



## ICP Test Report Certification Packet

Company name: Littelfuse, Inc.

Product Series: 5x20mm Fast-Acting Cartridge Fuse

Product #: 216xxxXESPP

Issue Date: February 28, 2012

It is hereby certified by Littelfuse, Inc. that there is neither RoHS (EU Directive 2002/95/EC)-restricted substance nor such use, for materials to be used for unit parts, for packing/packaging materials, and for additives and the like in the manufacturing processes. In addition, it is hereby reported to you that the parts and sub-materials, the materials to be used for unit parts, the packing/packaging materials, and the additives and the like in the manufacturing processes, are all composed of the following components.

Issued by:   
KRISTEEN BACILA

<Global EHS Engineer >

128- Parts, sub-materials and unit parts

This document covers the 5x20mm Fast-Acting Cartridge Fuse RoHS-Compliant series products manufactured by Littelfuse, Inc.

< Raw Materials Used

Please see Table 1

(2) The ICP data on all measurable substances

Please see appropriate pages as identified in Table 1

Remarks :

**Table 1: List of Raw Materials covered by this report**

<b>Total Parts</b>	<b>Raw Material Part Number</b>	<b>Raw Material Description</b>	<b>Page(s)</b>
1	934-073	Overcap	3-6
2	909-449	Body	7-38
3	091251	Sand	39-44
4	082xxx	Element	45-54
5	692539-002	Solder	55-59
6	425631	Orange HF ink	60-68
7	425632	Red HF Ink	69-77
8	425633	Black HF Ink	78-86
9	425634	Deep yellow HF ink	87-95
10	425635	Blue HF ink	96-104
11	425636	Brown HF ink	105-113
12	425637	Green HF Ink	114-122
13	425639	Silver HF ink	123-131
14	425641	Violet HF ink	132-140
15	425900	Orange ink	141-155
16	425901	Red ink	156-170
17	425902	Black ink	171-185
18	425903	Yellow ink	186-200
19	425904	Blue ink	201-214
20	425906	Brown ink	215-229
21	425907	Green ink	230-244
22	425909	Grey ink	245-259
23	425911	Violet ink	260-274



# 检测报告

编号.: A002E11101729-2R01

日期: 2011-10-19

第 1 页共 4 页

客户/申请商: 苏州福弘电子工业有限公司  
地 址: 苏州市相城区望亭镇问渡路 89 号  
委托检验的样品及申请者对样品的说明如下  
样品名称: 引线铜壳

型 号: /

批 号: /

材 料: /

客 户: /

供 应 商: /

制 造 商: /

样品接收日期: 2011-10-17

样品测试日期: 2011-10-17 至 2011-10-19

## 测试要求:

依照欧盟 RoHS 指令 2002/95/EC, 测定委托样品中的铅、镉、汞、六价格的含量。

## 测试方法:

测试项目	前处理方法	测试仪器	MQL
铅 (Pb)	IEC 62321: 2008, 第 9 部分	ICP-OES	2 mg/kg
镉 (Cd)	IEC 62321: 2008, 第 9 部分	ICP-OES	2 mg/kg
汞 (Hg)	IEC 62321: 2008, 第 7 部分	ICP-OES	2 mg/kg
六价格 (Cr <sup>6+</sup> )	IEC 62321: 2008, 附件 B	UV-VIS	0.02 mg/kg*

## 备注:

- \*0.02 mg/kg 为样品萃取溶液的 MQL.

## 结 论:

依照委托对指定样品进行测试, 测试结果表明指定样品符合欧盟 RoHS 指令 2002/95/EC 及其补充指令 2005/618/EC 的要求。

\*\*\*\*\*更多详细信息请查阅下页\*\*\*\*\*

项目负责  
(工程师)

李 群

签 发  
(授权签字人)

袁 奇

审 核  
(技术负责人)

王 维 新

# 检测报告

编号: A002E11101729-2R01

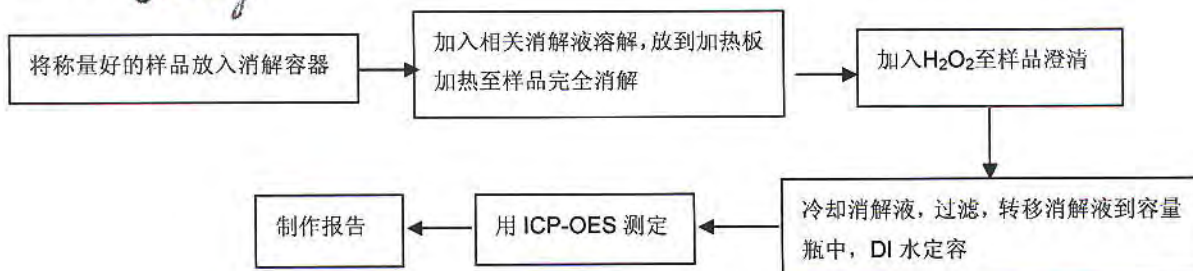
日期: 2011-10-19

第 2 页共 4 页

## 检测流程:

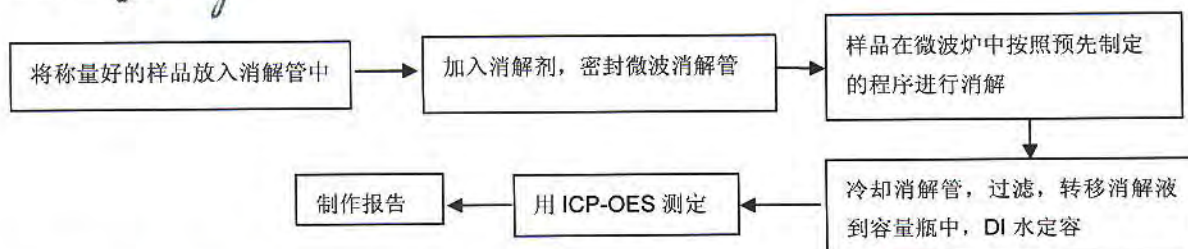
### 1. 测定铅、镉含量 (金属基材):

测试人员: *Condy*



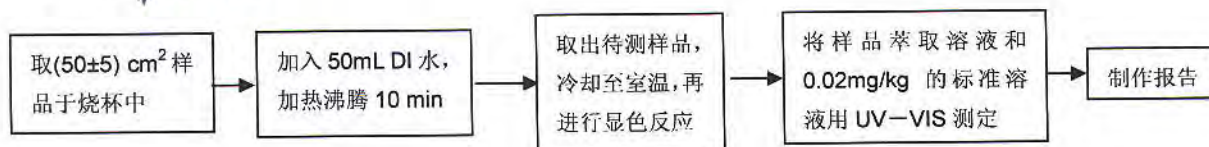
### 2. 测定汞含量 (金属基材):

测试人员: *Condy*



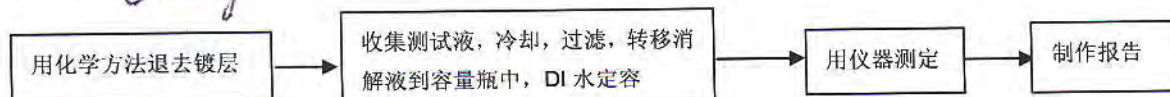
### 3. 测定六价铬含量 (沸水萃取法) (金属基材):

测试人员: *Danae*



### 4. 测定镀层中铅、镉、汞的含量 (镀层):

测试人员: *Condy*





# 检测报告

编号.: A002E11101729-2R01

日期: 2011-10-19

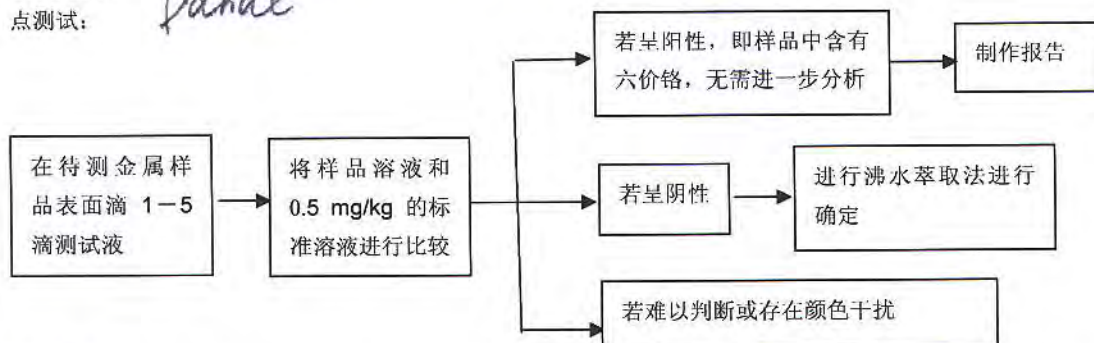
第 3 页共 4 页

## 5. 测定六价铬含量(无色镀铬金属样品及有色镀铬金属样品中) (镀层):

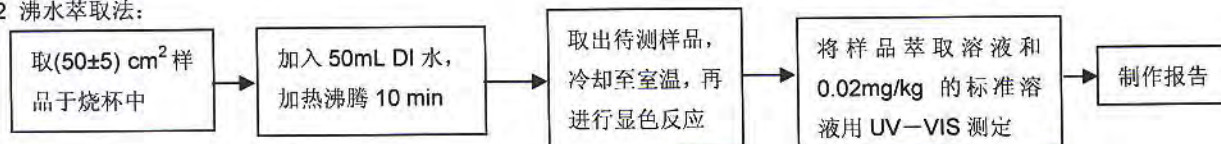
测试人员:

*Danae*

### 5.1 点测试:



### 5.2 沸水萃取法:



## 样品描述:

序号	样品描述	序号	样品描述
2-1	引线基材	2-3	铜壳基材
2-2	引线镀层	2-4	铜壳镀层

## 测试结果

项目	单位	RoHS 限值	结果			
			2-1	2-2	2-3	2-4
铅 (Pb)	mg/kg	1000	N.D.	19	N.D.	N.D.
镉 (Cd)	mg/kg	100	N.D.	N.D.	N.D.	N.D.
汞(Hg)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.
六价铬(CrVI)	mg/kg	1000	阴性	阴性	阴性	阴性

## 备注:

- 欧盟新 RoHS 指令 2011/65/EU, 于 2011 年 7 月 21 日生效, 2013 年 1 月 3 日正式实施, 指令 2002/95/EC 同时废止。
- 对于检测铅、镉、汞的样品已完全溶解。
- mg/kg=ppm
- N.D. =未检出 (<MQL)
- MQL=方法定量检测下限
- 阴性=未检测出六价铬
- 阳性=检测出六价铬
- 不确定=不能通过点测试判断样品是否含有六价铬
- (如果镀层点测试结果呈阴性或无法确认六价铬的存在, 测试样品将进一步由沸水萃取法进行确认)
- 附相片

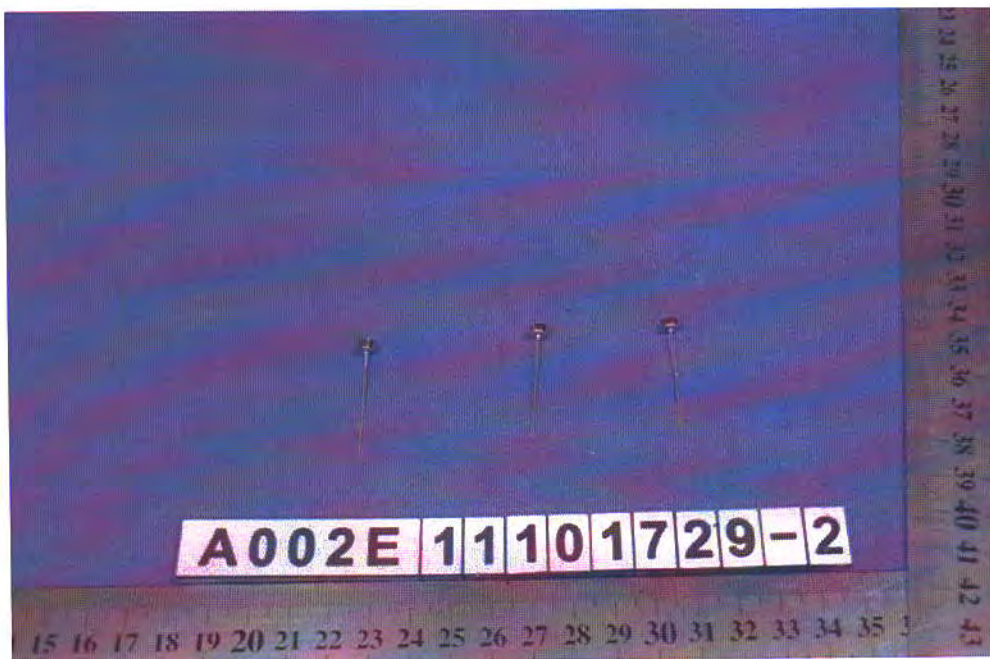
## 检测报告

编号.: A002E11101729-2R01

日期: 2011-10-19

第 4 页共 4 页

样 品 相 片



引线铜壳

\*\*\*报告结束\*\*\*



# 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 1 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



以下測試樣品係由客戶送樣，且由客戶聲稱並經客戶確認如下 (The following samples was/were submitted and identified by/on behalf of the client as) :

樣品名稱(Sample Description) : CERAMIC  
樣品型號(Style/Item No.) : C610  
收件日期(Sample Receiving Date) : 2012/01/30  
測試期間(Testing Period) : 2012/01/30 TO 2012/02/04

測試結果(Test Results) : 請見下一頁 (Please refer to next pages).

結論(Conclusion) : 根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯及多溴聯苯醚的測試結果符合 RoHS指令2002/95/EC的更新指令2011/65/EU之要求 (Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Hexavalent Chromium Cr(VI), PBBs and PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.)

  
Chenyu Kung / Operation Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory – Taipei

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，本報告未經本公司書面許可，不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 2 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 測試結果(Test Results)

測試部位(PART NAME)No.1 : 白色陶瓷 (WHITE CERAMIC)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321: 2008方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.	100
鉛 / Lead (Pb)	mg/kg	參考IEC 62321: 2008方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	178	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321: 2008方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS檢測。 / With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.	1000
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考US EPA 3540C: 1996方法, 以液相層析 / 質譜儀檢測全氟辛烷磺酸含量。 / With reference to US EPA 3540C: 1996 method for PFOS Content. Analysis was performed by LC/MS.	10	n.d.	-
全氟辛酸 (鉍) / PFOA (CAS No.: 335-67-1)	mg/kg	參考US EPA 3540C: 1996方法, 以液相層析 / 質譜儀檢測全氟辛酸 (鉍) 含量。 / With reference to US EPA 3540C: 1996 method for PFOA Content. Analysis was performed by LC/MS.	10	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.): CE/2012/14843 日期(Date): 2012/02/04 頁數(Page): 3 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
多氯聯苯 / Polychlorinated Biphenyls (PCBs) (CAS No.: 1336-36-3)	mg/kg	參考US EPA 3540C方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.5	n.d.	-
多氯三聯苯 / Polychlorinated Terphenyls (PCTs)	mg/kg	參考US EPA 3540C方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.5	n.d.	-
多氯奈 / Polychlorinated Naphthalene (PCNs)	mg/kg	參考US EPA 3540C方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	5	n.d.	-
短鏈氯化石蠟 / Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (CAS No.: 85535-84-8)	%	參考US EPA 3540C方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.01	n.d.	-
甲醛 / Formaldehyde (CAS No.: 50-00-0)	mg/kg	參考ISO 17226-1(2008)方法, 以高效液相層析儀/二極體陣列偵測器檢測。 / With reference to ISO 17226-1(2008). Analysis was performed by HPLC/DAD.	3	n.d.	-
聚氯乙烯 / PVC	**	以紅外光譜分析及焰色法檢測。 / Analysis was performed by FTIR and FLAME Test.	-	Negative	-
鄰苯二甲酸甲苯基丁酯 / BBP (Benzyl butyl phthalate) (CAS No.: 85-68-7)	%	參考EN 14372, 以氣相層析/質譜儀檢測之。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	%	參考EN 14372, 以氣相層析/質譜儀檢測之。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測之。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告人與本公司同意許可, 不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.): CE/2012/14843 日期(Date): 2012/02/04 頁數(Page): 4 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
鄰苯二甲酸二異壬酯 / DINP (Di-isononyl phthalate) (CAS No.: 28553-12-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測之。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	-
鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測之。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	%	參考EN 14372, 以氣相層析/質譜儀檢測之。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
單甲基二溴二苯基甲烷 / Monomethyl dibromodiphenyl methane (DBBT)	mg/kg	參考US EPA 8270D方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 8270D method. Analysis was performed by GC/MS.	0.5	n.d.	-
單甲基二氯二苯基甲烷 / Monomethyl dichlorodiphenyl methane (Ugilecl21)	mg/kg	參考US EPA 8270D方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 8270D method. Analysis was performed by GC/MS.	0.5	n.d.	-
單甲基四氯二苯基甲烷 / Monomethyl tetrachlorodiphenyl methane (Ugilecl41)	mg/kg	參考US EPA 8270D方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 8270D method. Analysis was performed by GC/MS.	0.5	n.d.	-
有機錫 / Organic-tin compounds					
三丁基錫 / Tributyl Tin (TBT)	mg/kg	參考DIN 38407-13方法, 以氣相層析儀/火焰光度偵測器檢測。 / With reference to DIN 38407-13. Analysis was performed by GC/FPD.	0.03	n.d.	-
三苯基錫 / Triphenyl Tin (TphT)	mg/kg	參考DIN 38407-13方法, 以氣相層析儀/火焰光度偵測器檢測。 / With reference to DIN 38407-13. Analysis was performed by GC/FPD.	0.03	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



# 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 5 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
海龍 (Halons)					
海龍 (Halon)-1211 (CAS No.: 353-59-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
海龍 (Halon)-1301 (CAS No.: 75-63-8)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
海龍 (Halon)-2402 (CAS No.: 124-73-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
鹵素 / Halogen					
鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析。 / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	-
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析。 / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	-
鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析。 / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	-
鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析。 / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 6 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
石棉 / Asbestos					
陽起石 / Actinolite (CAS No.: 77536-66-4)	%	參考EPA 600/R-93/116 / 立體顯微鏡 (SM), 偏光顯微鏡 (PLM)及X光繞射定性分析法 (XRD) / With reference to EPA 600/R-93/116 method. Analysis was performed by SM, PLM and XRD.	1	Negative	-
棕石棉 / Amosite (CAS No.: 12172-73-5)	%	參考EPA 600/R-93/116 / 立體顯微鏡 (SM), 偏光顯微鏡 (PLM)及X光繞射定性分析法 (XRD) / With reference to EPA 600/R-93/116 method. Analysis was performed by SM, PLM and XRD.	1	Negative	-
斜方角閃石 / Anthophyllite (CAS No.: 77536-67-5)	%	參考EPA 600/R-93/116 / 立體顯微鏡 (SM), 偏光顯微鏡 (PLM)及X光繞射定性分析法 (XRD) / With reference to EPA 600/R-93/116 method. Analysis was performed by SM, PLM and XRD.	1	Negative	-
白石棉 / Chrysotile (CAS No.: 12001-29-5)	%	參考EPA 600/R-93/116 / 立體顯微鏡 (SM), 偏光顯微鏡 (PLM)及X光繞射定性分析法 (XRD) / With reference to EPA 600/R-93/116 method. Analysis was performed by SM, PLM and XRD.	1	Negative	-
青石棉 / Crocidolite (CAS No.: 12001-28-4)	%	參考EPA 600/R-93/116 / 立體顯微鏡 (SM), 偏光顯微鏡 (PLM)及X光繞射定性分析法 (XRD) / With reference to EPA 600/R-93/116 method. Analysis was performed by SM, PLM and XRD.	1	Negative	-
透閃石 / Tremolite (CAS No.: 77536-68-6)	%	參考EPA 600/R-93/116 / 立體顯微鏡 (SM), 偏光顯微鏡 (PLM)及X光繞射定性分析法 (XRD) / With reference to EPA 600/R-93/116 method. Analysis was performed by SM, PLM and XRD.	1	Negative	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，本報告未經本公司書面許可，不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 7 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) No.1	法規 限值 (Limit)
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析儀/ 質譜儀檢測。 / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.	1000
一溴聯苯 / Monobromobiphenyl			5	n.d.	-
二溴聯苯 / Dibromobiphenyl			5	n.d.	-
三溴聯苯 / Tribromobiphenyl			5	n.d.	-
四溴聯苯 / Tetrabromobiphenyl			5	n.d.	-
五溴聯苯 / Pentabromobiphenyl			5	n.d.	-
六溴聯苯 / Hexabromobiphenyl			5	n.d.	-
七溴聯苯 / Heptabromobiphenyl			5	n.d.	-
八溴聯苯 / Octabromobiphenyl			5	n.d.	-
九溴聯苯 / Nonabromobiphenyl			5	n.d.	-
十溴聯苯 / Decabromobiphenyl			5	n.d.	-
多溴聯苯醚總和 / Sum of PBDEs			-	n.d.	1000
一溴聯苯醚 / Monobromodiphenyl ether			5	n.d.	-
二溴聯苯醚 / Dibromodiphenyl ether			5	n.d.	-
三溴聯苯醚 / Tribromodiphenyl ether			5	n.d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether			5	n.d.	-
五溴聯苯醚 / Pentabromodiphenyl ether			5	n.d.	-
六溴聯苯醚 / Hexabromodiphenyl ether			5	n.d.	-
七溴聯苯醚 / Heptabromodiphenyl ether			5	n.d.	-
八溴聯苯醚 / Octabromodiphenyl ether			5	n.d.	-
九溴聯苯醚 / Nonabromodiphenyl ether			5	n.d.	-
十溴聯苯醚 / Decabromodiphenyl ether			5	n.d.	-
偶氮 (AZO)					
1): 4-氨基二苯 / 4-AMINODIPHENYL (CAS No.: 92-67-1)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜 儀檢測。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.): CE/2012/14843 日期(Date): 2012/02/04 頁數(Page): 8 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
2): 聯苯胺 / BENZIDINE (CAS No.: 92-87-5)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
3): 4-氯鄰甲苯胺 / 4-CHLORO-O-TOLUIDINE (CAS No.: 95-69-2)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
4): 2-萘胺 / 2-NAPHTHYLAMINE (CAS No.: 91-59-8)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
5): 鄰氨基二甲基偶氮 / O-AMINOAZOTOLUENE (CAS No.: 97-56-3)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
6): 對硝基鄰甲苯胺 / 2-AMINO-4-NITROTOLUENE (CAS No.: 99-55-8)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
7): 對氯苯胺 / P-CHLOROANILINE (CAS No.: 106-47-8)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
8): 4-甲氧基-間苯二胺 / 2,4-DIAMINOANISOLE (CAS No.: 615-05-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
9): 4,4'-二氨基二苯甲烷 / 4,4'-DIAMINODIPHENYLMETHANE (CAS No.: 101-77-9)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



# 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 9 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
10): 3,3'-二氯聯苯胺 / 3,3'-DICHLOROBENZIDINE (CAS No.: 91-94-1)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
11): 3,3'-二甲氧基聯苯胺 / 3,3'-DIMETHOXYBENZIDINE (CAS No.: 119-90-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
12): 3,3'-二甲基聯苯胺 / 3,3'-DIMETHYLBENZIDINE (CAS No.: 119-93-7)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
13): 3,3'-二甲基-4,4'-二氨基二苯甲烷 / 3,3'-DIMETHYL-4,4'-DIAMINODIPHENYLMETHANE (CAS No.: 838-88-0)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
14): 2-甲氧基-5-甲基聯苯 / P-CRESIDINE (2-METHOXY-5-METHYLANILINE) (CAS No.: 120-71-8)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
15): 4,4'-亞甲基雙(氣苯胺) / 4,4'-METHYLENE-BIS-(2-CHLOROANILINE) (CAS No.: 101-14-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
16): 4,4'-氧化雙苯胺 / 4,4'-OXYDIANILINE (CAS No.: 101-80-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
17): 4,4'-硫代雙苯胺 / 4,4'-THIODIANILINE (CAS No.: 139-65-1)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 10 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
18): 鄰甲苯胺 / O-TOLUIDINE (CAS No.: 95-53-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
19): 2,4-二氨基甲苯 / 2,4-TOLUYLENEDIAMINE (CAS No.: 95-80-7)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
20): 2,4,5-三甲基苯胺 / 2,4,5-TRIMETHYLANILINE (CAS No.: 137-17-7)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
21): 鄰位甲氧基苯胺 / O-ANISIDINE (CAS No.: 90-04-0)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
22): 對氨基偶氮苯 / P-AMINOAZOBENZENE (CAS No.: 60-09-3)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
23): 2,4-二甲基苯胺 / 2,4-XYLIDINE (CAS No.: 95-68-1)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
24): 2,6-二甲基苯胺 / 2,6-XYLIDINE (CAS No.: 87-62-7)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅針對測試之樣品負責。本報告未經本公司同意, 不得部分複製。This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.): CE/2012/14843 日期(Date): 2012/02/04 頁數(Page): 11 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
氟氯碳化物 / CFCs (Chlorofluorocarbons)					
Group I					
氟氯碳化物 (Chlorofluorocarbon)- 11 (CAS No.: 75-69-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)- 12 (CAS No.: 75-71-8)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)- 113 (CAS No.: 76-13-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)- 114 (CAS No.: 76-14-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)- 115 (CAS No.: 76-15-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
Group III					
氟氯碳化物 (Chlorofluorocarbon)- 13 (CAS No.: 75-72-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)- 111 (CAS No.: 354-56-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 12 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
氯氣碳化物 (Chlorofluorocarbon)- 112 (CAS No.: 76-12-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯氣碳化物 (Chlorofluorocarbon)- 211 (CAS No.: 422-78-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯氣碳化物 (Chlorofluorocarbon)- 212 (CAS No.: 3182-26-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯氣碳化物 (Chlorofluorocarbon)- 213 (CAS No.: 2354-06-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯氣碳化物 (Chlorofluorocarbon)- 214 (CAS No.: 29255-31-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯氣碳化物 (Chlorofluorocarbon)- 215 (CAS No.: 4259-43-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯氣碳化物 (Chlorofluorocarbon)- 216 (CAS No.: 661-97-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯氣碳化物 (Chlorofluorocarbon)- 217 (CAS No.: 422-86-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.): CE/2012/14843 日期(Date): 2012/02/04 頁數(Page): 13 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
氯化碳氫化物 / CHCs (Chlorinate hydrocarbon)					
1,1,1,2-四氯乙烷 / 1,1,1,2-Tetrachloroethane (CAS No.: 630-20-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1,1-三氯乙烷 / 1,1,1-Trichloroethane (CAS No.: 71-55-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1,2,2-四氯乙烷 / 1,1,2,2-Tetrachloroethane (CAS No.: 79-34-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1,2-三氯乙烷 / 1,1,2-Trichloroethane (CAS No.: 79-00-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1-二氯乙烷 / 1,1-Dichloroethane (CAS No.: 75-34-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1-二氯乙烯 / 1,1-Dichloroethene (CAS No.: 75-35-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1-二氯丙烯 / 1,1-Dichloropropene (CAS No.: 563-58-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.): CE/2012/14843 日期(Date): 2012/02/04 頁數(Page): 14 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
1,2,3-三氯丙烷 / 1,2,3-Trichloropropane (CAS No.: 96-18-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,2-二氯乙烷 / 1,2-Dichloroethane (CAS No.: 107-06-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,2-二氯丙烷 / 1,2-Dichloropropane (CAS No.: 78-87-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,3-二氯丙烷 / 1,3-Dichloropropane (CAS No.: 142-28-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
2,2-二氯丙烷 / 2,2-Dichloropropane (CAS No.: 594-20-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
四氯甲烷 (四氯化碳) / Carbon tetrachloride (CAS No.: 56-23-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯乙烷 / Chloroethane (CAS No.: 75-00-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯仿 / Chloroform (CAS No.: 67-66-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅針對測試之樣品負責, 不得將本報告內容再行複製、修改、或將部分內容再行複製、修改。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.): CE/2012/14843 日期(Date): 2012/02/04 頁數(Page): 15 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
氯甲烷 / Chloromethane (CAS No.: 74-87-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
順-1,2-二氯乙烯 / cis-1,2-Dichloroethene (CAS No.: 156-59-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
順-1,3-二氯丙烯 / cis-1,3-Dichloropropene (CAS No.: 10061-01-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
六氯丁二烯 / Hexachlorobutadiene (CAS No.: 87-68-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
二氯甲烷 / Dichloromethane (CAS No.: 75-09-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
四氯乙烯 / Tetrachloroethene (CAS No.: 127-18-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
反-1,2-二氯乙烯 / trans-1,2-Dichloroethene (CAS No.: 156-60-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
反-1,3-二氯丙烯 / trans-1,3-Dichloropropene (CAS No.: 10061-02-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司同意, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 16 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
三氯乙烯 / Trichloroethylene (CAS No.: 79-01-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 / HCFCs (Hydrochlorofluorocarbons)					
氟氯氫碳化物 (HCFC)-21 (CAS No.: 75-43-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-22 (CAS No.: 75-45-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-31 (CAS No.: 593-70-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-121 (CAS No.: 354-14-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-122 (CAS No.: 354-21-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-123 (CAS No.: 306-83-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責, 本報告未經本公司書面許可, 不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 17 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
氟氯氫碳化物 (HCFC)-124 (CAS No.: 2837-89-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-131 (CAS No.: 359-28-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-132b (CAS No.: 1649-08-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-133a (CAS No.: 75-88-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-141b (CAS No.: 1717-00-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-142b (CAS No.: 75-68-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-221 (CAS No.: 422-26-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



# 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 18 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
氟氯氫碳化物 (HCFC)-222 (CAS No.: 422-49-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-223 (CAS No.: 422-52-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-224 (CAS No.: 422-54-8)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-225ca (CAS No.: 422-56-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-225cb (CAS No.: 507-55-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-226 (CAS No.: 431-87-8)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-231 (CAS No.: 421-94-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司同意不得全部或局部複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



# 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 19 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
氟氯氫碳化物 (HCFC)-232 (CAS No.: 460-89-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-233 (CAS No.: 7125-84-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-234 (CAS No.: 425-94-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-235 (CAS No.: 460-92-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-241 (CAS No.: 666-27-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-242 (CAS No.: 460-63-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-243 (CAS No.: 460-69-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

# 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 20 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
氟氯氫碳化物 (HCFC)-244	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-251 (CAS No.: 421-41-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-252 (CAS No.: 819-00-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-253 (CAS No.: 460-35-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-261 (CAS No.: 420-97-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-262 (CAS No.: 421-02-03)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-271 (CAS No.: 430-55-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀 檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 21 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)
5. \*\*= Qualitative analysis (No Unit) 定性分析(無單位)
6. Negative = Undetectable 陰性(未偵測到); Positive = Detectable 陽性(已偵測到)
7. 石棉(Asbestos) : Negative = 陰性 (< 1.0 %), Positive = 陽性 (> 1.0 %)

### PFOS參考資訊(Reference Information) : 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm), 在半成品、成品或零部件中不得超過0.1%(1000ppm), 在紡織品或塗層材料中不得超過1µg/m<sup>2</sup>。

(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above 1µg/m<sup>2</sup>.)

