

Test Report Number: GZHT90589276

Date:

Mar 16, 2016

Applicant: DONGGUAN JIAN PLASTIC & METAL PRODUCTS

LTD.

NO.3-1, SOUTH GAOBU BLVD GAOBU, DONGGUAN, CHINA

ZIP CODE: 523278 Attn: EMMY

Sample Description:

One (1) piece of submitted sample said to be Pewter Tin material

 Standard
 : - 

 Ref. No.
 : - 

 P.O. No.
 : - 

Buyer's Name : World Wide Vendor : World Wide Supplier : CHINA Manufacturer : CHINA

Ref. : PEWTER (100% TIN)

AGE RANGE: 3+

Country Of Origin : MADE IN CHINA Goods Exported To : World Wide Date Received/Date Test Started : Mar 01, 2016 Date Final Information Confirmed: Mar 15, 2016

Conclusion:

<u>Index</u>	<u>Test Item</u>	<u>Result</u>
1.	Soluble Lead Content Test on Metal Toy Accessories	Pass
2.	Heavy Elements Analysis	Pass
3.	Toxic Element Migration Test (19)	Pass

Should you have any query on this report, you may contact at <a href="mailto:gzfootwear@intertek.com">gzfootwear@intertek.com</a>

Authorized By:

For Intertek Testing Services Shenzhen Ltd.

Guangzhou GDD Branch

Huang Ning, Andy

Assistant General Manager



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Tests Conducted (As Requested By The Applicant)

## 1 Soluble Lead Content Test on Metal Toy Accessories

Test Method: Japan Toy Safety Standard 2012 Part 3 Chemical Properties Clause 2.7, 2.12, Acid Extraction Method Was Used And Soluble Lead Content Was Determined By Inductively Coupled Argon Plasma Spectrometry.

Result (mg/kg) Requirement (mg/kg) < 5

Remark: mg/kg = milligram per kilogram

Tested Component: Pewter Tin Color Metal

## 2 Heavy Elements Analysis

With reference to Section 4.3.5.2 of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11, acid extraction method was used and heavy elements migration content were determined by Inductively Coupled Argon Plasma Spectrometry.

	Result in ppm	<u>Limit</u>
		<u>ppm</u>
Sol. Barium (Ba)	< 5	1000
Sol. Lead (Pb)	< 5	90
Sol. Cadmium (Cd)	< 5	75
Sol. Antimony (Sb)	< 5	60
Sol. Selenium (Se)	< 5	500
Sol. Chromium (Cr)	< 5	60
Sol. Mercury (Hg)	< 5	60
Sol. Arsenic (As)	< 2.5	25

Sol. = Soluble < = Less than

ppm = parts per million

Tested Component: Pewter Tin Color Metal



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## 3 Toxic Element Migration Test (19)

With Reference To EN71-3:2013 And Followed By Inductively Coupled Plasma Optical Emission Spectrometry (ICP/OES) and/or Inductively Coupled Plasma Mass Spectrometry (ICP/MS). When Confirmation Tests Of Organic Tin was performed, determined by Gas Chromatographic - Mass Spectrometry (GC/MS) respectively.

Category (III): Scraped-off toy material

<u>Element</u>	<u>Result (mg/kg)</u>	<u>Applicant's</u>
	·	Limit
		(mg/kg)
Aluminium (Al)	< 300	70000
Antimony (Sb)	< 10	560
Arsenic (As)	< 10	47
Barium (Ba)	< 10	18750
Boron (B)	< 50	15000
Cadmium (Cd)	< 5	17
Chromium (III) (Cr III) **	< 10	460
Chromium (VI) (Cr VI) ++	< 0.1	0.2
Cobalt (Co)	< 10	130
Copper (Cu)	< 10	7700
Lead (Pb)	< 10	160
Manganese (Mn)	< 10	15000
Mercury (Hg)	< 10	94
Nickel (Ni)	< 10	930
Selenium (Se)	< 10	460
Strontium (Sr)	< 100	56000
Tin (Sn)	32	180000
Organić tin ++	< 3.0 Δ	12
Zinc (Zn)	< 100	46000

Remark:	mg/kg = milligram per kilogram
	$\Delta$ = Confirmation test was performed on the tested component. The reported value was the
	sum of the migration values of Methyl tin, Butyl tin, Dibutyl tin, Tributyl tin, Tetrabutyl tin, n-
	Octyl tin, Di-n-octyl tin, Di-n-propyl tin, Diphenyl tin and Triphenyl tin after converted to
	Tributyl tin by calculation. ( <i>Add more organic tin compounds if necessary</i> )
	++ = Unless the test results were marked with "#" or "Δ", Chromium (III) & Chromium (VI)
	and Organic tin contents were not directly determined and were derived from migration results
	of total chromium and tin respectively.
	- Organic tin test result was expressed as tributyl tin.
	- As per General Court of the European Union Judgment in Case T-198/12 dated 14 May 2014, the General Court confirmed that Germany could maintain its limit value for
	Lead(Pb)(90mg/kg) in toys but not for Antimony (Sb), Arsenic (As), Mercury (Hg) and Barium (Ba).

Tested Component: Pewter Tin Color Metal

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