

# Test Report

(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 XI SERIES<br>Sampling Product:<br>XI3030P/G3C-D1530R5S429381Z35/2N-SGS-12-Apr-2024 |
| PRODUCT INFORMATION                  |   |
| Product/component Sample description | LIGHTING  |
| Quantity (numbers or weight)         | 0.0179 g  |
| EVERLIGHT P/N                        | HIGH POWER XI SERIES<br>Sampling Product:<br>XI3030P/G3C-D1530R5S429381Z35/2N                 |
| Product Lot No                       | Y231131B1801M7EWO   |
| 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) :

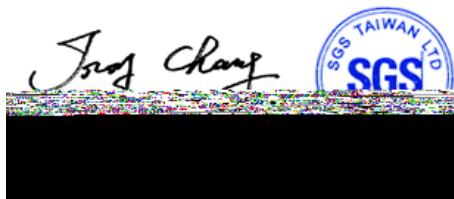
28-Mar-2024

(Testing Period) :

28-Mar-2024 to 12-Apr-2024

(Test Results) :

(Please refer to following pages).



PIN CODE: 2ECCA27E



(No.): ETR24305685

(Date): 12-Apr-2024

(Page): 2 of 18

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(EVERLIGHT ELECTRONICS CO., LTD.)

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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) (AfPS) 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) | (Limit) |
|---------------------|--|--------|-----|----------|---------|
|                     |  |        |     | No.1     |         |
| (Cd) (Cadmium (Cd)) | IEC 62321-5: 2013<br>(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<br><br>(With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.) | mg/kg  | 2   | n.d.     | 1000    |

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| (Test Items)                                      | (Method)  | (Unit) | MDL  | (Result) | (Limit) |
|---|---|--------|------|----------|---------|
|   |   |        |      | No.1     |         |
| Cr(VI) (Hexavalent Chromium Cr(VI))               | IEC 62321-7-2: 2017<br>(With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.) | mg/kg  | 8    | n.d.     | 1000    |
| (Monobromobiphenyl)                               | IEC 62321-6: 2015<br>(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)      | 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)                               |   | mg/kg  | 5    | n.d.     | -       |
| (Sum of PBBs)                                     |   | mg/kg  | -    | n.d.     | 1000    |
| (Monobromodiphenyl ether)                         |   | mg/kg  | 5    | n.d.     | -       |
| (Dibromodiphenyl ether)                           |   | 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 benzyl phthalate (BBP))              | IEC 62321-8: 2017<br>(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)      | mg/kg  | 50   | n.d.     | 1000    |
| (DBP) (Dibutyl phthalate (DBP))                   |   | mg/kg  | 50   | n.d.     | 1000    |
| (2- ) (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP)) |   | mg/kg  | 50   | n.d.     | 1000    |
| (DIBP) (Diisobutyl phthalate (DIBP))              |   | mg/kg  | 50   | n.d.     | 1000    |

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| (Test Items)  | (Method)  | (Unit) | MDL  | (Result) | (Limit) |
|---|---|--------|------|----------|---------|
|   |   |        |      | No.1     |         |
| (DIDP) (Diisodecyl phthalate (DIDP)) (CAS No.: 26761-40-0, 68515-49-1)  | IEC 62321-8: 2017<br>(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)  |   | 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)               |   | 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<br>(With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.) | mg/kg  | 0.01 | n.d.     | -       |
| (PFOA and its salts) (CAS No.: 335-67-1 and its salts)                  |   | mg/kg  | 0.01 | n.d.     | -       |

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| (Test Items)                                   | (Method)  | (Unit) | MDL | (Result) | (Limit) |
|--|---|--------|-----|----------|---------|
|  |   |        |     | No.1     |         |
| (Polycyclic Aromatic Hydrocarbons) (PAHs)      |   |        |     |          |         |
| (a) (Benzo[a]pyrene) (CAS No.: 50-32-8)        | A FPS GS 2019:01 PAK<br>/<br>(With reference to A FPS GS 2019:01 PAK, analysis was performed by GC/MS.) | 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) |   | mg/kg  | 0.2 | n.d.     |         |
| (Chrysene) (CAS No.: 218-01-9)                 |   | mg/kg  | 0.2 | n.d.     |         |
| (Dibenzo[a,h]anthracene) (CAS No.: 53-70-3)    |   | 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.     |         |

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| (Test Items)   | (Method)   | (Unit) | MDL | (Result) | (Limit) |
|--|--|--------|-----|----------|---------|
|  |  |        |     | No.1     |         |
| (HBCDD) ( - HBCDD, - HBCDD, - HBCDD)<br>(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 /<br>(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)   | BS EN 14582: 2016<br>(With reference to BS EN 14582: 2016, analysis was performed by IC.)      | mg/kg  | 50  | n.d.     | -       |
| (Cl) (Chlorine (Cl)) (CAS No.: 22537-15-1)   |  | mg/kg  | 50  | n.d.     | -       |
| (Br) (Bromine (Br)) (CAS No.: 10097-32-2)  |  | mg/kg  | 50  | n.d.     | -       |
| (I) (Iodine (I)) (CAS No.: 14362-44-8)   |  | mg/kg  | 50  | n.d.     | -       |
| (Be) (Beryllium (Be)) (CAS No.: 7440-41-7)   | US EPA 3052: 1996<br>(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. ILAC-G8:09/2019 (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.): ETR24305685

(Date): 12-Apr-2024

(Page): 7 of 18

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## PAHs Remark

(AfPS): GS PAHs

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

1 (Category 1)

2 (Category 2)

3 (Category 3)

(Parameter)



(No.): ETR24305685

(Date): 12-Apr-2024

(Page): 8 of 18

# Test Report

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

| (Group Name)                               | (Substance Name)                                       | CAS No.     |
|--|--|-------------|
| PFOS, &<br>(PFOS, its salts & derivatives) | (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)   |             |
|  |  | 70225-14-8  |
|  |  | 251099-16-8 |
|  | (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, &<br>(PFOS, its salts & derivatives) | (PFOS-Na)<br>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-heptafluorooctanesulfonate | 71463-74-6 |
| PFOA, &<br>(PFOA, its salts & derivatives) | (Perfluorooctanoic acid) (PFOA)   | 335-67-1   |
|  | (PFOA -Na)<br>Sodium perfluorooctanoate (PFOA-Na)                       | 335-95-5   |
|  | (PFOA -K)<br>Potassium perfluorooctanoate (PFOA-K)                      | 2395-00-8  |
|  | (PFOA -Ag)<br>Silver perfluorooctanoate (PFOA-Ag)                       | 335-93-3   |
|  | (PFOA -F)<br>Perfluorooctanoyl fluoride (PFOA-F)                        | 335-66-0   |
|  | (APFO)<br>Ammonium pentadecafluorooctanoate (APFO)                      | 3825-26-1  |
|  | (PFOA -Li)<br>Lithium perfluorooctanoate (PFOA-Li)                      | 17125-58-5 |

# Test Report

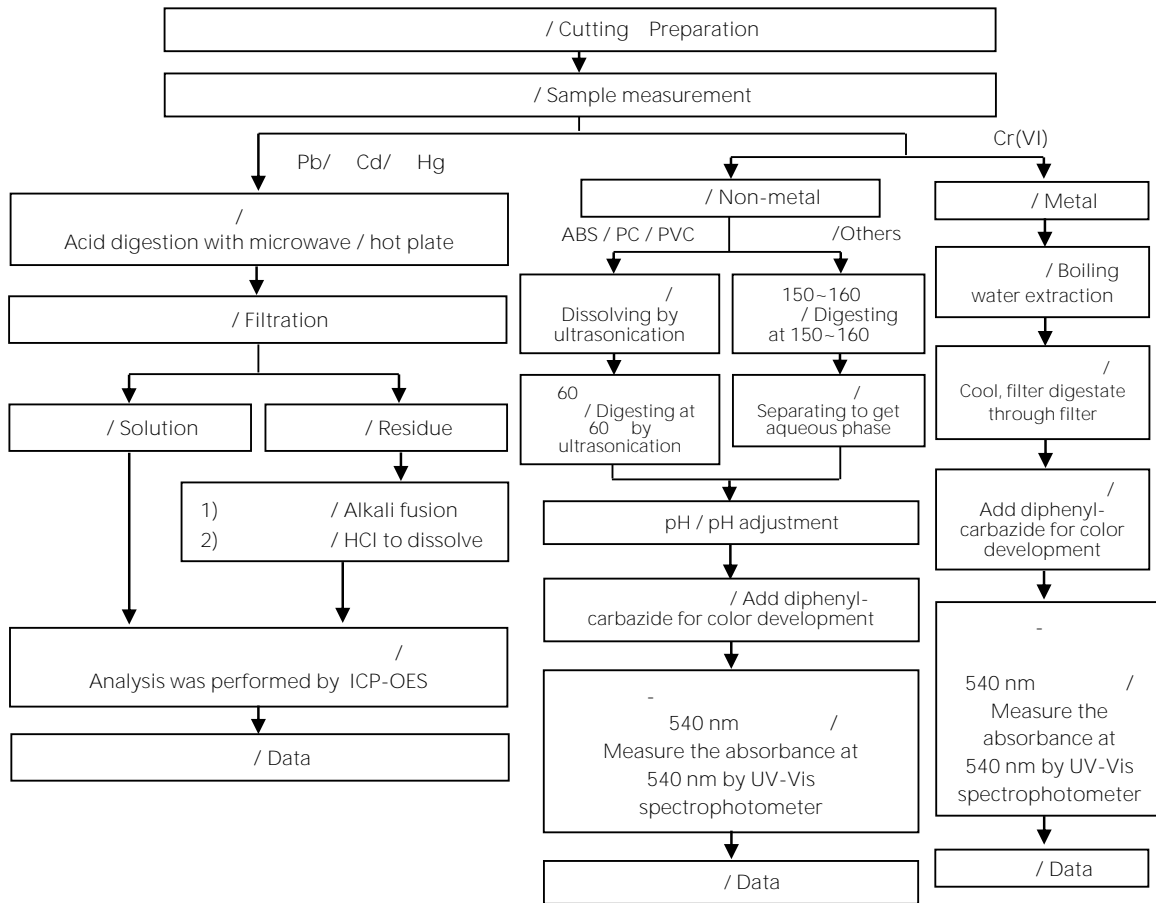
(EVERLIGHT ELECTRONICS CO., LTD.)

6-8 (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<sup>6+</sup> test method excluded



# Test Report

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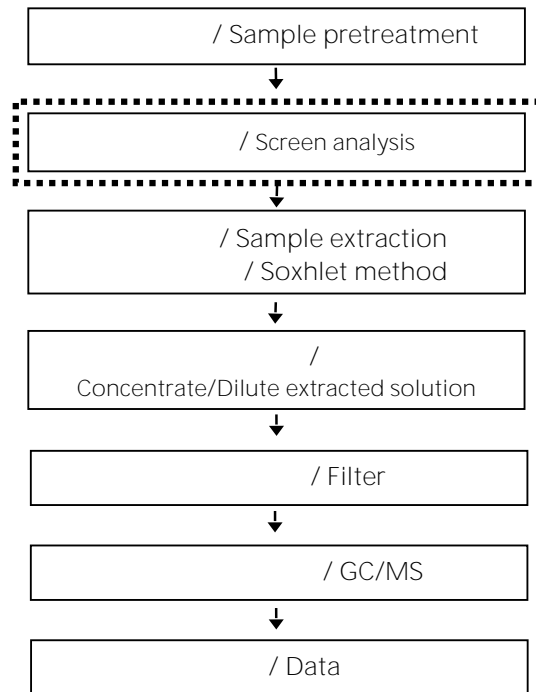
6-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

