



检测报告 TEST REPORT

编号/No.: SH200600046C33

报告日期/Report Date: 2020/06/12

申请单位 : 江阴润玛电子材料股份有限公司
Applicant Jiang Yin RunMa Electronic Material Co.,Ltd
地址 : 江阴市周庄镇欧州工业园区
Address Jiangyin zhouzhuang European industrial park

以下检测样品由申请人提供及确认:

The following sample(s) was/were submitted and identified by/on behalf of the applicant as:

样品名称/Sample Name : 铝蚀刻液/Aluminium etching solution

接收日期/Receiving Date : 2020/06/08

检测周期/Testing Period : 2020/06/08-2020/06/12

检测要求/Test Requested : 参见下一页/Please refer to next page(s).

检测方法/Test Method : 参见下一页/Please refer to next page(s).

检测结果/Test Results : 参见下一页/Please refer to next page(s).

结论/Conclusion : 申请人所提供样品的检测结果符合欧盟 RoHS 修订指令(EU)2015/863 的要求。
/Based on the analysis on the submitted sample, the results **do comply with the**
requirement of RoHS Directive (EU)2015/863.



Approved by Sylvia Hu

审核 刘莺
Reviewed by Ying Liu

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编制 李辉辉
Redact by Huihui Li

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检测结果/TEST RESULTS:

1. RoHS 10

检测项目 Test Items	检测方法 Methods	方法检测限 MDL (mg/kg)	检测结果 Results (mg/kg)	法规限值* Limited Value (mg/kg)
铅/Pb	M1	2	N.D.	1000
镉/Cd		2	N.D.	100
汞/Hg	M2	2	N.D.	1000
六价铬/Cr (VI)	M3	2	N.D.	1000
一溴联苯/Monobromobiphenyl (MonoBB)	M4	5	N.D.	---
二溴联苯/Dibromobiphenyl (DiBB)		5	N.D.	---
三溴联苯/Tribromobiphenyl (TriBB)		5	N.D.	---
四溴联苯/Tetrabromobiphenyl (TetraBB)		5	N.D.	---
五溴联苯/Pentabromobiphenyl (PentaBB)		5	N.D.	---
六溴联苯/Hexabromobiphenyl (HexaBB)		5	N.D.	---
七溴联苯/Heptabromobiphenyl (HeptaBB)		5	N.D.	---
八溴联苯/Octabromobiphenyl (OctaBB)		5	N.D.	---
九溴联苯/Nonabromobiphenyl (NonaBB)		5	N.D.	---
十溴联苯/Decabromobiphenyl (DecaBB)		5	N.D.	---
上述多溴联苯总和/Total PBBs sum of above		---	N.D.	1000
一溴二苯醚/Monobromodiphenyl ether (MonoBDE)		5	N.D.	---
二溴二苯醚/Dibromodiphenyl ether (DiBDE)		5	N.D.	---
三溴二苯醚/Tribromodiphenyl ether (TriBDE)		5	N.D.	---
四溴二苯醚/Tetrabromodiphenyl ether (TetraBDE)		5	N.D.	---
五溴二苯醚/Pentabromodiphenyl ether (PentaBDE)		5	N.D.	---
六溴二苯醚/Hexabromodiphenyl ether (HexaBDE)		5	N.D.	---
七溴二苯醚/Heptabromodiphenyl ether (HeptaBDE)		5	N.D.	---
八溴二苯醚/Octabromodiphenyl ether (OctaBDE)		5	N.D.	---
九溴二苯醚/Nonabromodiphenyl ether (NonaBDE)		5	N.D.	---
十溴二苯醚/Decabromodiphenyl ether (DecaBDE)		5	N.D.	---
上述多溴二苯醚总和/Total PBDEs sum of above		---	N.D.	1000



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邻苯二甲酸二丁酯/Dibutyl Phthalate (DBP)	M5	50	N.D.	1000
邻苯二甲酸丁基苄基酯/Benzylbutyl Phthalate (BBP)		50	N.D.	1000
邻苯二甲酸二(2-乙基己基)酯 /Di-(2-ethylhexyl)Phthalate (DEHP)		50	N.D.	1000
邻苯二甲酸二异丁酯/Diisobutyl phthalate(DIBP)		50	N.D.	1000

注意/Remark: *报告中述及的法规限值根据是欧盟 RoHS 修订指令(EU)2015/863 的要求。/The Limited value is based on the RoHS Directive (EU)2015/863.

2. 卤素 / Halogen

检测项目 Test Item	单位 Unit	检测方法 Methods	方法检测限 MDL	检测结果 Test Result(s)	限值 Limit
氟/Fluorine (F)	mg/kg	M6	30	N.D.	---
氯/Chlorine (Cl)	mg/kg		30	N.D.	900
溴/Bromine (Br)	mg/kg		30	N.D.	900
碘/Iodine (I)	mg/kg		30	N.D.	---
总计/Total (Cl+Br)	mg/kg		---	N.D.	1500

备注 1) “---” = 未明确规定/Not Regulated.