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 22 of 32

功得電子工業股份有限公司

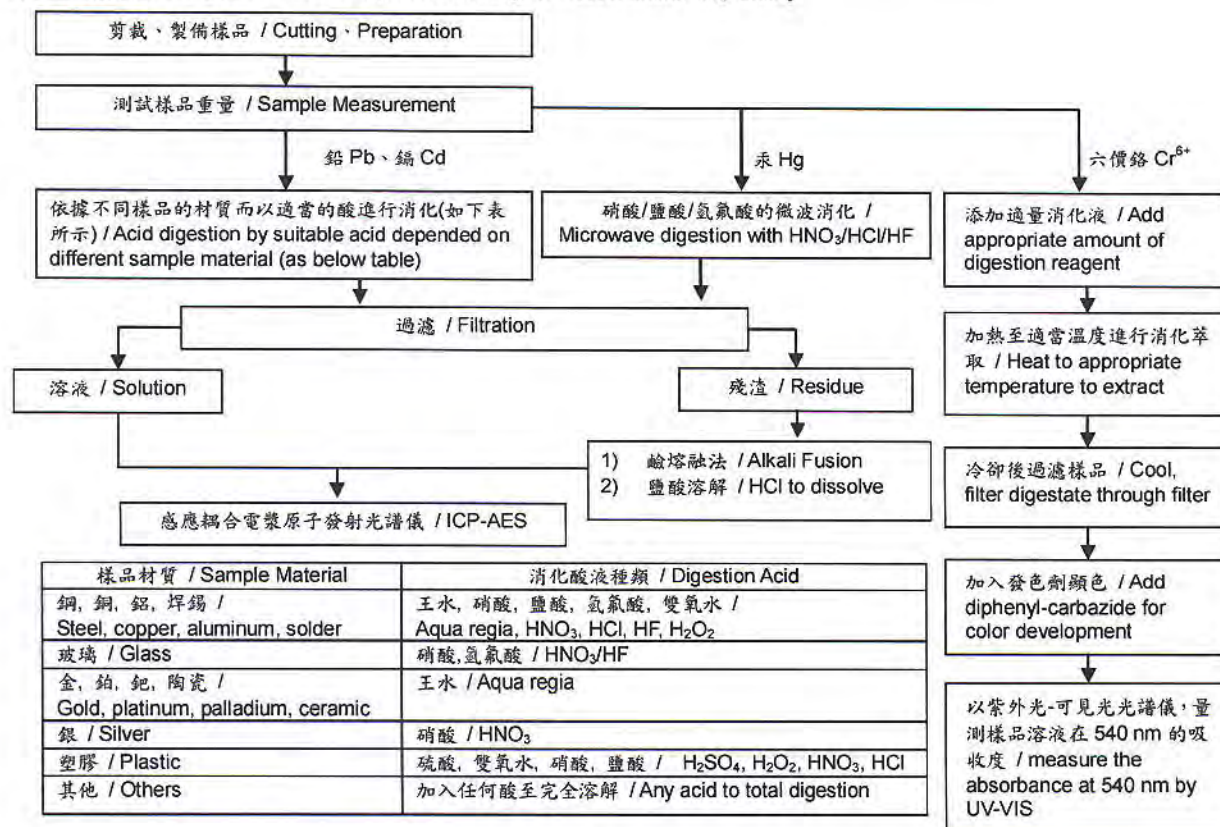
CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司同意，不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 23 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

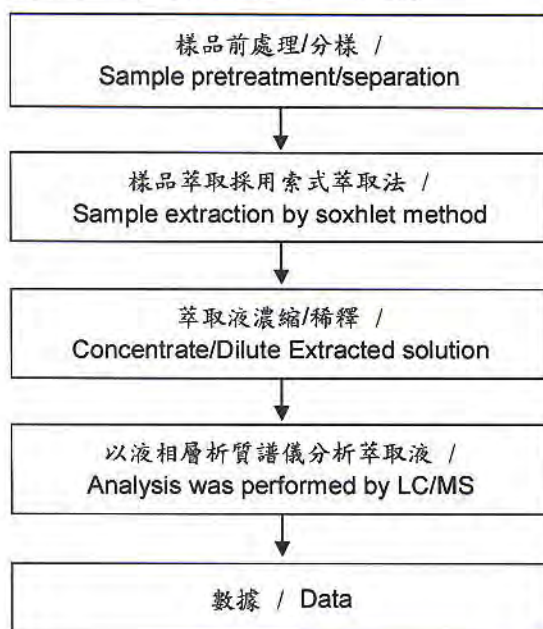
新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 索式萃取分析流程圖 / Analytical flow chart of Soxhlet extraction (LC/MS) procedure

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
  - 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang
- 【測試項目：全氟辛酸磺酸/全氟辛酸(銨)、苯並三唑類化合物 /  
Test Items: PFOS/PFOA、Benzotriazole】



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 24 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

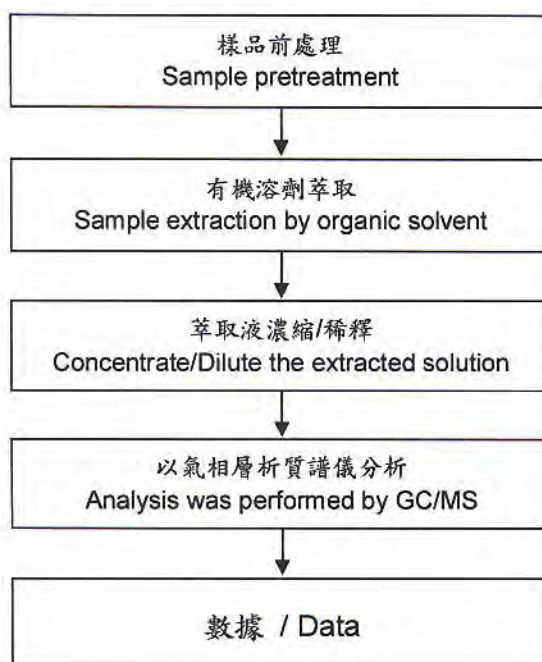
NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 含氯阻燃劑分析流程 / Chlorinated Flame retardant analytical flow chart

- 1) 測試人員：曾勃鈞 / Name of the person who made measurement: Barry Tseng
- 2) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

- 參考方法(Reference method): US EPA 8270D, US EPA 3540
- 測試項目(Test Items): PCBs, PCNs, PCTs, Mirex, CP, MCCP / 多氯聯苯, 多氯奈, 多氯三聯苯, 滅蟻靈, 氯化石蠟, 中鏈氯化石蠟



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 25 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

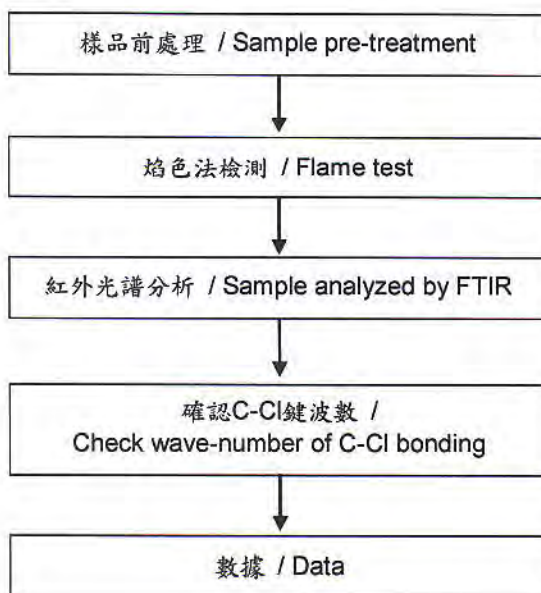
NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 聚氯乙稀物質判定分析流程圖 /

#### Analysis flow chart for determination of PVC in material

- 測試人員：陳君涵 / Name of the person who made measurement: Ginny Chen
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除註明有說明，此報告結果僅對測試之樣品負責，本報告未經本公司再行許可，不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 26 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

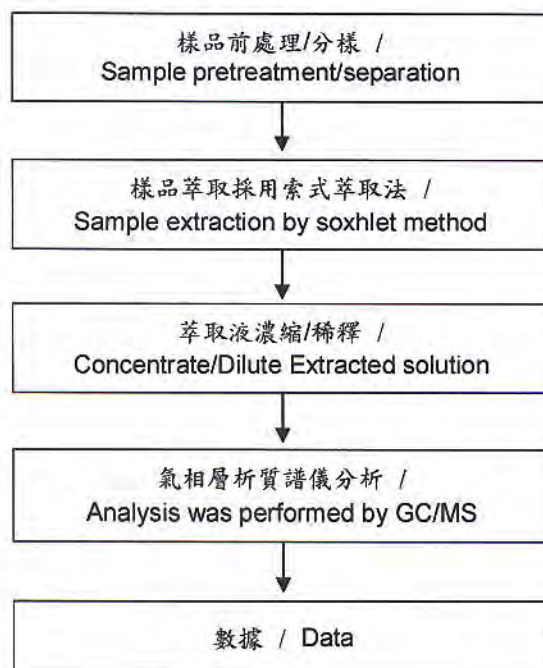
NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 索式萃取分析流程圖 / Analytical flow chart of Soxhlet extraction (GC/MS) procedure

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

【測試項目：可塑劑、苯並三唑類化合物、六溴環十二烷、壬酚、單甲基二溴二苯基甲烷、有機磷化合物 / Test Items: Phthalate、Benzotriazole、HBCDD、NP、DBBT、Organic phosphorus compounds】



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 本公司所有權利，凡欲轉載或引用本公司之測試報告，必須先向本公司申請，並經本公司同意後，方可部分或全部轉載。本報告之內容，係根據客戶之委託，由本公司之專業人員，依照本公司之標準作業程序，並參考相關之國際標準，所進行之測試結果。本公司之測試結果，僅供客戶參考，並不構成任何法律責任。本公司之測試結果，僅供客戶參考，並不構成任何法律責任。本公司之測試結果，僅供客戶參考，並不構成任何法律責任。



## 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 27 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

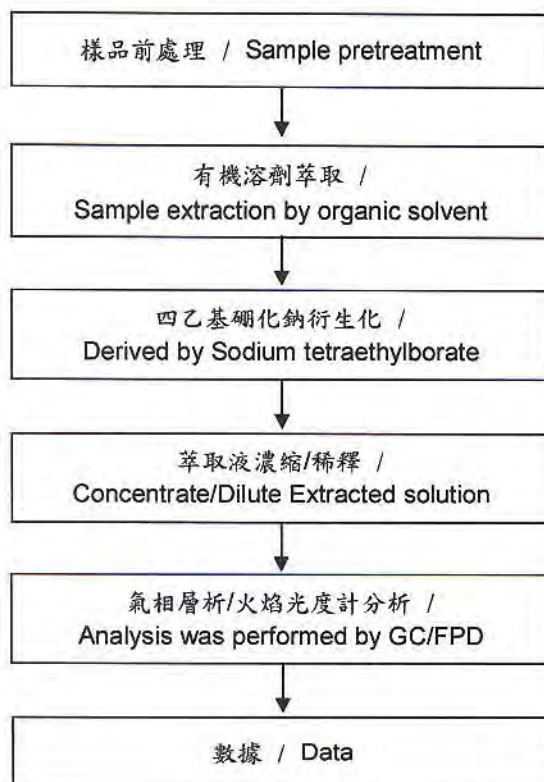
新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 有機錫分析流程圖 / Analytical flow chart of Organic-Tin content

- 測試人員：陳君涵 / Name of the person who made measurement: Ginny Chen
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，本報告未經本公司書面許可，不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 28 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

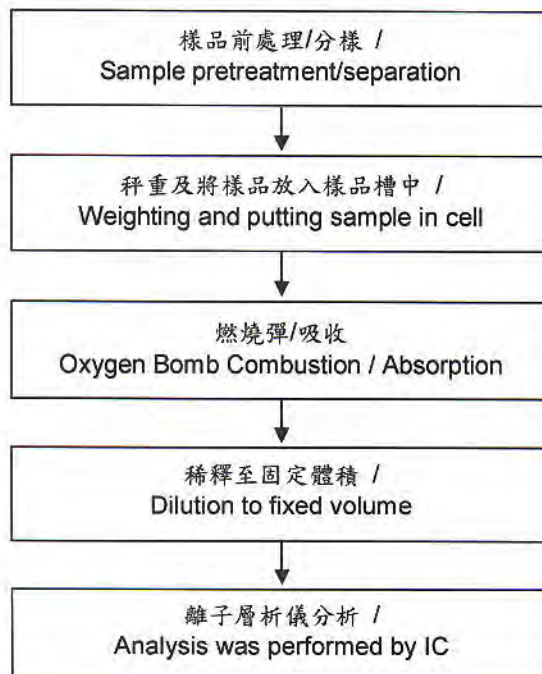
新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 鹵素分析流程圖 / Analytical flow chart of halogen content

- 1) 測試人員：陳恩臻 / Name of the person who made measurement: Rita Chen
- 2) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 29 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

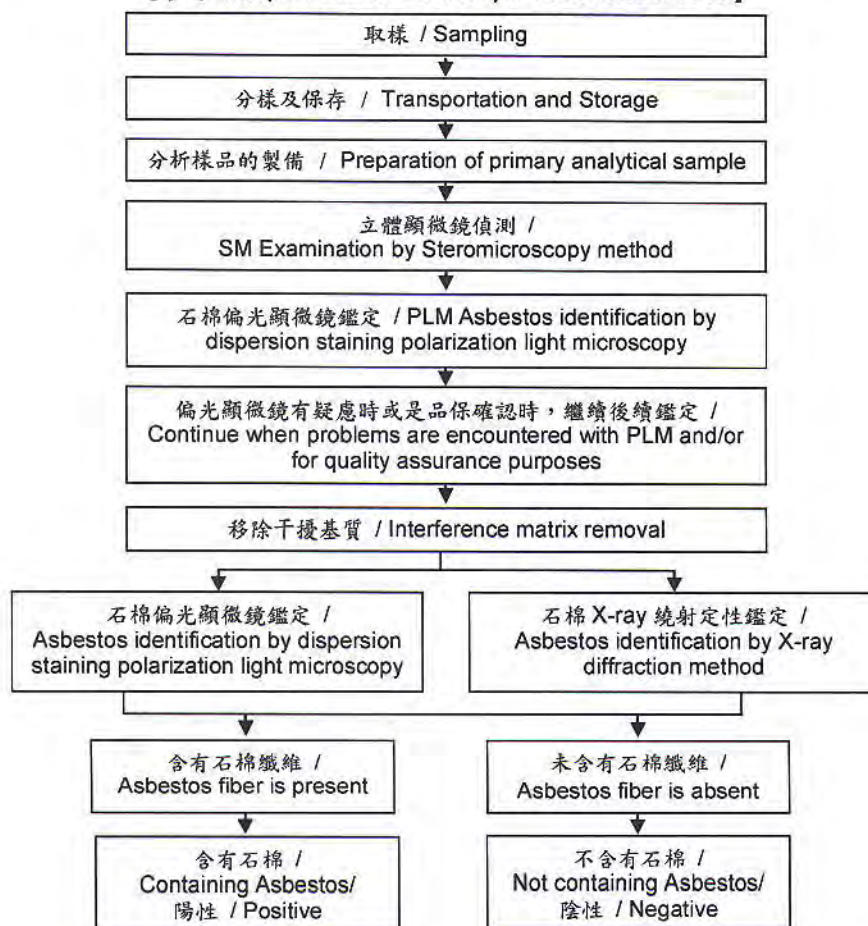
NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 石棉物質判定分析流程圖 / Analysis flow chart for determination of Asbestos

- 測試人員：高鍵忠 / Name of the person who made measurement: Victor Kao
- 測試負責人：魏明芬 / Name of the person in charge of measurement: Wendy Wei

【參考方法(Reference method): EPA 600/R-93/116】



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司同意，不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 30 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

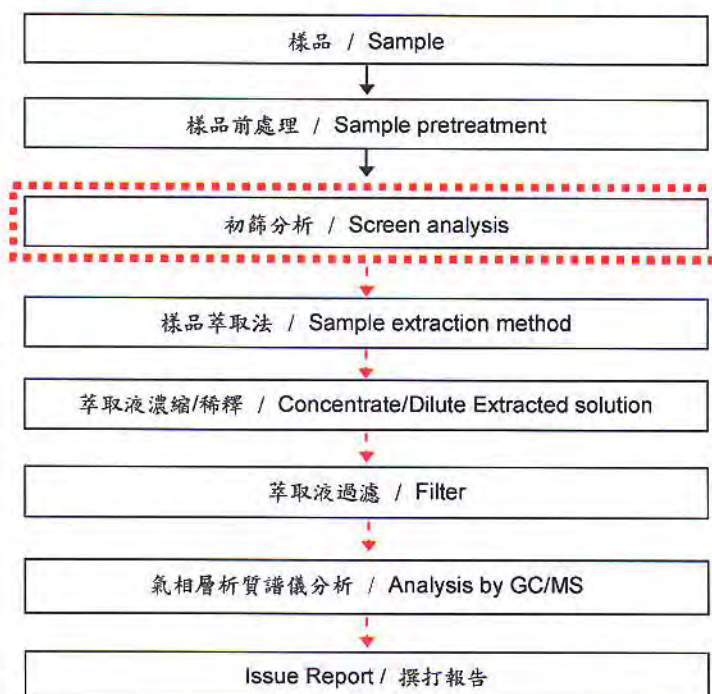
NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 分析流程圖 / Analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang
- 【測試項目(Test Items): 多溴聯苯/多溴聯苯醚、四溴雙酚-A-雙 / PBB/PBDE, TBBP-A-bis】

初次測試程序 / First testing process → 選擇性篩檢程序 / Optional screen process ..... 確認程序 / Confirmation process →



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司同意許可，不可部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



## 測試報告 Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 31 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

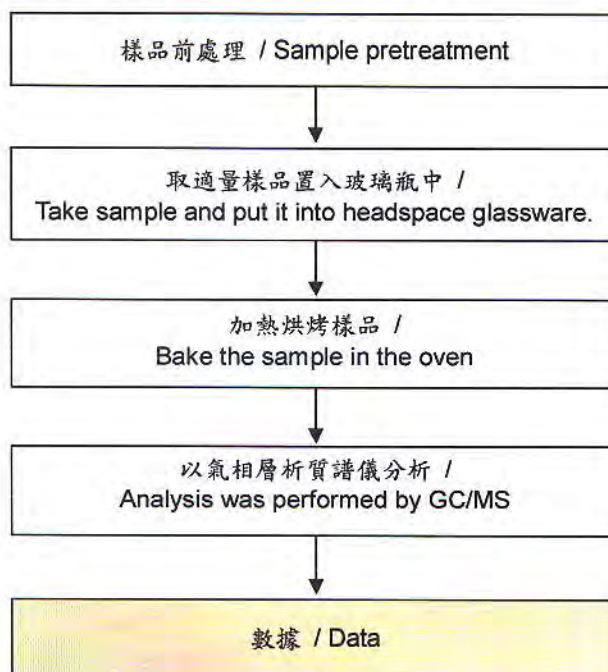
新北市五股區五權五路26號

NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



### 揮發性有機化合物分析流程圖 / Analytical flow chart of volatile organic compounds (VOCs)

- 測試人員：吳椿景 / Name of the person who made measurement : Chun Wu
  - 測試負責人：陳新智 / Name of the person in charge of measurement : Shinjyh Chen
- 【參考方法(Reference method) : US EPA 5021】



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不得部分複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 測試報告

## Test Report

號碼(No.) : CE/2012/14843 日期(Date) : 2012/02/04 頁數(Page) : 32 of 32

功得電子工業股份有限公司

CONQUER ELECTRONICS CO., LTD.

新北市五股區五權五路26號

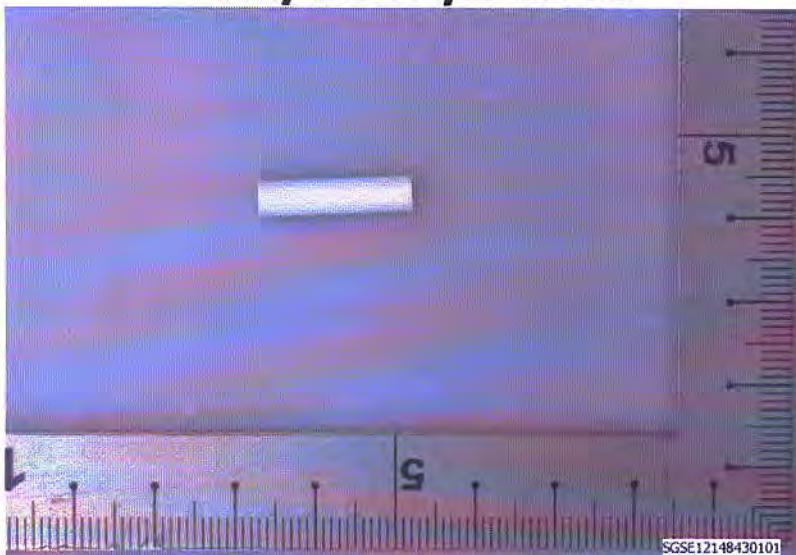
NO. 26 WUCYUAN 5TH ROAD, WUGU DISTRICT, NEW TAIPEI CITY 248, TAIWAN



\* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。\*

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

### CE/2012/14843



\*\* 報告結尾 (End of Report) \*\*

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.





**Test Report**

Number : TWNC00233073

Applicant: Littelfuse Philippines Inc.  
LIMA Technology Center, Lipa City,  
Malvar, Batangas

Date : Nov 23, 2011

**Sample Description:**

One (1) group of submitted samples said to be :

Part Description : Sand Filler

Part Number : 091251

Date Sample Received : Nov 17, 2011

Date Test Started : Nov 18, 2011

---

**Test Conducted :**

As requested by the applicant, for details please refer to attached pages.

---

Authorized By:

On Behalf Of Intertek Testing Services  
Taiwan Limited



---

K. Y. Liang  
Director

This report shall not be reproduced  
except in full, without the written  
approval of the laboratory.



Number : TWNC00233073

Test Conducted  
( I ) Test Result Summary :

Test Item	Result (ppm)
	Light Grey Powder
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample = mg/kg  
ND = Not detected

Responsibility of Chemist : Irene Chiou / Kevin Liu / Cathy Chen

Date Sample Received : Nov 17, 2011  
Test Period : Nov 18, 2011 To Nov 22, 2011



## Test Conducted

## ( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment 2005/618/EC for homogeneous material.

## ( III ) Test Method:

<u>Test Item</u>	<u>Test Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Halogen Content	With reference to EN 14582:2007 by calorimetric bomb with oxygen and determined by ion chromatography	50 ppm

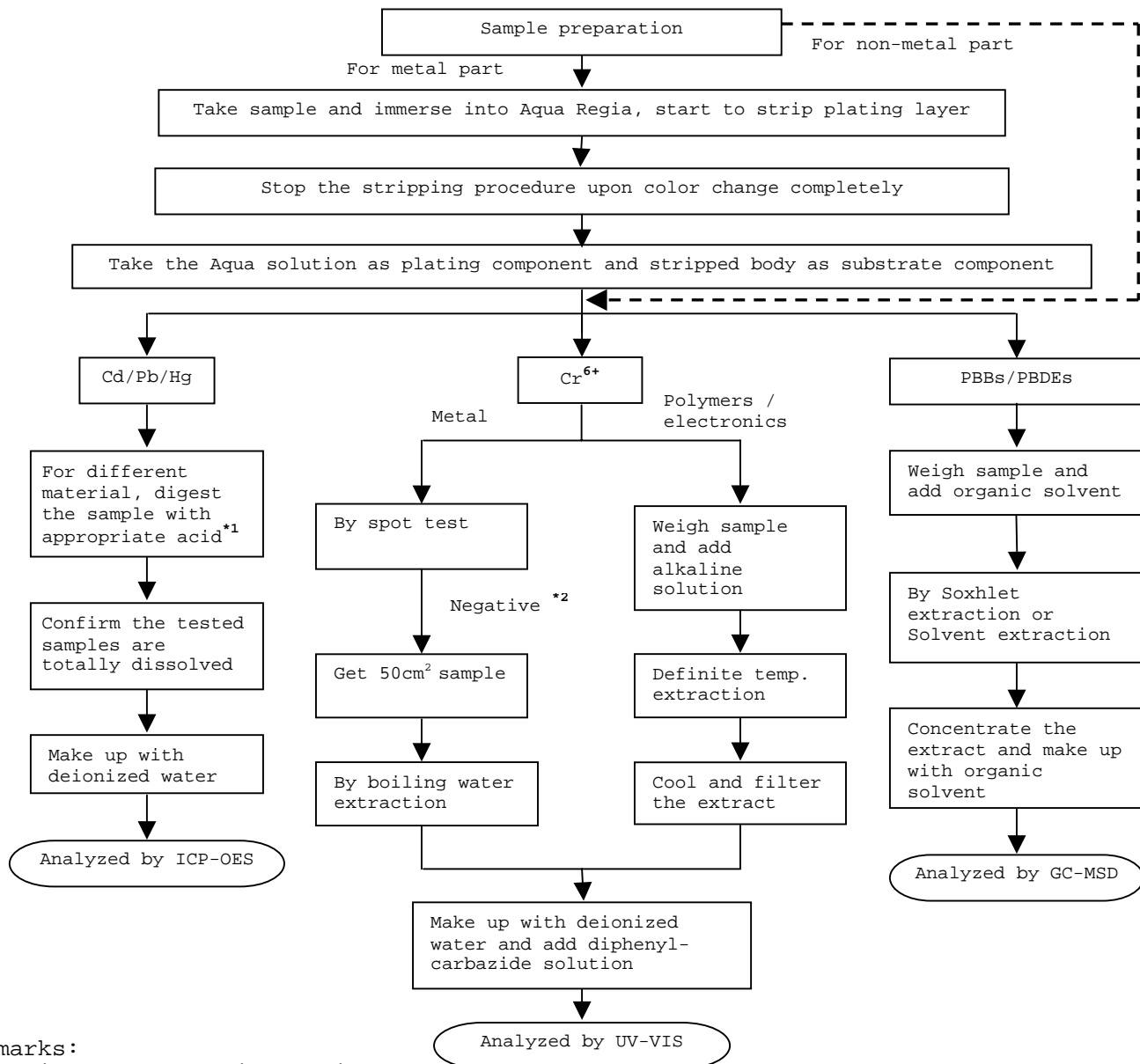
Remark: Reporting limit = Quantitation limit of analyte in sample

## Test Conducted

## (IV) Measurement Flowchart:

Test for Cd/Pb/Hg/Chromium (VI)/PBBS/PBDES Contents

Reference Standard: IEC 62321 edition 1.0:2008



Remarks:

\*1: List of Appropriate Acid:

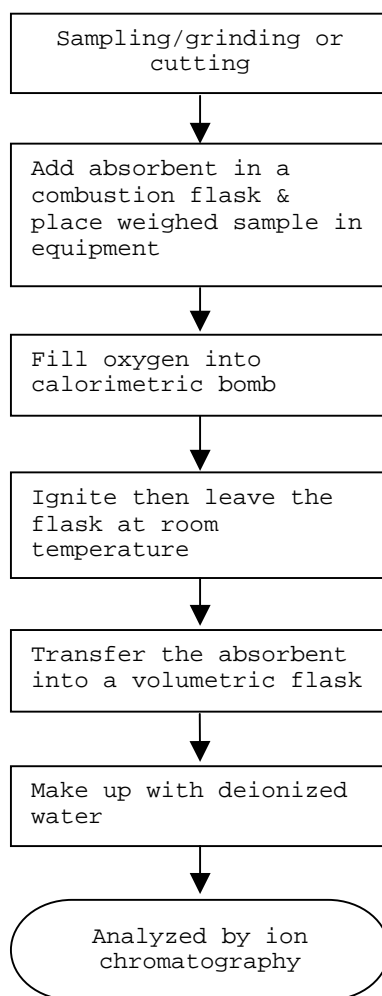
Material	Acid Added for Digestion
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.



Test Conducted  
(IV) Measurement Flowchart:

Test for Halogen Content  
Reference Standard : EN 14582



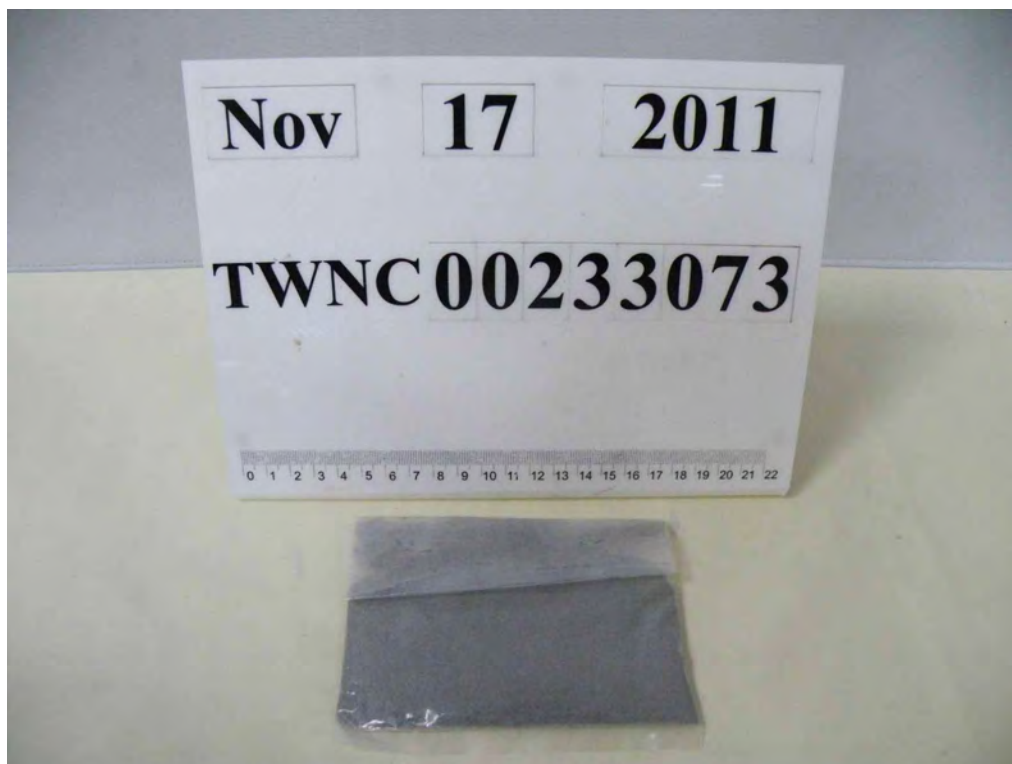
---

End of Report

Test Conducted

Number : TWNC00233073

Photo





# 測試報告 Test Report

號碼(No.) : CE/2012/10836

日期(Date) : 2012/01/11

頁數(Page) : 1 of 10

ELSCHUKOM ELEKTROSCHUTZKOMONENTENBAU GMBH  
GEWERBESTRASSE 87, D-98669 VEILSDORF, GERMANY

以下測試樣品係由客戶送樣，且由客戶聲稱並經客戶確認如下 (The following samples was/were submitted and identified by/on behalf of the client as):

樣品名稱(Sample Description) : COPPER CLAD & COPPER ALLOY WIRES  
樣品型號(Style/Item No.) : 請參考第5頁 (PLEASE REFER TO PAGE 5)  
原產國(Country of Origin) : 德國 (GERMANY)  
收件日期(Sample Receiving Date) : 2012/01/04  
測試期間(Testing Period) : 2012/01/04 TO 2012/01/11

測試結果(Test Results) : 請見下一頁 (Please refer to next pages).

