



**BUREAU
VERITAS**

TEST REPORT

LAB NO. : (6614)241-0129
DATE : September 3, 2014
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APPLICANT : ZHEJIANG BENYU TOOLS CO.,LTD
NO.188,HAICHANG RD,TAIZHOU CITY,ZHEJIANG, CHINA

DATE OF SUBMISSION : August 29, 2014

TEST PERIOD : August 29, 2014 to September 3, 2014

NO. OF WORKING DAY(S) : 4

BV E&E Ref. No. : ZJB-14JA08-01CTSP-A2

SAMPLE DESCRIPTION : One (1) received sample stated to be Electric Hammer
Tested Model: Z1C-ZT3-26
Rated voltage (range): 230V

TESTED ITEM : Electric Hammer (whole sample)

SUMMARY OF TEST RESULTS

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

REMARK

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

General enquiry and invoicing

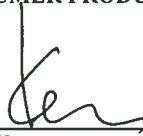
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**BUREAU VERITAS
CONSUMER PRODUCTS SERVICES DIVISION (SHANGHAI)**

PREPARED BY : Selma


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RW/2014

Photo of the Submitted Sample





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TEST RESULT

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

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	-	-	-	-	-	-
1	Green plastic case	Housing	ND	ND	ND	ND	ND	PASS
2	Black plastic sleeve		ND	ND	ND	ND	ND	PASS
3	Black plastic case		ND	ND	ND	ND	ND	PASS
4	Silvery metal screw with black plating		ND	ND	ND	ND	NA	PASS
5	Silvery metal screw		ND	ND	ND	ND	NA	PASS
6	Silvery metal nut with black plating		ND	ND	ND	ND	NA	PASS
7	Silvery metal screw with black plating		ND	ND	ND	ND	NA	PASS
8	Silvery metal spring		ND	ND	ND	ND	NA	PASS
9	Red plastic		ND	ND	ND	ND	ND	PASS
10	Silvery metal stick with black plating		ND	ND	ND	ND	NA	PASS
11	Black plastic sleeve		ND	ND	ND	ND	ND	PASS
12	Black plastic handle		ND	ND	ND	ND	ND*	PASS
13	Silvery metal washer		ND	ND	ND	ND	NA	PASS
14	Silvery metal		ND	ND	ND	ND	NA	PASS
15	Black plastic		ND	ND	ND	ND	ND	PASS
16	Black plastic buckle	Switch	ND	ND	ND	ND	ND	PASS
17	Silvery metal screw with black plating		<500	ND	ND	ND	NA	PASS
18	Red plastic button		ND	ND	ND	ND	ND	PASS
19	Black plastic case		ND	ND	ND	ND	ND	PASS
20	Silvery metal screw		<500	ND	ND	ND	NA	PASS
21	Silvery metal spring		ND	ND	ND	ND	NA	PASS
22	White plastic washer		ND	ND	ND	ND	ND	PASS
23	Silvery metal contact point		ND	EX [#]	ND	ND	NA	EX [#]
24	Coppery metal connector		ND	ND	ND	ND	NA	PASS
25	Silvery metal connector		ND	ND	ND	Negative*	NA	PASS
26	Golden metal connector		EX [#]	ND	ND	ND	NA	EX [#]
27	Coppery metal		ND	ND	ND	ND	NA	PASS
28	Black EC		ND	ND	ND	ND	ND*	PASS
29	Black coating		EX [#]	ND	ND	<500	ND	EX [#]
30	White PCB with green plating		ND	ND	ND	ND	ND	PASS
31	Coppery diode		EX [#]	ND	ND	ND	ND	EX [#]
32	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	-	-	-	-	-	-
33	Silvery metal pin	Capacitor	<500	ND	ND	ND	NA	PASS
34	Black plastic case		ND	80.4*	ND	ND	ND*	PASS
35	Black plastic filling		ND	ND	ND	ND	ND	PASS
36	Silvery metal filling		ND	ND	ND	ND	NA	PASS
37	Red plastic		ND	ND	ND	ND	ND	PASS
38	Black plastic case		ND	ND	ND	ND	ND	PASS
39	Silvery metal		<500	ND	ND	Negative*	NA	PASS
40	Silvery metal spring		ND	ND	ND	ND	NA	PASS
41	Black graphite		ND	ND	ND	ND	ND	PASS
42	Coppery metal		ND	ND	ND	ND	NA	PASS