/Note: 2) N.D. = 未检出, 小于方法检测限/Not detected, less than MDL.

3) M1: 参考 IEC 62321-5: 2013, 采用电感耦合等离子体发射光谱仪进行测定。

With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.

4) M2: 参考 IEC 62321-4: 2013+AMD1: 2017CSV, 采用电感耦合等离子体发射光谱仪进行测定。

With reference to IEC 62321-4: 2013+AMD1: 2017CSV, analysis was performed by ICP-OES.

5) M3: 参考 IEC 62321-7-2: 2017, 采用紫外可见分光光度计进行测定。

With reference to IEC 62321-7-2: 2017, analysis was performed by UV-Vis.

6) M4: 参考 IEC 62321-6: 2015, 采用气相色谱质谱联用仪进行测定。

With reference to IEC 62321-6: 2015, analysis was performed by GC-MS.

7) M5: 参考 IEC 62321-8: 2017, 采用气相色谱-质谱联用仪进行分析。

With reference to IEC 62321-8: 2017, analysis was performed by GC-MS.

8) M6: 参考 EN 14582: 2016, 采用离子色谱法(IC)进行检测。

With reference to EN 14582: 2016, analysis was performed by IC.

9) 本报告所有内容以中文为准/All content in this report is dominated by Chinese.



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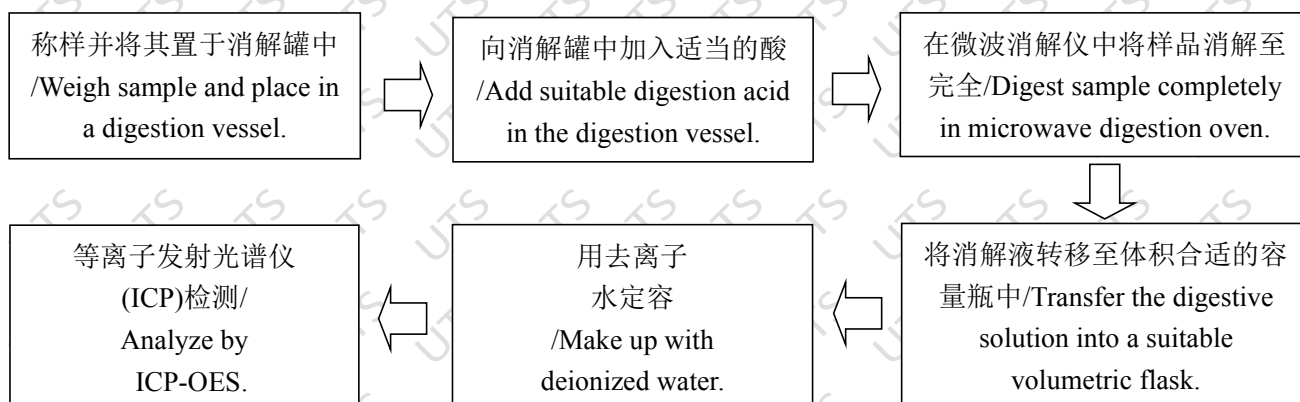
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- 10) 本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。/The data in this report can be used for scientific research, teaching, internal quality control and product development.

检测部位描述/TEST PART DESCRIPTION: 液体/Liquid

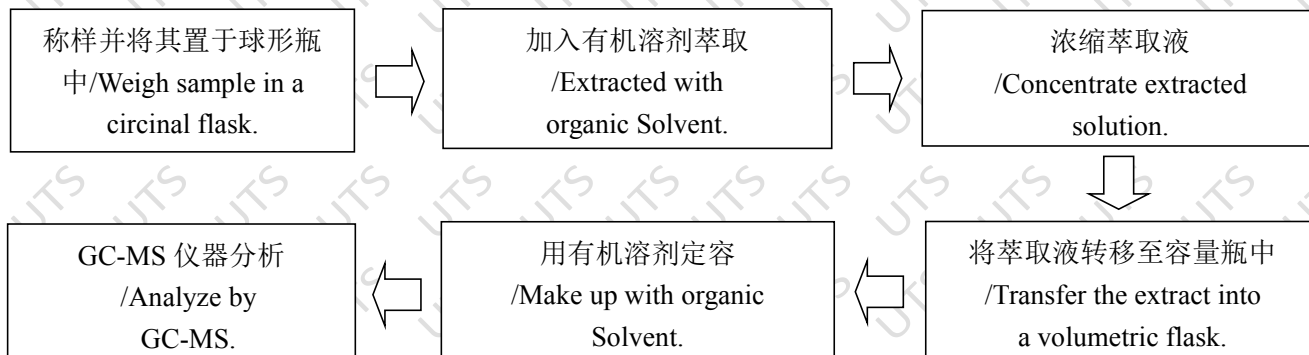
检测流程图

1. Pb、Hg、Cd 检测/Test for Pb、Hg、Cd Content



样品成分/Sample Material	消化酸/Digestion Acid
玻璃/Glass	HNO ₃ /HF
塑料/Plastic	H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
其它/Others	加入其它的酸消解/Any acid to total digestion.