  
Chenyu Kung / Operation Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory – Taipei

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，本報告中所列之測試結果僅針對送檢樣品而言。本報告未經本公司書面許可，不得全部或局部複製、轉載或轉售。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.  
台灣檢驗科技股份有限公司 | Chemical-Taipei 33 WuChyuan Road, Wuku Industrial Zone, New Taipei City, Taiwan / 新北市五股區五權路33號 | 電話 +886 (02)2299 3279 | 傳真 +886 (02)2299 3237 | [www.sgs.com](http://www.sgs.com)

# 測試報告

## Test Report

號碼(No.) : CE/2012/10836

日期(Date) : 2012/01/11

頁數(Page) : 2 of 10

ELSCHUKOM ELEKTROSCHUTZKOMONENTENBAU GMBH  
GEWERBESTRASSE 87, D-98669 VEILSDORF, GERMANY



### 測試結果(Test Results)

測試部位(PART NAME) No.1 : 混測所有顏色金屬線 (含鍍層) (共16款) (MIXED ALL COLOR METAL WIRE  
(INCLUDING THE PLATING LAYER) (16 TYPES))

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No.1
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321: 2008方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
鉛 / Lead (Pb)	mg/kg	參考IEC 62321: 2008方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
汞 / Mercury (Hg)	mg/kg	參考IEC 62321: 2008方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
六價鉻 / Hexavalent Chromium Cr(VI)	**	參考IEC 62321: 2008方法, 以沸水萃取法檢測. / With reference to IEC 62321: 2008 and performed by Boiling water extraction Method.#	#	Negative
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考US EPA 3540C: 1996方法, 以液相層析質譜儀檢測全氟辛烷磺酸含量. / With reference to US EPA 3540C: 1996 method for PFOS Content. Analysis was performed by LC/MS.	10	n.d.
全氟辛酸(銨) / PFOA (CAS No.: 335-67-1)	mg/kg	參考US EPA 3540C: 1996方法, 以液相層析質譜儀檢測全氟辛酸(銨)含量. / With reference to US EPA 3540C: 1996 method for PFOA Content. Analysis was performed by LC/MS.	10	n.d.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告書僅針對測試的樣品有效。本報告書僅本公司、客戶許可, 不可部份複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. Chemical-Taipei 33 WuChyuan Road, Wuku Industrial Zone, New Taipei City, Taiwan / 新北市五股區五股路33號 電話: +886 (02)2299 3279 f +886 (02)2299 3237 [www.sgs.com](http://www.sgs.com)



## 測試報告 Test Report

號碼(No.) : CE/2012/10836

日期(Date) : 2012/01/11

頁數(Page) : 3 of 10

ELSCHUKOM ELEKTROSCHUTZKOMPONENTENBAU GMBH  
GEWERBESTRASSE 87, D-98669 VEILSDORF, GERMANY



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) No.1
多溴聯苯總和 / Sum of PBBs	mg/kg	參考 IEC 62321: 2008 方法, 以氣相層析儀/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.
一溴聯苯 / Monobromobiphenyl			5	n.d.
二溴聯苯 / Dibromobiphenyl			5	n.d.
三溴聯苯 / Tribromobiphenyl			5	n.d.
四溴聯苯 / Tetrabromobiphenyl			5	n.d.
五溴聯苯 / Pentabromobiphenyl			5	n.d.
六溴聯苯 / Hexabromobiphenyl			5	n.d.
七溴聯苯 / Heptabromobiphenyl			5	n.d.
八溴聯苯 / Octabromobiphenyl			5	n.d.
九溴聯苯 / Nonabromobiphenyl			5	n.d.
十溴聯苯 / Decabromobiphenyl			5	n.d.
多溴聯苯醚總和 / Sum of PBDEs			-	n.d.
一溴聯苯醚 / Monobromodiphenyl ether			5	n.d.
二溴聯苯醚 / Dibromodiphenyl ether			5	n.d.
三溴聯苯醚 / Tribromodiphenyl ether			5	n.d.
四溴聯苯醚 / Tetrabromodiphenyl ether			5	n.d.
五溴聯苯醚 / Pentabromodiphenyl ether			5	n.d.
六溴聯苯醚 / Hexabromodiphenyl ether			5	n.d.
七溴聯苯醚 / Heptabromodiphenyl ether			5	n.d.
八溴聯苯醚 / Octabromodiphenyl ether			5	n.d.
九溴聯苯醚 / Nonabromodiphenyl ether			5	n.d.
十溴聯苯醚 / Decabromodiphenyl ether			5	n.d.
鹵素 / Halogen	mg/kg	參考 BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.		
鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 14762-94-8)			50	n.d.
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)			50	n.d.
鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 10097-32-2)			50	n.d.
鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 14362-44-8)			50	n.d.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試的樣品負責。本報告未經本公司許可, 不得全部或局部複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. Chemical-Taipei 33 WuChyuan Road, Wuku Industrial Zone, New Taipei City, Taiwan / 新北市五股區五股路33號 +886 (02)2299 3279 / +886 (02)2299 3237 [www.sgs.com](http://www.sgs.com)





## 測試報告 Test Report

號碼(No.) : CE/2012/10836

日期(Date) : 2012/01/11

頁數(Page) : 5 of 10

ELSCHUKOM ELEKTROSCHUTZKOMPONENTENBAU GMBH  
GEWERBESTRASSE 87, D-98669 VEILSDORF, GERMANY



### 樣品型號(Style/Item No.)

:

- (C-1) 101. 0177. 0 - - - - copper tin alloy wire CuSn6
- (C-2) 101. 0183. 0 - - - - copper clad wire — Elcon 30
- (C-3) 101. 0172. 0 - - - - copper clad steel wire — Elcon F
- (C-4) 101. 0181. 0 - - - - copper clad iron-nickel-alloy wire — Elcon D
- (C-5) 101.0132. - - - - silver copper alloy wire — AgCu50
- (C-6) 101.0134. 0 - - - - silver copper alloy wire — AgCu90
- (C-7) 101.0171. 0 - - - - copper wire — Cu99.9%
- (C-8) 101.0135. - - - - silver copper alloy wire — Ag72Cu28
- (C-9) 101.0157. 0 - - - - copper-zinc-alloy wire — Cu80 Zn20
- (C-10) 101.0136. - - - - silver copper alloy wire — Ag45Cu55 (AgCu55)
- (C-11) 101- - 064. - - - - copper plated, brass plated spring-steel wire — FST, Cu--%
- (C-12) 101.0166. - - - - silver copper alloy wire — AgCu70 (ElCu70)
- (C-13) 101.0138. - - - - silver copper alloy wire — AgCu80 (ElCu80)
- (C-14) 101.0161. - - - - oxygenfree copper wire — OF-Cu
- (C-15) 101.0155. 0 - - - - copper-zinc-alloy wire — Cu70 Zn30 (Ms 70)
- (C-16) 101.0128. 0 - - - - tungsten purity wire — W

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告中與測試結果有關之內容，未經本公司之許可，不可隨意複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.  
台灣檢驗科技股份有限公司

Chemical-Taipei 33 WuChyuan Road, Wuku Industrial Zone, New Taipei City, Taiwan / 新北市五股工業區楠路33號 電話 +886 (02)2299 3279 f +886 (02)2299 3237 [www.sgs.com](http://www.sgs.com)

## 測試報告 Test Report

ELSCHUKOM ELEKTROSCHUTZKOMPONENTENBAU GMBH  
GEWERBESTRASSE 87, D-98669 VEILSDORF, GERMANY

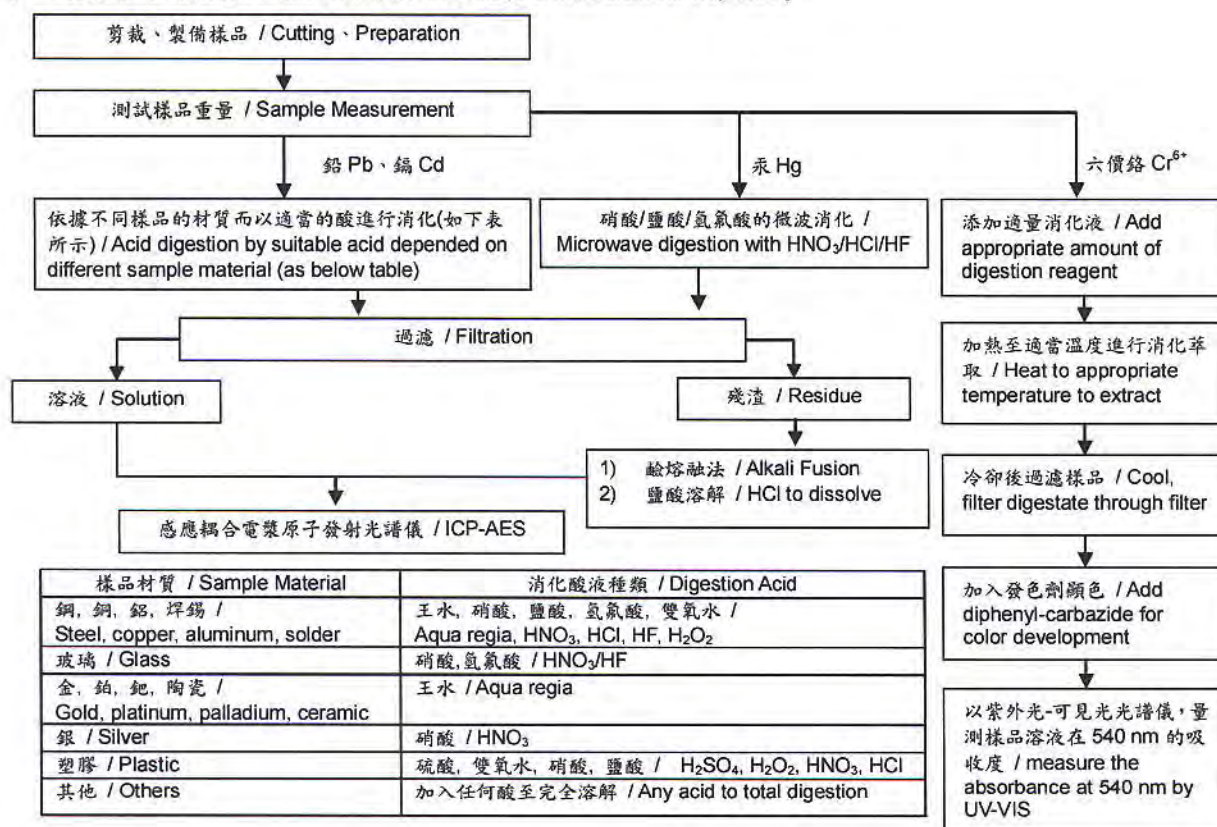
號碼(No.): CE/2012/10836

日期(Date): 2012/01/11

頁數(Page): 6 of 10



- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此測試報告之結果僅針對被測試之樣品。本報告未經本公司同意，不得部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司 Chemical-Taipei 33 WuChyuan Road, Wuku Industrial Zone, New Taipei City, Taiwan / 新設市五股, 第三瓦樓路, 電話 +886 (02) 2299 3279 f +886 (02) 2299 3237 [www.sgs.com](http://www.sgs.com)

Member of the SGS Group (SGS SA)



## 測試報告 Test Report

號碼(No.) : CE/2012/10836

日期(Date) : 2012/01/11

頁數(Page) : 7 of 10

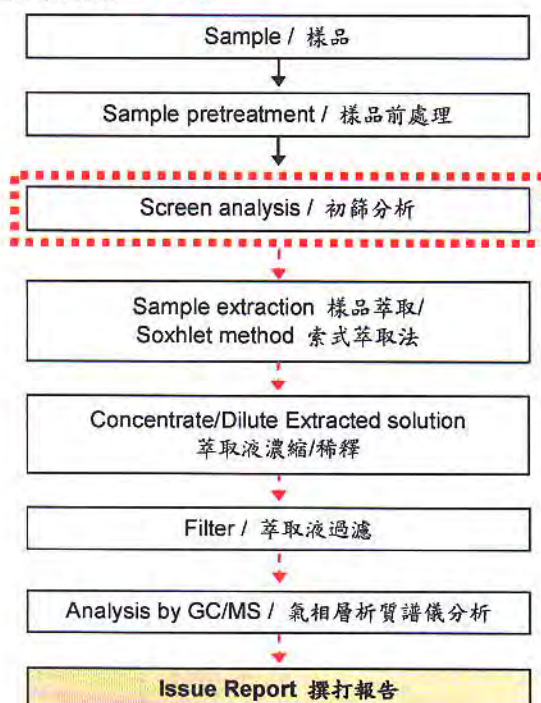
ELSCHUKOM ELEKTROSCHUTZKOMPONENTENBAU GMBH

GEWERBESTRASSE 87, D-98669 VEILSDORF, GERMANY



### 多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang
- 初次測試程序 / First testing process —————→
- 選擇性篩檢程序 / Optional screen process .....→
- 確認程序 / Confirmation process - - - - -→



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除另有註明外，此測試結果僅對測試的樣品負責。本報告，未經本公司許可，不得部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.  
台灣檢驗科技股份有限公司

Chemical-Taipei 33 WuChyuan Road, Wuku Industrial Zone, New Taipei City, Taiwan / 新北市五股區五股路33號 +886 (02)2299 3279 / +886 (02)2299 3237 [www.sgs.com](http://www.sgs.com)

## 測試報告 Test Report

號碼(No.) : CE/2012/10836

日期(Date) : 2012/01/11

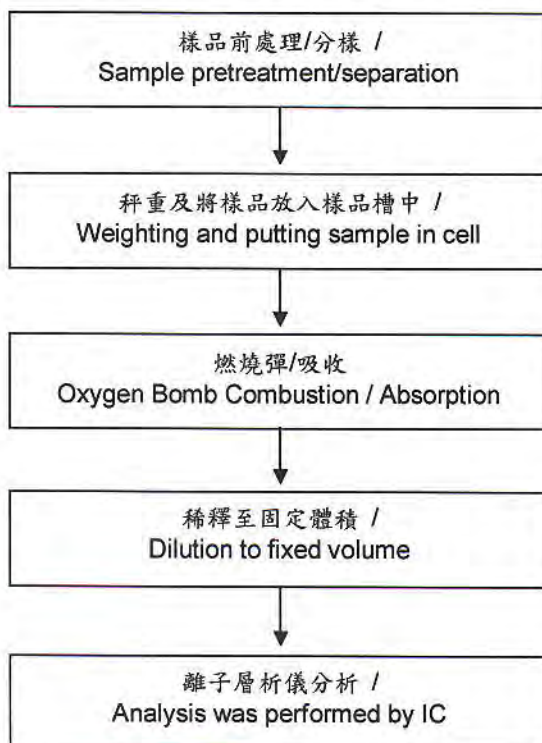
頁數(Page) : 8 of 10

ELSCHUKOM ELEKTROSCHUTZKOMPONENTENBAU GMBH  
GEWERBESTRASSE 87, D-98669 VEILSDORF, GERMANY



### 鹵素分析流程圖 / Analytical flow chart of halogen content

- 測試人員：陳思臻 / Name of the person who made measurement: Rita Chen
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試的樣品負責。本報告未經本公司許可，不得重印或複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd  
台灣檢驗科技股份有限公司 Chemical-Taipei 33 WuChyuan Road, Wuku Industrial Zone, New Taipei City, Taiwan / 新北市五股工業區五股路33號 +886 (02)2799 3279 f +886 (02)2299 3237 [www.sgs.com](http://www.sgs.com)



## 測試報告 Test Report

ELSCHUKOM ELEKTROSCHUTZKOMPONENTENBAU GMBH  
GEWERBESTRASSE 87, D-98669 VEILSDORF, GERMANY

號碼(No.) : CE/2012/10836

日期(Date) : 2012/01/11

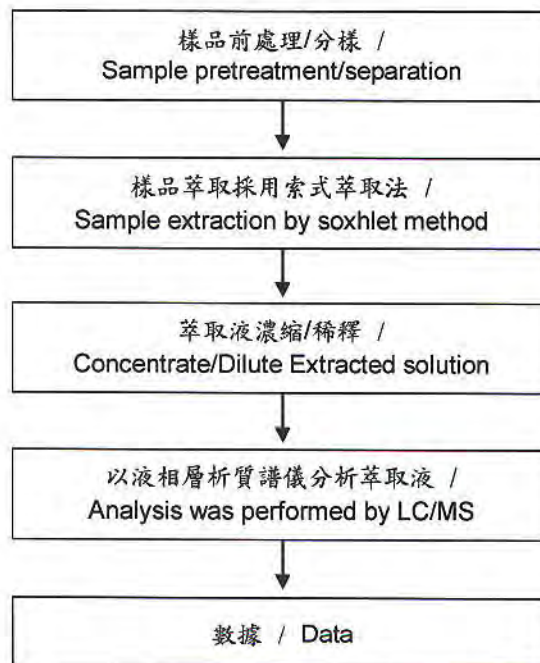
頁數(Page) : 9 of 10



### 索式萃取分析流程圖 / Analytical flow chart of Soxhlet extraction (LC/MS) procedure

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

【測試項目：全氟辛烷磺酸/全氟辛酸(銨)、苯並三唑類化合物 /  
Test Items: PFOS/PFOA、Benzotriazole】



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告只針對測試的樣品有效。本報告未經本公司書面許可，不得全部複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS 台灣分公司  
台灣檢驗科技股份有限公司 Chemical-Taipei 33 WuChyuan Road, Wuku Industrial Zone, New Taipei City, Taiwan / 新北市五股區武庫路33號 +886 (02)2299 3279 f +886 (02)2299 3237 [www.sgs.com](http://www.sgs.com)

## 測試報告 Test Report

ELSCHUKOM ELEKTROSCHUTZKOMPONENTENBAU GMBH  
GEWERBESTRASSE 87, D-98669 VEILSDORF, GERMANY

號碼(No.) : CE/2012/10836 日期(Date) : 2012/01/11 頁數(Page) : 10 of 10



\* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。\*  
(The tested sample / part is marked by an arrow if it's shown on the photo.)

**CE/2012/10836**



**CE/2012/10836**



**\*\* 報告結尾(End of Report) \*\***

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告中所列測試的結果僅針對本公司所測試之樣品。本報告未經本公司書面許可，不得部份複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.





## Test Report

No. SHAEC1116009839

Date: 14 Oct 2011

Page 1 of 5

ZHEJIANG ASIA GENERAL SOLDERING & BRAZING MATERIAL CO.,LTD  
XIHU INDUSTRIAL PARK,SANDUN,HANGZHOU CITY,ZHEJIANG PROVINCE,CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : LEAD-FREE SOLDER WIRE

SGS Job No. : SP11-030781 - SH  
Model No. : YTW102(692539-002)  
Composition : Sn2.0CuRE  
Date of Sample Received : 09 Oct 2011  
Testing Period : 09 Oct 2011 - 13 Oct 2011  
Test Requested : Selected test(s) as requested by client.  
Test Method : Please refer to next page(s).  
Test Results : Please refer to next page(s).  
Conclusion : Based on the performed tests on submitted samples, the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of  
SGS-CSTC Ltd.

Fan Jingjie, JJ  
Approved Signatory

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its inspection only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.

## Test Report

No. SHAEC1116009839

Date: 14 Oct 2011

Page 2 of 5

Test Results :

### Test Part Description :

Specimen No.	SGS Sample ID	Description
1	SHA11-160098.034	Silvery metal wire

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL )
- (4) "-" = Not Regulated

### RoHS Directive 2011/65/EU

Test Method : With reference to IEC 62321:2008

- (1) Determination of Cadmium by ICP-OES.
- (2) Determination of Lead by ICP-OES.
- (3) Determination of Mercury by ICP-OES.
- (4) Determination of Hexavalent Chromium by Spot test / Colorimetric Method using UV-Vis.
- (5) Determination of PBBs / PBDEs by GC-MS.

Test Item(s)	Limit	Unit	MDL	034
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	165
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	-	-	◇	Negative
Sum of PBBs	1,000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1,000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, jurisdiction and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its inspection only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.



SGS Standards Technical Services (Shanghai) Co., Ltd.  
Testing Laboratory

3<sup>rd</sup> Building, No. 889 Yishan Road Xuhui District, Shanghai China 200233  
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233

T: +86 (21) 61402553 F: +86 (21) 64953679  
HL: (86-21) 61402594 HL: (86-21) 54500353

[www.cn.sgs.com](http://www.cn.sgs.com)  
e: [sgs.china@sgs.com](mailto:sgs.china@sgs.com)



## Test Report

No. SHAEC1116009839

Date: 14 Oct 2011

Page 3 of 5

Test Item(s)	Limit	Unit	MDL	034
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND

### Notes :

(1) The maximum permissible limit is quoted from directive 2011/65/EU, Annex II

(2) ◇ Spot-test:

Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;

The tested sample should be further verified by boiling-water-extraction method if the spot test result is Negative or cannot be confirmed.

◇ Boiling-water-extraction:

Negative = Absence of CrVI coating; Positive = Presence of CrVI coating

The detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm<sup>2</sup> sample surface area.

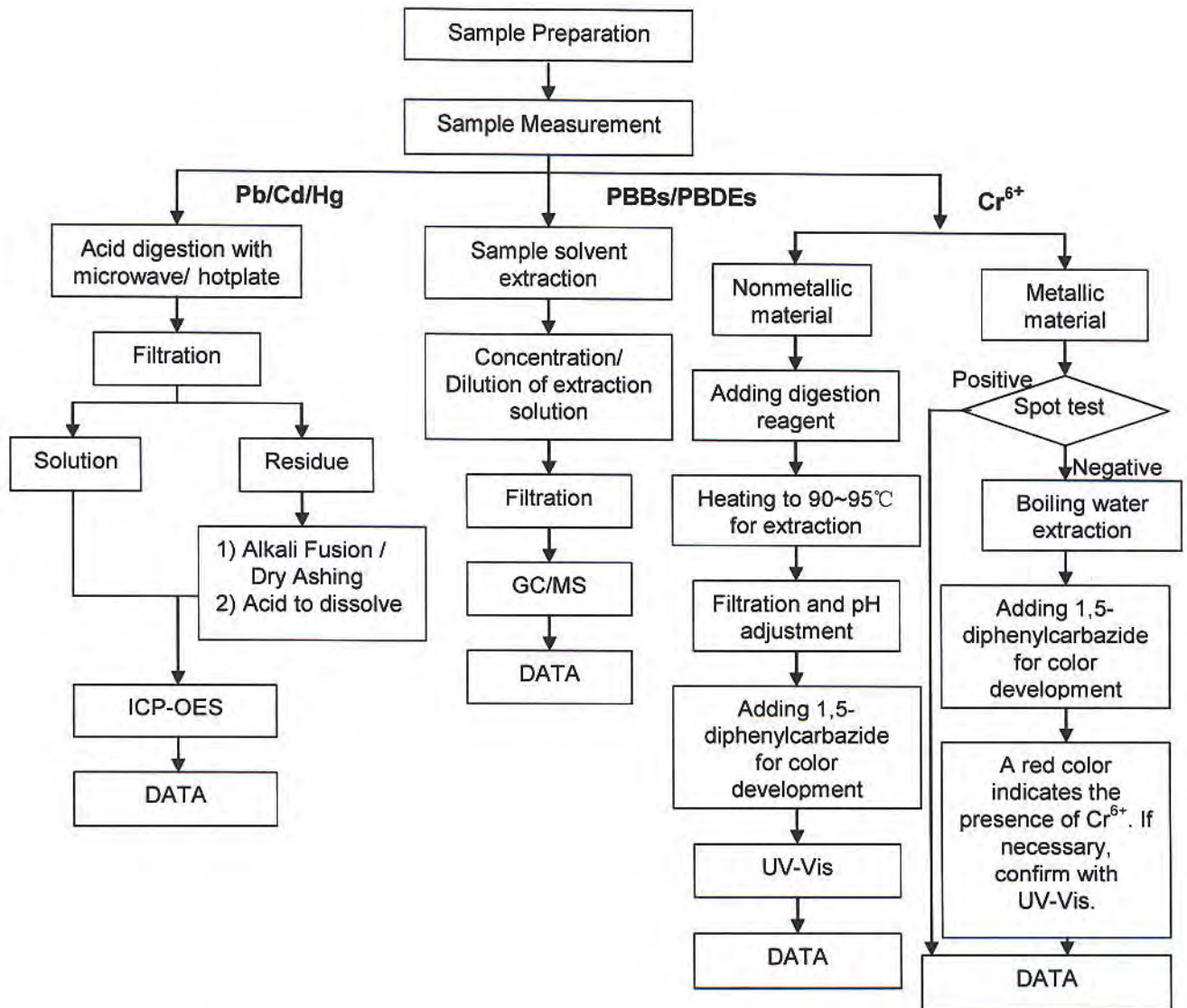
For corrosion protection coatings on metals: Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, jurisdiction and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its issuance only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.

## ATTACHMENTS

### RoHS Testing Flow Chart

- 1) Name of the person who made testing: Jan Shi/Yoyo Wang/Allen Xiao/Gary Xu
- 2) Name of the person in charge of testing: Jeff Zhang/George Xu/ Elim Lin
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> and PBBs/PBDEs test method excluded)



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its preparation only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.



## Test Report

No. SHAEC1116009839

Date: 14 Oct 2011

Page 5 of 5

Sample photo:



SGS authenticate the photo on original report only

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its inspection only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.



**TEST REPORT**

NUMBER: SHAH00250847

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: APR 11, 2011

**SAMPLE DESCRIPTION:**

One(1) submitted sample said to be : **Orange ink.**

Part Description : Ink.

Part Number : Orange ink.

Date Sample Received : Apr.6, 2011.

Date Test Started : Apr.6, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER



**TEST REPORT**

NUMBER: SHAH00250847

TESTS CONDUCTED

1 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

Remarks: ppm = Parts per million = mg/kg

ND = Not detected

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00250847

TESTS CONDUCTED

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment 2005/618/EC for homogeneous material.

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00250847

TESTS CONDUCTED

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

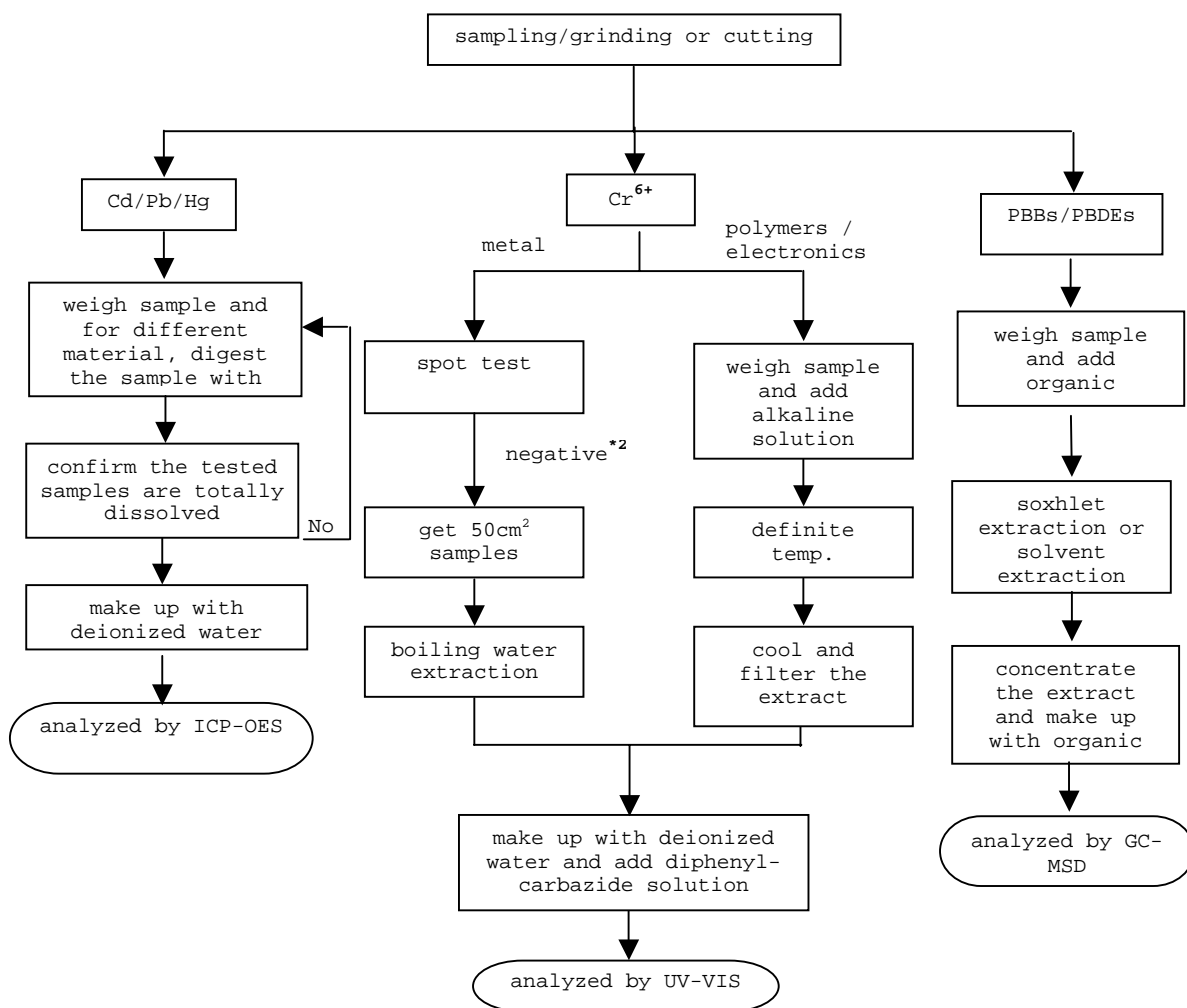
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00250847

TESTS CONDUCTED  
 (IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00250847

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00250847

TESTS CONDUCTED

2 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	210
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million = mg/kg  
 ND = Not detected

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

Date Sample Received : APR.6, 2011  
 Testing Period : APR.6, 2011 TO APR.8, 2011

\*\*\*\*\*

TO BE CONTINUED



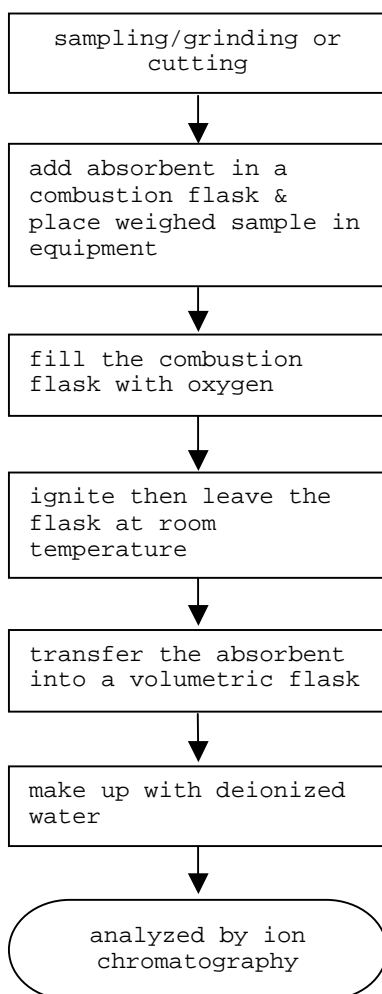
**TEST REPORT**

NUMBER: SHAH00250847

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00250847

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT





**TEST REPORT**

NUMBER: SHAH00248073

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: MAR 25, 2011

**SAMPLE DESCRIPTION:**

One(1) submitted sample said to be **Red ink.**

Part Description : Ink.

