



# TEST REPORT

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DATE : Apr 27, 2017  
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**APPLICANT** : **FLASHBAY ELECTRONICS**  
BLDG B&C XI FENG CHENG IND ZONE, NO.2 FUYUAN ROAD  
HE PING, VILLAGE, FUYONG TOWN, SHENZHEN

**CONTACT PERSON** : LEVIN

**DATE OF SUBMISSION** : Apr 17, 2017

**TEST PERIOD** : Apr 17, 2017 to Apr 27, 2017

**NO. OF WORKING DAYS** : 9

**SAMPLE DESCRIPTION** : Power bank

Color: /

Style no. / Model no.: Tour(TR)

P.O. No.: /

Country of Origin: /

Country of Destination: /

**MANUFACTURER** : **FLASHBAY ELECTRONICS**  
BLDG B&C XI FENG CHENG IND ZONE, NO.2 FUYUAN ROAD  
HE PING, VILLAGE, FUYONG TOWN, SHENZHEN

## SUMMARY OF TEST RESULTS

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

LA

**Bureau Veritas Consumer Products Services (Guangzhou) Co., Ltd**  
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BUREAU VERITAS CONSUMER PRODUCTS SERVICES (GUANGZHOU) CO., LTD

NINA REN  
SENIOR MANAGER



**REMARK**

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

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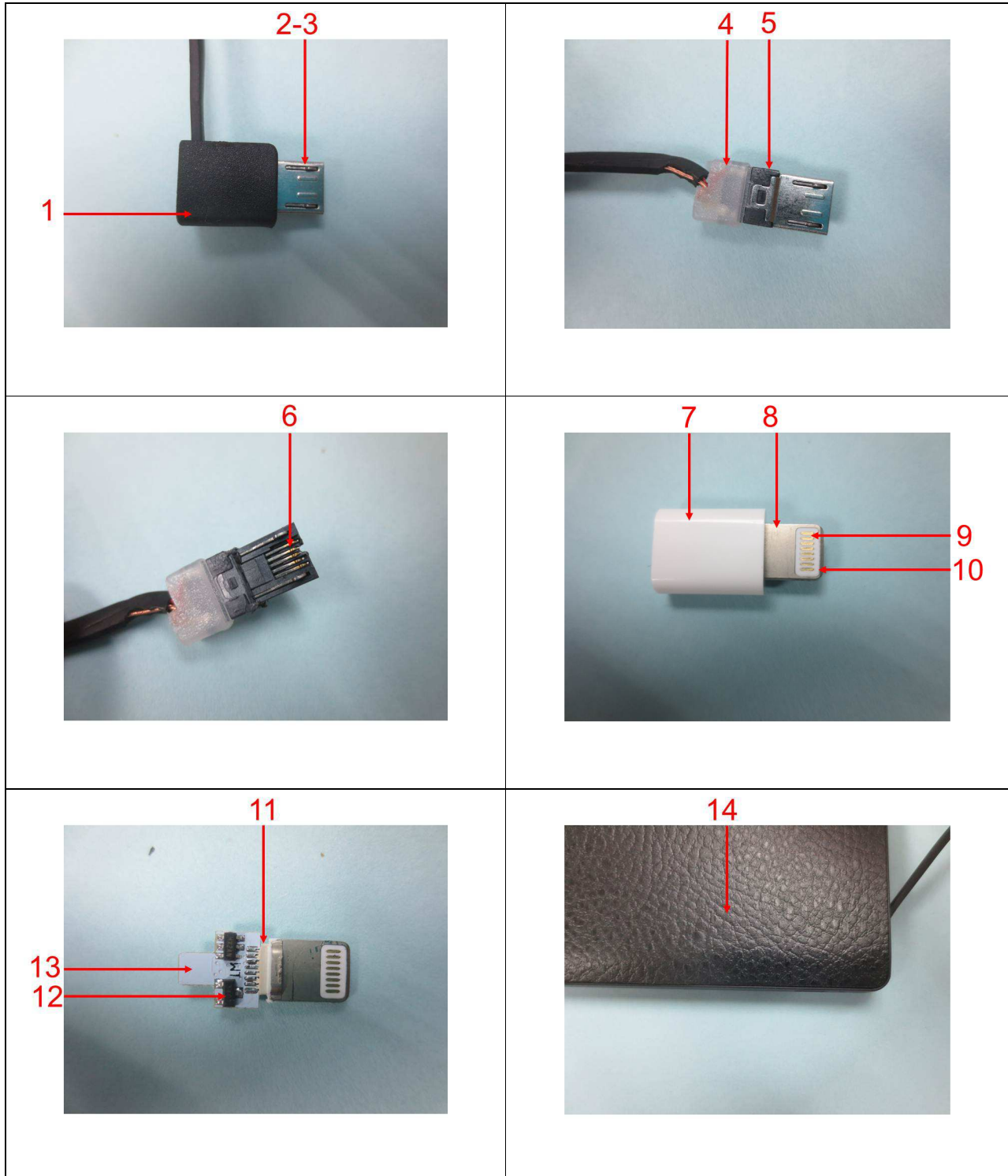