2. 多溴联苯&多溴二苯醚和邻苯二甲酸酯检测 /Test for PBBs&PBDEs and Phthalates





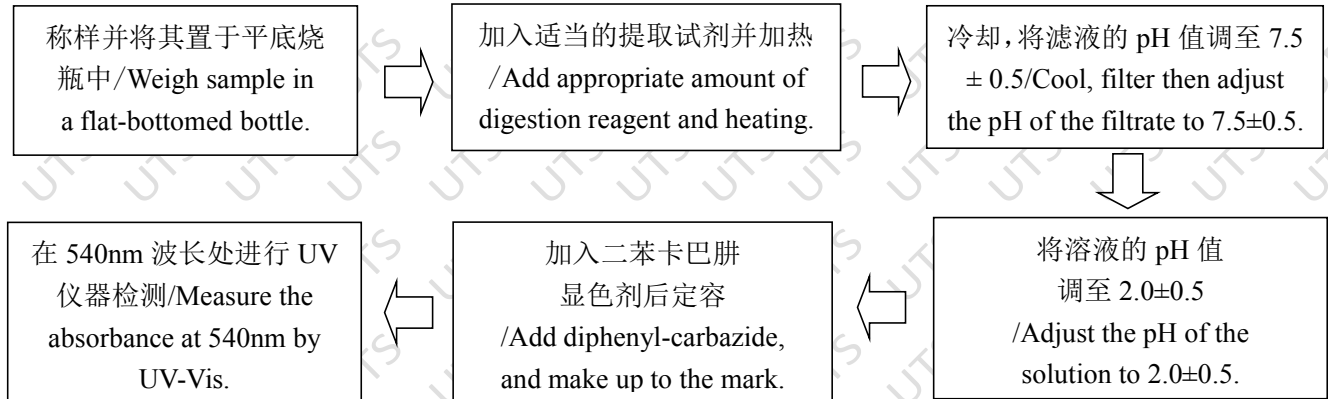
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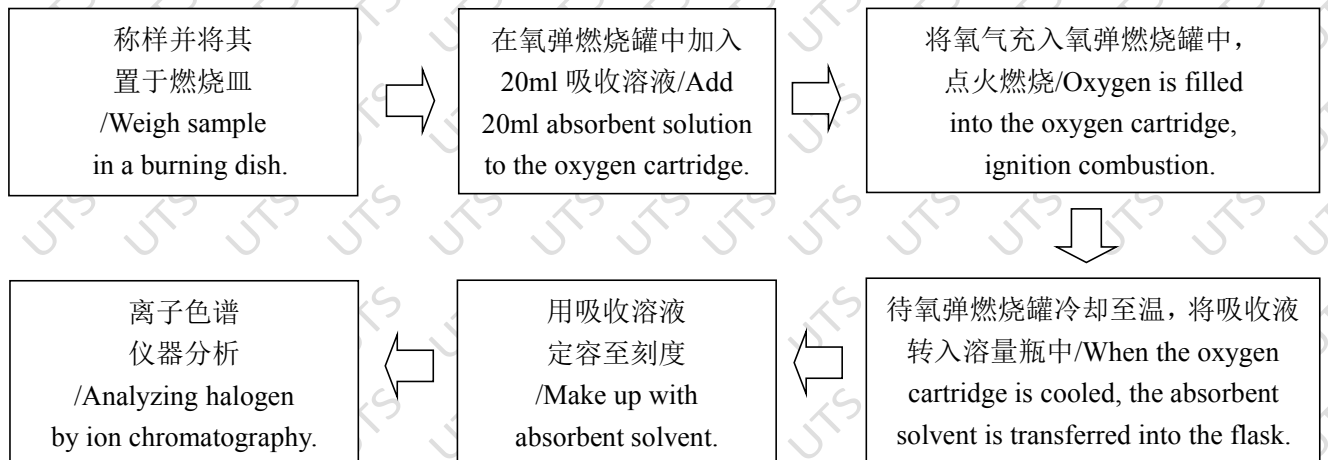
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3. 六价铬 Cr(VI)检测 /Test for Chromium(VI)Content



4. 卤素测试/Test for halogen Content





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样品照片/SAMPLE PHOTO



.....报告结束/End of Report.....