Part Number : Red ink.

Date Sample Received : Mar.21, 2011.

Date Test Started : Mar.21, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00248073

TESTS CONDUCTED

1 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00248073

TESTS CONDUCTED

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00248073

TESTS CONDUCTED

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

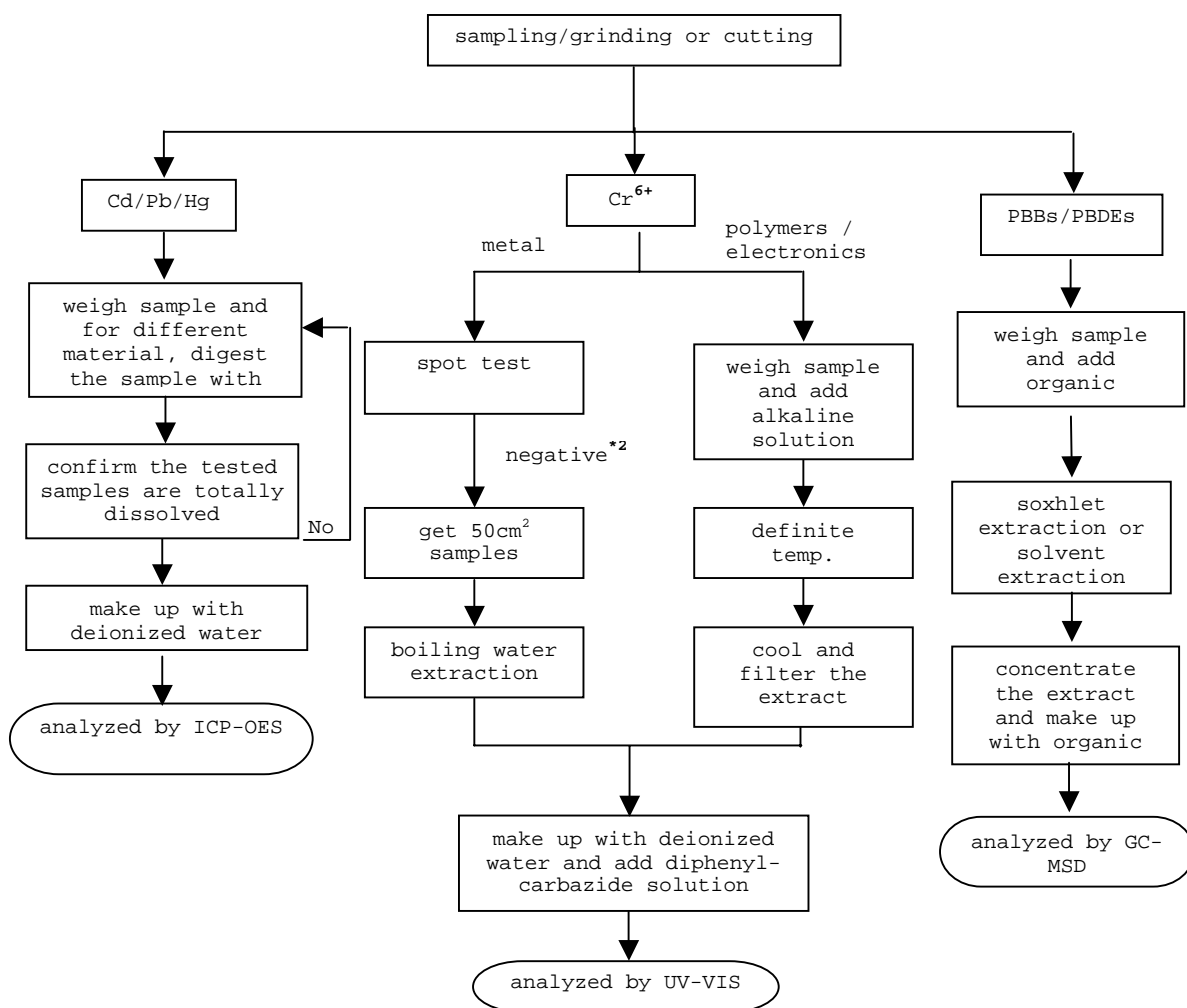
## TEST REPORT

NUMBER: SHAH00248073

### TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00248073

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00248073

TESTS CONDUCTED

2 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	140
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Ken He

( II ) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

Date Sample Received : MAR.21, 2011

Testing Period : MAR.21, 2011 TO MAR.24, 2011

\*\*\*\*\*

TO BE CONTINUED

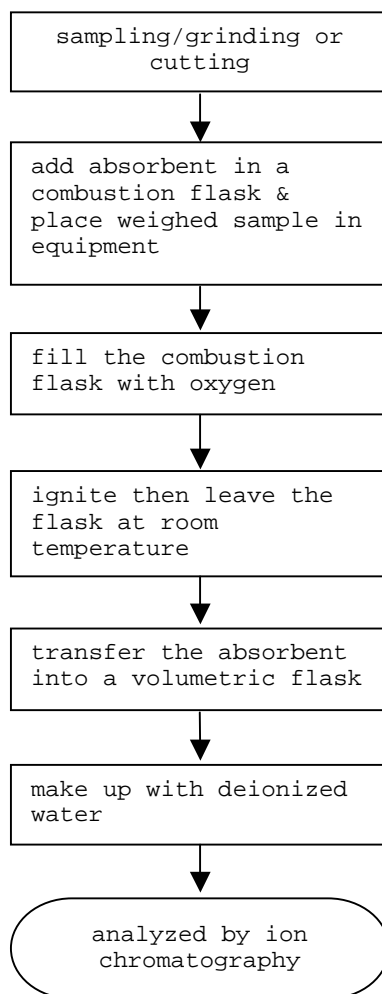
**TEST REPORT**

NUMBER: SHAH00248073

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00248073

TESTS CONDUCTED



\*\*\*\*\*  
END OF REPORT





**TEST REPORT**

NUMBER: SHAH00247324

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: MAR 21, 2011

**SAMPLE DESCRIPTION:**

One(1) submitted sample said to be **Black ink.**

Part Description : Ink.

Part Number : Black ink.

Date Sample Received : Mar.15, 2011.

Date Test Started : Mar.15, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00247324

TESTS CONDUCTED

1 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00247324

TESTS CONDUCTED

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247324

TESTS CONDUCTED

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI ( $\text{Cr}^{6+}$ ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

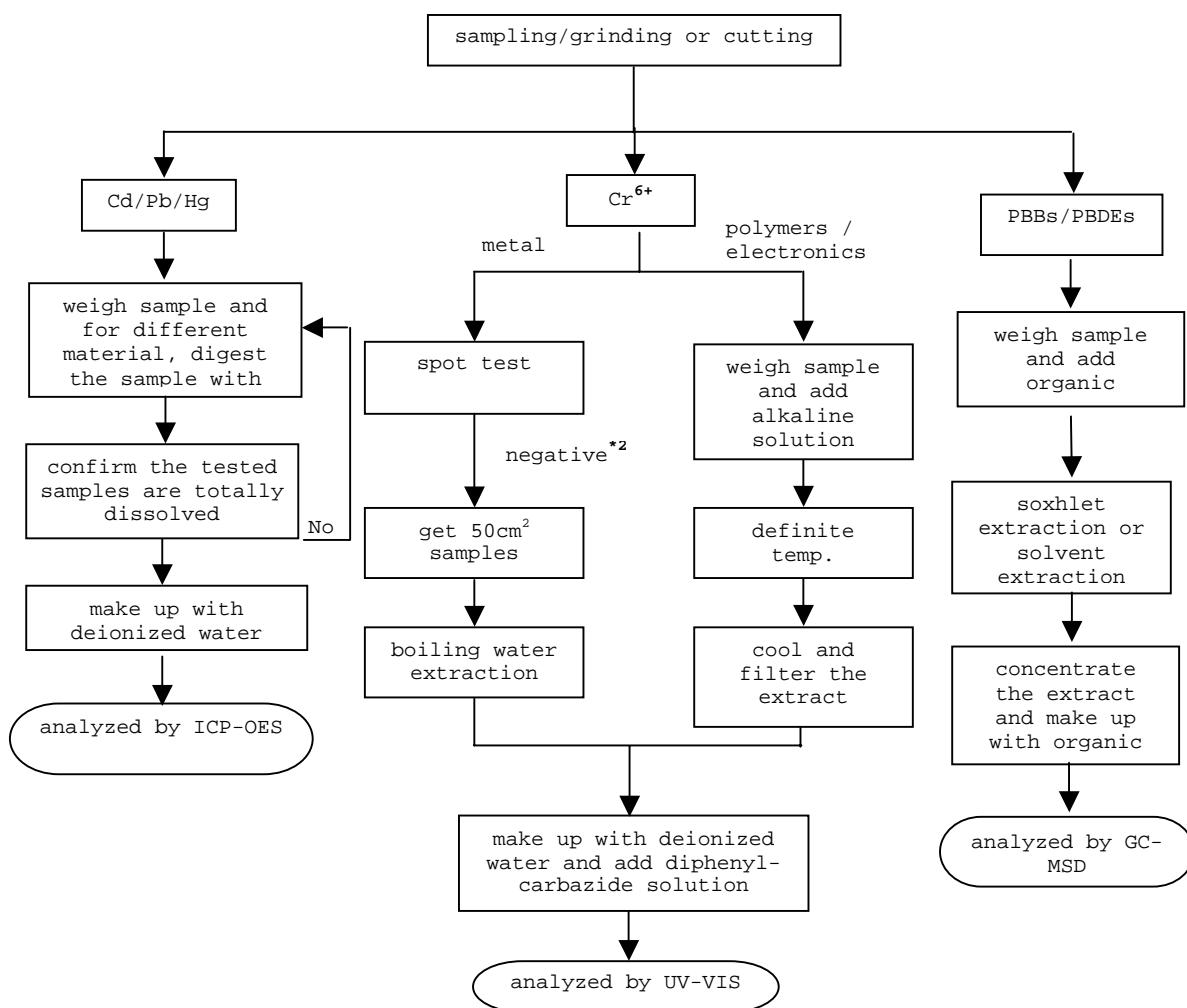
## TEST REPORT

NUMBER: SHAH00247324

### TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247324

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247324

## TESTS CONDUCTED

## 2 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Ken He

## (III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

Date Sample Received : MAR.15, 2011

Testing Period : MAR.15, 2011 TO MAR.18, 2011

\*\*\*\*\*

TO BE CONTINUED

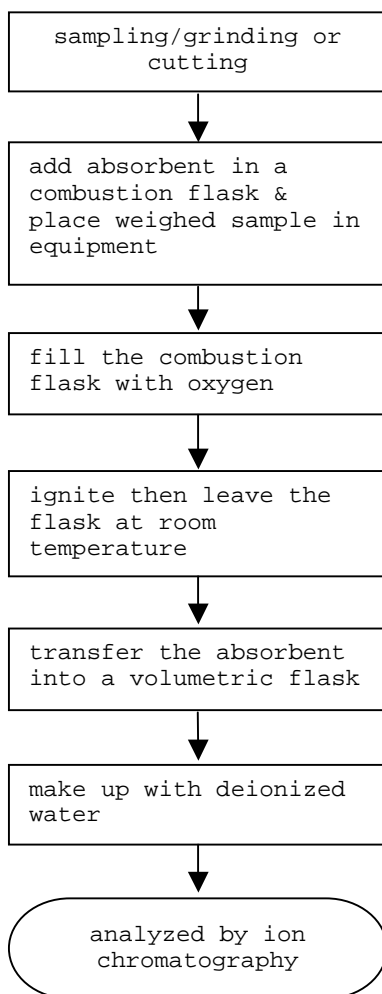
**TEST REPORT**

NUMBER: SHAH00247324

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*  
END OF REPORT

**TEST REPORT**

NUMBER: SHAH00247324

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT





**TEST REPORT**

NUMBER: SHAH00257457

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: MAY 16, 2011

**SAMPLE DESCRIPTION:**

One(1) submitted sample said to be :**Deep yellow ink.**

Part Description : Ink.

Part Number : Deep yellow.

Date Sample Received : May 11, 2011.

Date Test Started : May 11, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00257457

TESTS CONDUCTED

1 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00257457

TESTS CONDUCTED

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP- OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP- OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm

\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00257457

TESTS CONDUCTED

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

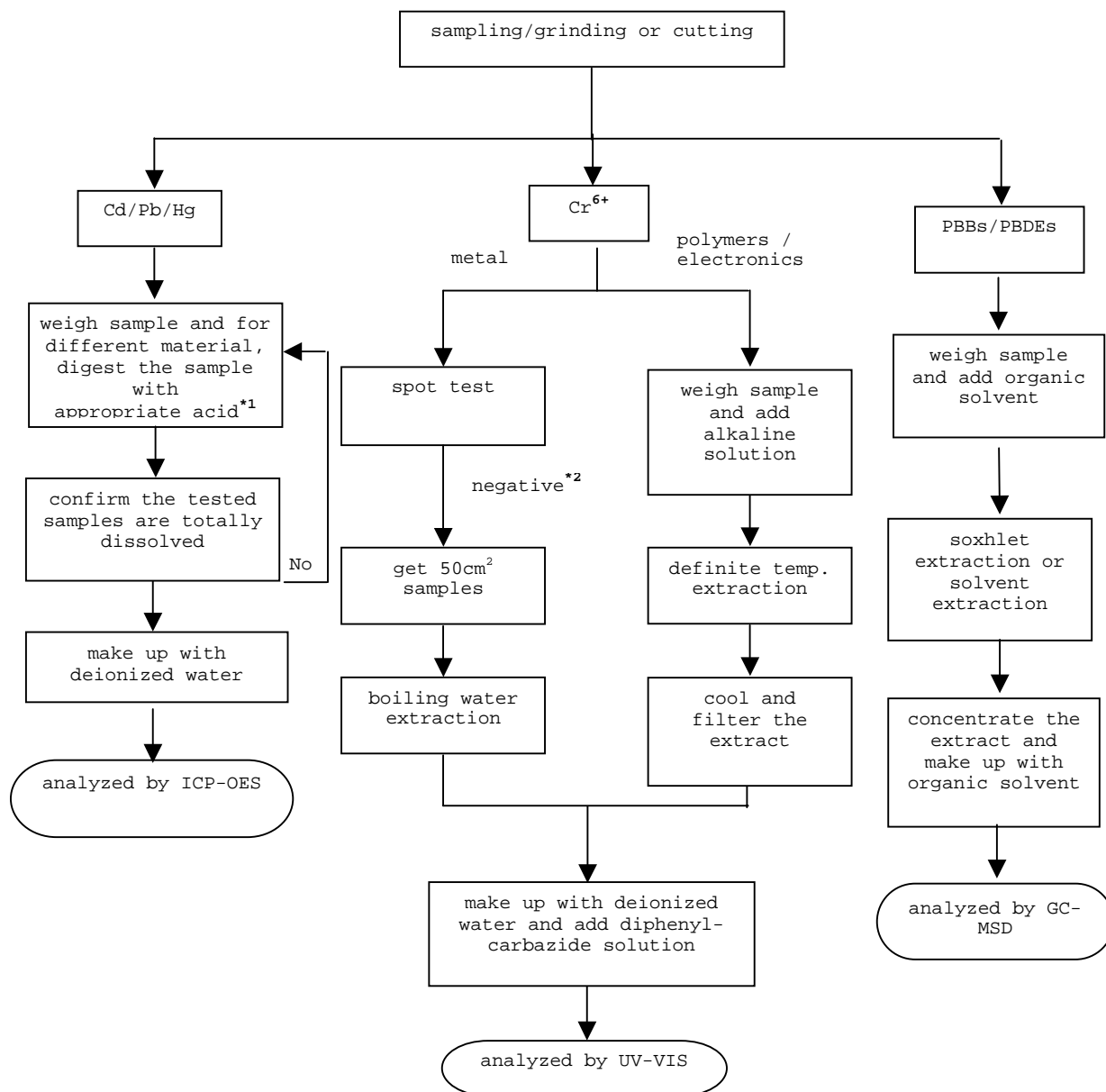
**TEST REPORT**

NUMBER: SHAH00257457

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*  
 TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00257457

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00257457

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
 mg/kg  
 ND = Not detected

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

Date Sample Received : Mar.11, 2011

Testing Period : Mar.11, 2011 to Mar 16, 2011

\*\*\*\*\*

TO BE CONTINUED

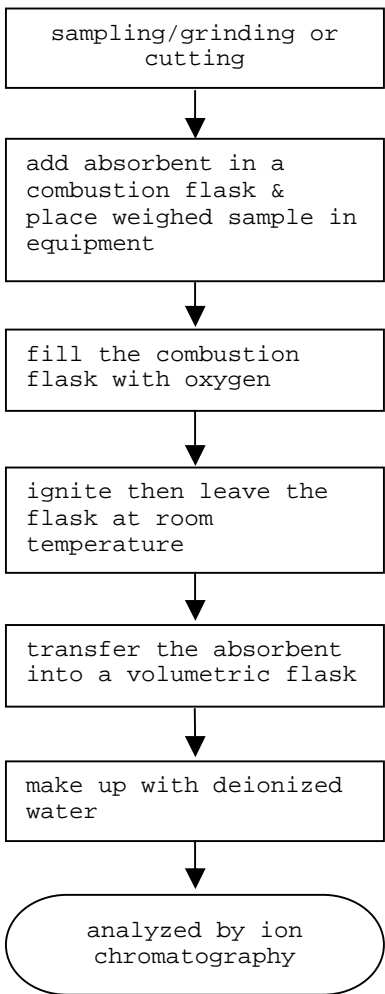
**TEST REPORT**

NUMBER: SHAH00257457

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00257457

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT





**TEST REPORT**

NUMBER: SHAH00247332

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: MAR 21, 2011

**SAMPLE DESCRIPTION:**

One(1) submitted sample said to be :**Blue ink.**

Part Description : Ink.

Part Number : Blue ink.

Date Sample Received : Mar.15, 2011.

Date Test Started : Mar.15, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00247332

TESTS CONDUCTED

1 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247332

TESTS CONDUCTED

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247332

## TESTS CONDUCTED

## (III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

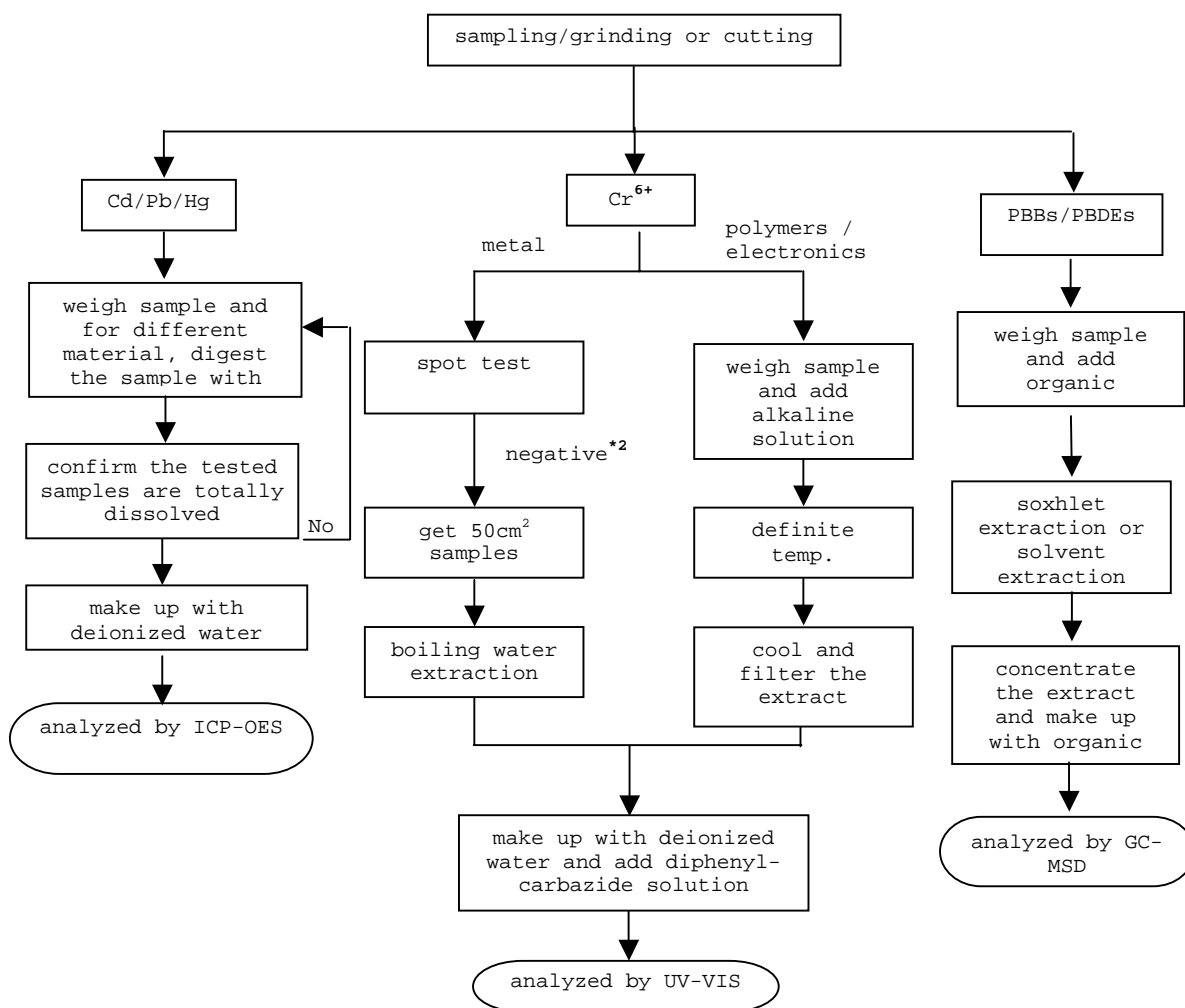
## TEST REPORT

NUMBER: SHAH00247332

### TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247332

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247332

TESTS CONDUCTED

2 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
 mg/kg  
 ND = Not detected

Responsibility Of Chemist : Ken He

( III ) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

Date Sample Received : MAR.15, 2011

Testing Period : MAR.15, 2011 TO MAR.18, 2011

\*\*\*\*\*

TO BE CONTINUED

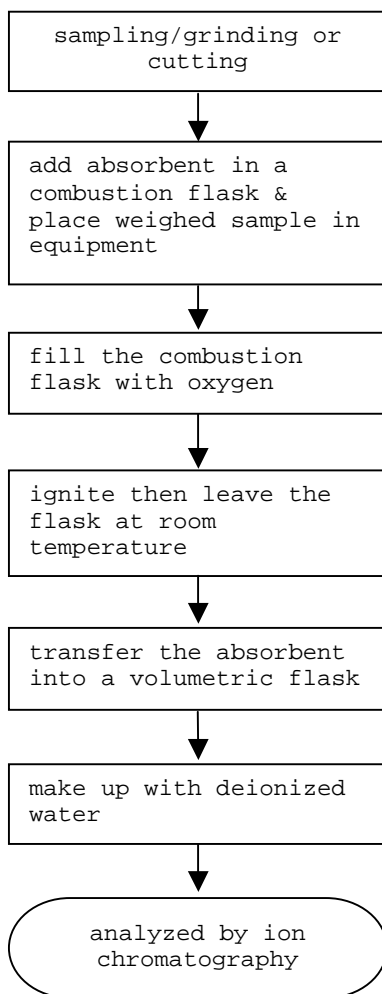
**TEST REPORT**

NUMBER: SHAH00247332

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*  
END OF REPORT

**TEST REPORT**

NUMBER: SHAH00247332

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT





**TEST REPORT**

NUMBER: SHAH00257468

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: MAY 16, 2011

**SAMPLE DESCRIPTION:**

One(1) submitted sample said to be **Brown ink.**

Part Description : Ink.

Part Number : Brown ink.

Date Sample Received : May 11, 2011.

Date Test Started : May 11, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00257468

TESTS CONDUCTED

1 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00257468

TESTS CONDUCTED

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment 2005/618/EC for homogeneous material.

( III ) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm

\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00257468

TESTS CONDUCTED

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Chromium VI ( $\text{Cr}^{6+}$ ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

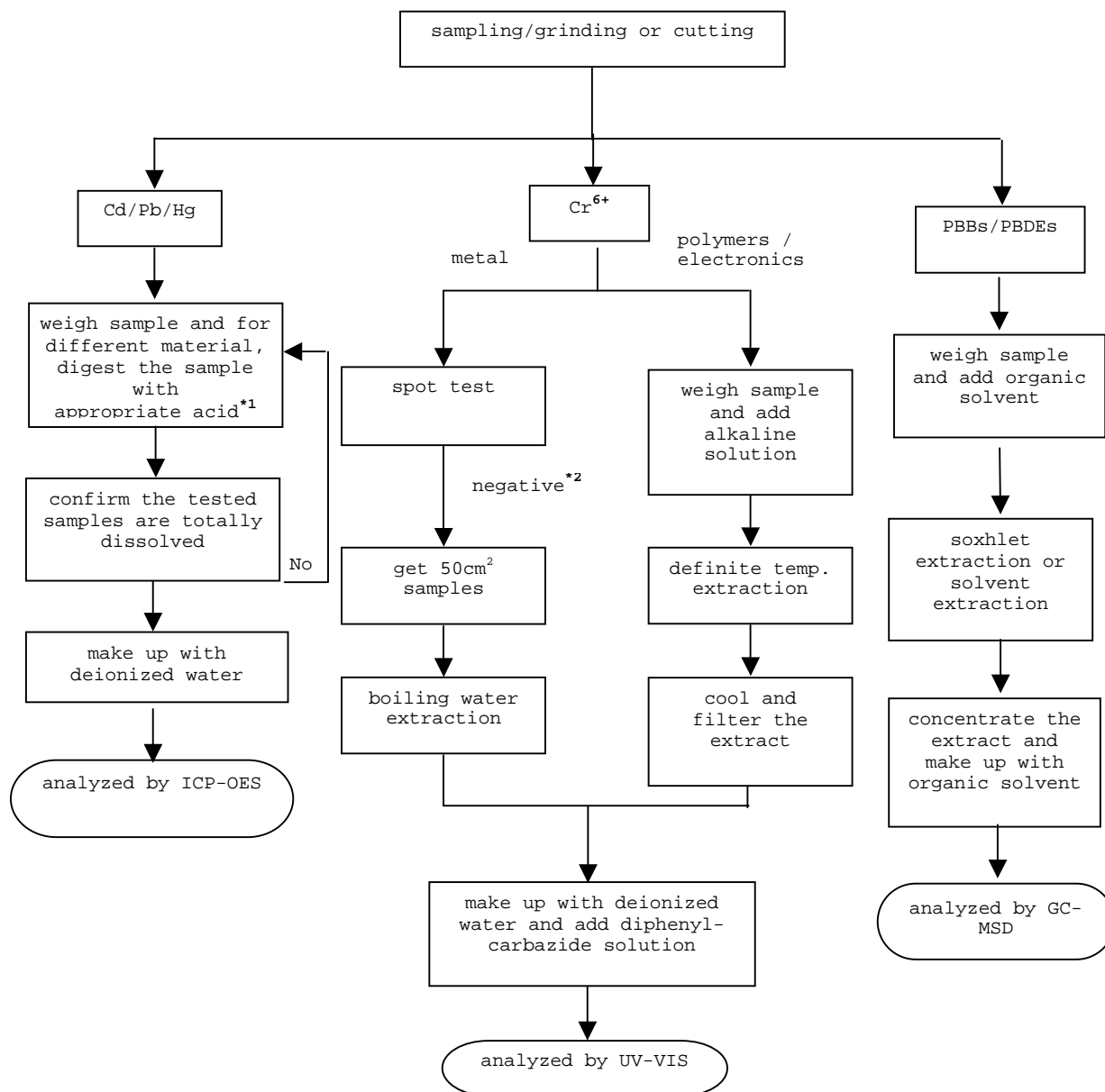
**TEST REPORT**

NUMBER: SHAH00257468

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBS/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*  
 TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00257468

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00257468

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
 mg/kg  
 ND = Not detected

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

Date Sample Received : Mar.11, 2011  
 Testing Period : Mar.11, 2011 to Mar 16, 2011

\*\*\*\*\*

TO BE CONTINUED

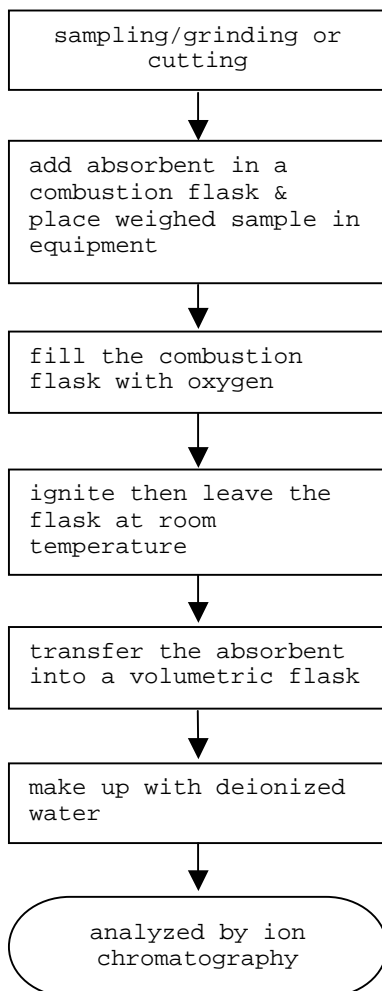
**TEST REPORT**

NUMBER: SHAH00257468

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

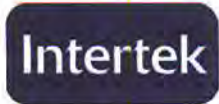
NUMBER: SHAH00257468

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT



Intertek Testing Services Ltd., Shanghai  
TFH Division  
Block B, Jinling Business Square, No. 801 Yi Shan Road,  
Shanghai, China, 200233  
Tel: +86 21 6120 6565  
Fax: +86 21 6127 9740  
E-mail: labtest.shanghai@intertek.com  
www.intertek.com  
www.intertek.com.cn  
China Toll-Free: 800 999 1338

**TEST REPORT**

NUMBER: SHAH00248077

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: MAR 24, 2011

SAMPLE DESCRIPTION:  
One(1) submitted sample said to be **Green ink.**  
Part Description : Ink.  
Part Number : Green ink.  
Date Sample Received : Mar.21, 2011.  
Date Test Started : Mar.21, 2011.

\*\*\*\*\*

TESTS CONDUCTED:  
AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)  
\*\*\*\*\*  
TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER



## TEST REPORT

NUMBER: SHAH00248077

### TESTS CONDUCTED

#### 1 (I) Test Result Summary :

Testing Item	Result (ppm)
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED

NUMBER: SHAH00248077

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

Restricted Substances	Limits
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00248077

**TESTS CONDUCTED**
**(III) Test Method:**

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

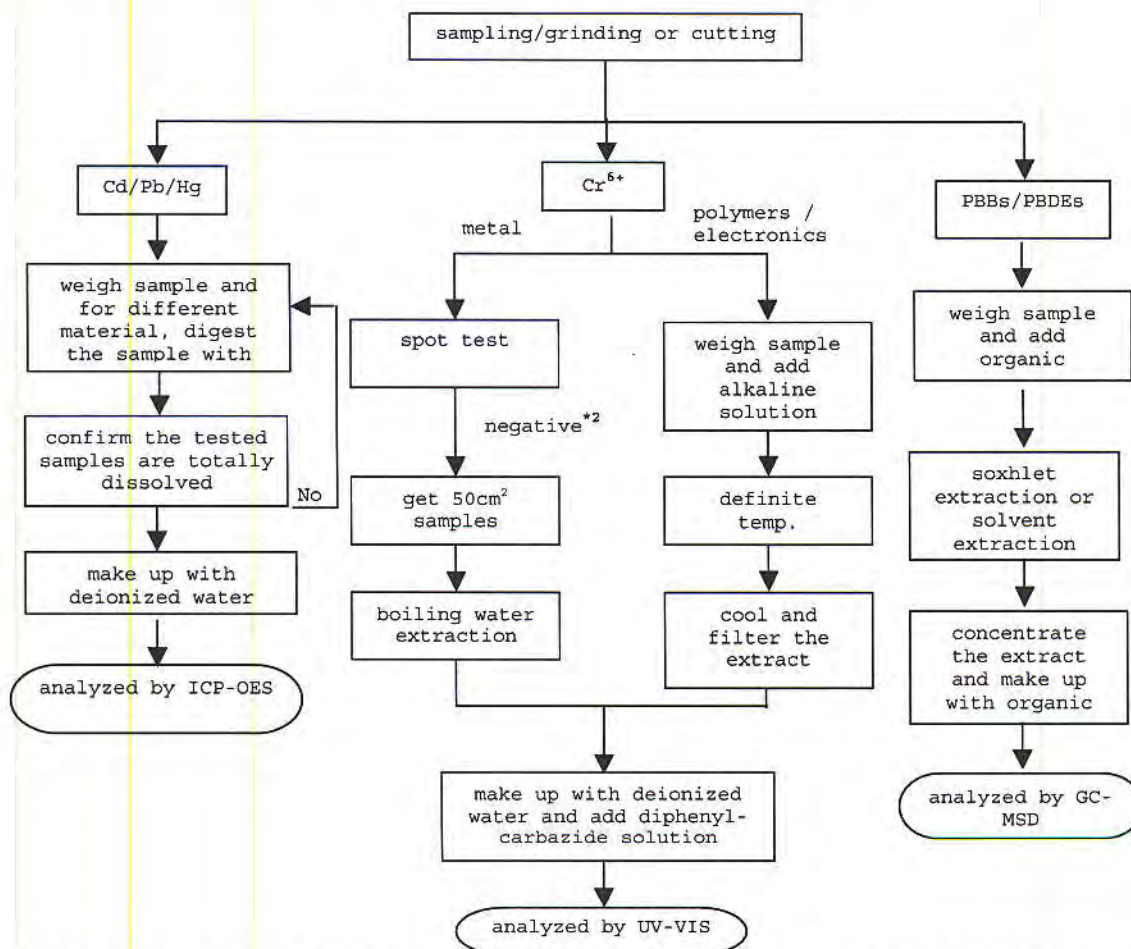
NUMBER: SHAH00248077

**TESTS CONDUCTED**

**(IV) Measurement Flowchart:**

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents

Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*

TO BE CONTINUED





Intertek Testing Services Ltd., Shanghai  
TFH Division  
Block B, Jinling Business Square, No. 801 Yi Shan Road,  
Shanghai, China, 200233  
Tel: +86 21 6120 6565  
Fax: +86 21 6127 9740  
E-mail: labtest.shanghai@intertek.com  
www.intertek.com  
China Toll-Free: 800 999 1338

**TEST REPORT**

NUMBER: SHAH00248077

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

Material	Acid added for digestion
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00248077

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
 mg/kg  
 ND = Not detected

Responsibility Of Chemist : Ken He

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

Date Sample Received : MAR.21, 2011

Testing Period : MAR.21, 2011 TO MAR.24, 2011

\*\*\*\*\*  
 TO BE CONTINUED

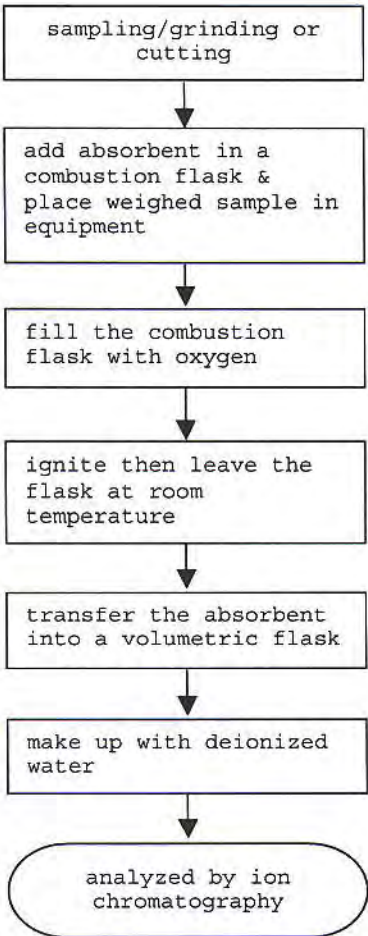
**TEST REPORT**

NUMBER: SHAH00248077

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*  
END OF REPORT



**TEST REPORT**

NUMBER: SHAH00248077

**TESTS CONDUCTED**

SHAH00248077



\*\*\*\*\*

END OF REPORT





**TEST REPORT**

NUMBER: SHAH00257471

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: MAY 16, 2011

**SAMPLE DESCRIPTION:**

One(1) submitted sample said to be :**Silver ink.**

Part Description : Ink.

Part Number : Silver ink.

Date Sample Received : May 11, 2011.

Date Test Started : May 11, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00257471

TESTS CONDUCTED

1 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00257471

TESTS CONDUCTED

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment 2005/618/EC for homogeneous material.

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00257471

TESTS CONDUCTED

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED



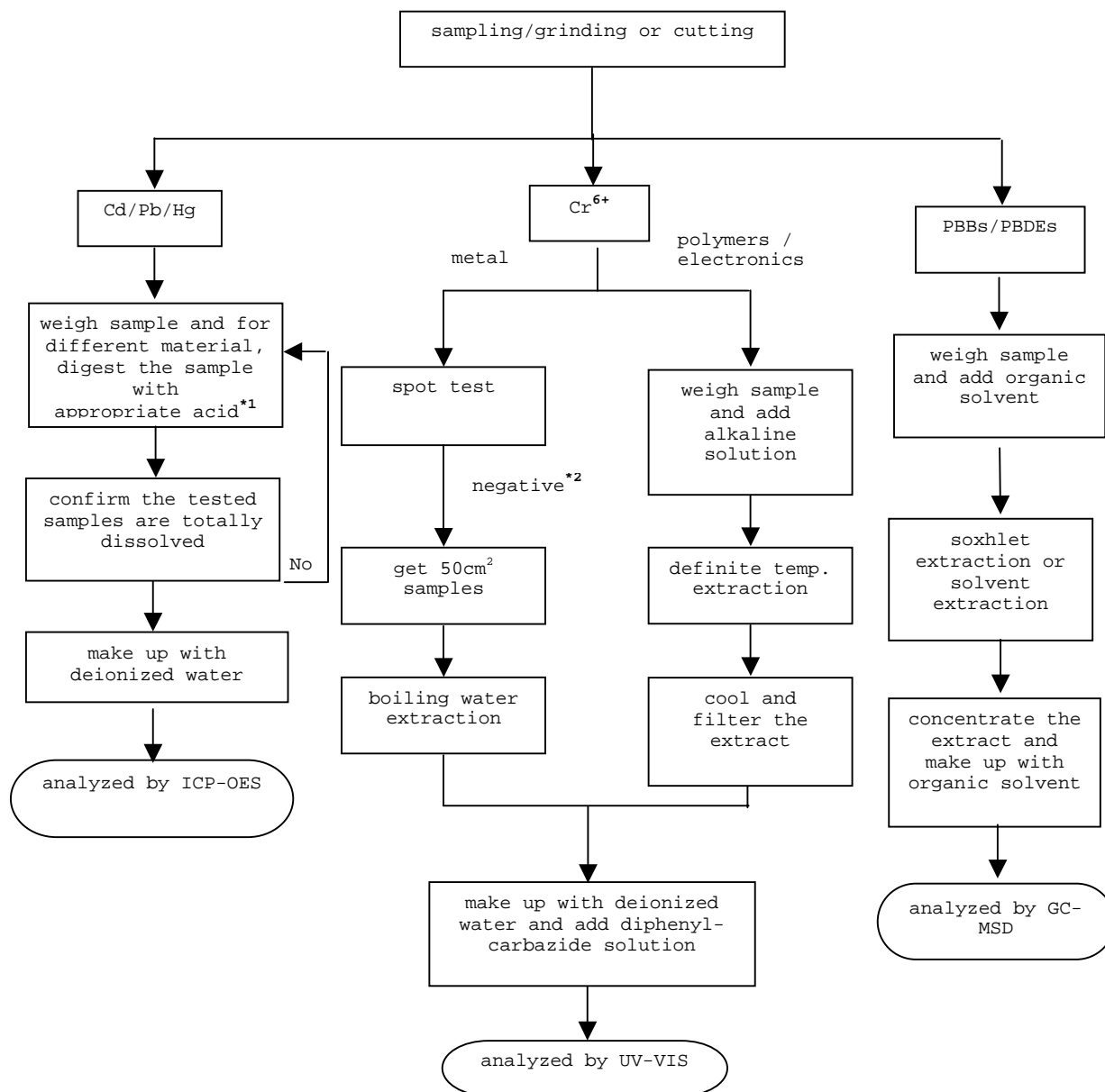
**TEST REPORT**

NUMBER: SHAH00257471

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*  
 TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00257471

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00257471

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg

ND = Not detected

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

Date Sample Received : Mar.11, 2011

Testing Period : Mar.11, 2011 to Mar 16, 2011

\*\*\*\*\*

TO BE CONTINUED

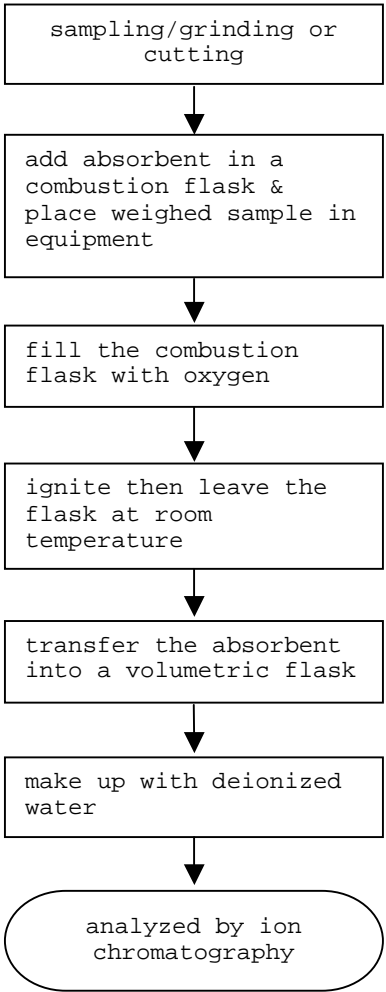
**TEST REPORT**

NUMBER: SHAH00257471

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00257471

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT



**TEST REPORT**

NUMBER: SHAH00247327

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: MAR 21, 2011

**SAMPLE DESCRIPTION:**

One(1) submitted sample said to be **Violet ink.**

Part Description : Ink.

Part Number : Violet ink.

Date Sample Received : Mar.15, 2011.

Date Test Started : Mar.15, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00247327

TESTS CONDUCTED

1 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247327

TESTS CONDUCTED

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247327

## TESTS CONDUCTED

## (III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI ( $\text{Cr}^{6+}$ ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

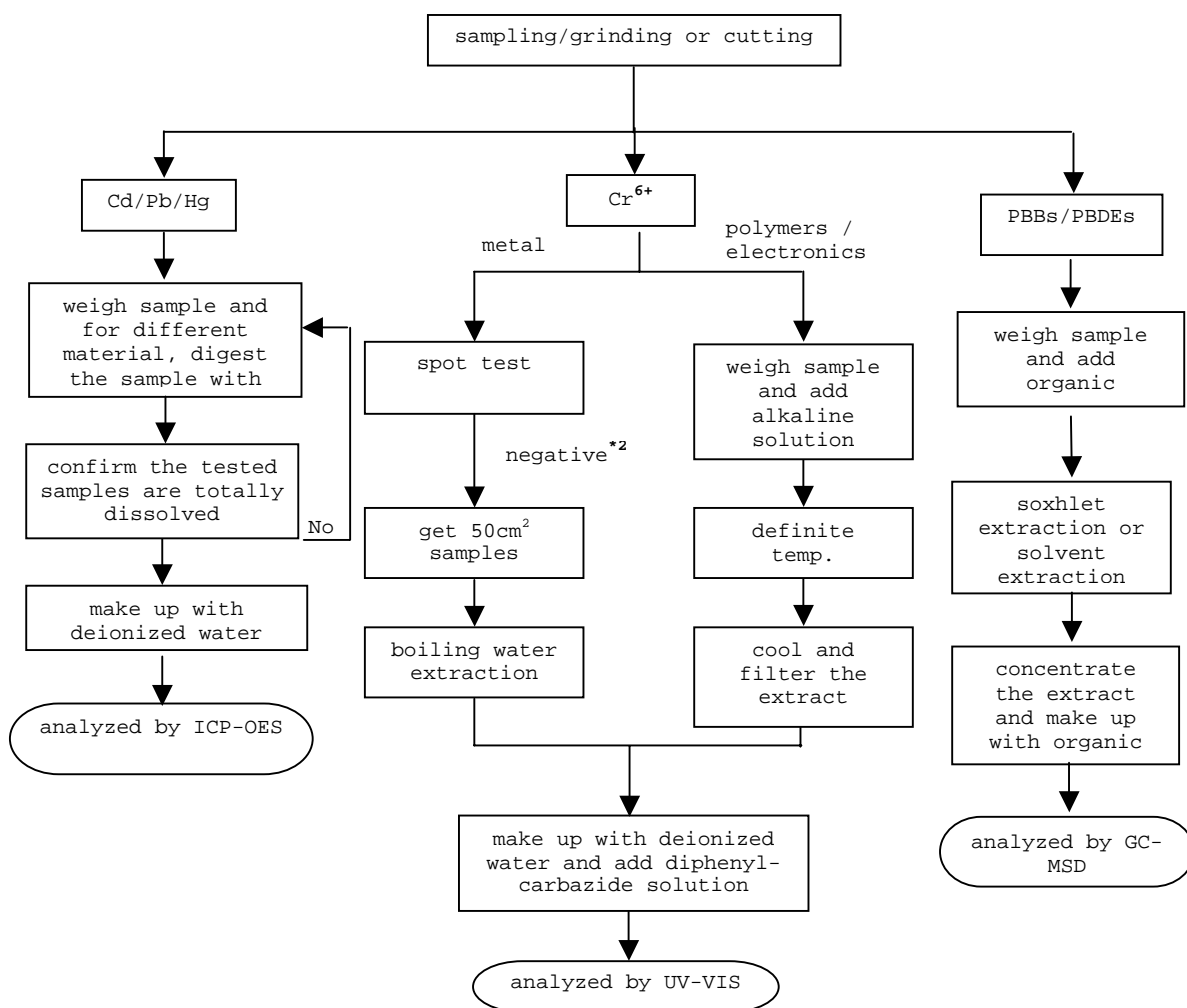
## TEST REPORT

NUMBER: SHAH00247327

### TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00247327

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00247327

## TESTS CONDUCTED

## 2 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	150
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Ken He

## (III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

Date Sample Received : MAR.15, 2011

Testing Period : MAR.15, 2011 TO MAR.18, 2011

\*\*\*\*\*

TO BE CONTINUED



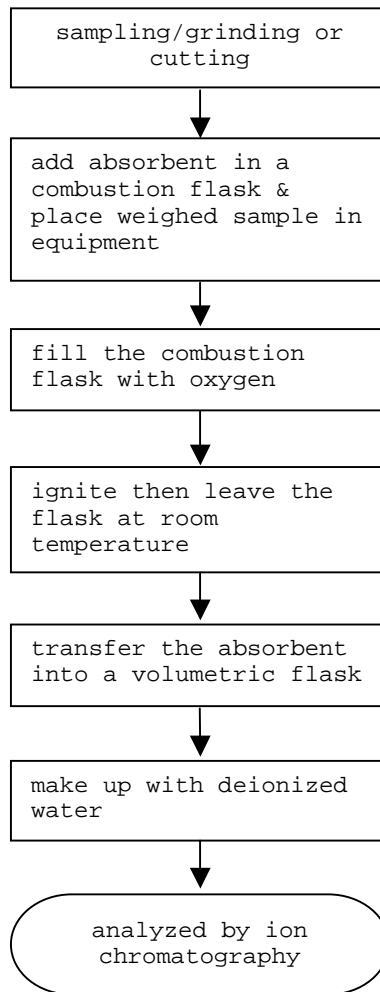
**TEST REPORT**

NUMBER: SHAH00247327

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*

END OF REPORT

**TEST REPORT**

NUMBER: SHAH00247327

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT



**TEST REPORT**

NUMBER: SHAH00287567

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: NOV 01, 2011

**SAMPLE DESCRIPTION:**

One (1) submitted sample said to be **Orange ink.**

Part Description : Ink - orange.

Part Number : 425900.

Date Sample Received : Oct.25, 2011.

Date Test Started : Oct.25, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

1 PHTHALATE CONTENT TEST

WITH REFERENCE TO EN14372, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

<u>TESTED COMPOUND</u>	<u>RESULT (% ,W/W)</u>	<u>LIMIT(% ,W/W)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	---
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	---
BENZYL BUTYL PHTHALATE (BBP)	ND	---
SUM OF THREE PHTHALATES	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO ANNEX XVII  
ITEMS 51 & 52 OF THE REACH REGULATION (EC) NO. 1907/2006  
& AMENDMENT NO. 552/2009 (FORMERLY KNOWN AS DIRECTIVE  
2005/84/EC) FOR PHTHALATE CONTENT IN TOYS AND CHILDREN  
CARE ARTICLES.

DETECTION LIMIT = 0.01% (W/W)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE

\*\*\*\*\*

TO BE CONTINUED

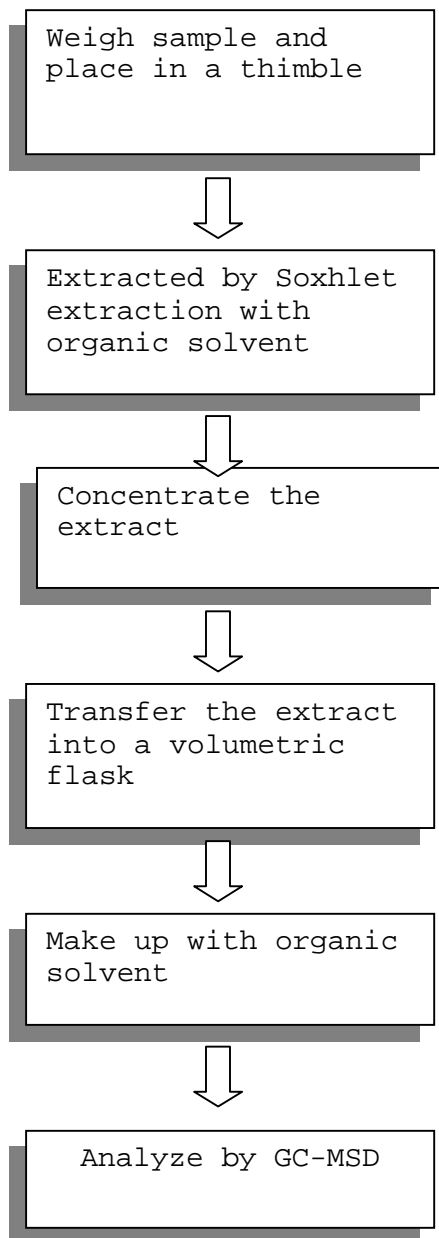


**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	14500
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Ken He

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

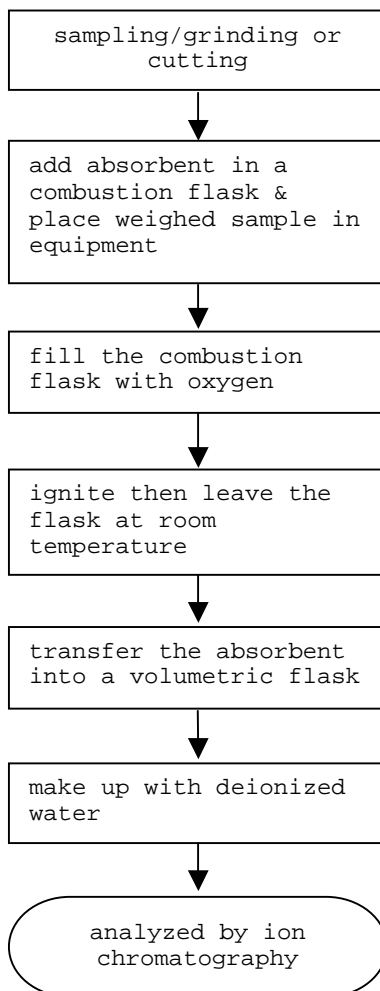
**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

3 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

Remarks: ppm = Parts per million = mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

(II) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

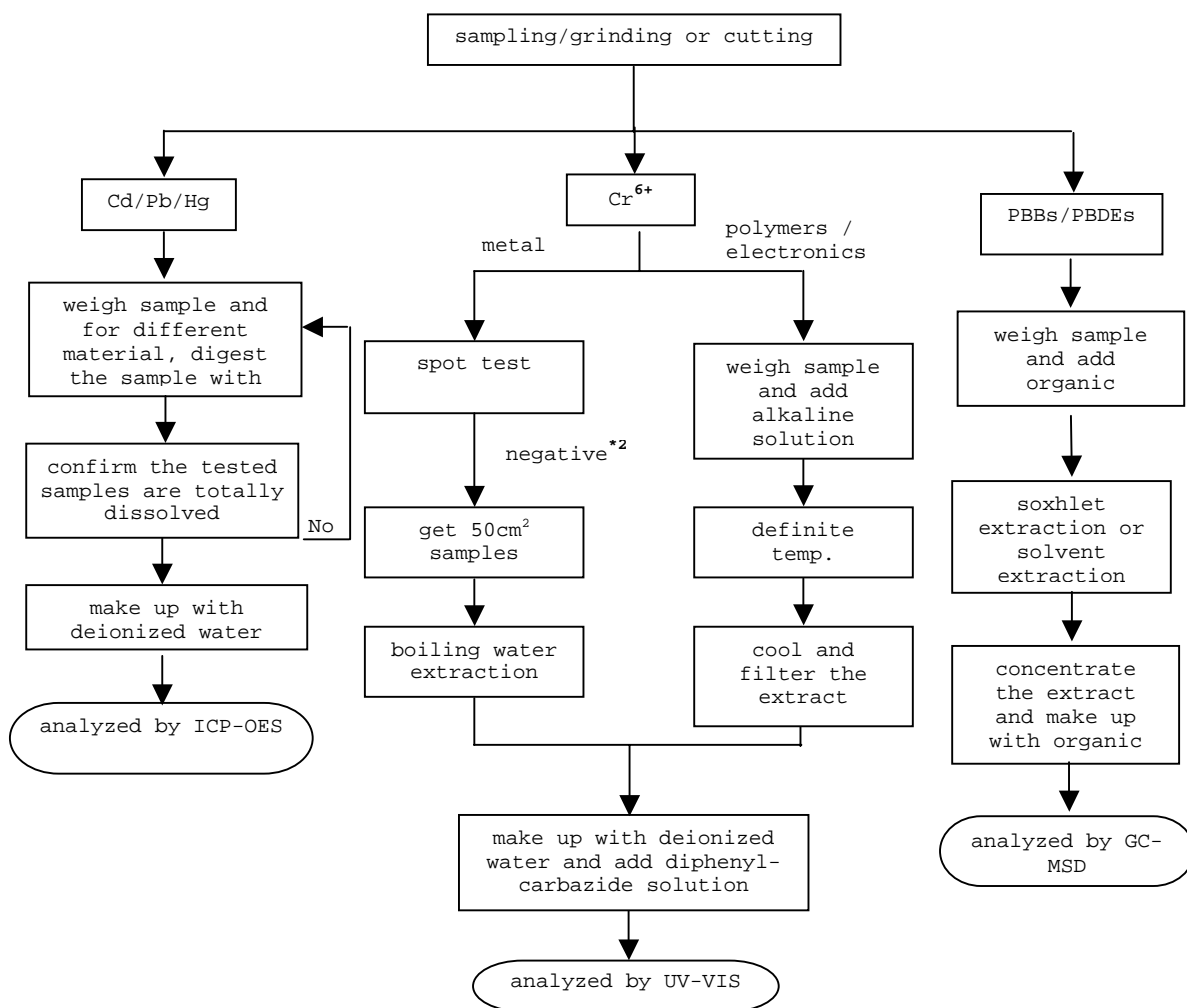
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED  
 (IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*  
 TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

4 PHthalate Content Test

WITH REFERENCE TO ASTM D3421, BY GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS) ANALYSIS.

	<u>RESULT (% , w/w)</u>	<u>LIMIT (% , w/w)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	0.1
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	0.1
BENZYL BUTYL PHTHALATE (BBP)	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO US CONSUMER PRODUCT SAFETY IMPROVEMENT ACT 2008 FOR PROHIBITION ON SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES.

DETECTION LIMIT = 0.01% (w/w)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE

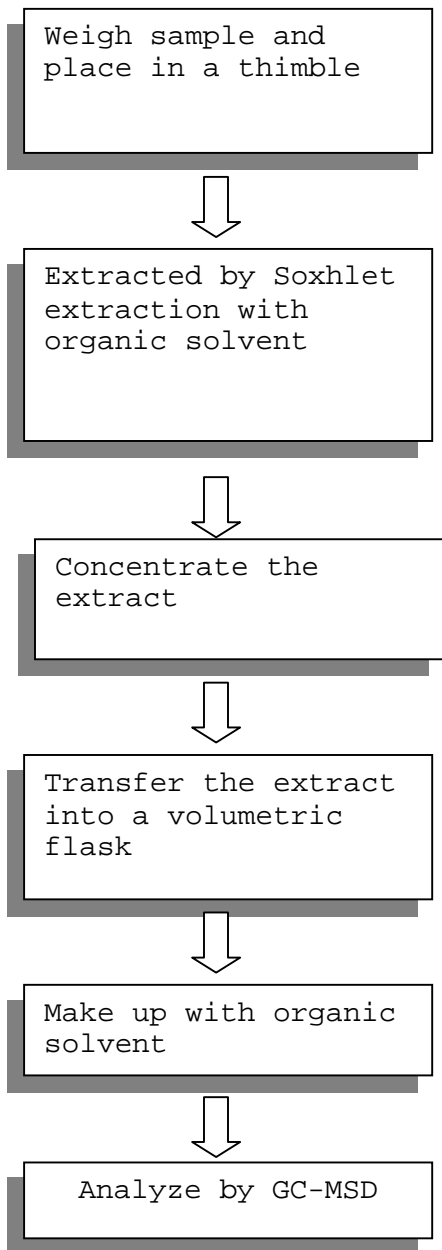
\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

5 (A) TEST RESULT SUMMARY:

<u>TESTING ITEM</u>	<u>RESULT (ppm)</u>
HBCDD (HEXABROMOCYCLODODECANE)	ND

REMARKS:

ppm = PARTS PER MILLION = mg/kg

ND = NOT DETECTED

(B) TEST METHOD :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
HBCDD (HEXABROMOCYCLODODECANE)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS	10 ppm

DATE SAMPLE RECEIVED : OCT.25, 2011

TESTING PERIOD : OCT.25, 2011 TO OCT.31, 2011

\*\*\*\*\*

TO BE CONTINUED

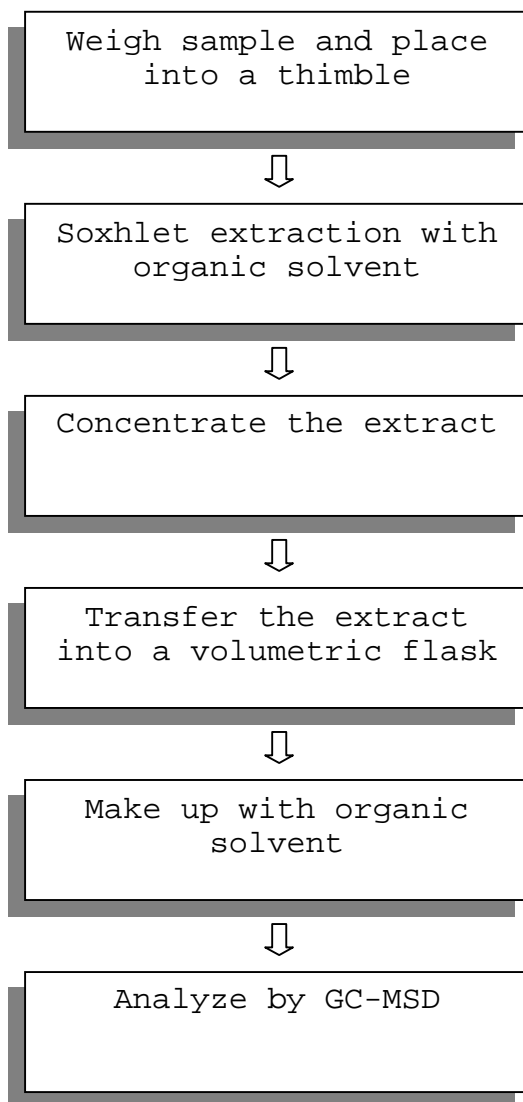
**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED

MEASUREMENT FLOWCHART:

TEST FOR HBCDD (Hexabromocyclododecane) CONTENT



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287567

TESTS CONDUCTED



\*\*\*\*\*  
END OF REPORT



**TEST REPORT**

NUMBER: SHAH00287553

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: NOV 01, 2011

**SAMPLE DESCRIPTION:**

One (1) submitted sample said to be: **Red ink.**

Part Description : Ink - red.

