

(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 1 of 18

(EVERLIGHT ELECTRONICS CO., LTD.)

6-8 (NO. 6-8, ZHONGHUA RD., 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				
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: lindawang@everlight.com				
Contact Person	LI LING WANG				
EVERLIGHT REPORT NO HIGH POWER ELEM FP2216 SERIES					
	Sampling Product: FP2216FF13LA-S0917-2T-SGS-12-Apr-2024				
PRODUCT INFORMATION					
Product/component Sample	LIGHTING				
description					
Quantity (numbers or weight)	0.0064 g				
EVERLIGHT P/N	HIGH POWER ELEM FP2216 SERIES				
	Sampling Product: FP2216FF13LA-S0917-2T				
Product Lot No	Y231224A1101BA5WO				
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				

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

(Sample Receiving Date) : 28-Mar-2024

(Testing Period) : 28-Mar-2024 to 12-Apr-2024

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





PIN CODE: C663100



(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 2 of 18

(EVERLIGHT ELECTRONICS CO., LTD.)

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

(Test Requested) : (1) RoHS 2011/65/EU Annex II (EU) 2015/863

, DBP, BBP, DEHP, DIBP (As

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).)

(2) PAHs (As specified by client, to test PAHs and

other item(s).)

(Conclusion) : (1) , DBP, BBP,

DEHP, DIBP RoHS 2011/65/EU Annex II (EU)
2015/863 (Based on the performed tests on submitted same

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.)

(A fPS) GS

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

(Test Results)

(Test Items)	(Method)	(Unit)	MDL	(Result) No.1	(Limit)
(Cd) (Cadmium (Cd))	IEC 62321-5: 2013 (With reference to	mg/kg	2	n.d.	100
(Pb) (Lead (Pb))	IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	1000
(Hg) (Mercury (Hg))	IEC 62321-4: 2013+ AMD1: 2017	mg/kg	2	n.d.	1000
	(With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.)				



(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 3 of 18

(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)
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)	IEC 62321-6: 2015	/	mg/kg	5	n.d.	-
(Sum of PBBs)	(With reference to IEC		mg/kg	-	n.d.	1000
(Monobromodiphenyl ether)	62321-6: 2015, analysis was		mg/kg	5	n.d.	-
(Dibromodiphenyl ether)	performed by GC/MS.)		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)]		mg/kg	5	n.d.	-
(Heptabromodiphenyl ether)	1		mg/kg	5	n.d.	-
(Octabromodiphenyl ether)			mg/kg	5	n.d.	-
(Nonabromodiphenyl ether)			mg/kg	5	n.d.	-
(Decabromodiphenyl ether)]		mg/kg	5	n.d.	-
(Sum of PBDEs)			mg/kg	-	n.d.	1000
(BBP) (Butyl benzyl phthalate (BBP))			mg/kg	50	n.d.	1000
(DBP) (Dibutyl phthalate (DBP))	IEC 62321-8: 2017 (With reference to IEC		mg/kg	50	n.d.	1000
(2-) (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP))	62321-8: 2017, analysis was performed by GC/MS.)		mg/kg	50	n.d.	1000
(DIBP) (Diisobutyl phthalate (DIBP))			mg/kg	50	n.d.	1000



(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 4 of 18

(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)
(DIDP) (Diisodecyl phthalate (DIDP)) (CAS No.: 26761- 40-0, 68515-49-1)		mg/kg	50	n.d.	-
(DINP) (Diisononyl phthalate (DINP)) (CAS No.: 28553-12-0, 68515-48-0)		mg/kg	50	n.d.	-
(DNOP) (Di-n-octyl phthalate (DNOP)) (CAS No.: 117-84-0)		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)		mg/kg	50	n.d.	-
(2-) (DMEP) (Bis(2-methoxyethyl) phthalate (DMEP)) (CAS No.: 117-82-8)		mg/kg	50	n.d.	-
(DMP) (Dimethyl phthalate (DMP)) (CAS No.: 131-11-3)		mg/kg	50	n.d.	-
(DIOP) (Diisooctyl phthalate (DIOP)) (CAS No.: 27554- 26-3)		mg/kg	50	n.d.	-
(DNNP) (Di-n- nonyl phthalate (DNNP)) (CAS No.: 84-76-4)		mg/kg	50	n.d.	-
(PFOS and its salts) (CAS No.: 1763-23-1 and its salts)	CEN/TS 15968: 2010 (With reference to	mg/kg	0.01	n.d.	-
(PFO A and its salts) (CAS No.: 335-67-1 and its salts)	CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	n.d.	-



(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 5 of 18

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

			MDL		
	(Method)	(Unit)		No.1	(Limit)
		mg/kg	0.2	n.d.	
		mg/kg	0.2	n.d.	
		mg/kg	0.2	n.d.	
		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)		mg/kg	0.2	n.d.	
		mg/kg mg/kg	0.2 0.2	n.d. n.d.	
		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.	
		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.): ETR24305697

(Date): 12-Apr-2024

(Page): 6 of 18

(EVERLIGHT ELECTRONICS CO., LTD.)

