



**BUREAU
VERITAS**

TEST REPORT

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DATE : December 21, 2017
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Applicant:

YONGKANG SHIYA ALUMINUM FACTORY

169#, FENGXIANG ROAD, GUSHAN INDUSTRIAL ZONE, YONGKANG CITY, ZHEJIANG

Date of Submission: November 30, 2017
Test Period: November 30, 2017 to December 21, 2017
BV EE Ref. No.: /

Sample Description:	Sample(s) received is(are) stated to be: Scooter		
Manufacturer:	/	Buyer:	/
Style No(s):	/	PO No.:	/
Country of Origin:	/	Country of Destination:	Oversea Country
Tested Model	ES-03	Tested Additional Models	ES-01, ES-02, ES-04, ES-05

Test Item(s): Scooter

SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION
Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments	PASS

REMARK

If there are questions or concerns on this report, please contact the following persons:

General enquiry and invoicing

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**BUREAU VERITAS
CONSUMER PRODUCTS SERVICES DIVISION (SHANGHAI)**

Laboratory Test Location:

No.368,Guangzhong Road, Zhuanqiao Town, Minhang, Shanghai

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PREPARED BY : Meiko/Sherry/Kina


Gorden Yu
Analytical Lab Manager



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Photo of the Submitted Sample

Tested Model



Tested Additional Models





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Photo of the Submitted Sample

Tested Additional Models





TEST RESULT

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments

Test Method : See Appendix.

See Analytes and their corresponding Maximum Allowable Limit in Appendix

-			Result					
Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	Conclusion
Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item	Description	Location	-	-	-	-	-	-
Tested components of Model No. ES-03								
1	Pink soft plastic	Handle	ND	ND	ND	ND	ND	PASS
2	Silvery metal screw		ND	ND	ND	ND	NA	PASS
3	Silvery metal with black plating		ND	ND	ND	ND	NA	PASS
4	Silvery metal holder		ND	ND	ND	Negative*	NA	PASS
5	Silvery metal with black plating		ND	ND	ND	ND	NA	PASS
6	Silvery metal screw with black plating		ND	ND	ND	ND	NA	PASS
7	Silvery metal screw with black plating		ND	ND	ND	ND	NA	PASS
8	Black plastic		ND	ND	ND	ND	ND	PASS
9	Silvery metal		ND	ND	ND	ND	NA	PASS
10	Silvery metal nut		ND	ND	ND	ND	NA	PASS
11	Silvery metal with black plating		ND	ND	ND	ND	NA	PASS
12	Black plastic		ND	ND	ND	ND	ND	PASS
13	Black plastic		ND	ND	ND	ND	ND	PASS
14	White plastic connector		ND	ND	ND	ND	ND	PASS
15	Copper metal with silvery plating	Speaker	ND	ND	ND	ND	NA	PASS
16	Red plastic wire jacket		ND	ND	ND	ND	ND	PASS
17	Black plastic wire jacket		ND	ND	ND	ND	ND	PASS
18	Copper metal wire with silvery plating		ND	ND	ND	ND	NA	PASS
19	Black fabric film		ND	ND	ND	ND	ND	PASS
20	Silvery metal		ND	ND	ND	Negative*	NA	PASS
21	Silvery metal		ND	ND	ND	ND	NA	PASS
22	Silvery magnet		ND	ND	ND	ND	NA	PASS
23	Silvery metal		ND	ND	ND	ND	NA	PASS
24	Copper metal wire		ND	ND	ND	ND	NA	PASS
25	Transparent plastic film		ND	ND	ND	ND	ND	PASS
26	Black plastic		ND	ND	ND	ND	ND*	PASS



