

(No.): ETR24305697

(Date): 12-Apr-2024

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(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



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(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 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.)				



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			MDL		
(Test Items)	(Method)	(Unit)	IVIDE	(Result)	(Limit)
(restricting)	(Method)	(OTITE)		No.1	(2111111)
Cr(VI) (Hexavalent Chromium	IEC 62321-7-2: 2017 -	mg/kg	8	n.d.	1000
Cr(VI))	(With				
	reference to IEC 62321-7-2: 2017,				
	analysis was performed by UV-VIS.)				
(Monobromobiphenyl)		mg/kg	5	n.d.	-
(Dibromobiphenyl)		mg/kg	5	n.d.	1
(Tribromobiphenyl)		mg/kg	5	n.d.	-
(Tetrabromobiphenyl)		mg/kg	5	n.d.	-
(Pentabromobiphenyl)		mg/kg	5	n.d.	ı
(Hexabromobiphenyl)		mg/kg	5	n.d.	1
(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)		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		mg/kg	50	n.d.	1000
benzyl phthalate (BBP))					
(DBP) (Dibutyl	IEC 62321-8: 2017	/ mg/kg	50	n.d.	1000
phthalate (DBP))	(With reference to IEC				
(2- ) (DEHP)	62321-8: 2017, analysis was	mg/kg	50	n.d.	1000
(Di-(2-ethylhexyl) phthalate (DEHP))	performed by GC/MS.)				
(DIBP) (Diisobutyl		mg/kg	50	n.d.	1000
phthalate (DIBP))					



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(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	mg/kg	50	n.d.	-
(DNHP) (Di-n-hexyl phthalate (DNHP)) (CAS No.: 84-75-3)	(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)		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.	-
(PFOA 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.	-



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			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.	
(6/16/146 26/ 66 /)		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) (Fluoranthene) (CAS No.: 206-44-0)		mg/kg mg/kg	0.2 0.2	n.d. 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.	



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(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)
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(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.)



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PAHs Remark

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

	1 (Category 1)	2 (Category 2)		3 (Category 3)	
(Parameter)	( 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 years of age with intended long-term skin contact (> 30 seconds))	are not in Category intended or foreset skin contact (> 30 s short-term repetitive skin) a. 14 (Use by children under 14)	eable long-term seconds) or we contact with b. (Other consumer	( )(Mat covered by Catego intended or forese term skin contact ( a. 14 (Use by children under 14)	30 erials not ry 1 or 2, with eable short- 30 seconds)) b. (Other consumer
Naphthalene	< 1	< 2		< 10	
Phenanthrene Anthracene Fluoranthene Pyrene	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 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
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1



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PFAS Remark						
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 <sub>4</sub> )	
	(PFO S-N H (O H) <sub>2</sub> )	70225-14-8
PFOS, &	Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) <sub>2</sub> )	
(PFOS, its salts & derivatives)	(PFO S-N (C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> )	56773-42-3
	Perfluorooctanesulfonic acid, tetraethylammonium salt (PFOS-N( $C_2H_5$ ) <sub>4</sub> )	
	(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)	



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(Group Name)	(Substance Name)	CAS No.
PFOS. &	(PFOS-Na) Perfluorooctanesulfonic acid, sodium salt (PFOS-Na)	4021-47-0
PFOS, & (PFOS, its salts & derivatives)	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



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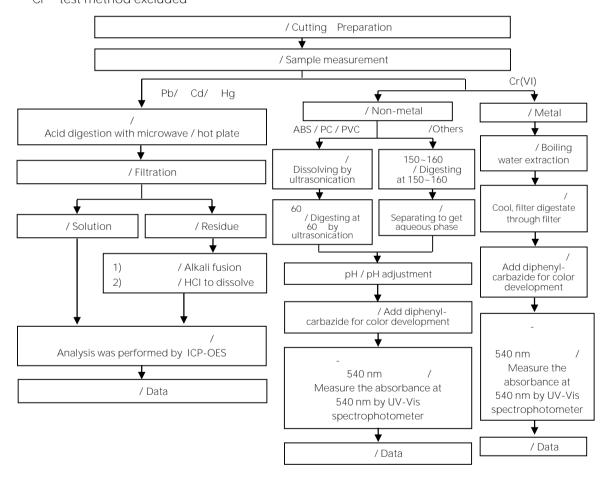
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/ Analytical flow chart of heavy metal

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

Cr<sup>6+</sup> test method excluded





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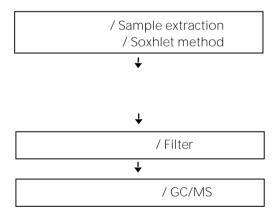
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/ Analytical flow chart - PBBs/PBDEs

/ First testing process/ Optional screen process/ Confirmation process

**+** 







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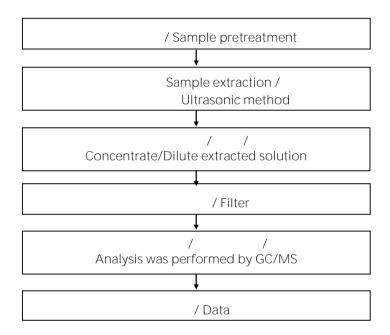
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#### / Analytical flow chart - HBCDD





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/ Analytical flow chart - Halogen

/ /
Sample pretreatment / Separation

/ Weighting and putting sample in cell

/ /
Oxygen bomb combustion / Absorption

/
Analysis was performed by IC



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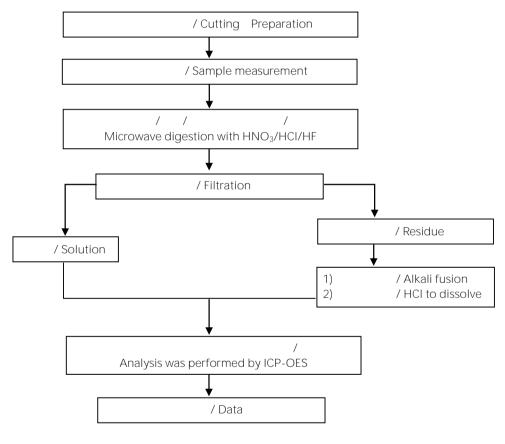
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5-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

( ) / 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.



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



(End of Report) \*\*