CONSUMER PRODUCTS SERVICES DIVISION

FLASHBAY ELECTRONICS

Technical Report: **(8518)141-0684** June 06, 2018
Date Received: May 21, 2018

LEVIN
FLASHBAY ELECTRONICS
BLGD B& C XI FENG CHENG IND ZONE ,
NO.2 FUYUAN ROAD HE PING , VILLAGE ,
FUYONG TOWN , SHENZHEN

Sample Description:	BLUETOOTH EARPHONES 1.) A 2.) B 3.) C		
Vendor:	N/A	Sample Size:	9
Manufacturer:	N/A	Style No(s):	VIBE BLUETOOTH/PEAK BLUETOOTH/GRAIN BLUETOOTH
Buyer:	N/A	SKN/SKU No.:	N/A
Labeled Age Grade:	N/A	PO No.:	N/A
Appropriate Age Grade:	N/A	Ref #:	N/A
Client Specified Age Grade:	N/A	Country of Origin:	N/A
Tested Age Grade:	ADULT	Assortment No.:	N/A
UPC Code:	N/A		

EXECUTIVE SUMMARY:

The sample(s) MEET the following requirement(s):

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

- Phthalates Test – Directive 2015/863/EU Amendment of European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) (Note: The amendment will be effective on 22 July 2019. For medical devices and control instruments, effective date will be 22 July 2021.)

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AC/hz

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RESULTS:

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.	White plastic	Earphone	A-C
2.	Silvery metal	Earplug	A-C
3.	Clear blue soft plastic	Earplug	A
4.	Silvery metal	Earplug	A
5.	Silvery metal	Inner earplug	A-C
6.	White soft plastic	Sleeve, wire	A
7.	White fabric	Inner wire	AC
8.	Red plastic	Earphone	A-C
9.	Black printed brown wood / glue	Earplug	B
10.	Red soft plastic	Sleeve, wire	B-C
11.	Translucent soft plastic	Earplug	C
12.	Multicolor printed light white plastic	Earplug	C
13.	Red soft plastic	Wire jacket	A-C
14.	Black soft plastic	Wire jacket	A-C
15.	Pink / silver plated coppery metal	Wire	A-C
16.	Black soft plastic	Sleeve, case, MIC	A-C
17.	Silvery metal	Case, MIC	A-C
18.	Black foam / glue	MIC	A-C
19.	Silvery metal	Ring, MIC	A-C
20.	Green soft plastic	Ring, MIC	A-C
21.	Grey soft plastic	Film, MIC	A-C
22.	Silver plated golden metal	Plate, MIC	A-C
23.	Translucent plastic	MIC	A-C
24.	Green coated brown plastic / coppery metal	MIC PCB	A-C
25.	Silvery solder	MIC PCB	A-C
26.	Black body	Transistor, MIC PCB	A-C
27.	Black foam / glue	Inner speaker	A-C
28.	White paper / glue	Washer, speaker	A-C
29.	Silvery metal / glue	Case, speaker	A-C
30.	Transparent plastic	Diaphragm, speaker	A-C
31.	Pink plated coppery metal	Coil, speaker	A-C
32.	Golden metal	Washer, speaker	A-C
33.	Silvery magnet	Speaker	A-C
34.	Silvery metal	Ring, speaker	A-C
35.	Silvery metal	Bolt, speaker	A-C
36.	Green coated translucent plastic / coppery metal	PCB, speaker	A-C

RESULTS:

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)
37.	Silvery solder	PCB, speaker	A-C
38.	Black body	SMD IC, PCB	A-C
39.	Black / white body	SMD resistor, PCB	A-C
40.	Brown body	SMD capacitor, PCB	A-C
41.	White printed green coated translucent plastic / coppery metal	PCB	A-C
42.	Silvery solder	PCB	A-C
43.	White printed black soft plastic / glue	Sleeve, main PCB	A-C
44.	Silver plated golden metal	Case, USB, main PCB	A-C
45.	Grey plastic	Base, USB, main PCB	A-C
46.	Golden metal	Pin, USB, main PCB	A-C
47.	Black body	SMD IC, main PCB	A-C
48.	Black / white body	SMD resistor, main PCB	A-C
49.	Brown body	SMD capacitor, main PCB	A-C
50.	Silvery body	Crystal, main PCB	A-C
51.	White body	LED, main PCB	A-C
52.	Black plastic	Base, button switch, main PCB	A-C
53.	Silver plated golden metal	Connector, button switch, main PCB	A-C
54.	White printed green coated translucent plastic / coppery metal	Main PCB	A-C
55.	Silvery solder	Main PCB	A-C

RESULTS:

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)