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Parameter			Result					Conclusion
			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	
Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item	Description	Location	-	-	-	-	-	-
27	White plastic connector	Speaker	ND	ND	ND	ND	ND	PASS
28	Copper metal with silvery plating		<500	ND	ND	ND	NA	PASS
29	Green PCB		ND	ND	ND	ND	ND	PASS
30	Silvery metal solder		ND	ND	ND	ND	NA	PASS
31	Black plastic button	Button	ND	ND	ND	ND	ND*	PASS
32	Silvery metal		ND	ND	ND	ND	NA	PASS
33	Silvery metal		ND	ND	ND	ND	NA	PASS
34	Black plastic		ND	ND	ND	ND	ND	PASS
35	Black plastic	Inside	ND	ND	ND	ND	ND	PASS
36	Silvery metal		ND	ND	ND	ND	NA	PASS
37	Silvery metal		ND	ND	ND	Negative*	NA	PASS
38	Black plastic holder		ND	ND	ND	ND	ND	PASS
39	White plastic connector	PCB	ND	ND	ND	ND	ND	PASS
40	Green PCB		ND	ND	ND	ND	ND*	PASS
41	Silvery metal solder		ND	ND	ND	ND	NA	PASS
42	White plastic connector	Wire	ND	ND	ND	ND	ND	PASS
43	Copper metal with silvery plating		ND	ND	ND	ND	NA	PASS
44	Black plastic wire jacket		ND	ND	ND	ND	ND	PASS
45	Green plastic wire jacket		ND	ND	ND	ND	ND	PASS
46	Yellow plastic wire jacket		ND	ND	ND	ND	ND	PASS
47	Red plastic wire jacket		ND	ND	ND	ND	ND	PASS
48	Copper metal wire		ND	ND	ND	ND	NA	PASS
49	Black plastic cable jacket	Housing	ND	ND	ND	ND	ND	PASS
50	Pink plastic		ND	ND	ND	ND	ND	PASS
51	Black plastic		ND	ND	ND	ND	ND	PASS
52	Beige plastic glue		ND	ND	ND	ND	ND	PASS
53	Black plastic		ND	ND	ND	ND	ND	PASS
54	Black soft plastic		ND	ND	ND	ND	ND	PASS
55	Silvery metal nut		ND	ND	ND	Negative*	NA	PASS
56	Silvery metal washer		ND	ND	ND	ND	NA	PASS
57	Silvery metal nut	Bottom	ND	ND	ND	ND	NA	PASS
58	Silvery metal axle		ND	ND	ND	ND	NA	PASS
59	Black plastic		ND	ND	ND	ND	ND	PASS
60	Black plastic wheel		ND	ND	ND	ND	ND	PASS
61	Silvery metal bearing with colorful plating	Bearing	ND	ND	ND	ND	NA	PASS
62	White plastic		ND	ND	ND	ND	ND	PASS



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Parameter			Result					Conclusion
			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	
Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item	Description	Location	-	-	-	-	-	-
63	Silvery metal bearing	Bearing	ND	ND	ND	ND	NA	PASS
64	Silvery metal screw	Wheel	ND	ND	ND	ND	NA	PASS
65	Black plastic		ND	ND	ND	ND	ND	PASS
66	Black plastic		ND	ND	ND	ND	ND	PASS
67	Transparent soft plastic		ND	ND	ND	ND	ND	PASS
68	Black magnet		ND	ND	ND	ND	ND	PASS
69	Transparent plastic wheel		ND	ND	ND	ND	ND	PASS
70	Black plastic		ND	ND	ND	ND	ND	PASS
71	Silvery metal	Wheel	ND	ND	ND	ND	NA	PASS
72	Black plastic		ND	ND	ND	ND	ND	PASS
73	Coppery metal wire		ND	ND	ND	ND	NA	PASS
74	Green PCB		ND	ND	ND	ND	ND*	PASS
75	Silvery metal solder		ND	ND	ND	ND	NA	PASS
76	Transparent LED		ND	ND	ND	ND	ND*	PASS
77	Transparent plastic		ND	ND	ND	ND	ND	PASS
78	Green PCB	Light	ND	ND	ND	ND	ND*	PASS
79	Silvery metal solder		ND	ND	ND	ND	NA	PASS
80	White plastic wire jacket with red printing		ND	ND	ND	ND	ND	PASS
81	Coppery metal wire with silvery plating		ND	ND	ND	ND	NA	PASS
82	White plastic		ND	ND	ND	ND	ND	PASS
83	White plastic		ND	ND	ND	ND	ND	PASS
84	Coppery metal with silvery plating		Battery box	ND	ND	ND	ND	NA
85	Green PCB	ND		ND	ND	ND	ND*	PASS
86	Silvery metal solder	ND		ND	ND	ND	NA	PASS
87	Silvery metal	ND		ND	ND	ND	NA	PASS
88	Black plastic button	Switch	ND	ND	ND	ND	ND	PASS
89	White plastic		ND	ND	ND	ND	ND	PASS
90	Gray plastic		ND	ND	ND	ND	ND	PASS
91	Silvery metal		ND	ND	ND	ND	NA	PASS
92	Silvery metal		ND	ND	ND	Negative*	NA	PASS
93	Silvery metal spring		ND	ND	ND	ND	NA	PASS
94	Black plastic		ND	ND	ND	ND	ND	PASS
95	Black plastic		ND	ND	ND	ND	ND	PASS
96	Black plastic connector	Connector	ND	ND	ND	ND	ND	PASS
97	Coppery meal with silvery plating		ND	ND	ND	ND	NA	PASS
98	Brown plastic		ND	ND	ND	ND	ND	PASS



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Parameter			Result					Conclusion
			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	
Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item	Description	Location	-	-	-	-	-	-
99	Coppery metal pin with silvery plating	Connector	ND	ND	ND	ND	NA	PASS
100	White plastic holder	PCB	ND	ND	ND	ND	ND	PASS
101	Translucent LED		ND	ND	ND	ND	ND*	PASS
102	Black capacitor		ND	ND	ND	ND	ND	PASS
103	Black plastic jacket		ND	ND	ND	ND	ND	PASS
104	Black magnet		ND	ND	ND	<500	ND	PASS
105	Coppery metal wire		ND	ND	ND	ND	NA	PASS
106	Black EC		ND	ND	ND	ND	ND	PASS
107	Black EC		ND	ND	ND	ND	ND	PASS
108	Black EC		<500	ND	ND	ND	ND*	PASS
109	Black EC		ND	ND	ND	ND	ND*	PASS
110	Black EC		ND	ND	ND	ND	ND	PASS
111	Green PCB	ND	ND	ND	ND	ND*	PASS	
112	Silvery metal solder	Atomizer (housing)	ND	ND	ND	ND	NA	PASS
113	Black plastic		ND	ND	ND	ND	ND	PASS
114	Pink plastic		ND	ND	ND	ND	ND	PASS
115	Black plastic		ND	ND	ND	ND	ND	PASS
116	Black plastic		ND	ND	ND	ND	ND	PASS
117	Silvery metal spring		ND	ND	ND	Negative*	NA	PASS
118	Beige plastic	PCB	ND	ND	ND	ND	PBDEs: 107*	PASS
119	Coppery metal with silvery plating		ND	ND	ND	ND	NA	PASS
120	Black plastic		ND	ND	ND	ND	ND*	PASS
121	Green PCB		ND	ND	ND	ND	ND	PASS
122	Silvery metal solder		ND	ND	ND	ND	NA	PASS
123	White plastic		ND	ND	ND	ND	ND	PASS
124	Gray plastic wire jacket		ND	ND	ND	ND	ND	PASS
125	Red plastic wire jacket		ND	ND	ND	ND	ND	PASS
126	Red plastic wire jacket		ND	ND	ND	ND	ND	PASS
127	Black plastic wire jacket		ND	ND	ND	ND	ND	PASS
128	Translucent soft plastic		ND	ND	ND	ND	ND	PASS
129	White ceramic	EX#	ND	ND	ND	NA	EX#	
130	Silvery metal solder	ND	ND	ND	ND	NA	PASS	
131	Silvery metal	ND	ND	ND	ND	NA	PASS	
132	Transparent LED	ND	ND	ND	ND	ND*	PASS	
133	Black plastic	ND	ND	ND	ND	ND	PASS	
134	White plastic	ND	ND	ND	ND	ND	PASS	
135	Green PCB	ND	ND	ND	ND	ND*	PASS	
136	Silvery metal solder	ND	ND	ND	ND	NA	PASS	



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-			Result					
Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	Conclusion
Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item	Description	Location	-	-	-	-	-	-
137	Black soft plastic	Power cord	ND	ND	ND	ND	ND	PASS
138	Silvery metal		ND	ND	ND	ND	NA	PASS
139	Silvery metal solder		ND	ND	ND	ND	NA	PASS
140	Black plastic		ND	ND	ND	ND	ND*	PASS
141	Coppery metal with silvery plating		ND	ND	ND	ND	ND	PASS
142	Silvery metal solder		ND	ND	ND	ND	NA	PASS
143	Coppery metal with silvery plating		ND	ND	ND	ND	NA	PASS
144	White plastic holder		ND	ND	ND	ND	ND*	PASS
145	Coppery metal with silvery plating		ND	ND	ND	ND	NA	PASS
146	Silvery metal solder		ND	ND	ND	ND	NA	PASS
147	Black plastic cable jacket		ND	ND	ND	ND	ND	PASS
148	Red plastic wire jacket		ND	ND	ND	ND	ND	PASS
149	Black plastic wire jacket		ND	ND	ND	ND	ND	PASS
Tested components of Additional Model(s) different to Model No. ES-03								
150	Blue soft plastic	Housing (blue)	ND	ND	ND	ND	ND	PASS
151	Blue plastic		ND	ND	ND	ND	ND	PASS
152	Blue plastic		ND	ND	ND	ND	ND	PASS
153	Yellow soft plastic	Housing (yellow)	ND	ND	ND	ND	ND	PASS
154	Yellow plastic		ND	ND	ND	ND	ND	PASS
155	Yellow plastic		ND	ND	ND	ND	ND	PASS
156	Coppery metal	PCB	ND	ND	ND	ND	NA	PASS
157	Silvery metal solder		ND	ND	ND	ND	NA	PASS
158	Red soft plastic	Housing (red)	ND	ND	ND	ND	ND	PASS
159	Red plastic		ND	ND	ND	ND	ND	PASS
160	Red plastic		ND	ND	ND	ND	ND	PASS