Part Number : 425901.

Date Sample Received : Oct.25, 2011.

Date Test Started : Oct.25, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

1 PHTHALATE CONTENT TEST

WITH REFERENCE TO EN14372, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

<u>TESTED COMPOUND</u>	<u>RESULT (% ,W/W)</u>	<u>LIMIT(% ,W/W)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	---
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	---
BENZYL BUTYL PHTHALATE (BBP)	ND	---
SUM OF THREE PHTHALATES	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO ANNEX XVII  
ITEMS 51 & 52 OF THE REACH REGULATION (EC) NO. 1907/2006  
& AMENDMENT NO. 552/2009 (FORMERLY KNOWN AS DIRECTIVE  
2005/84/EC) FOR PHTHALATE CONTENT IN TOYS AND CHILDREN  
CARE ARTICLES.

DETECTION LIMIT = 0.01% (W/W)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT

\*\*\*\*\*

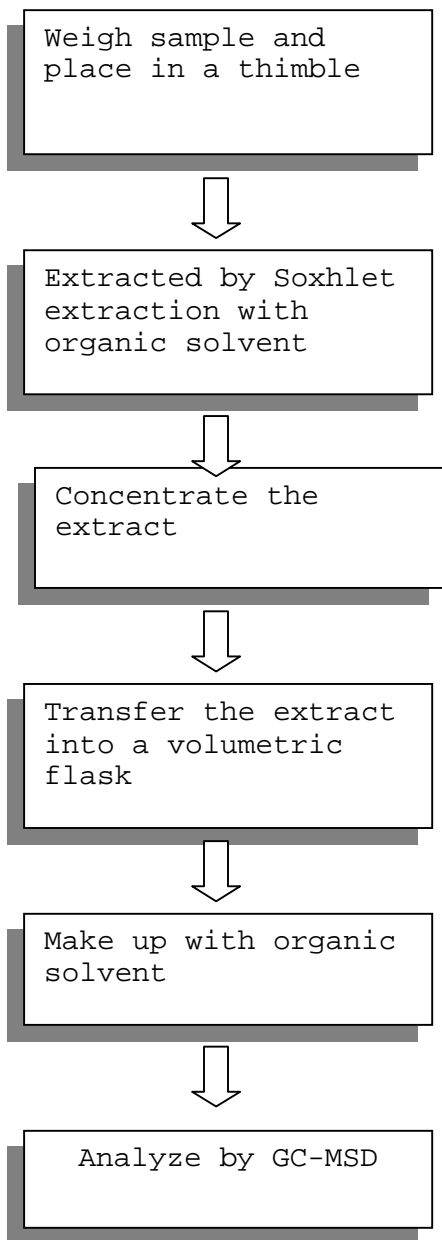
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	720
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
 mg/kg  
 ND = Not detected

Responsibility Of Chemist : Ken He

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample  
 \*\*\*\*\*  
 TO BE CONTINUED

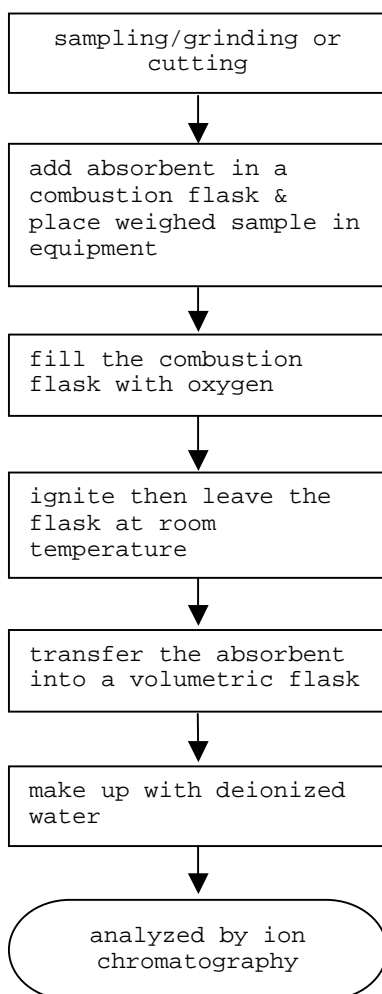
**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

3 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

Remarks: ppm = Parts per million = mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

(II) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287553

## TESTS CONDUCTED

## (III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

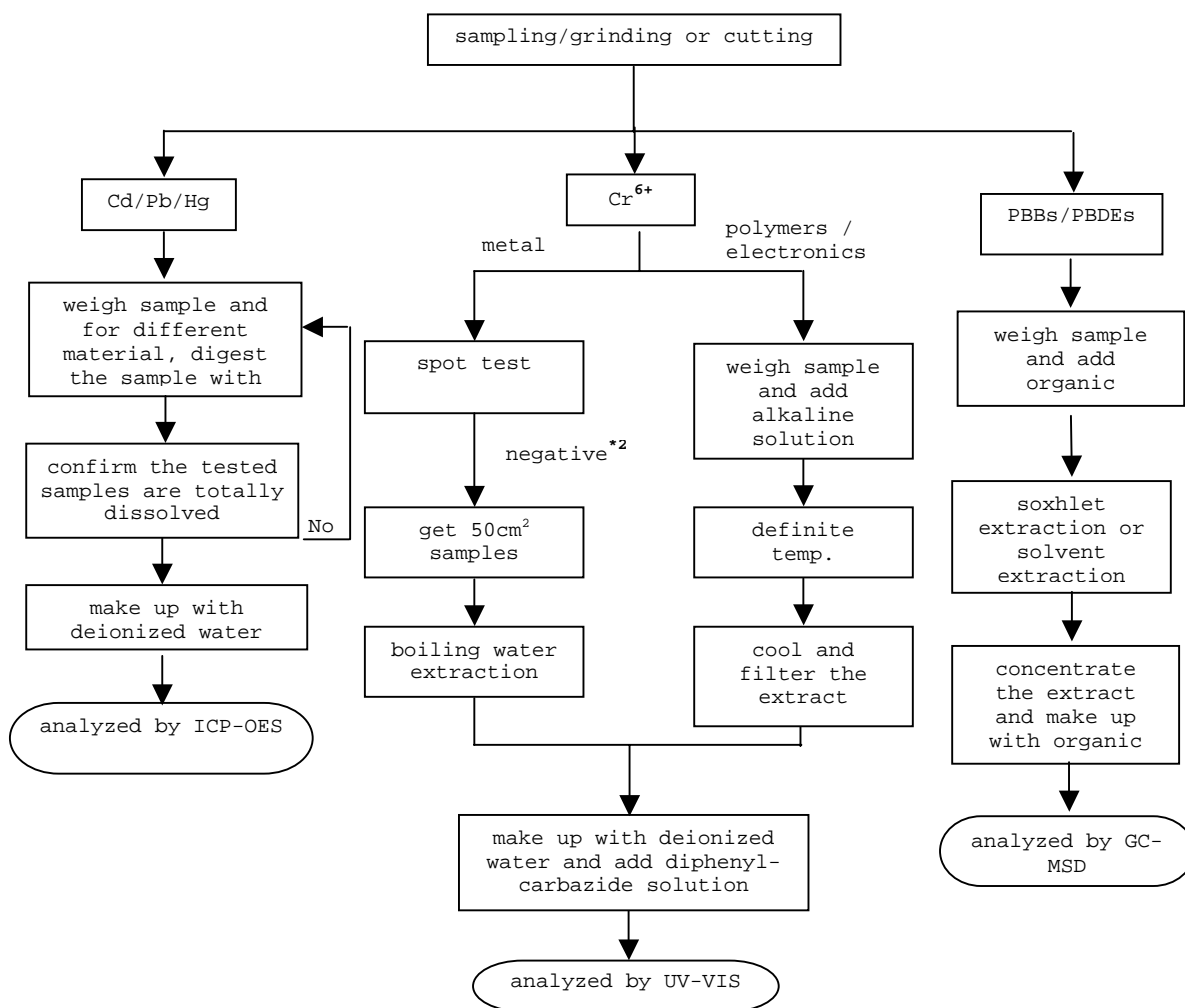
**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

4 PHthalate Content Test

WITH REFERENCE TO ASTM D3421, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

	<u>RESULT (% , w/w)</u>	<u>LIMIT (% , w/w)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	0.1
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	0.1
BENZYL BUTYL PHTHALATE (BBP)	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO US CONSUMER  
PRODUCT SAFETY IMPROVEMENT ACT 2008 FOR PROHIBITION ON  
SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES.

DETECTION LIMIT = 0.01% (w/w)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT.

\*\*\*\*\*

TO BE CONTINUED

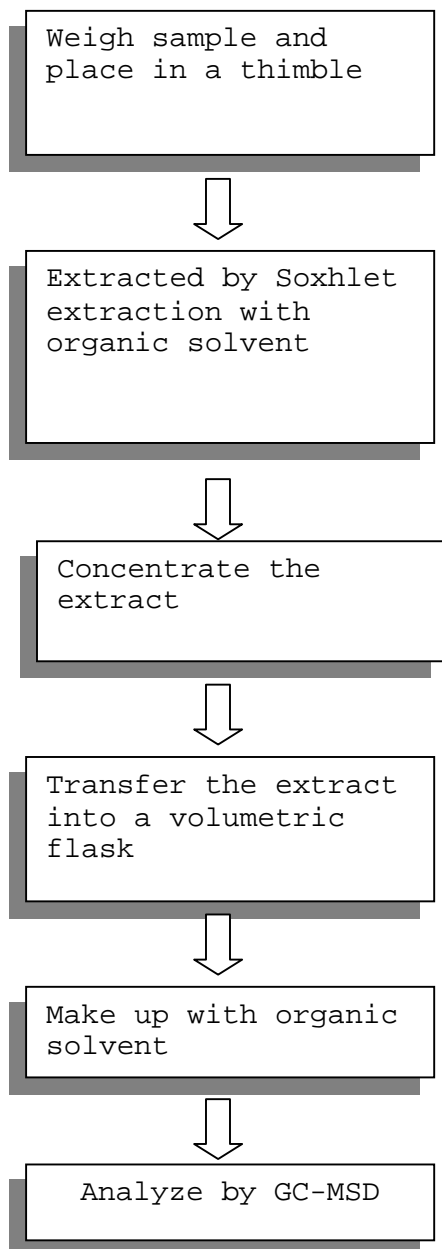


**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

5 (A) TEST RESULT SUMMARY:

<u>TESTING ITEM</u>	<u>RESULT (ppm)</u>
HBCDD (HEXABROMOCYCLODODECANE)	ND

REMARKS:

ppm = PARTS PER MILLION = mg/kg

ND = NOT DETECTED

(B) TEST METHOD :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
HBCDD (HEXABROMOCYCLODODECANE)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS	10 ppm

DATE SAMPLE RECEIVED : OCT.25, 2011

TESTING PERIOD : OCT.25, 2011 TO OCT.31, 2011

\*\*\*\*\*

TO BE CONTINUED

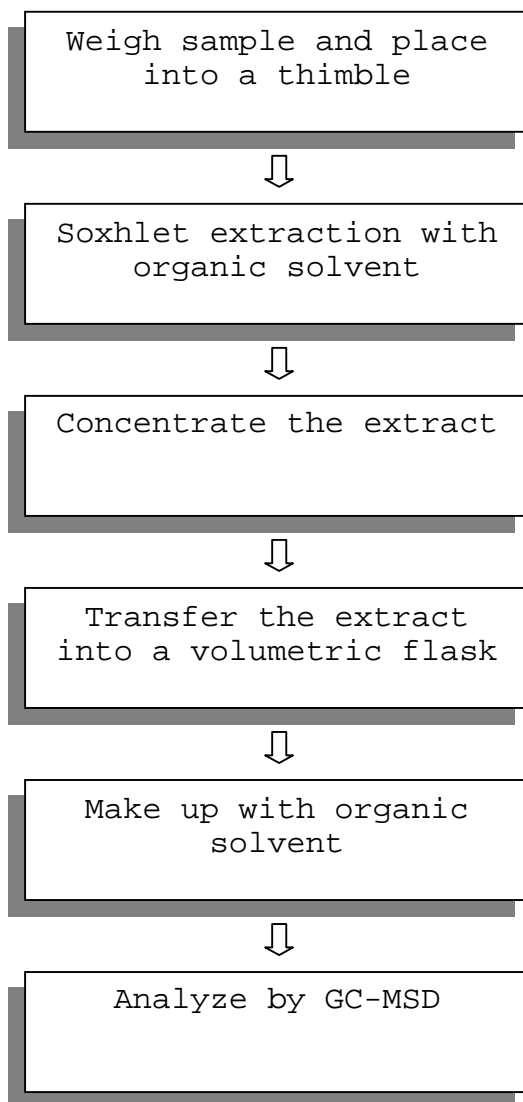
**TEST REPORT**

NUMBER: SHAH00287553

TESTS CONDUCTED

MEASUREMENT FLOWCHART:

TEST FOR HBCDD (Hexabromocyclododecane) CONTENT



\*\*\*\*\*

TO BE CONTINUED

# TEST REPORT

NUMBER: SHAH00287553

## TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT





**TEST REPORT**

NUMBER: SHAH00287569

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: OCT 31, 2011

**SAMPLE DESCRIPTION:**

One (1) submitted sample said to be **Black ink.**

Part Description : Ink - black.

Part Number : 425902.

Date Sample Received : Oct.25, 2011.

Date Test Started : Oct.25, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

1 PHTHALATE CONTENT TEST

WITH REFERENCE TO EN14372, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

<u>TESTED COMPOUND</u>	<u>RESULT (% ,W/W)</u>	<u>LIMIT(% ,W/W)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	---
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	---
BENZYL BUTYL PHTHALATE (BBP)	ND	---
SUM OF THREE PHTHALATES	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO ANNEX XVII  
ITEMS 51 & 52 OF THE REACH REGULATION (EC) NO. 1907/2006  
& AMENDMENT NO. 552/2009 (FORMERLY KNOWN AS DIRECTIVE  
2005/84/EC) FOR PHTHALATE CONTENT IN TOYS AND CHILDREN  
CARE ARTICLES.

DETECTION LIMIT = 0.01% (W/W)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT

\*\*\*\*\*

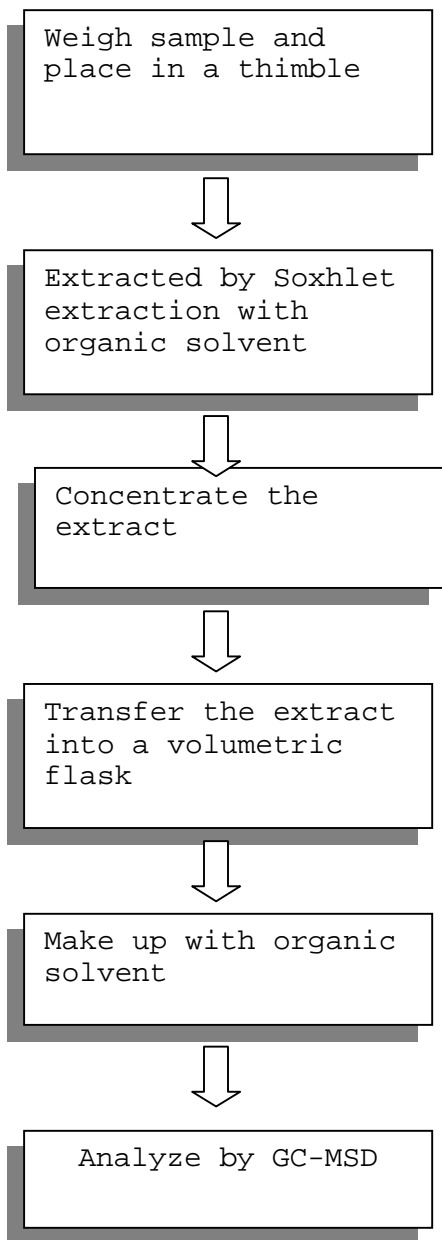
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
 mg/kg  
 ND = Not detected

Responsibility Of Chemist : Ken He

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample  
 \*\*\*\*\*  
 TO BE CONTINUED



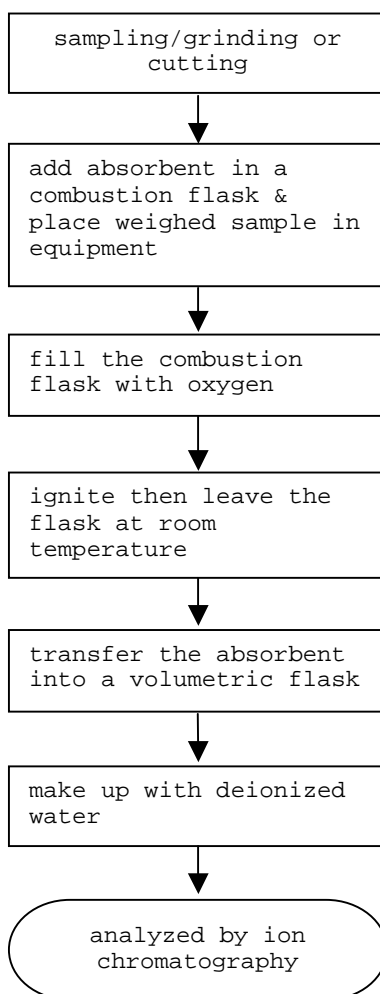
**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

3 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

Remarks: ppm = Parts per million = mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

(II) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

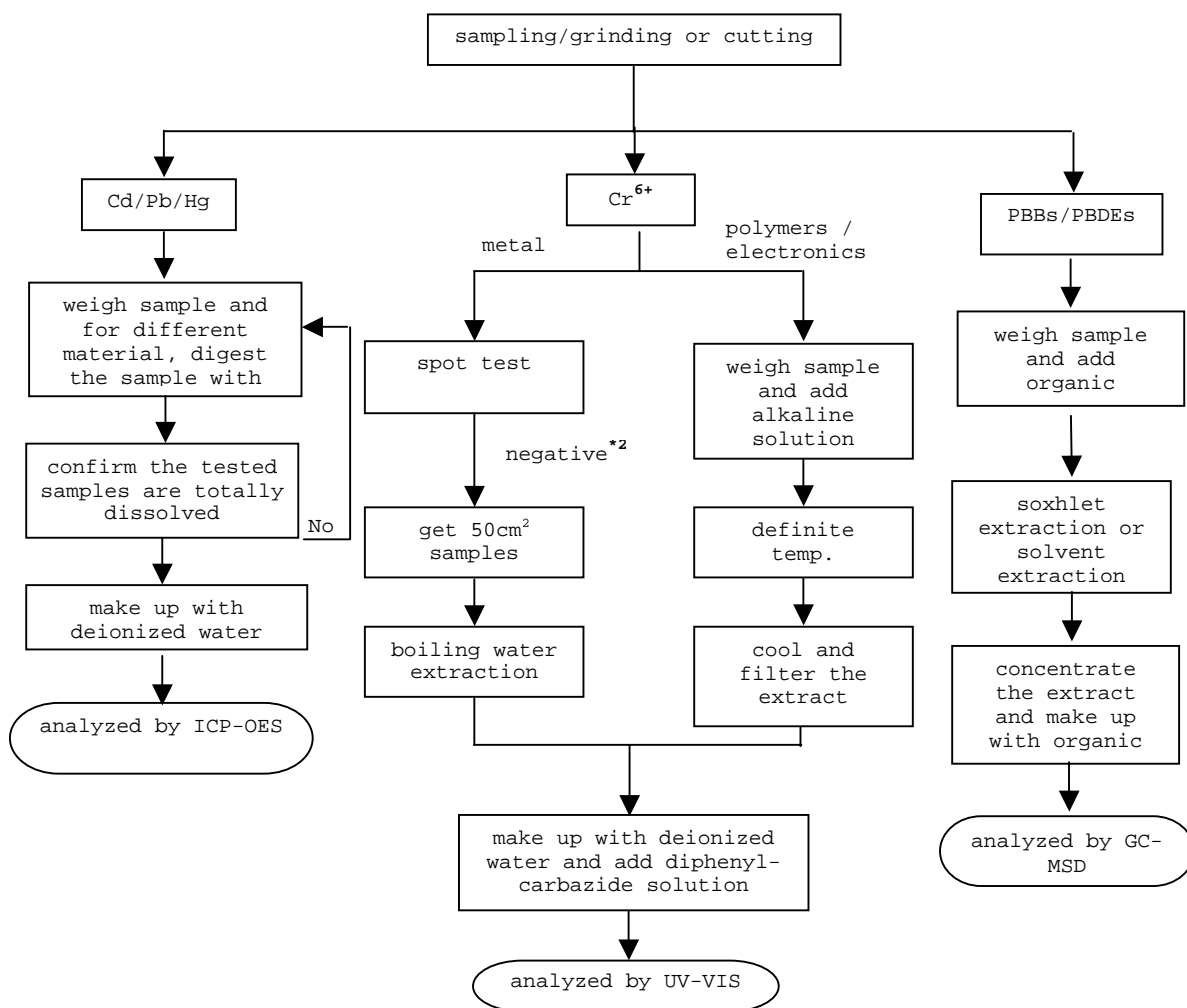
**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

4 PHthalate Content Test

WITH REFERENCE TO ASTM D3421, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

	<u>RESULT (% , w/w)</u>	<u>LIMIT (% , w/w)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	0.1
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	0.1
BENZYL BUTYL PHTHALATE (BBP)	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO US CONSUMER  
PRODUCT SAFETY IMPROVEMENT ACT 2008 FOR PROHIBITION ON  
SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES.

DETECTION LIMIT = 0.01% (w/w)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT.

\*\*\*\*\*

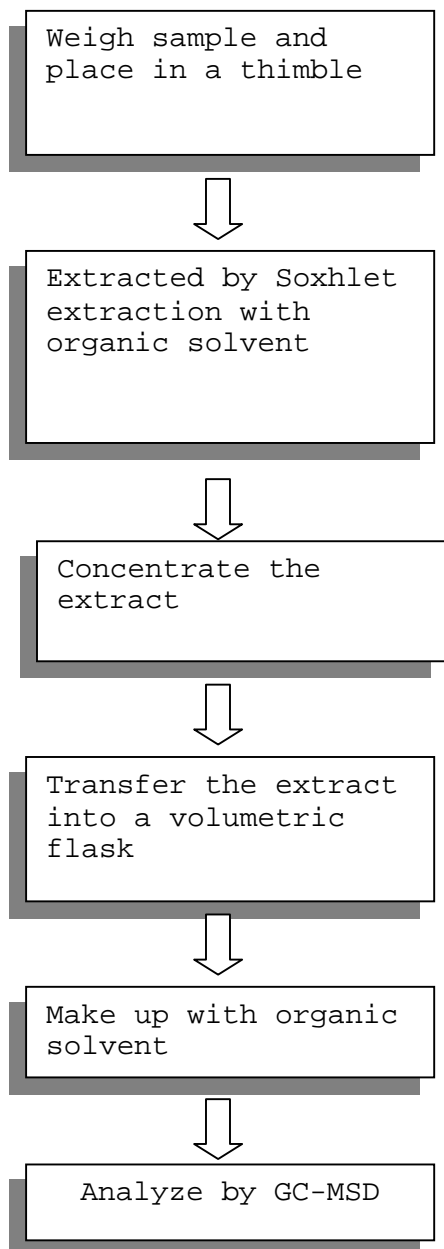
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

5 (A) TEST RESULT SUMMARY:

<u>TESTING ITEM</u>	<u>RESULT (ppm)</u>
HBCDD (HEXABROMOCYCLODODECANE)	ND

REMARKS:

ppm = PARTS PER MILLION = mg/kg

ND = NOT DETECTED

(B) TEST METHOD :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
HBCDD (HEXABROMOCYCLODODECANE)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS	10 ppm

DATE SAMPLE RECEIVED : OCT.25, 2011

TESTING PERIOD : OCT.25, 2011 TO OCT.28, 2011

\*\*\*\*\*

TO BE CONTINUED

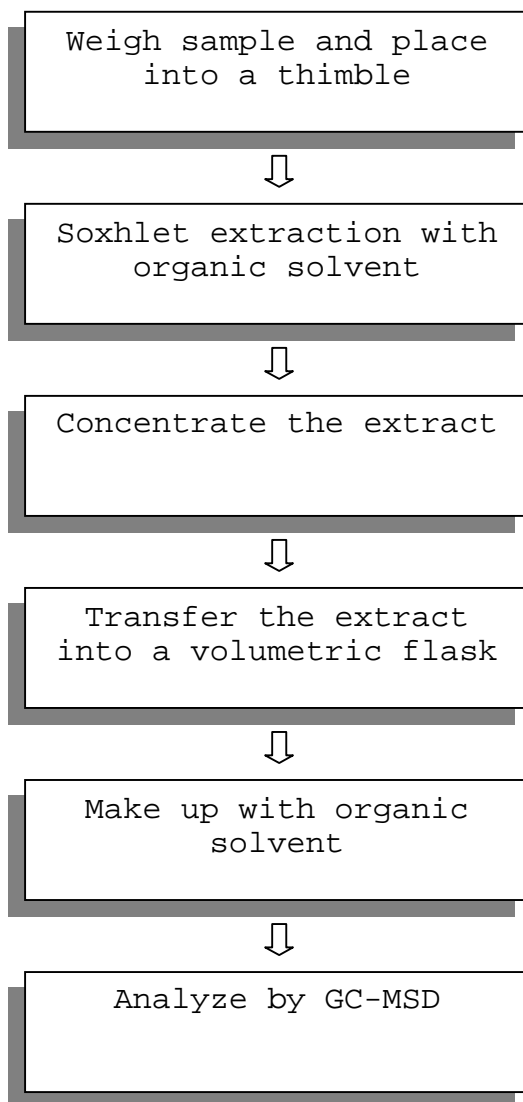
**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED

MEASUREMENT FLOWCHART:

TEST FOR HBCDD (Hexabromocyclododecane) CONTENT



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287569

TESTS CONDUCTED



\*\*\*\*\*  
END OF REPORT



**TEST REPORT**

NUMBER: SHAH00287564

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: OCT 31, 2011

**SAMPLE DESCRIPTION:**

One (1) submitted sample said to be **Yellow ink.**

Part Description : Ink - yellow.

Part Number : 425903.

Date Sample Received : Oct.25, 2011.

Date Test Started : Oct.25, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED

1 PHTHALATE CONTENT TEST

WITH REFERENCE TO EN14372, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

<u>TESTED COMPOUND</u>	<u>RESULT (% ,W/W)</u>	<u>LIMIT(% ,W/W)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	---
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	---
BENZYL BUTYL PHTHALATE (BBP)	ND	---
SUM OF THREE PHTHALATES	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO ANNEX XVII  
ITEMS 51 & 52 OF THE REACH REGULATION (EC) NO. 1907/2006  
& AMENDMENT NO. 552/2009 (FORMERLY KNOWN AS DIRECTIVE  
2005/84/EC) FOR PHTHALATE CONTENT IN TOYS AND CHILDREN  
CARE ARTICLES.

DETECTION LIMIT = 0.01% (W/W)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT

\*\*\*\*\*

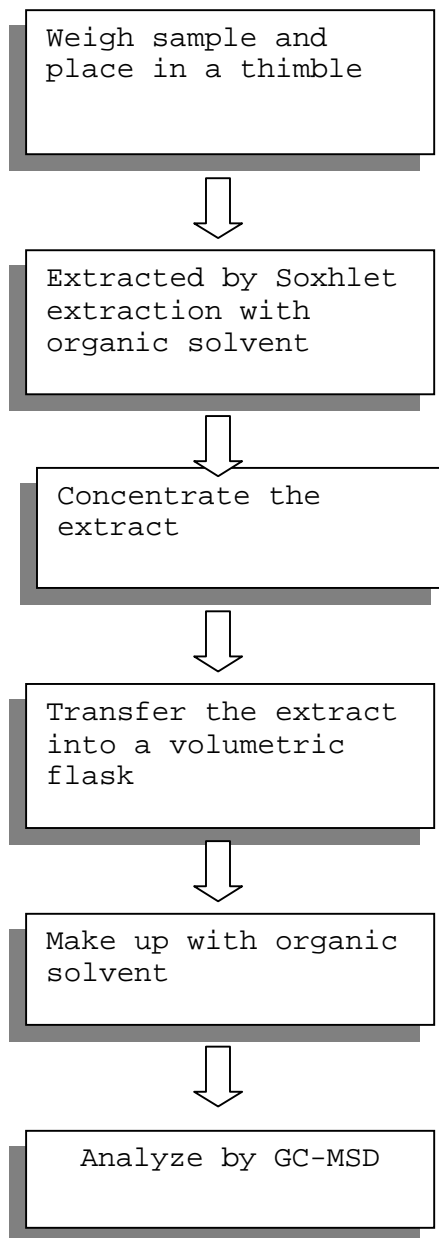
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	5350
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
 mg/kg  
 ND = Not detected

Responsibility Of Chemist : Ken He

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample  
 \*\*\*\*\*  
 TO BE CONTINUED



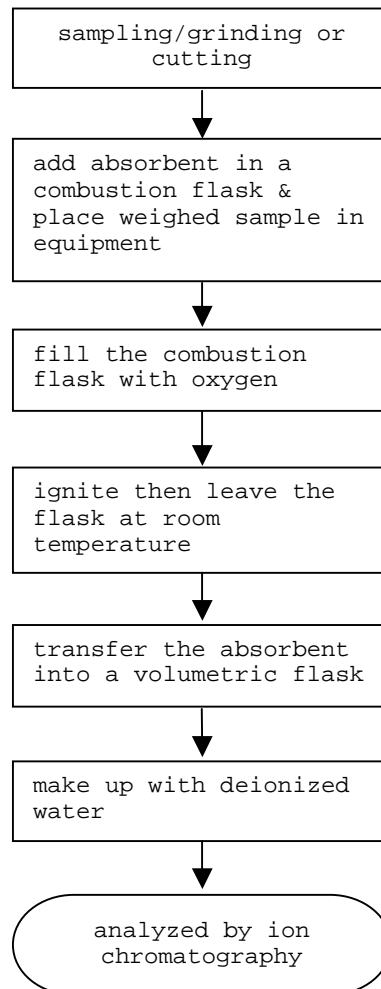
**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED

3 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED

Remarks: ppm = Parts per million = mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

(II) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287564

## TESTS CONDUCTED

## (III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

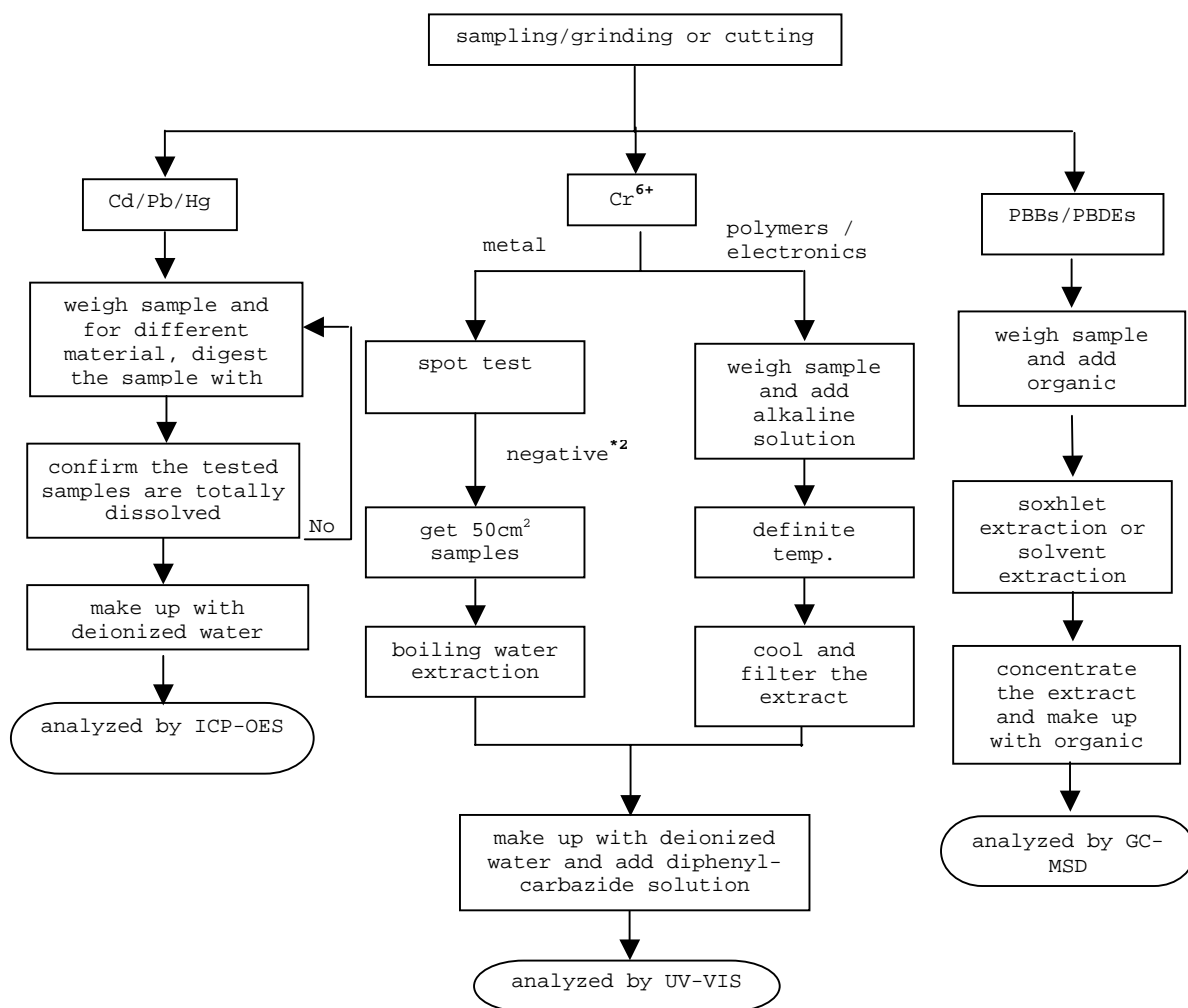
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED  
 (IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*  
 TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED

4 PHthalate Content Test

WITH REFERENCE TO ASTM D3421, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

	<u>RESULT (% , w/w)</u>	<u>LIMIT (% , w/w)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	0.1
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	0.1
BENZYL BUTYL PHTHALATE (BBP)	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO US CONSUMER  
PRODUCT SAFETY IMPROVEMENT ACT 2008 FOR PROHIBITION ON  
SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES.

DETECTION LIMIT = 0.01% (w/w)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT.

\*\*\*\*\*

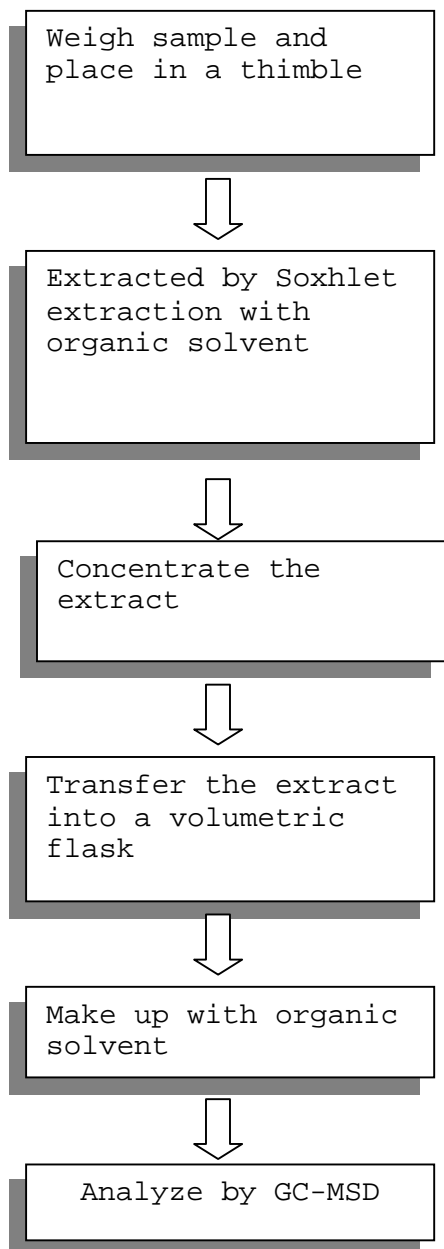
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED

5 (A) TEST RESULT SUMMARY:

<u>TESTING ITEM</u>	<u>RESULT (ppm)</u>
HBCDD (HEXABROMOCYCLODODECANE)	ND

REMARKS:

ppm = PARTS PER MILLION = mg/kg

ND = NOT DETECTED

(B) TEST METHOD :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
HBCDD (HEXABROMOCYCLODODECANE)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS	10 ppm

DATE SAMPLE RECEIVED : OCT.25, 2011

TESTING PERIOD : OCT.25, 2011 TO OCT.28, 2011

\*\*\*\*\*

TO BE CONTINUED

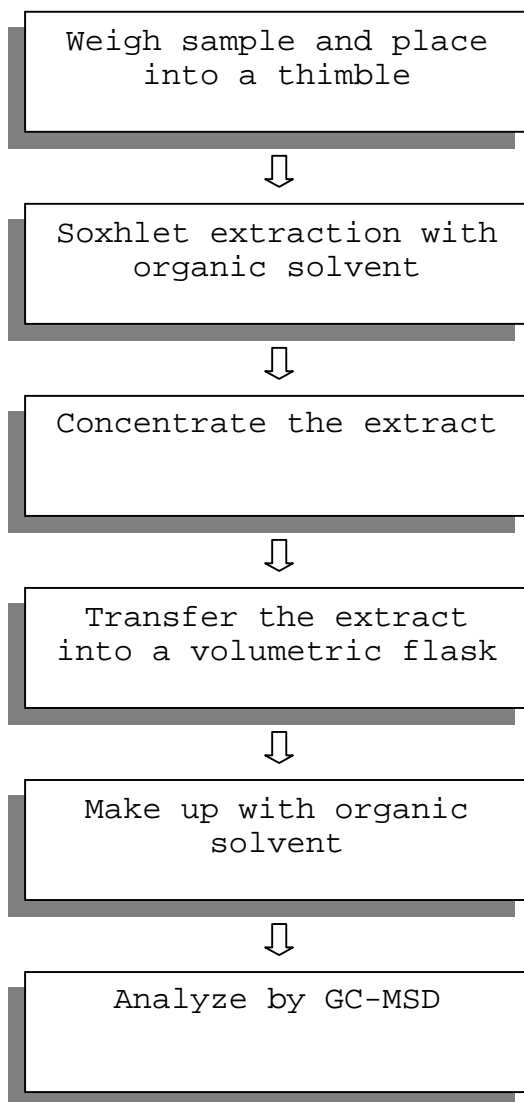
**TEST REPORT**

NUMBER: SHAH00287564

TESTS CONDUCTED

MEASUREMENT FLOWCHART:

TEST FOR HBCDD (Hexabromocyclododecane) CONTENT



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287564

**TESTS CONDUCTED**



\*\*\*\*\*

END OF REPORT



**TEST REPORT**

NUMBER: SHAH00287549

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: OCT 31, 2011

**SAMPLE DESCRIPTION:**

One (1) submitted sample said to be: **Blue ink.**

Part Description : Ink - blue.

Part Number : 425904.

Date Sample Received : Oct.25, 2011.

Date Test Started : Oct.25, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED

1 PHthalate Content Test

WITH REFERENCE TO EN14372, BY GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS) ANALYSIS.

<u>TESTED COMPOUND</u>	<u>RESULT (% ,W/W)</u>	<u>LIMIT(% ,W/W)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	---
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	---
BENZYL BUTYL PHTHALATE (BBP)	ND	---
SUM OF THREE PHTHALATES	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO ANNEX XVII  
ITEMS 51 & 52 OF THE REACH REGULATION (EC) NO. 1907/2006  
& AMENDMENT NO. 552/2009 (FORMERLY KNOWN AS DIRECTIVE  
2005/84/EC) FOR PHTHALATE CONTENT IN TOYS AND CHILDREN  
CARE ARTICLES.

DETECTION LIMIT = 0.01% (W/W)

ND = NOT DETECTED

\*\*\*\*\*

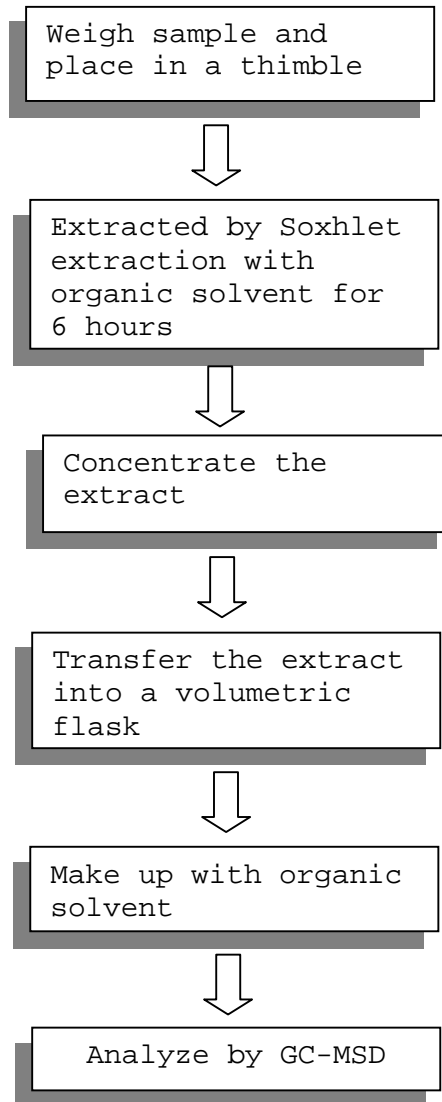
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES (EN14372) CONTENTS



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED

2 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	500
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg

ND = Not detected

Responsibility Of Chemist : Ken He

Date Sample Received : OCT.25, 2011

Testing Period : OCT.28, 2011

( II ) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED



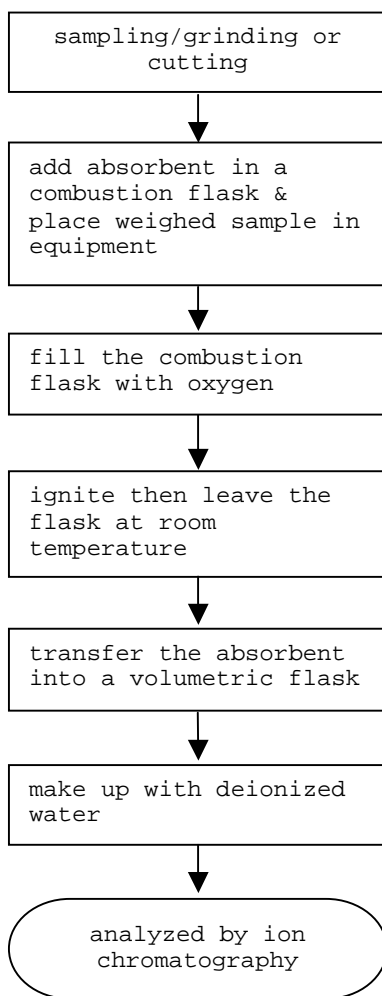
**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content  
 Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED

3 ( I ) Test Result Summary :

Testing Item	Result (ppm)
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED

Remarks: ppm = Parts per million = mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

Date Sample Received : OCT.28, 2011

Testing Period : OCT.28, 2011

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

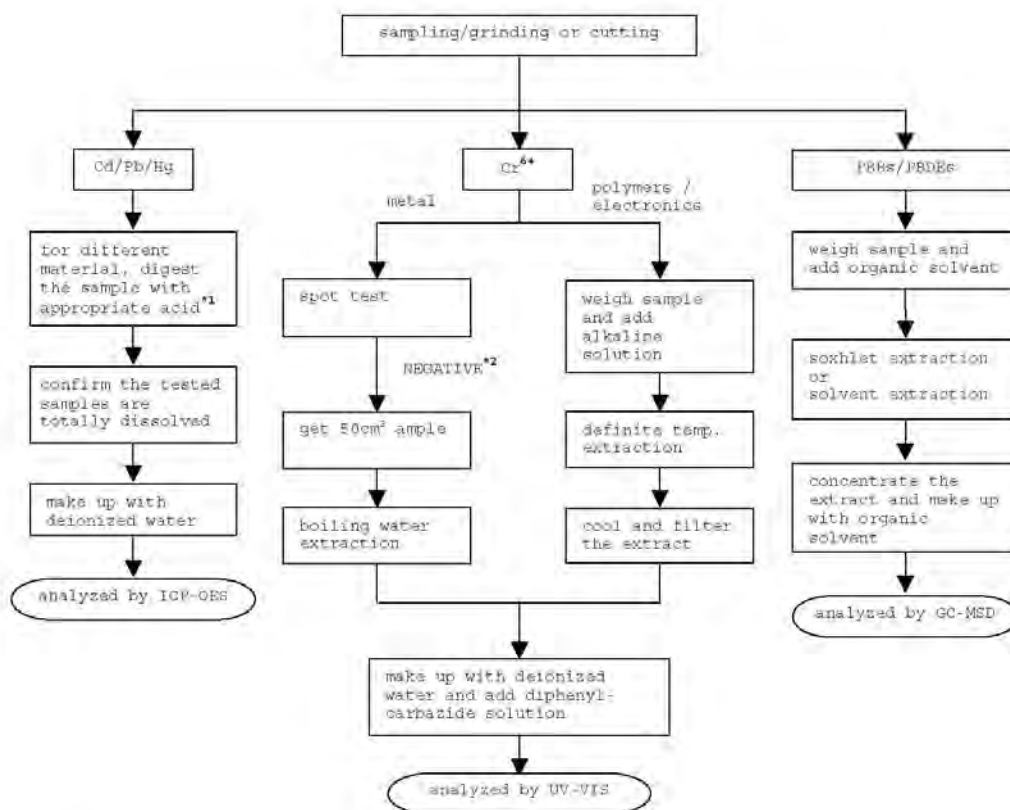
## TEST REPORT

NUMBER: SHAH00287549

### TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
Reference Standard: IEC 62321 edition 1.0:2008



Remarks:

\*1: List Of Appropriate Acid:

Material	Acid Added For Digestion
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>2</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED

4 PHthalate Content Test

WITH REFERENCE TO ASTM D3421, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

	<u>RESULT (% , w/w)</u>	<u>LIMIT (% , w/w)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	0.1
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	0.1
BENZYL BUTYL PHTHALATE (BBP)	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO US CONSUMER  
PRODUCT SAFETY IMPROVEMENT ACT 2008 FOR PROHIBITION ON  
SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES.

DETECTION LIMIT = 0.01% (w/w)

ND = NOT DETECTED

\*\*\*\*\*

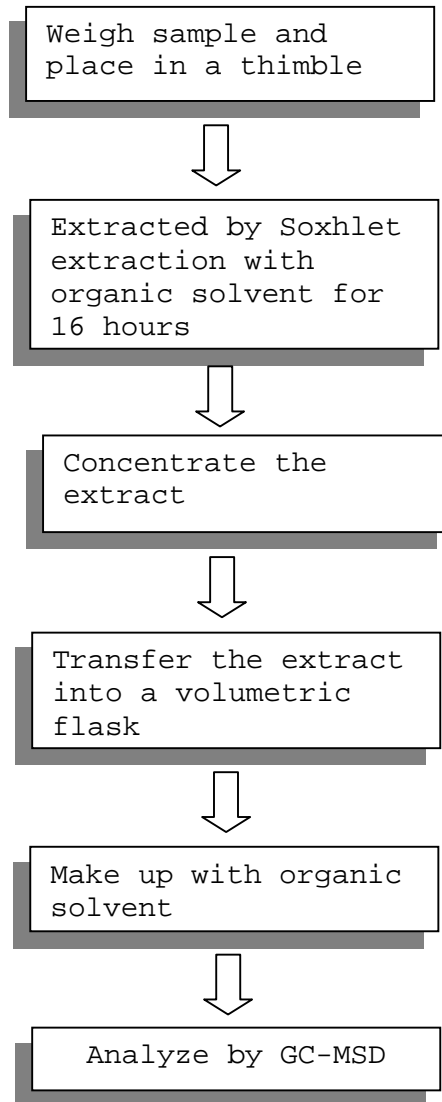
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES (ASTM D3421) CONTENTS



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED

5 (A) TEST RESULT SUMMARY:

<u>TESTING ITEM</u>	<u>RESULT (ppm)</u>
HBCDD (HEXABROMOCYCLODODECANE)	ND

REMARKS:

ppm = PARTS PER MILLION = mg/kg

ND = NOT DETECTED

(B) TEST METHOD :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
HBCDD (HEXABROMOCYCLODODECANE)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS	10 ppm

DATE SAMPLE RECEIVED : OCT.25, 2011

TESTING PERIOD : OCT.25, 2011 TO OCT.28, 2011

\*\*\*\*\*

TO BE CONTINUED

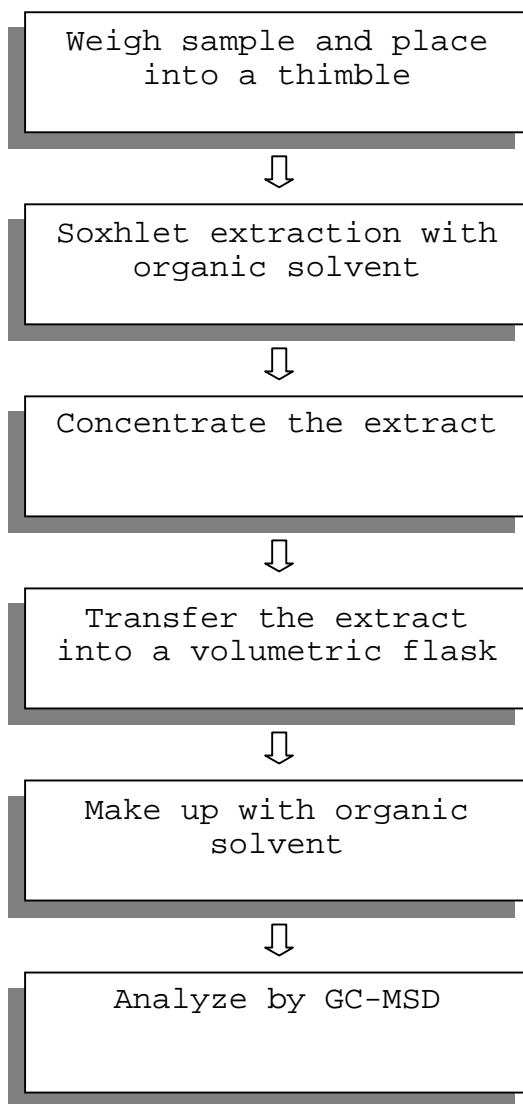
**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED

MEASUREMENT FLOWCHART:

TEST FOR HBCDD (Hexabromocyclododecane) CONTENT



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287549

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT





**TEST REPORT**

NUMBER: SHAH00287516

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: OCT 31, 2011

**SAMPLE DESCRIPTION:**

One (1) submitted sample said to be **Brown ink.**

Part Description : Ink - brown.

Part Number : 425906.

Date Sample Received : Oct.25, 2011.

Date Test Started : Oct.25, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER



**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED

1 PHthalate Content Test

WITH REFERENCE TO EN14372, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

<u>TESTED COMPOUND</u>	<u>RESULT (% ,W/W)</u>	<u>LIMIT(% ,W/W)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	---
DI(2-ETHYL HEXYL) PHTHALATE(DEHP)	ND	---
BENZYL BUTYL PHTHALATE (BBP)	ND	---
SUM OF THREE PHTHALATES	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO ANNEX XVII  
ITEMS 51 & 52 OF THE REACH REGULATION (EC) NO. 1907/2006  
& AMENDMENT NO.552/2009 (FORMERLY KNOWN AS DIRECTIVE  
2005/84/EC) FOR PHTHALATE CONTENT IN TOYS AND CHILDREN  
CARE ARTICLES.

DETECTION LIMIT = 0.01%(W/W)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT

\*\*\*\*\*

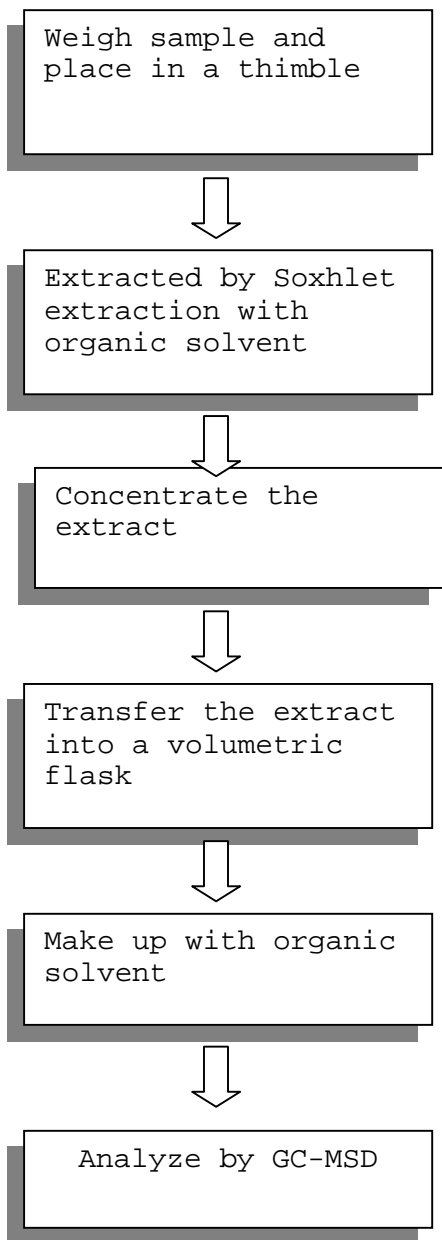
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	6850
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
 mg/kg  
 ND = Not detected

Responsibility Of Chemist : Ken He

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample  
 \*\*\*\*\*  
 TO BE CONTINUED

**TEST REPORT**

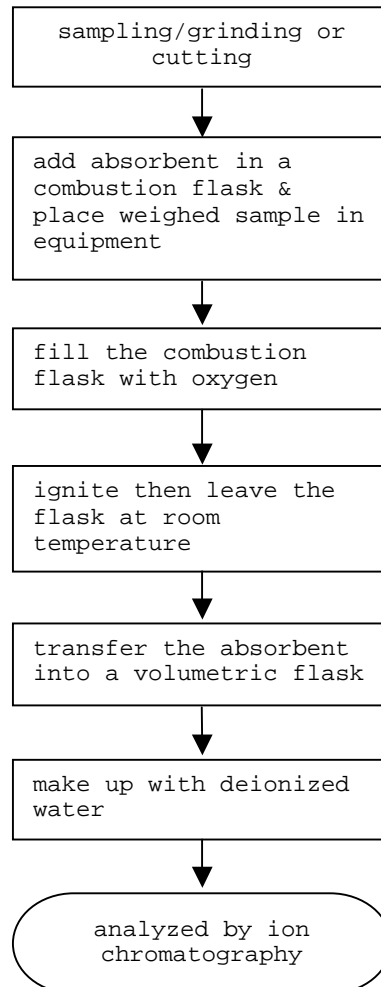
NUMBER: SHAH00287516

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content

Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED

3 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED

Remarks: ppm = Parts per million = mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

(II) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

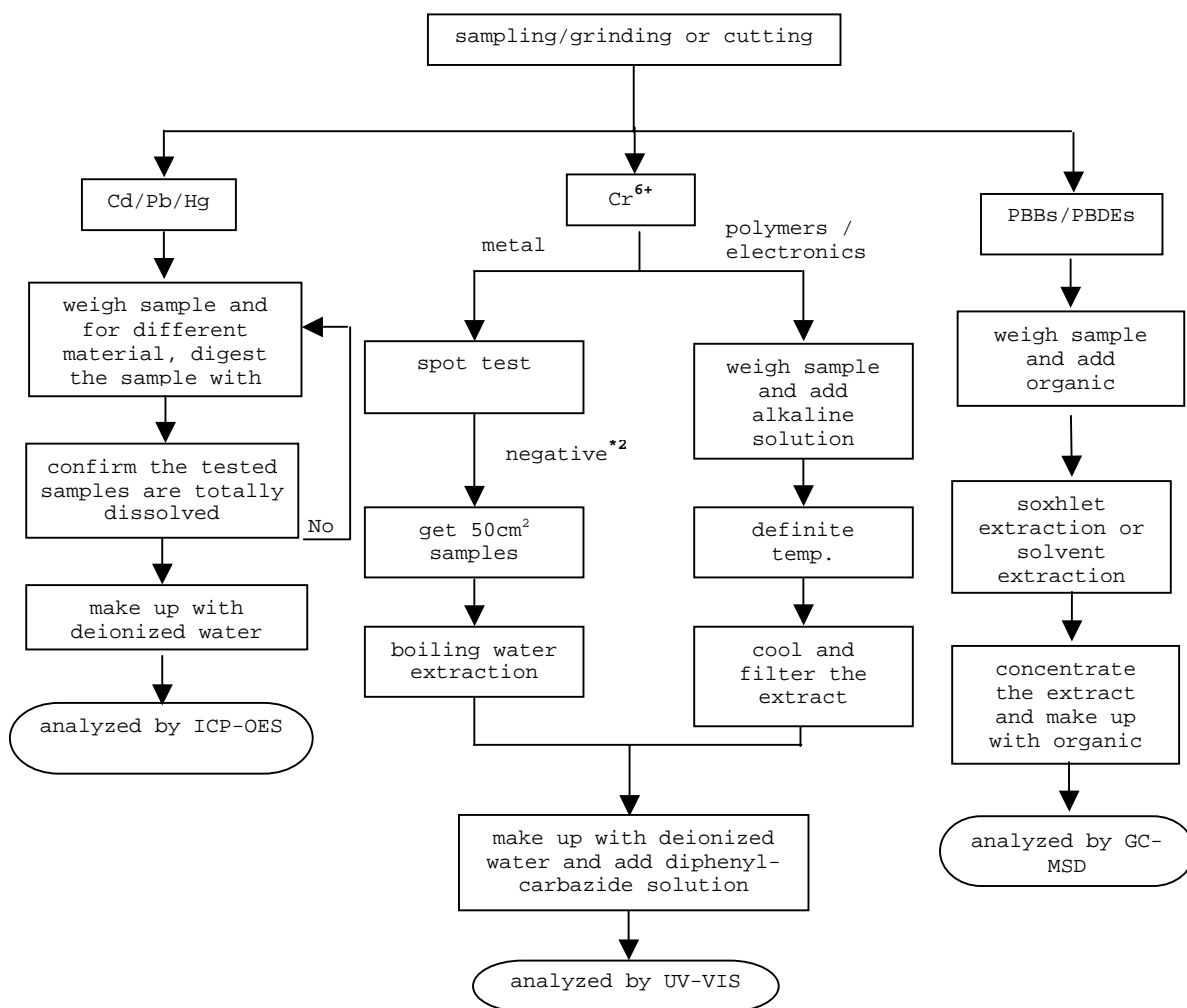
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED  
 (IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*  
 TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED

4 PHthalate Content Test

WITH REFERENCE TO ASTM D3421, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

	<u>RESULT (% , w/w)</u>	<u>LIMIT (% , w/w)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	0.1
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	0.1
BENZYL BUTYL PHTHALATE (BBP)	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO US CONSUMER  
PRODUCT SAFETY IMPROVEMENT ACT 2008 FOR PROHIBITION ON  
SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES.

DETECTION LIMIT = 0.01% (w/w)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT.