43	Silvery metal spring leaf	Motor	ND	ND	ND	ND	NA	PASS
44	Black magnet		<500	ND	ND	ND	ND	PASS
45	Black plastic sleeve		ND	ND	ND	ND	ND	PASS
46	Coppery metal connector		1220*#	ND	ND	ND	NA	EX#
47	Blue plastic wire jacket		ND	ND	ND	ND	ND	PASS
48	Red plastic wire jacket		ND	ND	ND	ND	ND	PASS
49	Silvery metal wire		ND	ND	ND	ND	NA	PASS
50	Black plastic		ND	ND	ND	ND	ND	PASS
51	Coppery metal wire		<500	ND	ND	ND	NA	PASS
52	Beige plastic		ND	ND	ND	ND	ND	PASS
53	Silvery metal		ND	ND	ND	Negative*	NA	PASS
54	Silvery metal stick		ND	ND	ND	ND	NA	PASS
55	Silvery metal		EX#	ND	ND	ND	NA	EX#
56	Orange plastic washer		ND	ND	ND	ND	ND	PASS
57	Black plastic		ND	ND	ND	ND	ND	PASS
58	Silvery metal		<500	ND	ND	ND	NA	PASS
59	Beige plastic		ND	ND	ND	ND	ND	PASS
60	Coppery metal wire		ND	ND	ND	ND	NA	PASS
61	Coppery metal		ND	ND	ND	ND	NA	PASS
62	Black plastic washer		ND	ND	ND	ND	ND	PASS
63	Silvery metal axle	ND	ND	ND	ND	NA	PASS	
64	Silvery metal case	ND	ND	ND	Negative*	NA	PASS	
65	Silvery metal holder	ND	ND	ND	Negative*	NA	PASS	
66	Silvery metal cover	ND	ND	ND	ND	NA	PASS	
67	Silvery metal ball	ND	ND	ND	Negative*	NA	PASS	
68	Silvery metal	ND	ND	ND	ND	NA	PASS	
69	Black plastic	Power cord	ND	ND	ND	ND	ND	PASS
70	Black plastic sleeve		ND	ND	ND	ND	ND	PASS
71	Gray fabric wire		ND	ND	ND	ND	ND	PASS
72	Brown plastic wire jacket		ND	ND	ND	ND	ND	PASS
73	Blue plastic wire jacket		ND	ND	ND	ND	ND	PASS
74	Coppery metal wire		ND	ND	ND	ND	NA	PASS
75	Black plastic cable jacket		ND	ND	ND	ND	ND	PASS
76	Black plastic		ND	ND	ND	ND	ND	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	-	-	-	-	-	-
77	Black plastic pin holder	Power cord	ND	ND	ND	ND	ND*	PASS
78	Golden metal pin with silvery plating		EX [#]	ND	ND	ND	NA	EX [#]

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 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.
- For test item 26,46,78:
#According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 6(c) is reiterated here "Copper alloy containing up to 4 % lead by weight.". 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.
- For test item 23:
#According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 8(b) is reiterated here "Cadmium and its compounds in electrical contacts.". Test Item(s) was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found cadmium level should be exempted.
- For test item 29,31:
#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.
- For test item 55:
#According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 6(b) is reiterated here "Lead as an alloying element in aluminium containing up to 0.4 % lead by weight.". 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.
- The above results are transferred from (6614)058-1058 dated March 5, 2014.

END

APPENDIX

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

No.	Name of Analytes	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]	1000
2	Cadmium (Cd)	50	50	50	10 ^[b]	100
3	Mercury (Hg)	100	200	200	10 ^[c]	1000
4	Chromium (Cr)	100	200	200	NA	NA
5	Chromium VI (Cr VI)	NA	NA	NA	10 ^[d] / See ^[e, h]	1000 / Negative ^[h]
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 1000
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 1000

NA = Not applicable

[a] Test method with reference to EN 62321: 2009, Clause 6.

