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TEST REPORT

Applicant: Flashbay Electronics

Address: Building2 ,Jixun Industrial Park ,Xinjiao ,Dong'ao Village ,Shatian

Town ,Huiyang District ,Huizhou City , Guangdong Province,P.R.China

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample name: USB Flash Drives

Model: Orbit/OR

Manufacturer & Factory: Flashbay Electronics

Address: Building2 ,Jixun Industrial Park ,Xinjiao ,Dong'ao Village ,Shatian

Town ,Huiyang District ,Huizhou City , Guangdong Province,P.R.China

Sample No.: S241022030018

Sample Received Date: 2024-10-24

Testing Period: 2024-10-24~ 2024-11-12

Test Requirement: Conclusion

As specified by client, to determine the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs), Bis-(2-ethylhexyl) Phthalate (DEHP), Benzyl butyl Phthalate (BBP), Dibutyl Phthalate (DBP) and Diisobutyl Phthalate(DIBP)contents in the submitted sample(s) in accordance with RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Pass

Test Result(s): Please refer to the following page(s);

Test Method: Please refer to the following page(s);

Compiled by: Zane. Ware Reviewed by:

Approved by: Date: 2024-11-12



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Sample Description:

No.	Sample name	Description	
1		White plastic shell	
2		Silver metal ring of shell	
3		Silver metal clasp of shell	Ľ
4		Silver metal shell of USB interface	110
5		White plastic skeleton of USB interface	7
6	LICD Floob Drives	Black PCB of USB interface	
7	USB Flash Drives	Green PCB of mainboard PCB	
8	THE .	Yellow FPC of mainboard PCB	
9		Silver metal shell of type-c interface	
10		Gray plastic of type-c interface	
11		Silver metal insert of type-c interface	
12		Silver metal pin of type-c interface	4

Test Result(s):

Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers(PBDEs)

			VDE O	Ol and all Tool		
Part No.	Test Items		XRF Screening	Chemical Test	Conclusion	
			Result(mg/kg)	Result(mg/kg)	0 0 110 10 10 11	
	Pb		BL	/		
	Cd		BL	_© /	.et	
1		Hg	BL	Kill I	Pass	
I	Cr	Cr(VI)	BL	1	Pass	
	PBBs	DI 4	1			
	Br	PBDEs	BL	/		
		Pb	BL	/		
	Cd Hg		BL	/		
2			BL	/	Pass	
2	Cr Cr('	Cr(VI)	BL	/	Pass	
		PBBs	- /	, ,	<u> </u>	N. C.
		PBDEs		Likite 1	7	
		Pb 👗	OL	19537 ^{#1}		
	Cd Cyin		IN	20		
2	3	Hg	BL	/	Pass	
3		BL	/	Pass		
		,	/			
		PBDEs	/	/	, de	



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.орол	02 0220				. ago o o o
		Pb	BL	1	
		Cd	BL	/	
4		Hg	BL	/	Door
4	Cr	Cr(VI)	BL	/	Pass
	Ď.	PBBs		/	- 3
	Br	PBDEs		® /	
		Pb	BL	L. Wille	
		Cd 👗	BL	1	
_		Hg LY	BL	1	_
5	Cr	Cr(VI)	BL	/	Pass
		PBBs		/	-
	Br	PBDEs	BL	/	=
		Pb	BL	/	
		Cd	BL	/	1
		Hg	BL		Tier
6	Cr	Cr(VI)	BL	A-75.1	Pass
		PBBs		N.D.	_
	Br	PBDEs	IN	N.D.	_
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	_
7	Cr	Cr(VI)		/	Pass
	Ci	PBBs	BL IN -	, N.D.	- A
	Br	PBDEs		N.D.	Ziil.
		Pb §	BL	/ N.D.	
			BL	1	
		Cd Mile			_
8	0-	Hg	BL	/	Pass
	Cr	Cr(VI)	BL	/	_
	Br	PBBs	BL	/	-
		PBDEs		/	
		Pb	BL	/	- Cot
		Cd	BL		- Lill
9		Hg	BL	N.D.	Pass
	PBBs PBBs	IN	N.D.	_	
		/	/	_	
		PBDEs		/	
		Pb	BL	/	_
		Cd	BL	/	
10		Hg	BL	/	Pass
10	Cr	Cr(VI)	BL	_® /	1 455
	Br PBBs PBDEs	BL	Kill 1	47	
		PBDEs	DL	at 1	