/ Analytical flow chart - PBBs/PBDEs

/ First testing process →

/ Optional screen process ······

/ Confirmation process - · - · →



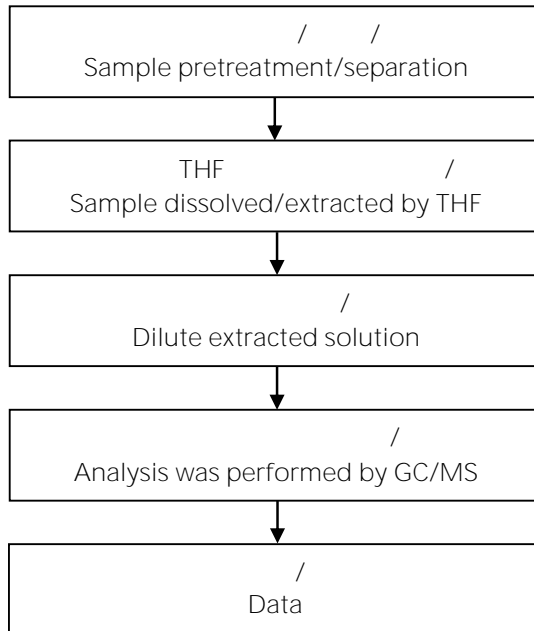
# Test Report

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

/ Analytical flow chart - Phthalate

/Test method: IEC 62321-8

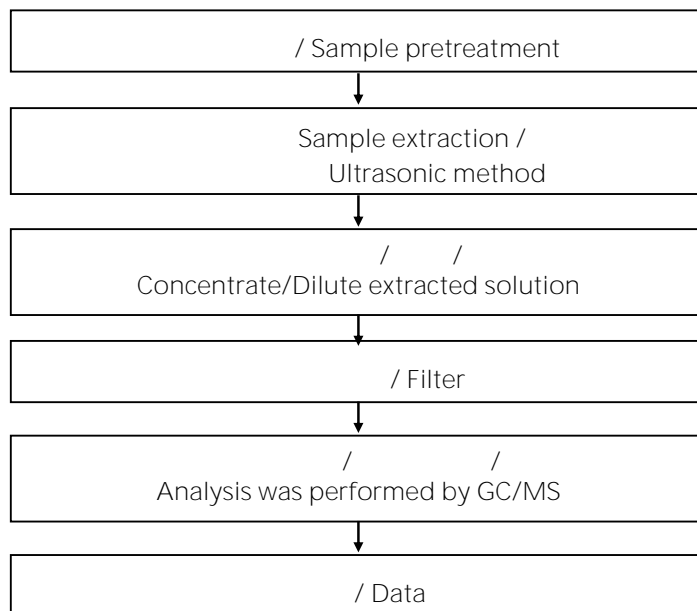


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6-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

