

(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 1 of 17

(EVERLIGHT ELECTRONICS CO., LTD.) (NO. 6-8, ZHONGHUARD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

(The following sample(s) was/were submitted and identified by the applicant

as)

BASIC INFORMATION		
Type of Product	HIGH POWER LED_CH2016-X	
Supplier Company Name	EVERLIGHT	
Address	NO.6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN	
Tel / Fax / Email	TEL:886-2685-6688	
	FAX:886-2685-6699	
	E-MAIL: allenchiang@everlight.com	
Contact Person	Allen	
EVERLIGHT REPORT NO	EVERLIGHT-CH2016-X SERIES	
	Sampling Product: CH2016E-C07001L-53A64DJ6K23037-2T-AM-SGS-15-Jun-2023	
PRODUCT INFORMATION	•	
Product/component Sample description	DRL(white) ,Tail lamp(red) ,Turning light(pc amber)	
Quantity (numbers or weight)	0.0094 g	
EVERLIGHT P/N	CH2016-X SERIES	
	Sampling Product: CH2016E-C07001L-53A64DJ6K23037-2T-AM	
Product Lot No	T230317A0702GP15W6L	
Country of Origin	TAIWAN	
TEST INFORMATION	•	
Sample preparation	CUTTING	
Test Method	RoHS: IEC 62321, Halogen: BS EN 14582	
MDL	Cd, Pb, Hg: 2 mg/kg, PBBs/PBDEs: 5 mg/kg, Halogen: 50 mg/kg	
(0 1 0 1 1 1 1 5)	(5)(5)(1)(1)(5)(5)(5)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)	

(Sample Submitted By) (EVERLIGHT ELECTRONICS CO., LTD.)

_____ (Sample Receiving Date) : 02-Jun-2023

(Testing Period) : 02-Jun-2023 to 15-Jun-2023

(Test Results) (Please refer to following pages).





PIN CODE: 12B675F4



(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 2 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)

(NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

(Test Requested)

RoHS 2011/65/EU Annex II

(EU) 2015/863

, DBP, BBP, DEHP, DIBP

specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted

sample(s).)

PAHs (2)

(As specified by client, to test PAHs

and other item(s).)

(Conclusion)

(1)

(1)

DBP. (EU)

BBP, DEHP, DIBP

RoHS 2011/65/EU Annex II

2015/863

(Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs,

DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS Directive (EU)

2015/863 amending Annex II to Directive 2011/65/EU.)

(2)

PAHs 3

(Based upon the performed tests on

the submitted sample(s), the test results of PAHs (15 items) comply with the limits of PAHs requirement (Category 3) Other consumer products as set

by German Committee on Product Safety (AfPS) GS PAHs.)

(Test Part Description)

No.1

HIGH POWER LED_CH2016-X

(Test Results)

(Test Items)	(Method)	(Unit)	MDL	(Result) No.1	(Limit)
(Cd) (Cadmium (Cd))	IEC 62321-5: 2013	mg/kg	2	n.d.	100
(Pb) (Lead (Pb))	(With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	1000



(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 3 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)

6-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

(Test Items)	(Method)	(Unit)	MDL	(Result)	(Limit)
(Hg) (Mercury (Hg))	IEC 62321-4: 2013+ AMD1: 2017 (With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	1000
Cr(VI) (Hexavalent Chromium Cr(VI))	IEC 62321-7-2: 2017 - (With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.)	mg/kg	8	n.d.	1000
(Monobromobiphenyl)		mg/kg	5	n.d.	-
(Dibromobiphenyl)		mg/kg	5	n.d.	-
(Tribromobiphenyl)		mg/kg	5	n.d.	-
(Tetrabromobiphenyl)		mg/kg	5	n.d.	-
(Pentabromobiphenyl)		mg/kg	5	n.d.	-
(Hexabromobiphenyl)		mg/kg	5	n.d.	-
(Heptabromobiphenyl)		mg/kg	5	n.d.	-
(Octabromobiphenyl)		mg/kg	5	n.d.	-
(Nonabromobiphenyl)		mg/kg	5	n.d.	-
(Decabromobiphenyl)	JEC (2221 (, 2015)	mg/kg	5	n.d.	-
(Sum of PBBs)	IEC 62321-6: 2015 / (With reference to IEC 62321-6:	mg/kg	-	n.d.	1000
(Monobromodiphenyl ether)	2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
(Dibromodiphenyl ether)	2019, analysis was performed by Gerivis.)	mg/kg	5	n.d.	-
(Tribromodiphenyl ether)		mg/kg	5	n.d.	-
(Tetrabromodiphenyl ether)		mg/kg	5	n.d.	-
(Pentabromodiphenyl ether)		mg/kg	5	n.d.	-
(Hexabromodiphenyl ether)	7	mg/kg	5	n.d.	-
(Heptabromodiphenyl ether)		mg/kg	5	n.d.	-
(Octabromodiphenyl ether)		mg/kg	5	n.d.	-
(Nonabromodiphenyl ether)	7	mg/kg	5	n.d.	-
(Decabromodiphenyl ether)	7	mg/kg	5	n.d.	-
(Sum of PBDEs)		mg/kg	-	n.d.	1000