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

(Test Items)	(Method)	(Unit)	MDL	(Result) No.1	(Limit)
(HBCDD) (- HBCDD, - HBCDD, - HBCDD) (Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (- HBCDD, - HBCDD, - HBCDD)) (CAS No.: 25637-99-4, 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	IEC 62321: 2008 / (With reference to IEC 62321: 2008, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
(F) (Fluorine (F)) (CAS No.: 14762- 94-8)		mg/kg	50	85.3	-
(CI) (Chlorine (CI)) (CAS No.: 22537-15-1)	BS EN 14582: 2016 (With reference to BS EN	mg/kg	50	n.d.	-
(Br) (Bromine (Br)) (CAS No.: 10097-32-2)	14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.	-
(I) (lodine (I)) (CAS No.: 14362-44-8)		mg/kg	50	n.d.	-
(Be) (Beryllium (Be)) (CAS No.: 7440-41-7)	US EPA 3052: 1996 (With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	-

(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 ( )

5. ILA C-G 8:09/2019 (w=0)
```

(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.): ETR24305697 (Date): 12-Apr-2024 (Page): 7 of 18

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

PAHs Remark

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

	1 (Category 1)	2 (Cat	egory 2)	3 (Cat	egory 3)
(Para ⊵ter)	(30) 2009/48/EC 3 (Materials intended to be placed in the mouth, or materials in toys (Directive 2009/48/EC) or articles for children up to 3	are not in Category intended or forese skin contact (> 30 short-term repetiti the skin)	eable long-term seconds) or	1 2 ()(Mat covered by Catego intended or forese term skin contact (30 erials not ry 1 or 2, with eable short-
	years of age with intended long-term skin contact (> 30 seconds))	a. 14 (Use by children under 14)	b. (Other consumer products)		b. (Other consumer products)
Naphthalen	< 1	< 2)	< 10	
Phenanthre Anthracene Eluoranther	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
			< 0.5	< 0.5	< 1
			< 0.5	< 0.5	< 1
			< 0.5	< 0.5	< 1
Benzoljjnuc itnene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]flucenthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyr	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyr	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-c,d] pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
ne	< 0.2		< 0.5	< 0.5	< 1

l9 64.07 I77.72 12.6 re110.39 513 103.34 77.ETQa39 51.33 m110.81 51.33 IS110.39 51.33 m11054 124 77.ETQa39 5a39 51.33 m11



(No.): ETR24305697 (Da

(Date): 12-Apr-2024

(Page): 8 of 18

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

DEAC Dama	ml.						
PFAS Rema	ırk						
F	PFAS	PFAS			PFAS		
					PFAS		PFA S
			(PFAS		PFAS)

(The quantitative technology of PFAS is to analyze the specific structure of PFAS substances. However, PFAS acid and its salts with the same carbon number group have the same specific structure that can be identified. The tested results of the analyzed specific structure cannot be distinguished to identify the contribution from PFAS acid or its salts. Therefore, the tested results display the sum of concentrations of PFAS acids and its salts with the same carbon number group. The concentration of PFAS substances in the below table have been included in the tested results, please refer to the table for relevant information: (The listed PFAS substances are examples only, it do not include all PFAS salts with the same carbon number group.))

