



TEST REPORT

Test Report # R-cn5-1603915-2-E Date of Report Issue: 11/04/2016
Date of Sample Received: 10/10/2016 Page 1 of 7

CLIENT INFORMATION:

Company:

Address:

Recipient Email:



SAMPLE INFORMATION:

Product Name: COB working light with magnet with hook
Item number supplier: - Purchase Order Number: -
SKU/Model/style No.: P513.024 Country of Origin: -
Country of Distribution: - Labeled Age Grade: -
Buyer/Factory: - Recommended Age Grade: -
Supplier/Vendor: - Tested Age Grade: -
Testing Period: 10/10/2016-11/03/2016

OVERALL RESULT:

PASS

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	RoHS – XRF Scanning (Pb, Hg, Cd, Cr, Br) + chemical method

Approved by:

Kevin Lee



Technical Manager:

Kevin Lee

Issued Date:

Nov.04, 2016
No. 16013915



TEST REPORT

Test Report #

R-cn5-1603915-2-E

Date of Report Issue:

11/04/2016

Date of Sample Received:

10/10/2016

Page 2 of 7

DETAILED RESULTS

RoHS - XRF Scanning (Pb, Hg, Cd, Cr, Br) + chemical method

Test method: (1) With reference to IEC 62321-3-1:2013, determination of Cadmium, Lead, Mercury, Chromium and Br by XRF;
(2) With reference of IEC 62321-4:2013, IEC 62321-5:2013 to determine Cadmium, Lead and Mercury by ICP-OES;
(3) With reference of IEC 62321:2008, IEC 62321-7-1:2015 to determine Hexavalent Chromium by UV-Vis
(4) With reference of IEC 62321-6:2015 to determine PBBs and PBDEs by GC-MS.

No.	Parts Name	Test Item						Conclusion
		Pb	Cd	Hg	CrVI	PBBs	PBDEs	
001	Black plastic shell	BL	BL	BL	BL	ND	ND	PASS
002	Transparence plastic shell	BL	BL	BL	BL	BL	BL	PASS
003	The magnet on the battery cover	ND	ND	ND	Ne	-	-	PASS
004	Red plastic	BL	BL	BL	BL	BL	BL	PASS
005	Black rubber button	BL	BL	BL	BL	BL	BL	PASS
006	Screws	ND	ND	ND	Ne	-	-	PASS
007	Spring	ND	ND	ND	Ne	-	-	PASS
008	The battery contact chip	ND	ND	ND	Ne	-	-	PASS
009	The spring on the contact chip	ND	ND	ND	Ne	-	-	PASS
010	Welding and soldering in contact chip	460	ND	ND	Ne	-	-	PASS
011	White plastic button	BL	BL	BL	BL	BL	BL	PASS
012	Button on the sheet metal	ND	ND	ND	Ne	-	-	PASS
013	Button-silver raised metal	ND	ND	ND	Ne	-	-	PASS
014	Button-spring	ND	ND	ND	Ne	-	-	PASS
015	Welding and soldering in sheetmetal	ND	ND	ND	Ne	-	-	PASS
016	Blue resistance	BL	BL	BL	BL	BL	BL	PASS
017	Blue resistance-pin	ND	ND	ND	Ne	-	-	PASS
018	PCB board	BL	BL	BL	BL	ND	ND	PASS
019	Red line peel	BL	BL	BL	BL	BL	BL	PASS
020	Blue line peel	BL	BL	BL	BL	BL	BL	PASS
021	Copper wire	137	ND	ND	Ne	-	-	PASS
022	PCB board-resistance	BL	BL	BL	BL	BL	BL	PASS
023	PCB board-resistance-pin	ND	ND	ND	Ne	-	-	PASS
024	Lamp-shell	BL	BL	BL	BL	BL	BL	PASS
025	Lamp-lamp base	BL	BL	BL	BL	ND	ND	PASS
026	Lamp-pin	ND	ND	ND	Ne	-	-	PASS



TEST REPORT

Test Report #

R-cn5-1603915-2-E

Date of Report Issue:

11/04/2016

Date of Sample Received:

10/10/2016

Page 3 of 7

DETAILED RESULTS

No.	Parts Name	Test Item						Conclusion
		Pb	Cd	Hg	CrVI	PBBs	PBDEs	
027	Welding and soldering in PCB board	357	ND	ND	Ne	-	-	PASS
028	Rectangle electroplating plastic	BL	BL	BL	BL	BL	BL	PASS
029	Rectangle slab	ND	ND	ND	Ne	-	-	PASS
030	Rectangle slab-yellow rubber	BL	BL	BL	BL	BL	BL	PASS
031	Welding and soldering in rectangle slab	ND	ND	ND	Ne	-	-	PASS

Parameter:	Unit	Requirement	Method Detection Limit (MDL)
Lead (Pb)	mg/kg	1000	15
Cadmium (Cd)	mg/kg	100	15
Mercury (Hg)	mg/kg	1000	15
Chromium VI (Cr VI)	mg/kg	1000	15
Group PBBs	mg/kg	1000	20
Group PBDEs	mg/kg	1000	20

As specified by client, with XRF analysis toxic harmful substance content, All kinds of matrixs screening of the element is limited see chart (Unit: mg/kg)

Elements	Polymer material	Metal material/ Inorganic nonmetallic material	Electronic component
Lead (Pb)	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Cadmium (Cd)	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Mercury (Hg)	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Chromium (Cr)	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$
Bromine (Br)	$BL \leq (300-3\sigma) < X$	/	$BL \leq (250-3\sigma) < X$



TEST REPORT

Test Report # R-cn5-1603915-2-E Date of Report Issue: 11/04/2016
Date of Sample Received: 10/10/2016 Page 4 of 7

DETAILED RESULTS

Note:

1. Unit: mg/kg. 1mg/kg=1ppm=0.0001%
2. MDL=Method Detection Limit
3. ND=Not Detected(< MDL)
4. "-" = Not Regulated or Not Applicable
5. 3σ = Analysis shows that the instrument reproducibility
6. BL=Below Limit; OL=Over Limit
7. Ne=Negative, Absence of Cr(VI), the concentration of Cr (VI) in sample solution is less than $0.10\mu\text{g}/\text{cm}^2$.
Po = Positive, Presence of Cr(VI), the concentration of Cr (VI) in sample solution is more than $0.13\mu\text{g}/\text{cm}^2$.
8. "Results of XRF" is the result on total Br and total Cr while restricted substances are PBBs/PBDEs and Cr(VI).
9. Statement:
Re: Revise Report "R-cn5-1603915-2+Rev 1"
As per client's request, resubmit 031 Welding and soldering in rectangle slab for ROHS-Pb,Cd,Hg,Cr retest in the Revised report



TEST REPORT

Test Report #

R-cn5-1603915-2-E

Date of Report Issue:

11/04/2016

Date of Sample Received:

10/10/2016

Page 5 of 7

SAMPLE PHOTO:





TEST REPORT

Test Report #

R-cn5-1603915-2-E

Date of Report Issue:

11/04/2016

Date of Sample Received:

10/10/2016

Page 6 of 7

SAMPLE PHOTO:





TEST REPORT

Test Report #

R-cn5-1603915-2-E

Date of Report Issue:

11/04/2016

Date of Sample Received:

10/10/2016

Page 7 of 7

SAMPLE PHOTO:



The results shown here refer only to the sample(s) tested, unless otherwise stated. This report can only be reproduced in full, not partially, except by explicit written permission of the laboratory.

***** End of Report *****