(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 4 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
(NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

(Test Items)	(Method)	(Unit)	MDL	(Result) No.1	(Limit)
(BBP) (Butyl benzyl phthalate (BBP))	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	1000
(DBP) (Dibutyl phthalate (DBP))	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	1000
(2-) (DEHP) (Di-(2- ethylhexyl) phthalate (DEHP))	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	1000
(DIBP) (Diisobutyl phthalate (DIBP))	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	1000
(DIDP) (Diisodecyl phthalate (DIDP)) (CAS No.: 26761-40-0, 68515-49-1)	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-
(DINP) (Diisononyl phthalate (DINP)) (CAS No.: 28553-12-0, 68515-48-0)	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-
(DNOP) (Di-n-octyl phthalate (DNOP)) (CAS No.: 117-84-0)	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-
(DNPP) (Di-n-pentyl phthalate (DNPP)) (CAS No.: 131-18-0)	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-
(DNHP) (Di-n-hexyl phthalate (DNHP)) (CAS No.: 84-75-3)	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-
(2-) (DMEP) (Bis(2-methoxyethyl) phthalate (DMEP)) (CAS No.: 117-82-8)	1	mg/kg	50	n.d.	-
(DMP) (Dimethyl phthalate (DMP)) (CAS No.: 131-11-3)	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-



(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 5 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)

(NO. 6-8, ZHONGHUARD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

(Method)	(Unit)	MDL	NI 4	(Limit)
IEC 62321-8: 2017 / (With reference to IEC 62321-8:	mg/kg	50	No.1 n.d.	-
2017, analysis was performed by GC/MS.) IEC 62321-8: 2017 (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-
IEC 62321: 2008 / (With reference to IEC 62321: 2008, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
	mg/kg	50	98.1	-
	mg/kg	50	n.d.	-
	mg/kg	50	n.d.	-

mg/kg

50

n.d.

CEN/TS 15968: 2010 (With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)



(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 6 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
(NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

(Test Items)	(Method)	(Unit)	MDL	(Result)	(Limit)
(Polycyclic Aromatic Hydrocarbons) (PAHs)				140.1	
(a) (Benzo[a]pyrene) (CAS No.: 50-32-8)		mg/kg	0.2	n.d.	
(e) (Benzo[e]pyrene) (CAS No.: 192-97- 2)		mg/kg	0.2	n.d.	
(Benzo[a]anthracene) (CAS No.: 56-55-3)		mg/kg	0.2	n.d.	
(b) (Benzo[b]fluoranthene) (CAS No.: 205-99-2)		mg/kg	0.2	n.d.	
(j) (Benzo[j]fluoranthene) (CAS No.: 205-82-3)		mg/kg	0.2	n.d.	
(k) (Benzo[k]fluoranthene) (CAS No.: 207-08-9)	A fPS GS 2019:01 PAK /	mg/kg	0.2	n.d.	
(Chrysene) (CAS No.: 218-01-9)	(With reference to AfPS GS	mg/kg	0.2	n.d.	
(Dibenzo[a,h]anthracene) (CAS No.: 53-70-3)	2019:01 PAK, analysis was performed by GC/MS.)	mg/kg	0.2	n.d.	
(Benzo[g,h,i]perylene) (CAS No.: 191- 24-2)		mg/kg	0.2	n.d.	
(Indeno[1,2,3-c,d]pyrene) (CAS No.: 193-39-5)		mg/kg	0.2	n.d.	
(Anthracene) (CAS No.: 120-12-7)		mg/kg	0.2	n.d.	
(Fluoranthene) (CAS No.: 206-44-0)		mg/kg	0.2	n.d.	
(Phenanthrene) (CAS No.: 85-01-8)		mg/kg	0.2	n.d.	
(Pyrene) (CAS No.: 129-00-0)		mg/kg	0.2	n.d.	
(Naphthalene) (CAS No.: 91-20-3)		mg/kg	0.2	n.d.	
15 (Sum of 15 PAHs)		mg/kg	-	n.d.	