[b] Test method with reference to EN 62321: 2009, Clauses 8, 9 and 10.

[c] Test method with reference to EN 62321: 2009, Clause 7.

[d] Test method with reference to EN 62321: 2009, Annex C.

[e] Test method with reference to EN 62321: 2009, Annex B^[g].

[f] Test method with reference to EN 62321: 2009, Annex A.

[g] The principle of this method was evaluated and supported by two studies organized by IEC TC 111 WG3. These studies were focused on detecting the presence of Cr VI in the corrosion protection coatings on metallic samples.

[h] 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 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 Council Directive 2011/65/EU, Article 4(1).

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

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

1	"RoHS Enforcement Guidance Document Version 1" by EU RoHS Enforcement Authorities Informal Network. (May 2006)
2	"RoHS Regulations - Government Guidance Notes" by United Kingdom Department for Business Innovation & Skills. (February 2011)
3	"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 model Z1C-ZT3-26

Description	
BHD1901/Z1C-ZT-23/BHD2304/BHD2305/Z1C-ZT3-26/Z1C-ZT4-26/Z1C-ZT4-26QCC/ Z1C-ZT5-26/BHD2608/BHD2609/Z1C-ZT8-30/Z1C-ZT10-30/Z1C-ZT10-30QCC/BHD3206/BHD3015/BHD3016	

No.	Style No	No.	Style No	No.	Style No	No.	Style No
1	P-18/450ER	24	RH50/1200VE	46	Z1C-ZT-24	68	Z1C-ZT4-30
2	RHF18/450ER	25	Z1C-ZT4-18	47	Z1C-ZT-24DVC	69	Z1C-ZT6-30
3	BHD1901	26	Z1C-ZT6-18	48	Z1C-ZT7-24	70	Z1C-ZT8-30
4	PBH 440 A1	27	Z1C-ZT-2/20SE	49	Z1C-ZT8-24	71	Z1C-ZT10-30
5	P-22/620ER	28	Z1C-ZT-2/20SRE	50	Z1G-ZT5-65	72	Z1C-ZT9-30
6	PHF22/620ERT	29	Z1C-ZT6-20	51	Z1C-ZT4-26	73	BHD3206
7	P-24/700ER	30	Z1C-ZT-20	52	Z1C-ZT5-26	74	BHD3015
8	RHF24/700ERT	31	Z1C-ZT-22	53	BHD2608	75	BHD3016
9	P-26/800ER	32	Z1C-ZT-23	54	BHD2609	76	BHD3017
10	RHF26/800ERT	33	P-22/550ER	55	8020 H	77	BGRH-800-III
11	P-30/900ER	34	RHF22/550ERT	56	018107	78	Z1C-ZT-22SE
12	RHF30/900ERT	35	BHD2304	57	CT18107	79	Z1C-ZT-22SRE
13	D13/700GE	36	BHD2305	58	Z1C-ZT-28	80	Z1C-ZT-32
14	D16/850GE	37	Z1C-ZT-2/24SE	59	Z1C-ZT2-28	81	Z1C-ZT-30
15	DI16/850GE2	38	Z1C-ZT-2/24SRE	60	Z1C-ZT3-28	82	Z1C-ZT2-30
16	RH45/1100VE	39	Z1C-ZT8-20	61	Z1C-ZT4-28	83	Z1C-ZT4-32
17	Z1C-ZT5-32	40	PBH 440 A1	62	Z1C-ZT3-40	84	BHD3803
18	Z1C-ZT-55	41	Z1C-ZT-40	63	Z1C-ZT-38	85	Z1C-ZT-52
19	PBH 1050 A1	42	Z1C-ZT2-40	64	Z1C-ZT2-38	86	Z1C-ZT2-52
20	Z1G-ZT-1500	43	Z1G-ZT-1800	65	Z1G-ZT-900	87	Z1G-ZT-1700
21	Z1G-ZT-1750	44	Z1G-ZT-65	66	Z1G-ZT2-65	88	Z1C-ZT3-26QCC
22	Z1C-ZT4-26QCC	45	Z1C-ZT10-30QCC	67	Z1C-ZT-24SE	89	Z1C-ZT-24SRE
23	Z1C-ZT4-30QCC						

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.