materials:

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>		<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	1+2+3	4+5		
Total Lead (Pb)	13	N.D.	5	100

#### **Specimen Description:**

- 1 Yellow plastic (yellow truck)
- 2 Black plastic (yellow truck)
- 3 Red plastic (red truck)
- 4 White plastic (white/blue truck)
- 5 Blue plastic (white/blue truck)

#### **Note:**

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- As per client’s request, test conducted on specified materials.
- The limit for composite test should be divided by the mixed number.
- All result(s) of total lead is(are) extracted from report No.:W2205509, where the sample(s)/material(s) of sample is(are) claimed to be identical.



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**▼ Heavy elements test – Migration of certain elements**

Method: ASTM F963-17 Clause 8.3

The item(s) was/were analyzed by ICP-OES.

**Surface Coatings and Substrates Other than Modeling Clay Included as Part of a Toy:**

Tested Item(s)	Result (mg/kg)					MDL (mg/kg)	Limit (mg/kg)
	1	2	3	4	5		
Soluble Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	N.D.	5	60
Soluble Arsenic (As)	N.D.	N.D.	N.D.	N.D.	N.D.	2.5	25
Soluble Barium (Ba)	N.D.	N.D.	N.D.	N.D.	N.D.	5	1000
Soluble Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.	5	75
Soluble Chromium (Cr)	N.D.	N.D.	N.D.	N.D.	N.D.	2.5	60
Soluble Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.	5	90
Soluble Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	2.5	60
Soluble Selenium (Se)	N.D.	N.D.	N.D.	N.D.	N.D.	5	500

Tested Item(s)	Result (mg/kg)					MDL (mg/kg)	Limit (mg/kg)
	6	7	8	9	10		
Soluble Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	N.D.	5	60
Soluble Arsenic (As)	N.D.	N.D.	N.D.	N.D.	N.D.	2.5	25
Soluble Barium (Ba)	N.D.	N.D.	N.D.	N.D.	N.D.	5	1000
Soluble Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.	5	75
Soluble Chromium (Cr)	N.D.	N.D.	N.D.	N.D.	N.D.	2.5	60
Soluble Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.	5	90
Soluble Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	2.5	60
Soluble Selenium (Se)	N.D.	N.D.	N.D.	N.D.	N.D.	5	500

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Tested Item(s)	Result (mg/kg)					MDL (mg/kg)	Limit (mg/kg)
	11	12	13	14	15		
Soluble Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	N.D.	5	60
Soluble Arsenic (As)	N.D.	N.D.	N.D.	N.D.	N.D.	2.5	25
Soluble Barium (Ba)	N.D.	N.D.	N.D.	N.D.	N.D.	5	1000
Soluble Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.	5	75
Soluble Chromium (Cr)	N.D.	N.D.	N.D.	N.D.	N.D.	2.5	60
Soluble Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.	5	90
Soluble Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	2.5	60
Soluble Selenium (Se)	N.D.	N.D.	N.D.	N.D.	N.D.	5	500

Tested Item(s)	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)
	16	17	18	19		
Soluble Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	5	60
Soluble Arsenic (As)	N.D.	N.D.	N.D.	N.D.	2.5	25
Soluble Barium (Ba)	N.D.	N.D.	N.D.	N.D.	5	1000
Soluble Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	5	75
Soluble Chromium (Cr)	N.D.	N.D.	N.D.	N.D.	2.5	60
Soluble Lead (Pb)	N.D.	N.D.	N.D.	N.D.	5	90
Soluble Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	2.5	60
Soluble Selenium (Se)	N.D.	N.D.	N.D.	N.D.	5	500

**Specimen Description:**

- 1 multicolor coating (sample weight: 20.5mg)
- 2 multicolor sticker
- 3 yellow plastic
- 4 black plastic
- 5 silver gray plastic
- 6 saffron plastic
- 7 dark gray plastic with silver color glitter
- 8 light yellow plastic
- 9 light blue plastic

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- 10 dark red plastic
- 11 dark blue plastic
- 12 turquoise plastic
- 13 nacarat plastic
- 14 grass green plastic
- 15 red plastic
- 16 white plastic
- 17 blue plastic
- 18 green plastic
- 19 lake blue plastic

**Note:**

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- Results shown of soluble elements are of adjusted analytical results by subtracting analytical Correction factor (excluding special soluble Cadmium result).
- Filter paper was used instead of 0.45µm membrane filter in lab testing.
- Where the test portion has a mass of between 10mg and 100mg, the quantity of the appropriate elements shall be calculated as if 100mg of the test portion had been used.
- All result(s) of Migration of certain elements is(are) extracted from report No.:W2204978, where the sample(s)/material(s) of sample is(are) claimed to be identical.



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## Sample Photo





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\*\*\* End of Report \*\*\*