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Photo of the Submitted Sample



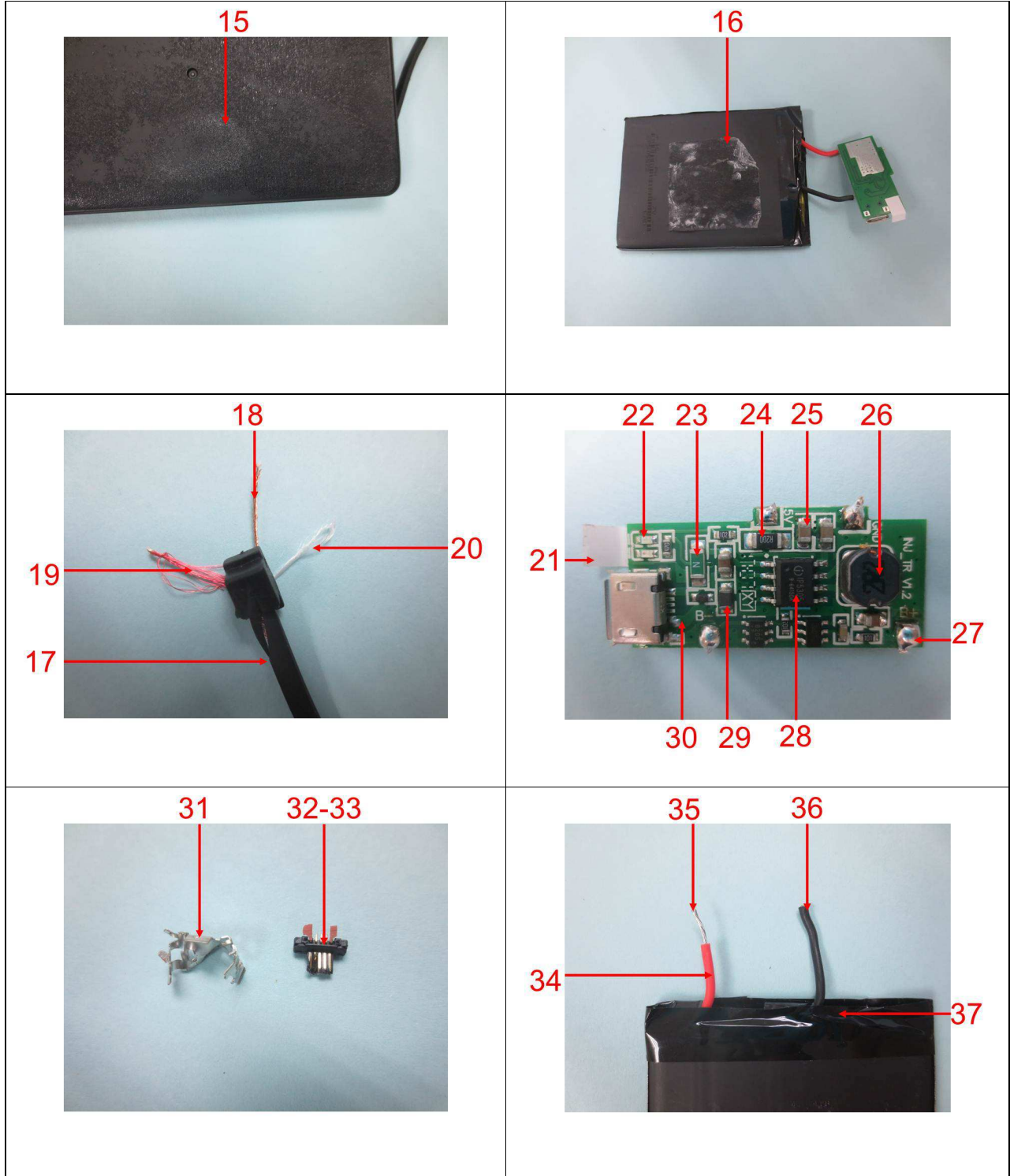
**Photograph of test item(s)**





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### 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)**

**Test Method** : See Appendix.

Test Item(s)	Item / Component Description(s) + Location(s)	Style(s)
1	Black soft plastic (sleeve, plug)	-
2	Silvery metal (case, plug)	-
3	Silvery metal (hook, plug)	-
4	Translucent soft plastic (inner, plug)	-
5	Black plastic (insulator, plug)	-
6	Golden/ silvery metal (pin, plug)	-
7	White plastic (case, plug of apple)	-
8	Silvery metal (case, plug of apple)	-
9	Golden metal (pin, plug of apple)	-
10	White plastic (insulator, plug of apple)	-
11	Beige plastic (insulator, plug of apple)	-
12	Black body (SMD transistor, PCB, plug of apple)	-
13	Light blue PCB (plug of apple)	-
14	Black soft plastic (sleeve)	-
15	Black plastic (case)	-
16	Transparent glue (inner)	-
17	Black soft plastic (wire jacket)	-
18	Coppery metal (wire)	-
19	Red metal (wire)	-
20	White fabric (wire)	-
21	White plastic (tape, PCB)	-
22	Transparent body (LED, PCB)	-
23	Green/ white body (SMD resistor, PCB)	-
24	Black/ white body (SMD resistor, PCB)	-
25	Brown body (SMD capacitor, PCB)	-
26	Black body (inductor, PCB)	-
27	Silvery solder (PCB)	-
28	Black body (EC, PCB)	-
29	Black metal (EC, PCB)	-
30	Green PCB (power bank)	-
31	Silvery metal (interface, PCB)	-
32	Silvery/ golden metal (pin, interface, PCB)	-
33	Black plastic (insulator, interface, PCB)	-
34	Red soft plastic (wire jacket)	-
35	Silvery plated coppery metal (wire)	-
36	Black soft plastic (wire jacket)	-
37	Black plastic (tape)	-



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See Analytes and their corresponding Maximum Allowable Limit in Appendix