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	mg/kg	-
Test Item(s)	-	-	-	-	-	-	-
1.	ND	ND	ND	ND	ND	ND	PASS
2.	ND	ND	ND	ND	NA	NA	PASS
3.	ND	ND	ND	ND	ND	ND	PASS
4.	ND	ND	ND	ND	NA	NA	PASS
5.	ND	ND	ND	ND	NA	NA	PASS
6.	ND	ND	ND	ND	ND	ND	PASS
7.	ND	ND	ND	ND	ND	ND	PASS
8.	ND	ND	ND	ND	ND	ND	PASS
9.	ND	ND	ND	ND	ND	ND	PASS
10.	ND	ND	ND	ND	ND	ND	PASS
11.	ND	ND	ND	ND	ND	ND	PASS
12.	ND	ND	ND	ND	ND	ND	PASS
13.	ND	ND	ND	ND	ND	ND	PASS
14.	ND	ND	ND	ND	ND	ND	PASS
15.	ND	ND	ND	ND	NA	NA	PASS
16.	ND	ND	ND	ND	ND	ND	PASS
17.	ND	ND	ND	ND	NA	NA	PASS
18.	ND	ND	ND	ND	ND	ND	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	NA	NA	PASS
23.	ND	ND	ND	ND	ND	ND	PASS
24.	ND	ND	ND	ND	ND[#]	ND[#]	PASS
25.	ND	ND	ND	ND	NA	NA	PASS
26.	ND	ND	ND	ND	ND	ND	PASS
27.	ND	ND	ND	ND	ND	ND	PASS
28.	ND	ND	ND	ND	ND	ND	PASS
29.	ND	ND	ND	Negative[#]	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	NA	NA	PASS
34.	ND	ND	ND	Negative[#]	NA	NA	PASS
35.	ND	ND	ND	Negative[#]	NA	NA	PASS

RESULTS:

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)

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	mg/kg	-
Test Item(s)	-	-	-	-	-	-	-
36.	ND	ND	ND	ND	ND#	ND#	PASS
37.	ND	ND	ND	ND	NA	NA	PASS
38.	ND	ND	ND	ND	ND	ND	PASS
39.	ND	ND	ND	ND	ND	ND	PASS
40.	ND	ND	ND	ND	ND	ND	PASS
41.	ND	ND	ND	ND	ND	ND	PASS
42.	ND	ND	ND	ND	NA	NA	PASS
43.	ND	ND	ND	ND	ND	ND	PASS
44.	ND	ND	ND	ND	NA	NA	PASS
45.	ND	ND	ND	ND	ND	ND	PASS
46.	ND	ND	ND	ND	NA	NA	PASS
47.	ND	ND	ND	ND	ND	ND	PASS
48.	ND	ND	ND	ND	ND	ND	PASS
49.	ND	ND	ND	ND	ND	ND	PASS
50.	ND	ND	ND	ND	ND	ND	PASS
51.	ND	ND	ND	ND	ND	ND	PASS
52.	ND	ND	ND	ND	ND	ND	PASS
53.	ND	ND	ND	ND	NA	NA	PASS
54.	ND	ND	ND	ND	ND	ND	PASS
55.	ND	ND	ND	ND	NA	NA	PASS

Note / Key :

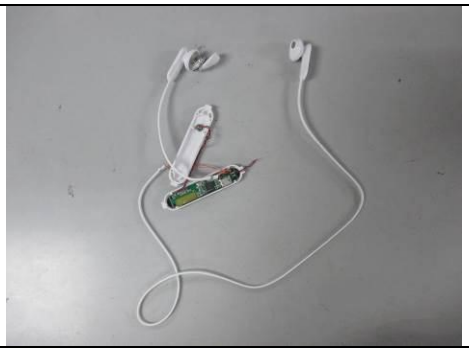
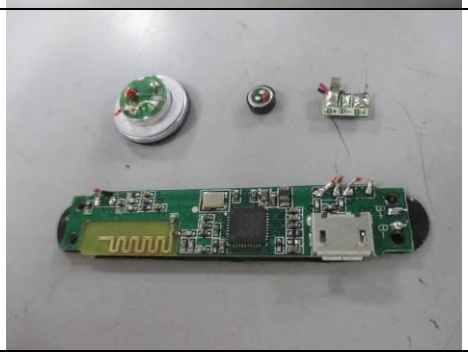
ND = Not detected
NR = Not requested
% = percent
Detection Limit : See Appendix.
">" = Greater than
mg/kg = milligram(s) per kilogram = ppm = part(s) per million
10 000 mg/kg = 1 %

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.

RESULTS:

Comment :

Photograph(s) [Compliance Test for European Parliament and Council Directive 2011/65/EU] :	
Photograph of Test Item(s)	
	
	/

END

RESULTS:

Phthalates Test – Directive 2015/863/EU Amendment of 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 : With reference to draft International Standard IEC 62321-8.

Maximum Allowable Limit:	**DEHP, BBP, DBP & DIBP: 0.1% (Each)**

Tested Item(s)	**Result**			**Conclusion**
	Detected Analyte(s)	**Conc.**	**Unit**	
1+3+6	Dibutyl phthalate (DBP)	0.24	%	PASS
8+10+11	Dibutyl phthalate (DBP)	0.31	%	PASS
12+13+14	ND	ND	%	PASS
16+18+20	ND	ND	%	PASS
21+23+24	ND	ND	%	PASS
27+30+36	ND	ND	%	PASS
41+43+45	ND	ND	%	PASS
52+54	ND	ND	%	PASS

Note / Key :

ND = Not detected
NR = Not requested
% = percent
Detection Limit (%) : 0.005
">" = Greater than
mg/kg = milligram(s) per kilogram = ppm = part(s) per million
10 000 mg/kg = 1 %

Remark : The list of phthalates is summarized in table of Appendix.

END

RESULTS:

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 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]	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[g, h] / 10[d] / See [e, j]	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

RESULTS:

	NA = Not applicable
[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 European Standard EN 62321-7-2: 2017.
[e]	Metal - Test method with reference to International Standard IEC 62321-7-1: 2015 [i].
[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.
[i]	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.
[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)

List of Phthalates:

No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	3	Dibutyl phthalate (DBP)	84-74-2
2	Butyl benzyl phthalate (BBP)	85-68-7	4	Diisobutyl phthalate (DIBP)	84-69-5

RESULTS: