

# Test Report

No.: EM170210021C001

Date: Feb. 15, 2017

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**Applicant** : HONG HAI CHEMICAL(HK)LIMITED

委托单位 : 泓海化工(香港)有限公司

**Address** : 1413 MARKET BUILDING,63 MAID ROAD,HUIZHOU

地 址 : 惠州麦地路 63 号麦科特大厦 1413

**Sample Name** : EPOXY ADHESIVE

样品名称 : 真瓷胶美缝剂

**Received Date** : Feb. 10, 2017

接收日期 : 2017年02月10日

**Test Period** : Feb. 10, 2017 ~ Feb. 15, 2017

检测日期 : 2017年02月10日 ~ 2017年02月15日

**Test Requested** : As requested by client, according to RoHS Directive(EU) 2015/863 amending Annex II to Directive 2011/65/EU, to determine:

检测要求

根据客户要求, 依据欧盟 RoHS 指令 2011/65/EU 附录 II 的修订指令(EU) 2015/863, 检测以下项目:

- 1) the content of Lead, Cadmium and Mercury in the submitted sample;  
样品中的铅, 镉和汞的含量;
- 2) the content of Hexavalent Chromium in the submitted sample;  
样品中的六价的铬的含量;
- 3) the content of Polybrominated Biphenyls(PBBs) and Polybrominated Diphenyl-Ethers(PBDEs) in the submitted sample;  
样品中的多溴联苯(PBBs)以及多溴二苯醚(PBDEs)的含量;
- 4) the content of Bis(2-ethylhexyl)phthalate(DEHP), Dibutyl phthalate(DBP), Benzylbutyl phthalate(BBP), and Diisobutyl phthalate(DIBP) in the submitted sample.  
样品中的邻苯二甲酸二(2-乙基己)酯(DEHP)、邻苯二甲酸二丁酯(DBP)、邻苯二甲酸丁基酯(BBP)和邻苯二甲酸二异丁酯(DIBP)的含量。

**Test Results** : Please refer to next page (s).

检测结果

请参看随后页面。

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## Executive Summary:

执行测试总结:

### STANDARD

标准

RoHS Directive(EU) 2015/863 amending Annex II to Directive 2011/65/EU

欧盟 RoHS 指令 2011/65/EU 附录 II 的修订指令(EU) 2015/863

### CONCLUSION

结论

PASS

合格

Tested by:

*Tim*

Tim

Test engineer

Reviewed by:

*Jerry*

Jerry

Technical supervisor

Signed for and on behalf of

EMTEK (Shenzhen) Co., Ltd.

Approved by:

*Pascal Shi*

Pascal Shi

Authorized signatory

Feb. 15, 2017

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## Test Results:

### 检测结果:

## Test Method :

### 检测方法:

- 1) to refer to IEC 62321-5: 2013, determine the Lead, Cadmium content by ICP-OES.  
参照 IEC 62321-5: 2013, 用 ICP-OES 测定铅、镉的含量。
- 2) to refer to IEC 62321-4: 2013, determine the Mercury content by ICP-OES.  
参照 IEC 62321-4: 2013, 用 ICP-OES 测定汞的含量。
- 3) to refer to IEC 62321: 2008, determine the Hexavalent Chromium content by UV-VIS.  
参照 IEC 62321: 2008, 用 UV-VIS 测定六价铬的含量。
- 4) to refer to IEC 62321-6: 2015, determine the Polybrominated Biphenyls(PBBs) and Polybrominated Diphenyl- Ethers(PBDEs) by GC-MS.  
参照 IEC 62321-6: 2015, 用 GC-MS 测定多溴联苯(PBBs)和多溴二苯醚(PBDEs)的含量。
- 5) to refer to IEC 62321-8, determine the Bis(2-ethylhexyl)phthalate (DEHP), Dibutyl phthalate(DBP), Benzylbutyl phthalate(BBP) and Diisobutyl phthalate(DIBP) by GC-MS.  
参照 IEC 62321-8, 用 GC-MS 测定邻苯二甲酸二(2-乙基己)酯(DEHP)、邻苯二甲酸二丁酯(DBP)、邻苯二甲酸丁苄酯(BBP)和邻苯二甲酸二异丁酯(DIBP)的含量。

Analyte 被分析物	Test Result (mg/kg) 检测结果	MDL (mg/kg)	Limit 限值 (mg/kg)
	White solid 白色固体		
Lead (Pb) 铅 (Pb)	ND	2	1000
Cadmium (Cd) 镉 (Cd)	ND	2	100
Mercury (Hg) 汞 (Hg)	ND	2	1000
Hexavalent Chromium (Cr <sup>6+</sup> ) 六价铬 (Cr <sup>6+</sup> )	ND	2	1000
Polybrominated Biphenyls (Mono – Deca) (PBBs) 多溴联苯 (1 – 10) (PBBs)	ND	--	1000
Monobromobiphenyl 一溴联苯	ND	5	--
Dibromobiphenyl 二溴联苯	ND	5	--
Tribromobiphenyl 三溴联苯	ND	5	--
Tetrabromobiphenyl 四溴联苯	ND	5	--
Pentabromobiphenyl 五溴联苯	ND	5	--
Hexabromobiphenyl 六溴联苯	ND	5	--
Heptabromobiphenyl 七溴联苯	ND	5	--
Octabromobiphenyl 八溴联苯	ND	5	--
Nonabromobiphenyl 九溴联苯	ND	5	--
Decabromobiphenyl 十溴联苯	ND	5	--