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			Pb	BL	/	
			Cd	BL	/	
	4.4	1	Hg	BL	/	Door
	11		IN	N.D.	Pass	
			PBBs	- /	/	: باد
			PBDEs		<u> </u>	N. C.
			Pb	BL	1 Hills	
			Cd	BL	1	
	10	12	Hg Light	BL	1	Pass
	14		BL	/	FdSS	
			1	/		
			/	/		

Bis-(2-ethylhexyl) Phthalate (DEHP), Benzyl butyl Phthalate (BBP), Dibutyl Phthalate (DBP) and Diisobutyl Phthalate(DIBP)

Test Items	Result(mg/kg)			
restitems	1+5+10	6	7	8
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass	Pass



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Note: 1.N.D. = Not Detected (<MDL)

MDL = Method Detection Limit 1mg/kg = 1ppm =0.0001%

/=Not Regulated or Not Applicable

2. BL = Below the XRF screening limit

IN = Further chemical test will be conducted when the screening result inconclusive

OL = Further chemical test will be conducted while the result is above the screening limit.

3. For metal samples, the sample is negative for Cr(VI), if the Cr(VI) concentration is less than

0.10 µg/cm², the coating is considered a non- Cr(VI) based coating;

The sample is positive for Cr(VI), if the Cr(VI) concentration is greater than 0.13 μ g/cm², The sample coating is considered to contain Cr(VI);

The result is considered to be inconclusive, the Cr(VI) concentration is between the

 $0.10~\mu g/cm^2$ and $0.13~\mu g/cm^2$, unavoidable coating variations may influence the determination.

Because the storage condition and production date of the sample are not known, the test results of the sample of hexavalent chromium can only represent the state of hexavalent

chromium in the samples tested.

Remark: 1. When conducting the test for PBBs&PBDEs, XRF was introduced to screen Br
Exclusively; When conducting the test for Hexavalent Chromium, XRF was introduced to

screen Chromium exclusively.

 $2. \ According \ to \ the \ client's \ statement \ , \ the \ material \ of \ the \ sample(s) \ comply \ with \ RoHS$

directive 2011/65/EU Annex III Exemption, Corresponding exemption clause:

#1 6(c) Lead is exempted as copper alloy containing up to 4% lead by weight.

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Test Method:

1. With reference to IEC 62321-1: 2013 Ed.1.0, IEC 62321-2:2021 Ed.2.0, IEC 62321-3-1:2013 Ed.1.0. XRF screening limits in mg/kg for regulated elements in various matrices.

Element	Limit of IEC 62321-3-1:2013 Ed.1.0 (mg/kg)				
Element	Polymers	Metals	Composite material		
DI	BL≤(700-3σ) <x< td=""><td>BL≤(700-3σ) <x td="" 👗<=""><td>BL≤(500-3σ)<x< td=""></x<></td></x></td></x<>	BL≤(700-3σ) <x td="" 👗<=""><td>BL≤(500-3σ)<x< td=""></x<></td></x>	BL≤(500-3σ) <x< td=""></x<>		
Pb	<(1300+3σ)≤OL	<(1300+3σ)≤OL	<(1500+3σ)≤OL		
0-1	BL≤(70-3σ) <x <<="" td=""><td>BL≤(70-3σ)<x <<="" td=""><td>LOD <x<(150+3σ)< td=""></x<(150+3σ)<></td></x></td></x>	BL≤(70-3σ) <x <<="" td=""><td>LOD <x<(150+3σ)< td=""></x<(150+3σ)<></td></x>	LOD <x<(150+3σ)< td=""></x<(150+3σ)<>		
Cd	(130+3σ) ≤OL	(130+3σ) ≤OL	≤OL		
11-	BL≤(700-3σ) <x< td=""><td>BL≤(700-3σ)<x< td=""><td>BL≤(500-3σ)<x< td=""></x<></td></x<></td></x<>	BL≤(700-3σ) <x< td=""><td>BL≤(500-3σ)<x< td=""></x<></td></x<>	BL≤(500-3σ) <x< td=""></x<>		
Hg	<(1300+3σ)≤OL	<(1300+3σ)≤OL	<(1500+3σ)≤OL		
Cr	BL≤(700-3σ)< X	BL≤(700-3σ)< X	BL≤(500-3σ)< X		
Br	BL≤(300-3σ)< X	/	BL≤(250-3σ)< X		

Note: BL= Below the XRF screening limit

OL=Over the XRF screening limit

X=The symbol"X"marks the region where further investigation is necessary.