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Note / Key :

ND = Not detected	“>” = Greater than	“<” = Less than
NR = Not requested	mg/kg = milligram(s) per kilogram = ppm = part(s) per million	
Detection Limit: See Appendix.	NA = Not applicable	EX= Exempted

Remark :

- The testing approach is listed in table of Appendix.
- * denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness.
- Only selected example(s) is (are) indicated on the photograph(s) in Comment.
- According to European Parliament and Council Directive 2011/65/EU, Article 5 “Adaptation of the Annexes to scientific and technical progress”, exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.
- The components chosen to be screen for additional models have been agreed with the client.
- For item 129:
#According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 7(c)-I is reiterated here “Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.”. Test Item(s) was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found lead level should be exempted.

END



APPENDIX

List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit | Compliance Test for European Parliament and Council Directive 2011/65/EU] :

No.	Name of Analyte(s)	Detection Limit (mg/kg)				Maximum Allowable Limit (mg/kg)
		X-ray fluorescence (XRF) ^[a]			Wet Chemistry	
		Plastic	Metallic / glass / ceramic	Others		
1	Lead (Pb)	100	200	200	10 ^[b]	1 000
2	Cadmium (Cd)	50	50	50	10 ^[b]	100
3	Mercury (Hg)	100	200	200	10 ^[c]	1 000
4	Chromium (Cr)	100	200	200	NA	NA
5	Chromium VI (Cr VI)	NA	NA	NA	3 ^[e, h] / 10 ^[d] / See ^[e, i]	1 000 / Negative ^[j]
6	Bromine (Br)	200	NA	200	NA	NA
7	Polybromobiphenyls (PBBs) - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB)	NA	NA	NA	Each 50 ^[f]	Sum 1 000
8	Polybromodiphenyl ethers (PBDEs) - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE)	NA	NA	NA	Each 50 ^[f]	Sum 1 000

NA = Not applicable IEC = International Electrotechnical Commission

[a] Test method with reference to International Standard IEC 62321-3-1: 2013.

[b] Test method with reference to International Standard IEC 62321-5: 2013.

[c] Test method with reference to International Standard IEC 62321-4: 2017.

[d] Polymers and Electronics - Test method with reference to International Standard IEC 62321: 2008, Annex C.

[e] Metal - Test method with reference to International Standard IEC 62321-7-1: 2015.

[f] Test method with reference to International Standard IEC 62321-6: 2015.

[g] Leather - Test method International Standard ISO 17075: 2007.

[h] Other Than Metal, Leather, Polymers and Electronics - Test method with reference to International Standard ISO 17075: 2007.

[j] Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Parliament and Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 2011/65/EU, Article 4(1).

Testing Approach | Compliance Test for European Parliament and Council Directive 2011/65/EU] :

The testing approach was with reference to the following document(s).

- 1 International Standards IEC 62321-1: 2013 and IEC 62321-2: 2013
- 2 "RoHS Enforcement Guidance Document Version 1" by EU RoHS Enforcement Authorities Informal Network. (May 2006)
- 3 "RoHS Regulations - Government Guidance Notes" by United Kingdom Department for Business Innovation & Skills. (February 2011)
- 4 "Final Report to RoHS substances (Hg, Pb, Cr(VI), Cd, PBB and PBDE) in electrical and electronic equipment in Belgium" by Belgium Federal Public Service Health, Food Chain Safety and Environment. (November 2005)



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Annex

The client declared that the materials used of below Styles are same as tested style ES-03.

Description
ES-01, ES-02, ES-04, ES-05

Remark:

Since the client was not able to provide the sample of additional Style, above additional Style(s) hasn't been tested, but only based on the guarantee letter provided by the client. Bureau Veritas-CPS takes no responsibility for any mistakes and the problems of product consistency caused by inaccurate and/or invalid information submitted by the client. The client will take the responsibility of all discrepancy and risk.