(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 7 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
6-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

```
(Note)
1. mg/kg = ppm 0.1wt\% = 0.1\% = 1000ppm
2. MDL = Method Detection Limit (
3. n.d. = Not Detected (
                            );
                                   MDL/Less than MDL
4. "-" = Not Regulated (
                                  (PFOS and its salts including):
  CAS No.: 1763-23-1, 2795-39-3, 29457-72-5, 29081-56-9, 70225-14-8, 56773-42-3, 251099-16-8, 307-35-7,
  91036-71-4, 4021-47-0 and others.
                              (PFOA and its salts including):
  CAS No.: 335-67-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0, 3825-26-1 and others.
7.
                     ILA C-G 8:09/2019
                             (Unless otherwise stated, the decision rule for conformity reporting is based on
  Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the
  judgement of conformity is based on the comparing test results with limits.)
```



(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 8 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)

6-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

Remark

(AfPS): GSPAHs

AfPS (German commission for Product Safety): GS PAHs requirements

1 (Category 1) (Category 2) 3 (Category 3) 30) 30 (2009/48/EC (Materials that (Materials are not in Category 1, with intended to be placed in the intended or foreseeable long mouth, or materials in toys (Parameter) (Directive 2009/48/EC) or articles for children up to 3 years of age with intended long-term skin contact (> 30 seconds))



(No.): ETR23600251

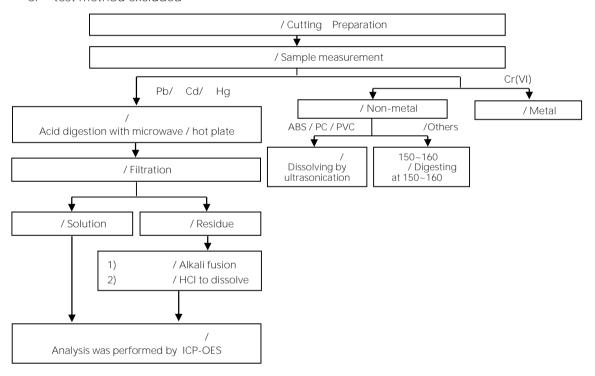
(Date): 15-Jun-2023

(Page): 9 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

/ Analytical flow chart of heavy metal

These samples were dissolved totally by pre-conditioning method according to below flow chart. Cr^{6+} test method excluded





(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 10 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

/ Analytical flow chart - PBBs/PBDEs

/ First testing process
/ Optional screen process
/ Confirmation process

/ Sample pretreatment

/ Screen analysis

/ Sample extraction
/ Soxhlet method

/
Concentrate/Dilute extracted solution

/ Filter

/ GC/MS



(No.): ETR23600251

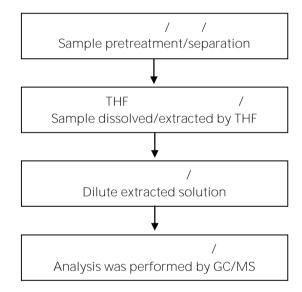
(Date): 15-Jun-2023

(Page): 11 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
6-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

/ Analytical flow chart - Phthalate

/Test method: IEC 62321-8





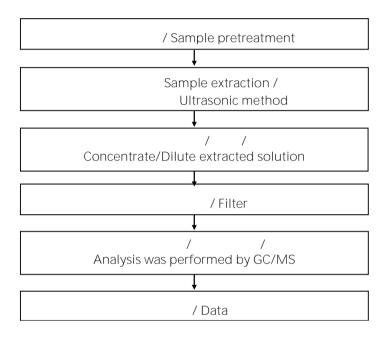
(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 12 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
6-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

/ Analytical flow chart - HBCDD





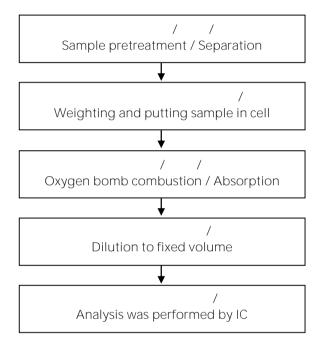
(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 13 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
6-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

/ Analytical flow chart - Halogen





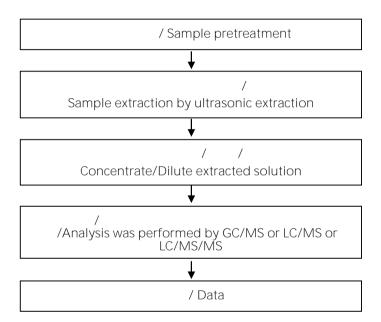
(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 14 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

(/ / /) / Analytical flow chart - PFAS (including PFOA/PFOS/its related compound, etc.)





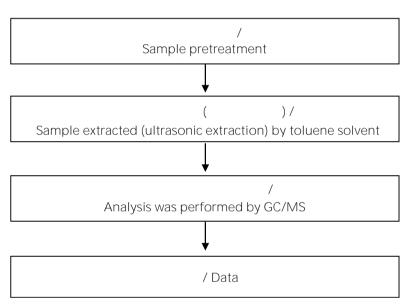
(No.): ETR23600251

(Date): 15-Jun-2023

(Page): 15 of 17

(EVERLIGHT ELECTRONICS CO., LTD.)
-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

Analytical flow chart - PAHs (Polycyclic Aromatic Hydrocarbons)







(Page): 17 of 17