

#### **Test Report** No.T51710190058JP

Date: FEB 22, 2017

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JIAN PLASTIC & METAL PRODUCTS LTD NO.3-1, SOUTH GAOBU BLVD, GAOBU TOWN, DONGGUAN CITY, GUANGDONG PROVINCE, CHINA, ZIP CODE: 523278

The following samples were submitted and identified by/on behalf of the client as:

ALUMINUM

Buyer	:	WORLD WIDE
Manufacturer	:	CHINA
Country of Origin	:	MADE IN CHINA
Country of Destination	:	WORLD WIDE
Requested Age Grading	:	3+
Sample Receiving Date	:	FEB 17, 2017
Testing Period	:	FEB 17, 2017 TO FEB 22, 2017

Test R	equested	Conclusion		
1.	EN 71-3:2013 + A1:2014 - Safety of toys - Part 3 - Migration of certain elements (All conclusive testing)	PASS		
	(Selected test items as specified by the applicant, please refer to test result page(s) for details)			
2.	ASTM F963-16 - Standard Consumer Safety Specification on Toy Safety – Heavy Elements content			
	(Selected test items as specified by the applicant, please refer to test result page(s) for details)			
2.1	Heavy Elements content in paint or similar surface coating materials in submitted sample in accordance with ASTM F963-16 - Standard Consumer Safety Specification on Toy Safety, Clause 4.3.5.1	NOT APPLICABLE (SEE REMARK)		
2.2	Heavy Elements content in substrate materials in submitted sample in accordance with ASTM F963-16 - Standard Consumer Safety Specification on Toy Safety, Clause 4.3.5.2	PASS		



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# Test Report No.T51

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Test R	lequested	Conclusion		
3.	Japan Toy Safety Standard: Part 3: 2016 First edition 2016.4.1 (Selected test items as specified by the applicant, please refer to test result page(s) for details)			
	Clause 1.11 Metals used for toy	PASS		

Remark: There were no surface coating found in the said submitted sample.

\*\*\*\*\*\*\*\* FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) \*\*\*\*\*\*\*\*

Signed for and on behalf of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch Testing Center

Feng Shaohong, Jessica Lab Manager



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**Results:** 

## 1. EN 71-3:2013 + A1:2014 - Safety of toys - Part 3 - Migration of Certain Elements

Category III: Scrapped-off toy material

Method: With reference to EN71-3:2013 + A1:2014. Analysis of general elements was performed by ICP-OES. Chromium (III) was obtained by calculation, chromium (VI) was analyzed by IC-UV/VIS and organic tin was analyzed by GC-MS.

Test Item(s) Result(s)			Result(s)	MDL	Permissible Limit	
Specimen No.			1			
Mass of trace amount		(mg)				
Soluble Aluminium	(AI)	(mg/kg)	263	50	70000	
Soluble Antimony	(Sb)	(mg/kg)	ND	10	560	
Soluble Arsenic	(As)	(mg/kg)	ND	10	47	
Soluble Barium	(Ba)	(mg/kg)	ND	50	18750	
Soluble Boron	(B)	(mg/kg)	ND	50	15000	
Soluble Cadmium	(Cd)	(mg/kg)	ND	5	17	
Soluble Chromium	(Cr)	(mg/kg)	ND	0.15		
Soluble Chromium (III)	(Cr (III))	(mg/kg)	ND	1	460	
Soluble Chromium (VI)	(Cr (VI))	(mg/kg)	ND	0.12	0.2	
Soluble Cobalt	(Co)	(mg/kg)	ND	10	130	
Soluble Copper	(Cu)	(mg/kg)	ND	50	7700	
Soluble Lead	(Pb)	(mg/kg)	ND	10	160	
Soluble Manganese	(Mn)	(mg/kg)	ND	50	15000	
Soluble Mercury	(Hg)	(mg/kg)	ND	10	94	
Soluble Nickel	(Ni)	(mg/kg)	ND	10	930	
Soluble Selenium	(Se)	(mg/kg)	ND	10	460	
Soluble Strontium	(Sr)	(mg/kg)	ND	50	56000	
Soluble Tin	(Sn)	(mg/kg)	ND	3.3	180000	
Soluble Organic Tin		(mg/kg)	ND		12	
Soluble Zinc	(Zn)	(mg/kg)	ND	50	46000	

### Specimen Description:

1. Silvery metal part



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- Note: mg/kg = milligram per kilogram
  - mg = milligram
  - ND = Not Detected (lower than MDL)
  - MDL = Method Detection Limit
  - 1% = 10000 mg/kg = 10000 ppm

# 2.2 ASTM F963-16, Clause 4.3.5.2 – Heavy Elements in Substrate Materials

Method: With reference to ASTM F963-16 Clause 8.3

Analysis was performed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES)

Soluble Heavy Metal Content

Test Item(s)				Pb	Sb	As	Ва	Cd	Cr	Hg	Se
MDL (ppm)			5	5	2.5	10	5	5	5	10	
Migration Limit (ppm) Other Than Modeling Clays			90	60	25	1000	75	60	60	500	
Migration Limit (ppm) Modeling Clays			90	60	25	250	50	25	25	500	
Specimen No.	Alias No.	Tracing No.	Mass of trace amount (mg)	Adjusted Migration Result(s) (ppm)							
1	2	1	/	ND	ND	ND	ND	ND	ND	ND	ND

Specimen Description:

1. Silvery metal part

Note: - ppm = parts per million

- $1\% = 10000 \text{ mg/kg} = 10000 \text{ ppm} = 10000 \text{ }\mu\text{g/g}$
- ND = Not Detected (lower than MDL)
- MDL = Method Detection Limit
- Migration results of eight elements shown are of the adjusted analytical results





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## 3. Japan Toy Safety Standard: Part 3: 2016 First edition 2016.4.1

Method: As specified in Japan Toy Safety Standard: Part 3: 2016 First edition 2016.4.1

#### Clause 1.11 Metals used for toy (neither painted nor covered)

Test Item(s)	Pb
MDL (mg/kg)	5
Limit (mg/kg)	90
Specimen Description	Adjusted Migration Result(s) (mg/kg)
1. Silvery metal part	ND

## Note: - mg/kg = milligram per kilogram

- MDL = Method Detection Limit
- ND = Not Detected (lower than MDL)
- Results shown are of the adjusted analytical result



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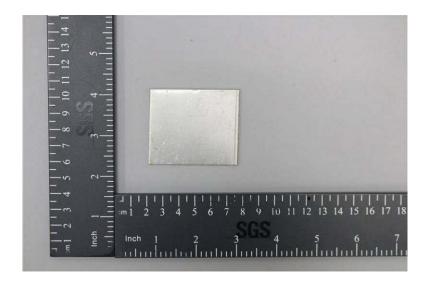
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Sample Photo:



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



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