/ Analytical flow chart - HBCDD

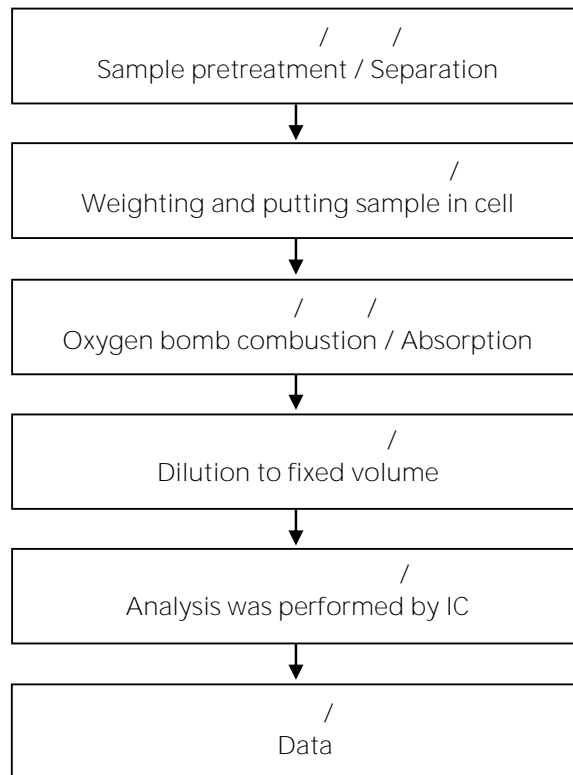


# Test Report

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

/ Analytical flow chart - Halogen

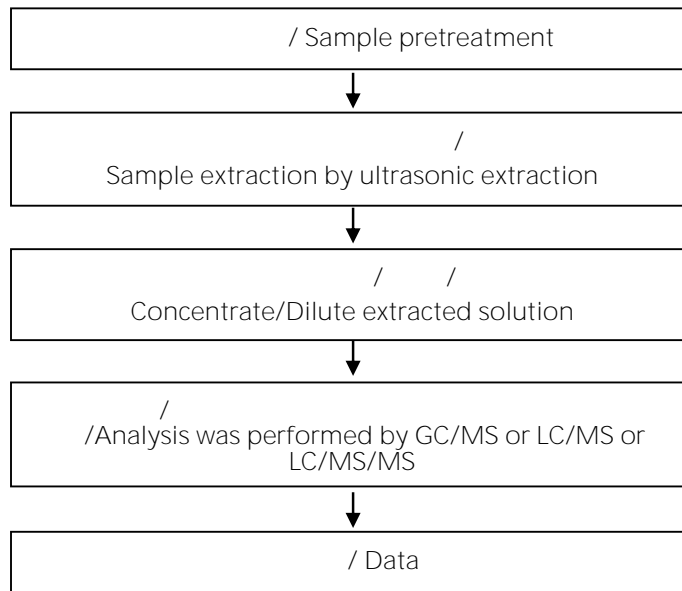


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( / / ) / Analytical flow chart - PFAS (including PFOA/PFOS/its related compound, etc.)

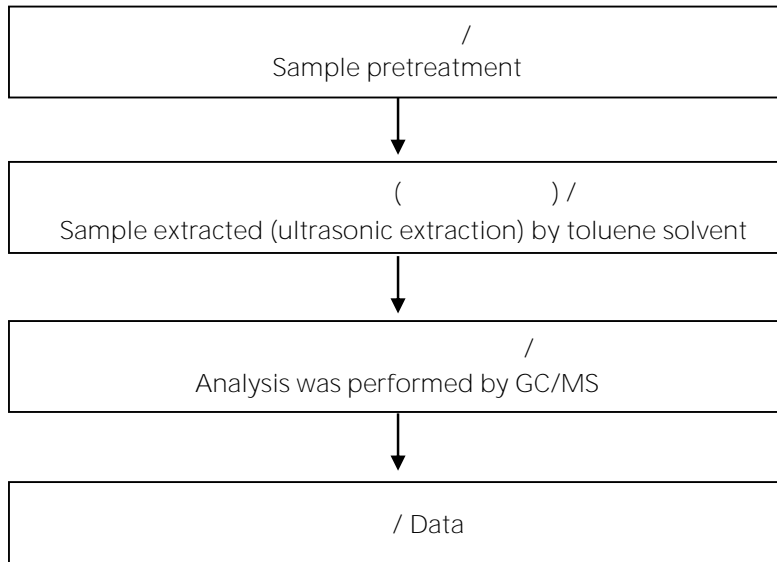


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6-8 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

/  
Analytical flow chart - PAHs (Polycyclic Aromatic Hydrocarbons)