 3σ =The reproducibility of analytical instruments

LOD= Detection limit

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2. Chemical Test

	Test item	Test method	Test instrument	MDL	Limit△
Lead (Pb)		IEC 62321-5:2013 Ed.1.0	ICP-OES	2 mg/kg	1000 mg/kg
Cadmium (Cd)		IEC 62321-5:2013 Ed.1.0	ICP-OES	2 mg/kg	100 mg/kg
N	Лercury (Hg)	IEC 62321-4:2013+AMD1:2017	ICP-OES	2 mg/kg	1000 mg/kg
	Hexavalent	IEC 62321-7-1:2015 Ed.1.0	UV-Vis	0.10 µg/cm ²	1000 mg/kg
Chi	romium(Cr(VI))	IEC 62321-7-2:2017 Ed.1.0		8 mg/kg	
	olybrominated ohenyls(PBBs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg
	olybrominated, Diphenyl hers(PBDEs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg
	-(2-ethylhexyl) halate (DEHP)	IEC 62321-8:2017 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
	Benzyl butyl othalate (BBP)	IEC 62321-8:2017 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
Dib	outyl Phthalate (DBP)	IEC 62321-8:2017 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
Ph	Diisobutyl thalate (DIBP)	IEC 62321-8:2017 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
ΛTh	AThe limit is quoted from PoUS Directive (ELI) 2015/963 amending Appey II to Directive 2011/95/EN				

△The limit is quoted from RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

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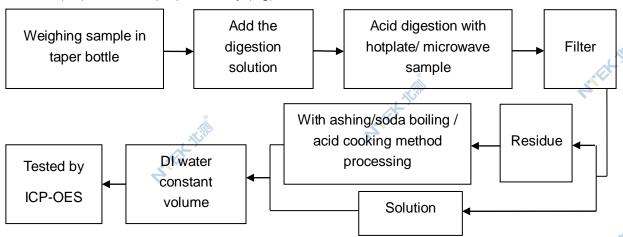
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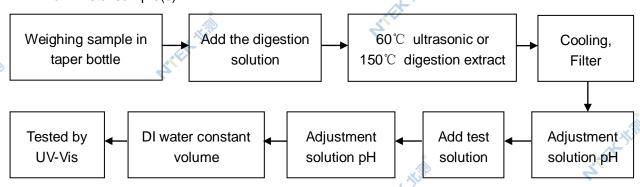
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Test Flow:

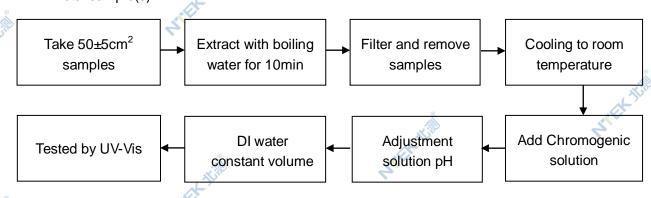
1. Lead(Pb), Cadmium(Cd), Mercury (Hg)



- 2. Hexavalent Chromium(Cr(VI))
- 2.1 Non- metal sample(s)



2.2 Metal sample(s)

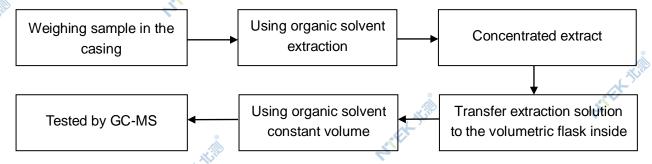




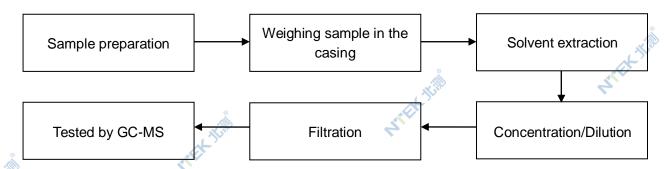
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3. PBBs/ PBDEs



4. Phthalates





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Sample photo(s):



Fig.1 (Finished photo)

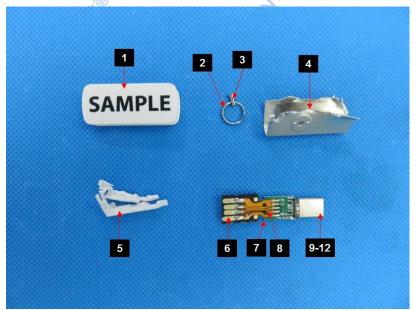


Fig.2

****End of Report***

The test results or data in this report will be used only for education, scientific research, enterprise product development and internal quality control or other purposes.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of NTEK, this report can't be reproduced except in full.

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