		CAS No.
(Group Name)	(Substance Name)	
	(Perfluorooctane sulfonates) (PFOS)	1763-23-1
	(PFOS-K)	2795-39-3
	Potassium perfluorooctanesulfonate (PFOS-K)	
	(PFOS-Li)	29457-72-5
	Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	
	(PFO S-N H₄)	29081-56-9
	Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH ₄)	
	(PFO S-N H (O H) ₂)	70225-14-8
PFOS, &	Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) ₂)	
(PFOS, its salts & derivatives)	(PFO S-N (C ₂ H ₅) ₄)	56773-42-3
	Perfluorooctanesulfonic acid, tetraethylammonium salt (PFOS-N(C_2H_5) ₄)	
	(PFOS-DDA)	251099-16-8
	N-decyl-N,N-dimethyldecan-1-aminium	
	1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-	
	heptadecafluorooctane-1-sulfonate (PFOS-DDA)	
	(POSF)	307-35-7
	Perfluorooctane sulfonyl fluoride (POSF)	
	(PFOS-Mg)	91036-71-4
	Perfluorooctanesulfonic acid, magnesium salt (PFOS-Mg)	



(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 9 of 18

(EVERLIGHT ELECTRONICS CO., LTD.)

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

(Group Name)	(Substance Name)	CAS No.
PFOS, & (PFOS, its salts & derivatives)	(PFOS-Na) Perfluorooctanesulfonic acid, sodium salt (PFOS-Na)	4021-47-0
	Piperidine 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctanesulfonate	71463-74-6
	(Perfluorooctanoic acid) (PFOA)	335-67-1
	(PFOA-Na) Sodium perfluorooctanoate (PFOA-Na)	335-95-5
	(PFOA-K) Potassium perfluorooctanoate (PFOA-K)	2395-00-8
PFOA, &	(PFOA-Ag) Silver perfluorooctanote (PFOA-Ag)	335-93-3
(PFOA, its salts & derivatives)	(PFOA-F) Perfluorooctanoyl fluoride (PFOA-F)	335-66-0
	(A PFO) Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
	(PFOA-Li) Lithium perfluorooctanoate (PFOA-Li)	17125-58-5



(No.): ETR24305697

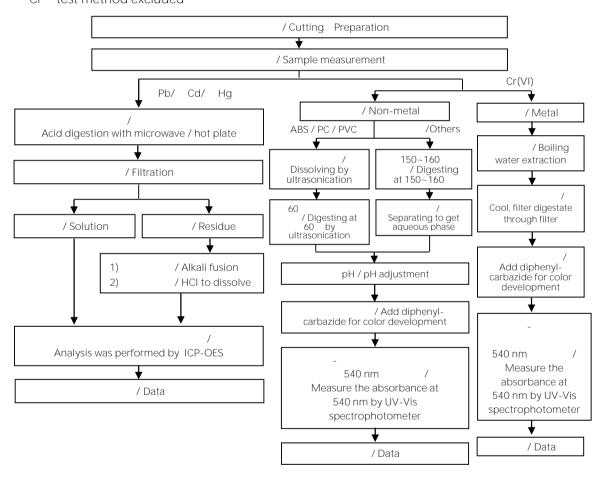
(Date): 12-Apr-2024

(Page): 10 of 18

(EVERLIGHT ELECTRONICS CO., LTD.)
(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. Cr⁶⁺ test method excluded





(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 11 of 18

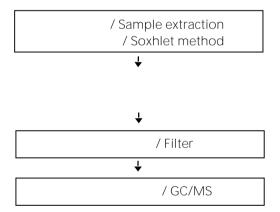
(EVERLIGHT ELECTRONICS CO., LTD.)

6-8 (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

+







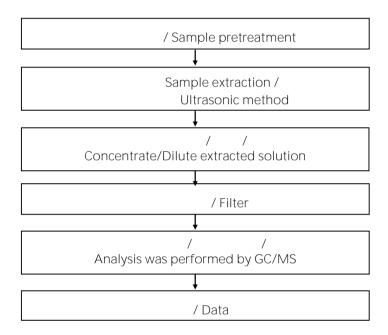
(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 13 of 18

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

/ Analytical flow chart - HBCDD





(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 14 of 18

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

/ Analytical flow chart - Halogen

/ /
Sample pretreatment / Separation

/ Weighting and putting sample in cell

/ /
Oxygen bomb combustion / Absorption

/
Analysis was performed by IC



(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 15 of 18



(Page): 16 of 18



(No.): ETR24305697

(Date): 12-Apr-2024

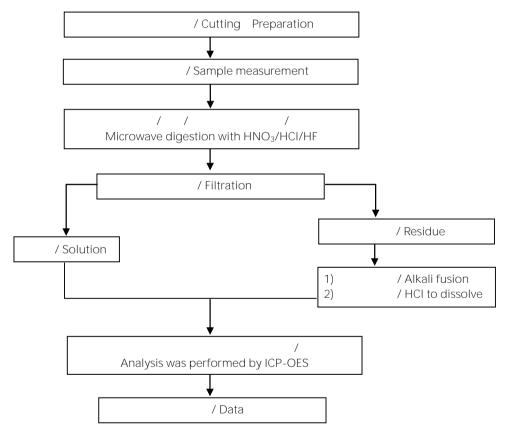
(Page): 17 of 18

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

/ Analytical flow chart of elements (Heavy metal included)

These samples were dissolved totally by pre-conditioning method according to below flow chart.

/Reference method US EPA 3051A US EPA 3052



* US EPA 3051A

/ US EPA 3051A method does not add HF.



(No.): ETR24305697

(Date): 12-Apr-2024

(Page): 18 of 18

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

(The tested sample / part is marked by an arrow if it's shown on the photo.)



(End of Report) **