

(No.): ETR23600260

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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)

<u>us, </u>				
BASIC INFORMATION				
Type of Product	DIP ITR			
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-DIP ITR SERIES ITR1XXXX ITR2XXX ITR1XXX SERIES Sampling Product: ITR1801DT50A/TB-SGS-15-Jun-2023			
PRODUCT INFORMATION	·			
Product/component Sample description	Opto-Sensor			
Quantity (numbers or weight)	0.5193 g			
EVERLIGHT P/N	DIP ITR SERIES ITR1XXXX ITR2XXX ITR1XXX SERIES Sampling Product : ITR1801DT50A/TB			
Product Lot No	SZ230505003-061			
Country of Origin	China			
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): 02-Jun-2023

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

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



CHECK REPORT

PIN CODE: 144050F4



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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.)

(2) (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 : (BLACK PLASTIC)

No.2 : (BODY)

No.3 : (SILVER COLORED PLATING LAYER OF SILVER COLORED METAL)
No.4 : (SILVER COLORED BASE MATERIAL OF SILVER COLORED METAL)
No.5 : (SILVER COLORED METAL (INCLUDING THE PLATING LAYER))



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(Test Results)

(Test Items)	(Method) (Ur		MDL	(Result)		(Limit)	
, ,				No.1	No.2	No.3	
(Cd) (Cadmium (Cd))	IEC 62321-5: 2013 (With reference to IEC	mg/kg	2	n.d.	n.d.		100
(Pb) (Lead (Pb))	62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	n.d.		1000
(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.	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.	n.d.		1000
(Cd) (Cadmium (Cd))	IEC 62321-5: 2013 (IEC 62321-5:		2			n.d.	100
(Pb) (Lead (Pb))	2013 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2			30.7	1000
(Hg) (Mercury (Hg))	IEC 62321-4: 2013+ AMD 1: 2017 (IEC 62321-4: 2013+ AMD 1: 2017 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2			n.d.	1000
(Hexavalent Chromium) Cr(VI) (CAS No.: 18540-29-9) (#2)	IEC 62321-7-1: 2015 - (With reference to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1			n.d.	-



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			MDL				
(Test Items)	(Method)	(Unit)			(Result))	(Limit)
				No.1	No.2	No.3	
(Monobromobiphenyl)		mg/kg	5	n.d.	n.d.		-
(Dibromobiphenyl)		mg/kg	5	n.d.	n.d.		-
(Tribromobiphenyl)		mg/kg	5	n.d.	n.d.		-
(Tetrabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
(Pentabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
(Hexabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
(Heptabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
(Octabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
(Nonabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
(Decabromobiphenyl)	150 (0001 (0015	mg/kg	5	n.d.	n.d.		-
(Sum of PBBs)	IEC 62321-6: 2015 / (With reference to IEC 62321-6:	mg/kg	-	n.d.	n.d.		1000
(Monobromodiphenyl ether)	2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.	n.d.		-
(Dibromodiphenyl ether)	2010, analysis was performed by convisi,	mg/kg	5	n.d.	n.d.		-
(Tribromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
(Tetrabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
(Pentabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
(Hexabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
(Heptabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
(Octabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
(Nonabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
(Decabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
(Sum of PBDEs)		mg/kg	-	n.d.	n.d.		1000



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MDL

(Method)



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			MDL				
(Test Items)	(Method)	(Unit)			(Result))	(Limit)
				No.1	No.2	No.3	
(DIOP) (Diisooctyl phthalate (DIOP)) (CAS No.: 27554-26-3)	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		-
(DNNP) (Di-n- nonyl phthalate (DNNP)) (CAS No.: 84-76-4)	IEC 62321-8: 2017 / (With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		-
(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.	n.d.		-
(F) (Fluorine (F)) (CAS No.: 14762- 94-8)		mg/kg	50	n.d.	n.d.		-
(CI) (Chlorine (CI)) (CAS No.: 22537-15-1)	BS EN 14582: 2016	mg/kg	50	n.d.	236		-
(Br) (Bromine (Br)) (CAS No.: 10097-32-2)	(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.	n.d.		-
(I) (lodine (I)) (CAS No.: 14362- 44-8)		mg/kg	50	n.d.	n.d.		-
(PFOS and its salts) (CAS No.: 1763-23-1 and its salts)	CEN/TS 15968: 2010 (With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	n.d.	n.d.		-
(PFOA and its salts) (CAS No.: 335-67-1 and its salts)	CEN/TS 15968: 2010 (With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	n.d.	n.d.		-