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Analyte 被分析物	Test Result (mg/kg) 检测结果	MDL (mg/kg)	Limit 限值 (mg/kg)
	White solid 白色固体		
Polybrominated Diphenylethers (Mono – Deca) (PBDEs) 多溴二苯醚 (1 – 10) (PBDEs)	ND	--	1000
Monobromodiphenyl ether 一溴二苯醚	ND	5	--
Dibromodiphenyl ether 二溴二苯醚	ND	5	--
Tribromodiphenyl ether 三溴二苯醚	ND	5	--
Tetrabromodiphenyl ether 四溴二苯醚	ND	5	--
Pentabromodiphenyl ether 五溴二苯醚	ND	5	--
Hexabromodiphenyl ether 六溴二苯醚	ND	5	--
Heptabromodiphenyl ether 七溴二苯醚	ND	5	--
Octabromodiphenyl ether 八溴二苯醚	ND	5	--
Nonabromodiphenyl ether 九溴二苯醚	ND	5	--
Decabromodiphenyl ether 十溴二苯醚	ND	5	--
Di-2-ethylhexyl phthalate(DEHP) 邻苯二甲酸二(2-乙基己)酯(DEHP)	ND	30	1000
Dibutyl phthalate(DBP) 邻苯二甲酸二丁酯 (DBP)	ND	30	1000
Benzylbutyl phthalate(BBP) 邻苯二甲酸丁苄酯 (BBP)	ND	30	1000
Diisobutyl phthalate (DIBP) 邻苯二甲酸二异丁酯(DIBP)	ND	30	1000

Note: 1. mg/kg = milligram per kilogram = ppm

MDL = Method Detection Limit

备注: mg/kg = 毫克/千克 = 百万分之一

MDL = 方法检测限

ND = Not Detected (Less than MDL)

ND = 未检测到 (小于 MDL)

2. Specimens, which requested to determine Cadmium, Mercury and Lead Content, have been digested thoroughly.

对于测试铅、镉、汞的样品已完全消解。

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## Sample Photo

样品照片



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# Test Report

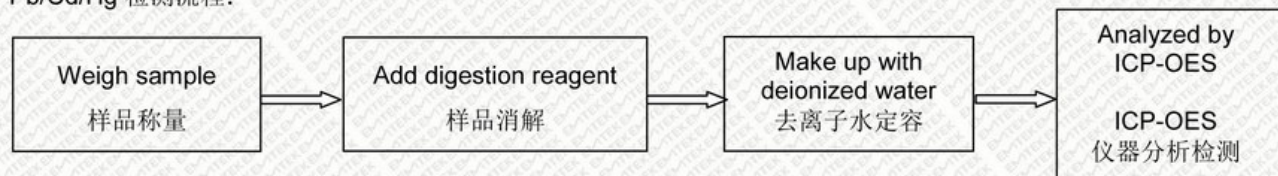
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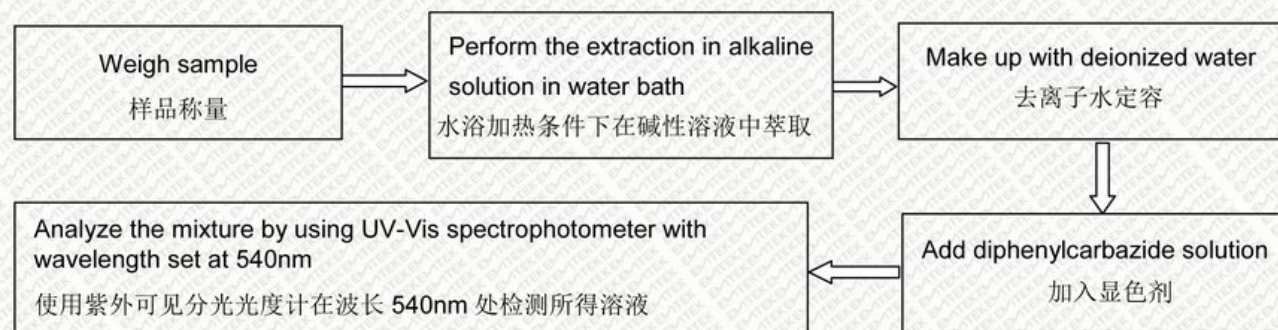
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## TEST FLOWCHART 检测流程图

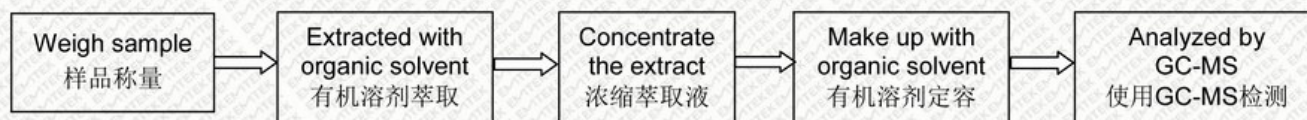
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**Pb/Cd/Hg 检测流程:**



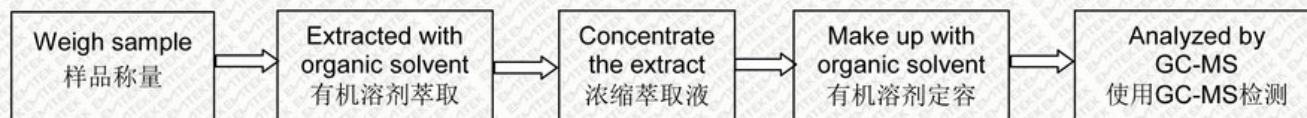
**Cr<sup>6+</sup> Test Process:**  
**Cr<sup>6+</sup> 检测流程:**



**PBBs & PBDEs Test Process:**  
**PBBs & PBDEs 检测流程:**



**DEHP, DBP, BBP, DIBP Test Process:**  
**DEHP,DBP,BBP 和 DIBP 检测流程:**



\*\*\* End of Report \*\*\*  
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