# Test Report

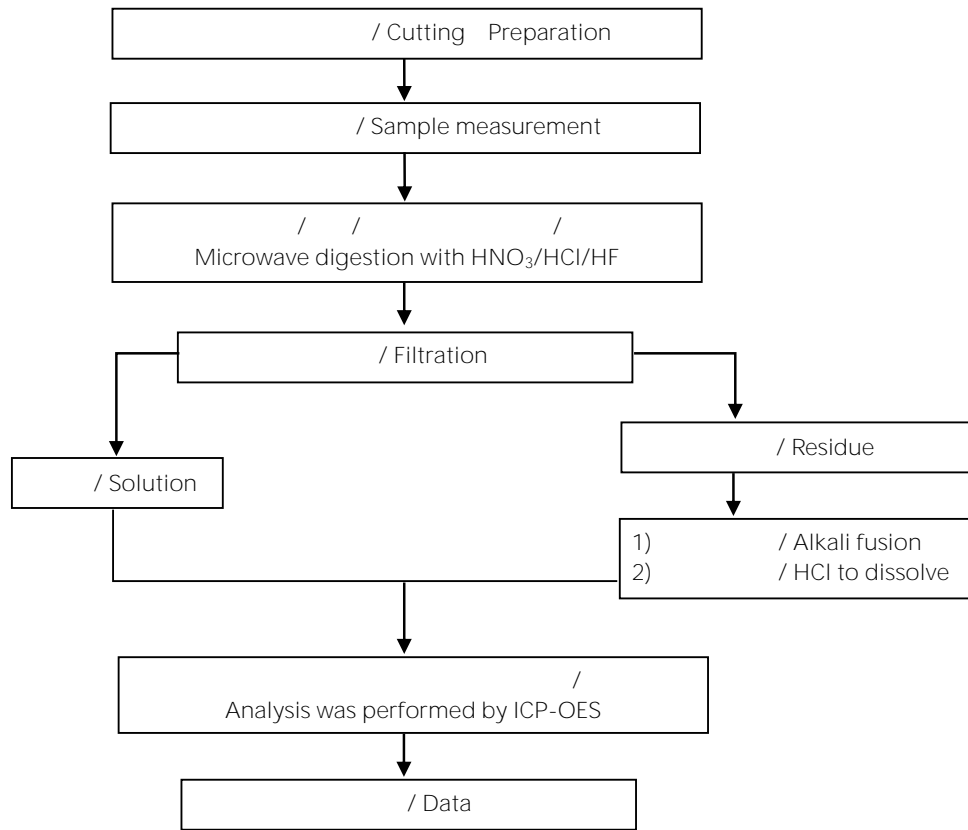
(EVERLIGHT ELECTRONICS CO., LTD.)

6-8 (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.

## Test Report

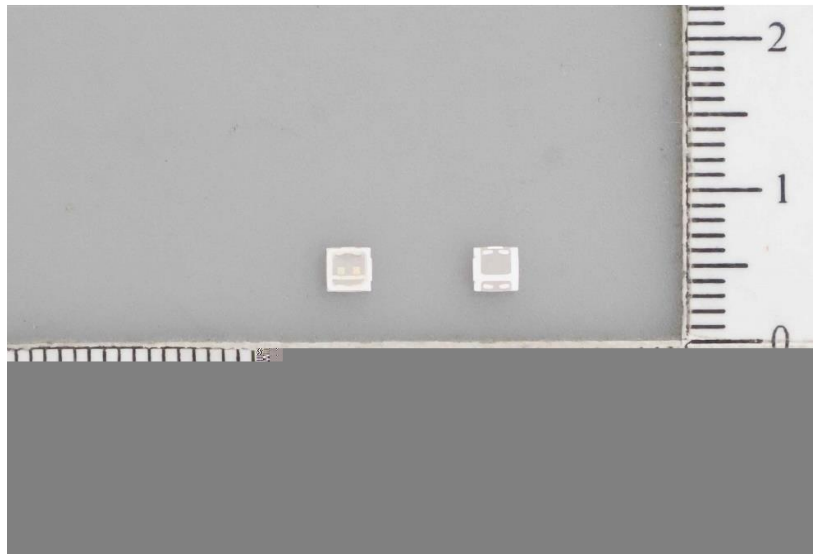
(EVERLIGHT ELECTRONICS CO., LTD.)

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\* / \*

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

### ETR24305685



\*\* (End of Report) \*\*