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



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(Test Items)	(Method)		MDL		(Result)		(Limit)
				No.1	No.2	No.3	
(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.	n.d.		-

(Test Items)	(Method) (MDL	(Res	sult)	(Limit)
				No.4	No.5	
(Cd) (Cadmium (Cd))	IEC 62321-5: 2013 (With reference to IEC	mg/kg	2	n.d.		100
(Pb) (Lead (Pb))	62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.		1000
(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
(Hexavalent Chromium) Cr(VI) (CAS No.: 18540-29-9) (#2)	IEC 62321-7-1: 2015 - (With reference to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1	n.d.		-
(Be) (Beryllium (Be)) (CAS No.: 7440-41-7)	US EPA 3050B: 1996 (With reference to US EPA 3050B: 1996, analysis was performed by ICP-OES.)	mg/kg	2		n.d.	-



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(Note)
1. mg/kg = ppm 0.1wt\% = 0.1\% = 1000ppm
2. MDL = Method Detection Limit (
                                     MDL / Less than MDL
3. n.d. = Not Detected (
                          );
4. "-" = Not Regulated (
5. "---" = Not Conducted (
                                    (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.
7.
                                (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.
8. (#2) =
                      0.13 \, \mu g/cm^2
                                                             . / The sample is positive for Cr(VI) if the Cr(VI)
  а.
  concentration is greater than 0.13 µg/cm<sup>2</sup>. The sample coating is considered to contain Cr(VI).
                                  0.10 \,\mu g/cm^2
                                                                      . / The sample is negative for Cr(VI) if Cr(VI) is
  n.d. (concentration less than 0.10 µg/cm<sup>2</sup>). The coating is considered a non-Cr(VI) based coating
                             0.13 \, \mu g / cm^2
                                                                             . / The result between 0.10 µg/cm<sup>2</sup> and
                       0.10
  0.13 µg/cm<sup>2</sup> is considered to be inconclusive - unavoidable coating variations may influence the determination.
                      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.)
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Remark

(AfPS): GSPAHs

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

	1 (Category 1)	2 (Category 2)	3 (Category 3)
		1	1 2
	(30)	30 ()	30
	2009/48/EC 3	(Materials that	()(Materials not
	(Materials	are not in Category 1, with	covered by Category 1 or 2, with
	intended to be placed in the	intended or foreseeable long-term	intended or foreseeable short-
(Parameter)	mouth, or materials in toys	skin contact (> 30 seconds) or	term skin contact (30 seconds))
	(Directive 2009/48/EC) or	short-term repetitive contact with	
	articles for children up to 3	the skin)	
	years of age with intended	a. b.	a. b.
	long-term skin contact (> 30	14 (Other	14 (Other
	seconds))	(Use by consumer	(Use by consumer
		children under 14) products)	children under 14) products)
Naphthalene	< 1	< 2	< 10



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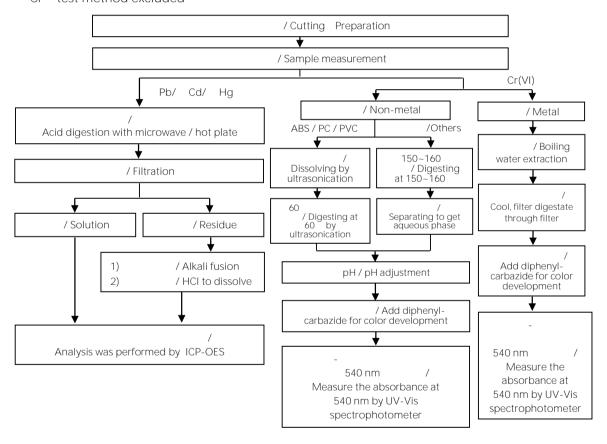
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/ Analytical flow chart of heavy metal

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

Cr⁶⁺ test method excluded





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/ Flow chart of stripping method for metal analysis

/ The plating layer

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

Cr⁶⁺ test method excluded

/ Preparation

/ Sample measurement (weight)

/ Prepare suitable acid solution

/ Put sample into acid solution

/ Dissolve plating layer

/ Solution

/ Analysis was performed by ICP-OES



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/ 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