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	mg/kg	-
Test Item(s)	-	-	-	-	-	-	-
1	ND	ND	ND	ND	ND	ND	PASS
2	ND	ND	ND	Negative*	NA	NA	PASS
3	ND	ND	ND	Negative*	NA	NA	PASS
4	ND	ND	ND	ND	ND	ND	PASS
5	ND	ND	ND	ND	ND*	ND*	PASS
6	ND	ND	ND	ND	NA	NA	PASS
7	ND	ND	ND	ND	ND	ND	PASS
8	ND	ND	ND	ND	NA	NA	PASS
9	ND	ND	ND	ND	NA	NA	PASS
10	ND	ND	ND	ND	ND	ND	PASS
11	ND	ND	ND	ND	ND	ND	PASS
12	1920 <sup>#</sup>	ND	ND	ND	ND*	ND*	EXEMPTED <sup>#</sup>
13	ND	ND	ND	ND	ND	ND	PASS
14	ND	ND	ND	ND	ND	ND	PASS
15	ND	ND	ND	ND	ND	ND	PASS
16	ND	ND	ND	ND	ND	ND	PASS
17	ND	ND	ND	ND	ND	ND	PASS
18	ND	ND	ND	ND	NA	NA	PASS
19	ND	ND	ND	ND	NA	NA	PASS
20	ND	ND	ND	ND	ND	ND	PASS
21	ND	ND	ND	ND	ND	ND	PASS
22	ND	ND	ND	ND	ND	ND	PASS
23	ND	ND	ND	ND	ND	ND	PASS
24	ND	ND	ND	ND	ND	ND	PASS
25	ND	ND	ND	ND	ND	ND	PASS
26	ND	ND	ND	ND	NA	NA	PASS
27	ND	ND	ND	ND	NA	NA	PASS
28	ND	ND	ND	ND	ND	ND	PASS
29	ND	ND	ND	ND	NA	NA	PASS
30	ND	ND	ND	ND	ND*	ND*	PASS
31	ND	ND	ND	ND	NA	NA	PASS
32	ND	ND	ND	ND	NA	NA	PASS
33	ND	ND	ND	ND	ND	ND	PASS
34	ND	ND	ND	ND	ND	ND	PASS
35	ND	ND	ND	ND	NA	NA	PASS
36	ND	ND	ND	ND	ND	ND	PASS
37	ND	ND	ND	ND	ND	ND	PASS



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Note / Key :

ND = Not detected  
NR = Not requested  
% = percent  
Detection Limit : See Appendix.

“>” = Greater than  
mg/kg = milligram(s) per kilogram = ppm = part(s) per million  
10 000 mg/kg = 1 %

NA = Not applicable

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.
- #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) 12 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**

<b>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 ] :</b>						
<b>No.</b>	<b>Name of Analytes</b>	<b>Detection Limit (mg/kg)</b>				<b>Maximum Allowable Limit (mg/kg)</b>
		<b>X-ray fluorescence (XRF)<sup>[a]</sup></b>			<b>Wet Chemistry</b>	
		<b>Plastic</b>	<b>Metallic / glass / ceramic</b>	<b>Others</b>		
1	Lead (Pb)	100	200	200	10 <sup>[b]</sup>	1 000
2	Cadmium (Cd)	50	50	50	10 <sup>[b]</sup>	100
3	Mercury (Hg)	100	200	200	10 <sup>[c]</sup>	1 000
4	Chromium (Cr)	100	200	200	NA	NA
5	Chromium VI (Cr VI)	NA	NA	NA	3 <sup>[g, h]</sup> / 10 <sup>[d]</sup> / See <sup>[e, i]</sup>	1 000 / Negative <sup>[j]</sup>
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 <sup>[f]</sup>	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 <sup>[f]</sup>	Sum 1 000
<p>NA = Not applicable</p> <p><sup>[a]</sup> Test method with reference to International Standard IEC 62321-3-1: 2013.</p> <p><sup>[b]</sup> Test method with reference to International Standard IEC 62321-5: 2013.</p> <p><sup>[c]</sup> Test method with reference to International Standard IEC 62321-4: 2013.</p> <p><sup>[d]</sup> Polymers and Electronics - Test method with reference to European Standard EN 62321: 2009, Annex C.</p> <p><sup>[e]</sup> Metal - Test method with reference to International Standard IEC 62321-7-1: 2015 [i].</p> <p><sup>[f]</sup> Test method with reference to International Standard IEC 62321-6: 2015.</p> <p><sup>[g]</sup> Leather - Test method International Standard ISO 17075: 2007.</p> <p><sup>[h]</sup> Other Than Metal, Leather, Polymers and Electronics - Test method with reference to International Standard ISO 17075: 2007.</p> <p><sup>[i]</sup> 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. 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</p> <p><sup>[j]</sup></p>						



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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)