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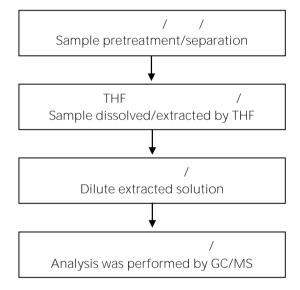
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/ Analytical flow chart - Phthalate

/Test method: IEC 62321-8





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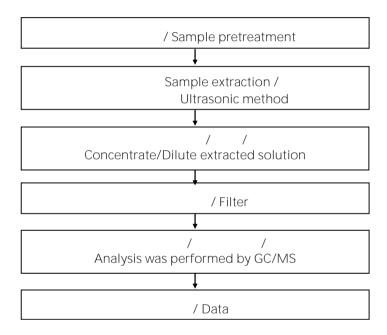
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/ Analytical flow chart - HBCDD





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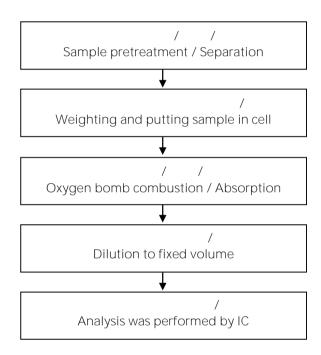
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/ Analytical flow chart - Halogen





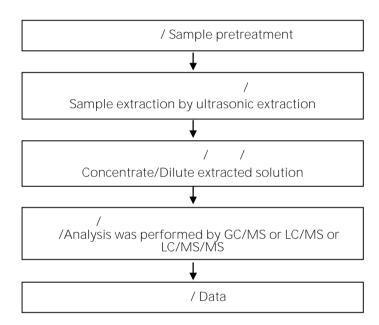
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(/ / /) / Analytical flow chart - PFAS (including PFOA/PFOS/its related compound, etc.)





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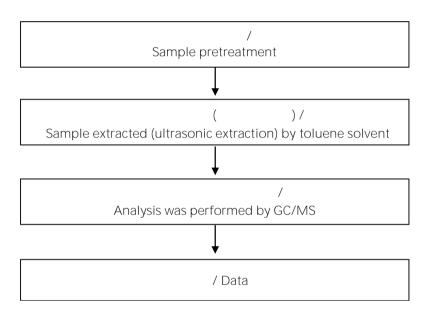
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Analytical flow chart - PAHs (Polycyclic Aromatic Hydrocarbons)





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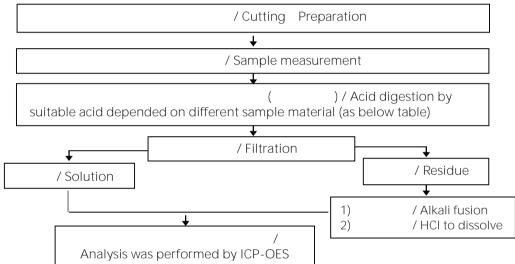
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ICP-OES

(Flow chart of digestion for the elements analysis performed by ICP-OES)

/ These samples were dissolved totally by

pre-conditioning method according to below flow chart.



, , , / Steel, copper, aluminum, solder	, , , , Aqua regia, $\rm HNO_3$, $\rm HCI$, $\rm HF$, $\rm H_2O_2$
/ Glass	, / HNO ₃ ,HF
, , , / Gold, platinum, palladium, ceramic	/ Aqua regia
/ Silver	/ HNO ₃
/ Plastic	, , , / H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
/ Others	/ Added appropriate reagent to total digestion



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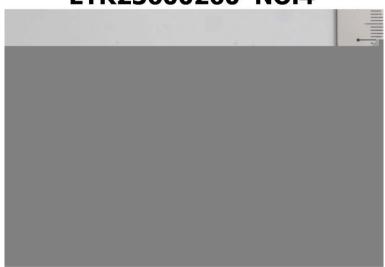
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ETR23600260 NO.4





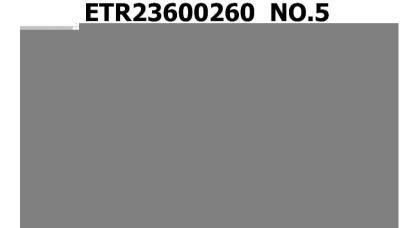
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(End of Report) **