\*\*\*\*\*

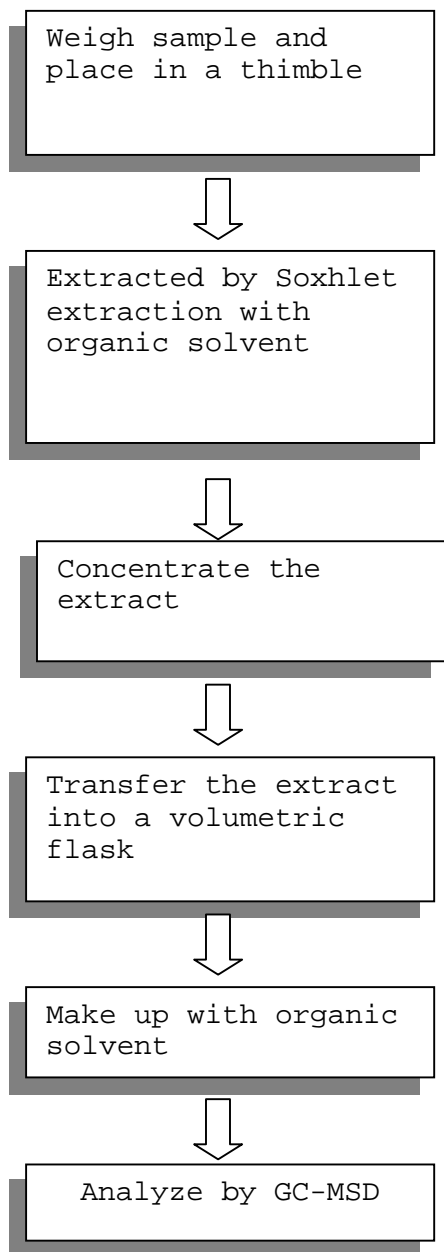
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED

5 (A) TEST RESULT SUMMARY:

<u>TESTING ITEM</u>	<u>RESULT (ppm)</u>
HBCDD (HEXABROMOCYCLODODECANE)	ND

REMARKS:

ppm = PARTS PER MILLION = mg/kg

ND = NOT DETECTED

(B) TEST METHOD :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
HBCDD (HEXABROMOCYCLODODECANE)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS	10 ppm

DATE SAMPLE RECEIVED : OCT.25, 2011

TESTING PERIOD : OCT.25, 2011 TO OCT.28, 2011

\*\*\*\*\*

TO BE CONTINUED

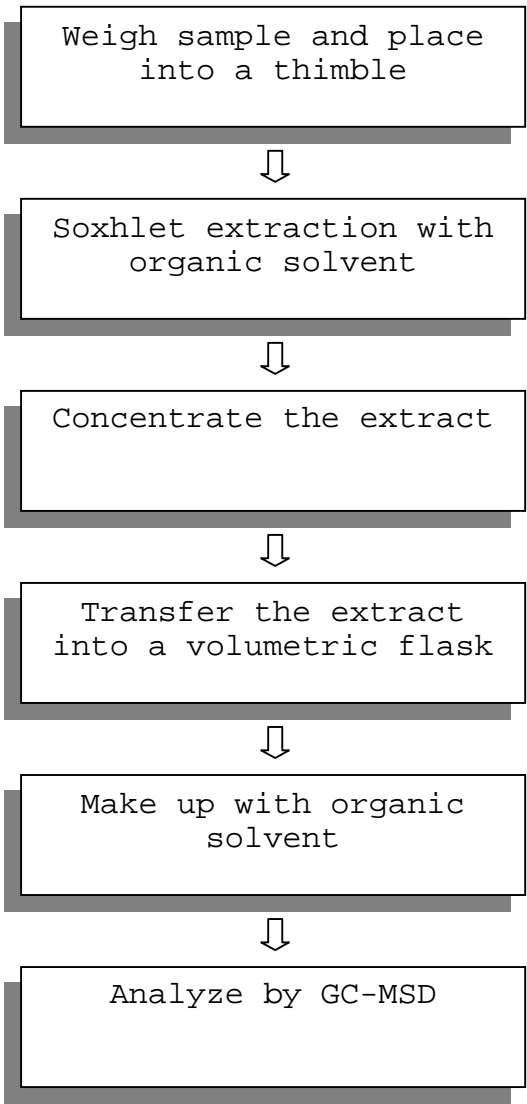
**TEST REPORT**

NUMBER: SHAH00287516

TESTS CONDUCTED

MEASUREMENT FLOWCHART:

TEST FOR HBCDD (Hexabromocyclododecane) CONTENT



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287516

**TESTS CONDUCTED**



\*\*\*\*\*

END OF REPORT





**TEST REPORT**

NUMBER: SHAH00287571

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: NOV 01, 2011

**SAMPLE DESCRIPTION:**

One (1) submitted sample said to be **Green ink.**

Part Description : Ink - green.

Part Number : 425907.

Date Sample Received : Oct.25, 2011.

Date Test Started : Oct.25, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

1 PHthalate Content Test

WITH REFERENCE TO EN14372, BY GAS CHROMATOGRAPHY-MASS  
 SPECTROMETRY (GC-MS) ANALYSIS.

<u>TESTED COMPOUND</u>	<u>RESULT (% ,W/W)</u>	<u>LIMIT(% ,W/W)</u> <u>(MAX.)</u>
DIBUTYL PHTHALATE (DBP)	ND	---
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	---
BENZYL BUTYL PHTHALATE (BBP)	ND	---
SUM OF THREE PHTHALATES	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO ANNEX XVII  
 ITEMS 51 & 52 OF THE REACH REGULATION (EC) NO. 1907/2006  
 & AMENDMENT NO. 552/2009 (FORMERLY KNOWN AS DIRECTIVE  
 2005/84/EC) FOR PHTHALATE CONTENT IN TOYS AND CHILDREN  
 CARE ARTICLES.

DETECTION LIMIT = 0.01%(W/W)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT

\*\*\*\*\*

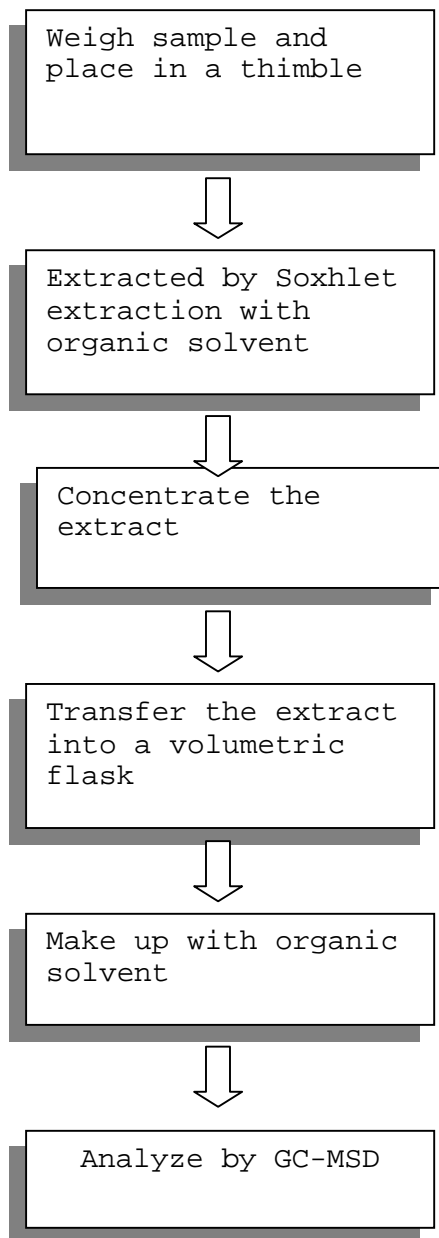
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	400
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Ken He

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

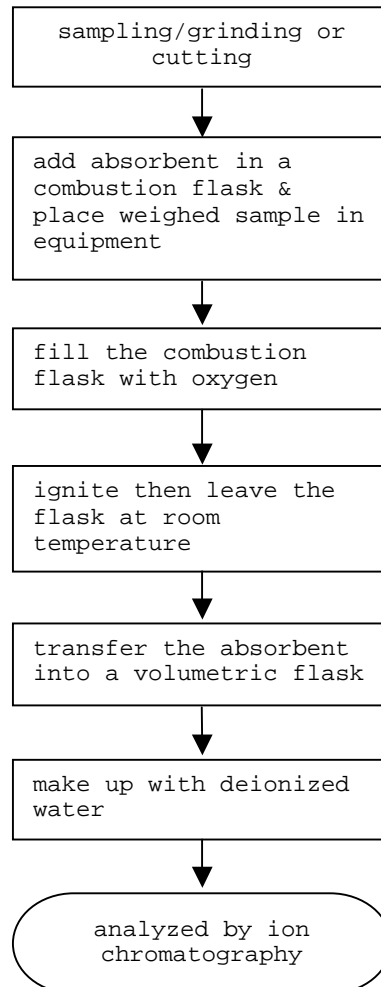
NUMBER: SHAH00287571

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content

Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

3 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

Remarks: ppm = Parts per million = mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

(II) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED

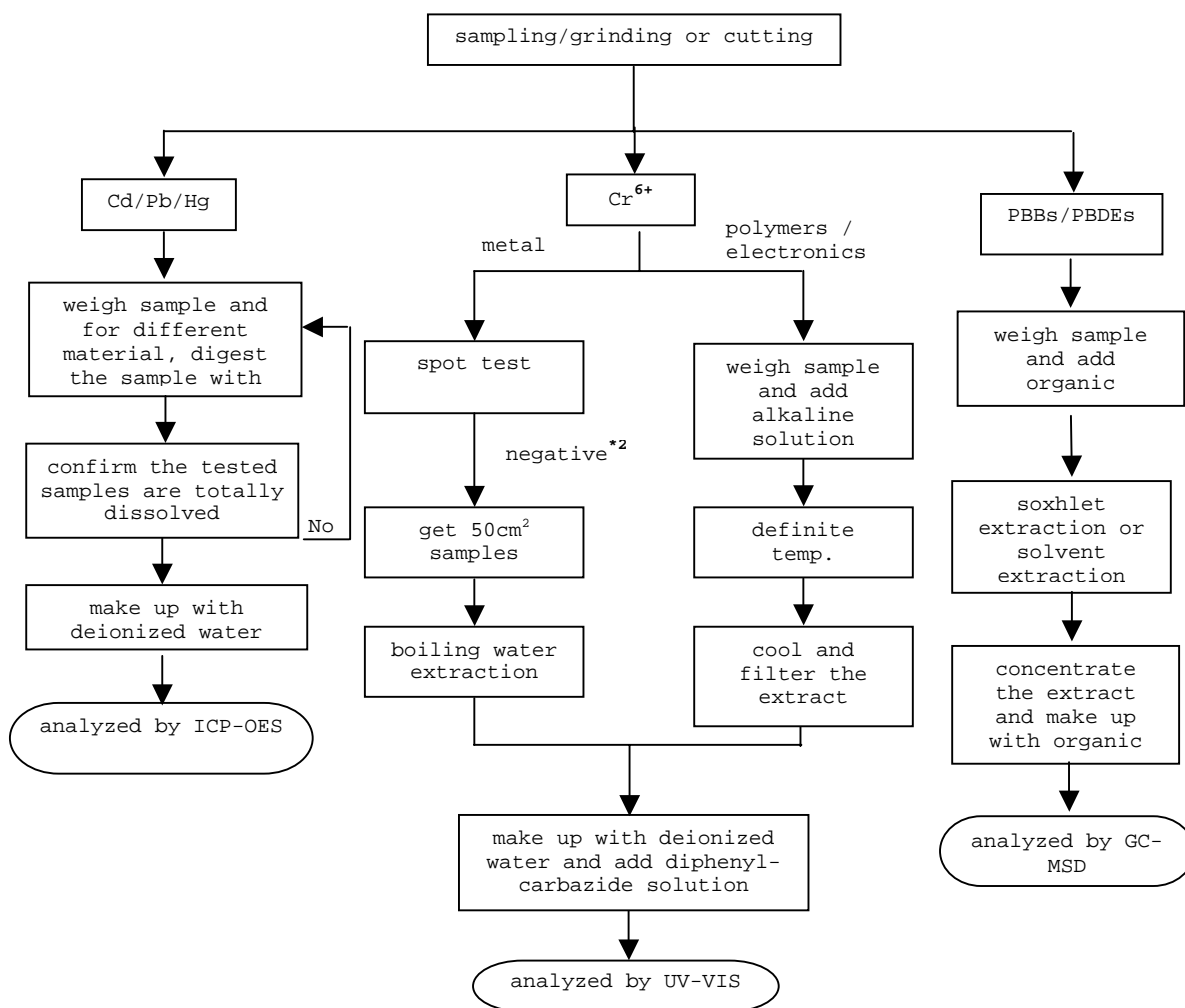
**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

(IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

4 PHthalate Content Test

WITH REFERENCE TO ASTM D3421, BY GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS) ANALYSIS.

	<u>RESULT (% , w/w)</u>	<u>LIMIT (% , w/w)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	0.1
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	0.1
BENZYL BUTYL PHTHALATE (BBP)	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO US CONSUMER PRODUCT SAFETY IMPROVEMENT ACT 2008 FOR PROHIBITION ON SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES.

DETECTION LIMIT = 0.01% (w/w)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT.

\*\*\*\*\*

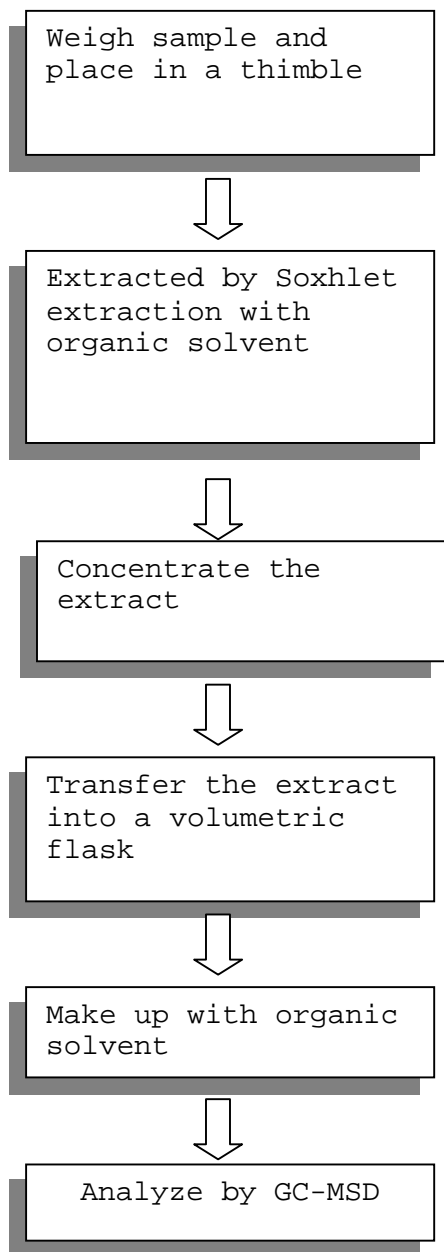
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

5 (A) TEST RESULT SUMMARY:

<u>TESTING ITEM</u>	<u>RESULT (ppm)</u>
HBCDD (HEXABROMOCYCLODODECANE)	ND

REMARKS:

ppm = PARTS PER MILLION = mg/kg

ND = NOT DETECTED

(B) TEST METHOD :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
HBCDD (HEXABROMOCYCLODODECANE)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS	10 ppm

DATE SAMPLE RECEIVED : OCT.25, 2011

TESTING PERIOD : OCT.25, 2011 TO OCT.28, 2011

\*\*\*\*\*

TO BE CONTINUED

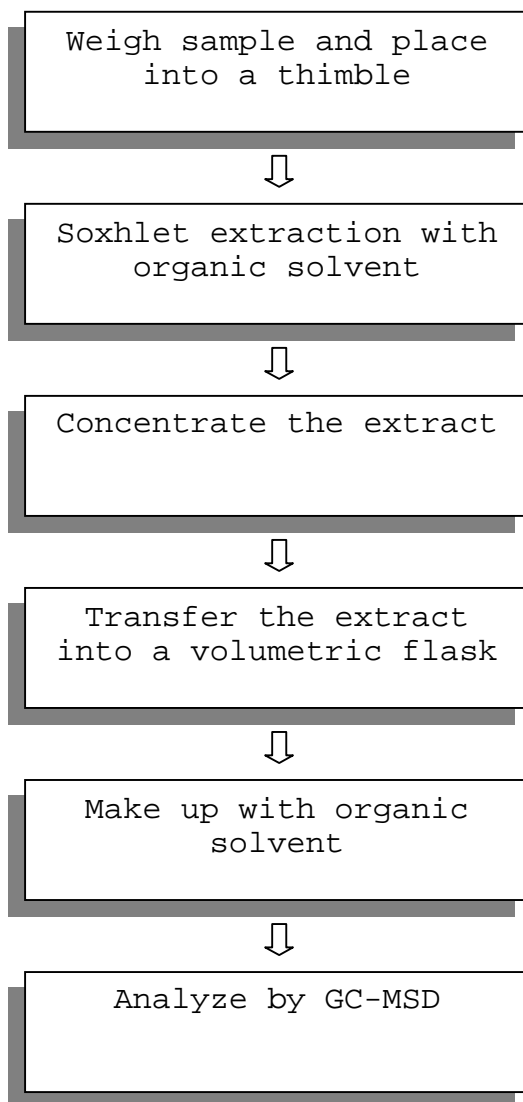
**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED

MEASUREMENT FLOWCHART:

TEST FOR HBCDD (Hexabromocyclododecane) CONTENT



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287571

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT



**TEST REPORT**

NUMBER: SHAH00287556

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: OCT 31, 2011

**SAMPLE DESCRIPTION:**

One (1) submitted sample said to be **Grey ink.**

Part Description : Ink - grey.

Part Number : 425909.

Date Sample Received : Oct.25, 2011.

Date Test Started : Oct.25, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

TO BE CONTINUED

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER



**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED

1 PHthalate Content Test

WITH REFERENCE TO EN14372, BY GAS CHROMATOGRAPHY-MASS  
SPECTROMETRY (GC-MS) ANALYSIS.

<u>TESTED COMPOUND</u>	<u>RESULT (% ,W/W)</u>	<u>LIMIT(% ,W/W)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	---
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	---
BENZYL BUTYL PHTHALATE (BBP)	ND	---
SUM OF THREE PHTHALATES	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO ANNEX XVII  
ITEMS 51 & 52 OF THE REACH REGULATION (EC) NO. 1907/2006  
& AMENDMENT NO. 552/2009 (FORMERLY KNOWN AS DIRECTIVE  
2005/84/EC) FOR PHTHALATE CONTENT IN TOYS AND CHILDREN  
CARE ARTICLES.

DETECTION LIMIT = 0.01% (W/W)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT

\*\*\*\*\*

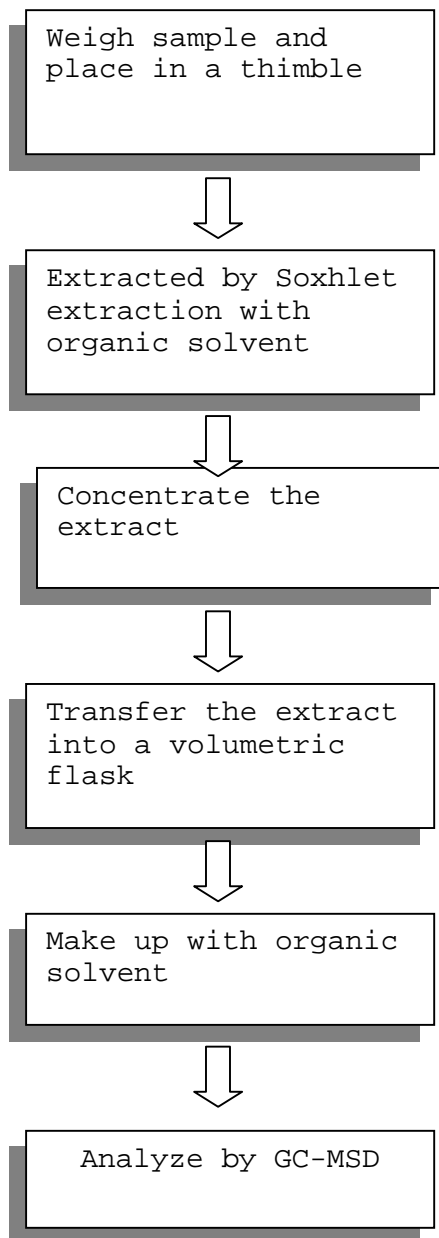
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED

2 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
 mg/kg  
 ND = Not detected

Responsibility Of Chemist : Ken He

(II) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample  
 \*\*\*\*\*  
 TO BE CONTINUED

**TEST REPORT**

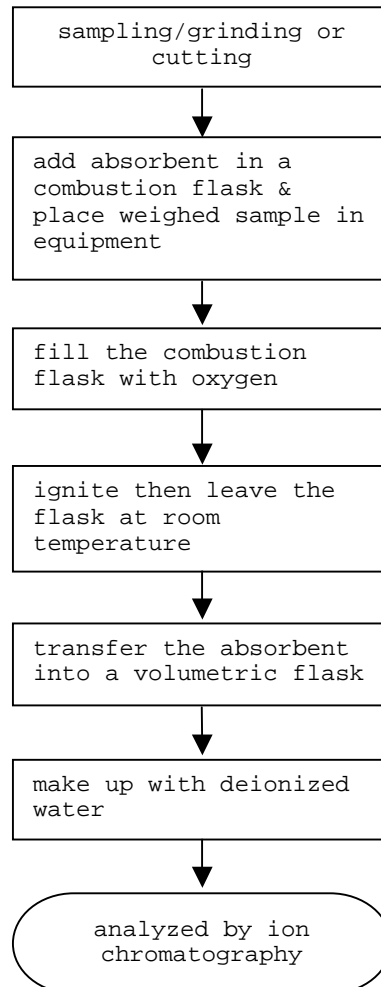
NUMBER: SHAH00287556

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content

Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED

3 (I) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED

Remarks: ppm = Parts per million = mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

(II) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

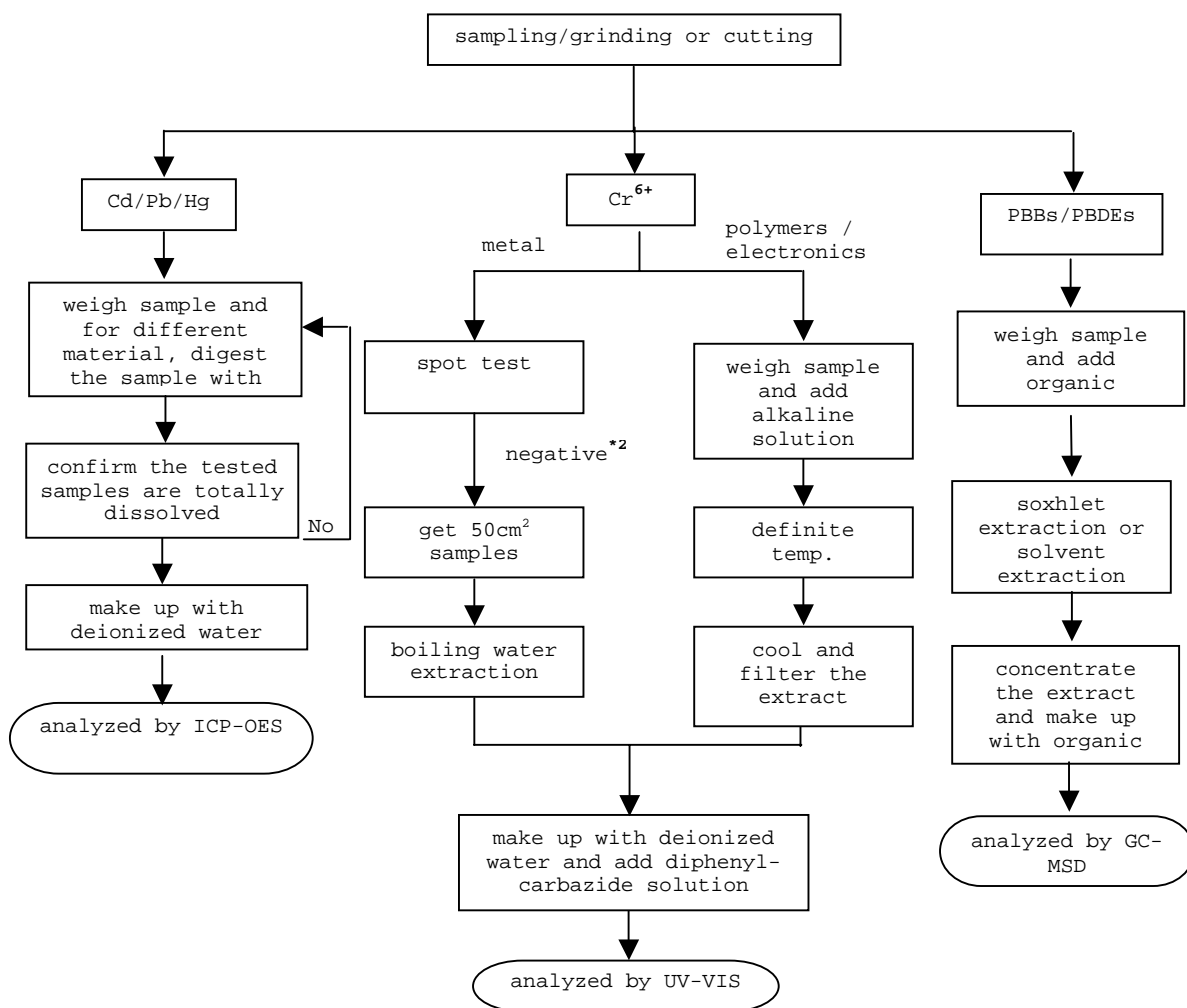
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED  
 (IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*  
 TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED

4 PHthalate Content Test

WITH REFERENCE TO ASTM D3421, BY GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS) ANALYSIS.

	<u>RESULT (% , w/w)</u>	<u>LIMIT (% , w/w)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	0.1
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	0.1
BENZYL BUTYL PHTHALATE (BBP)	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO US CONSUMER PRODUCT SAFETY IMPROVEMENT ACT 2008 FOR PROHIBITION ON SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES.

DETECTION LIMIT = 0.01% (w/w)

ND = NOT DETECTED

% = PERCENTAGE BASED ON DRY WEIGHT OF SAMPLE/COMPONENT.

\*\*\*\*\*

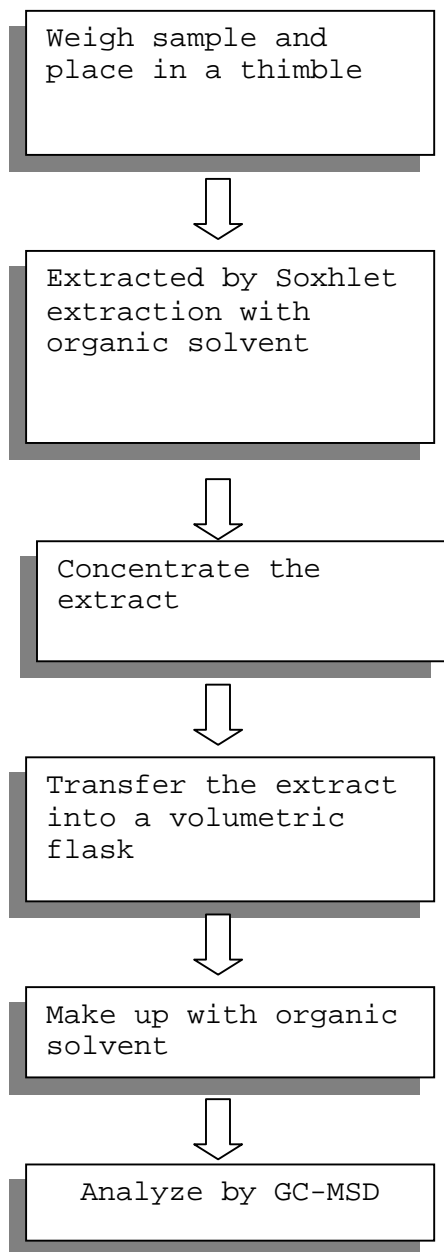
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES CONTENTS



\*\*\*\*\*  
TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED

5 (A) TEST RESULT SUMMARY:

<u>TESTING ITEM</u>	<u>RESULT (ppm)</u>
HBCDD (HEXABROMOCYCLODODECANE)	ND

REMARKS:

ppm = PARTS PER MILLION = mg/kg

ND = NOT DETECTED

(B) TEST METHOD :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
HBCDD (HEXABROMOCYCLODODECANE)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS	10 ppm

DATE SAMPLE RECEIVED : OCT.25, 2011

TESTING PERIOD : OCT.25, 2011 TO OCT.28, 2011

\*\*\*\*\*

TO BE CONTINUED



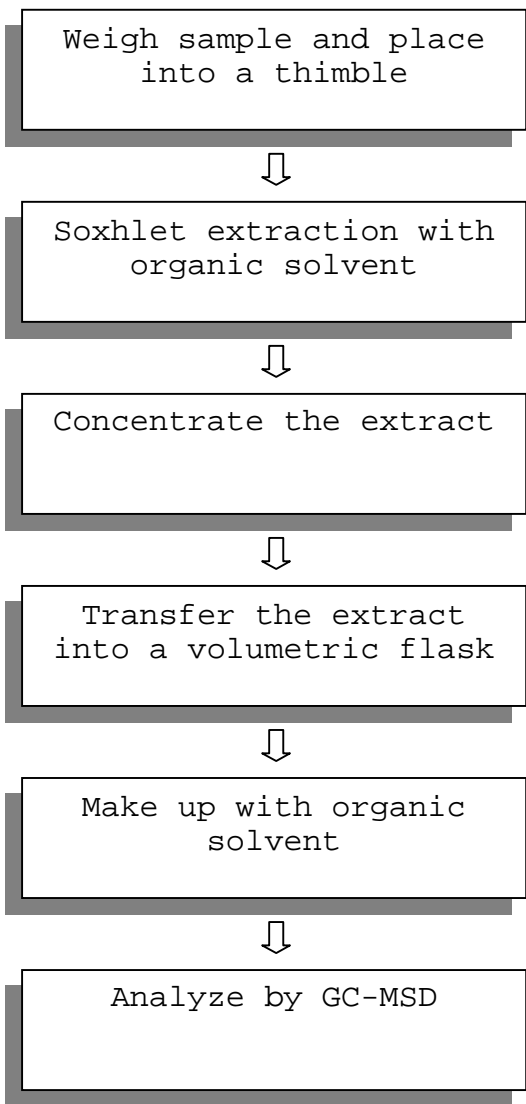
**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED

MEASUREMENT FLOWCHART:

TEST FOR HBCDD (Hexabromocyclododecane) CONTENT



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287556

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT



**TEST REPORT**

NUMBER: SHAH00287551

APPLICANT: LITTELFUSE, INC.  
800 E. NORTHWEST HWY  
ATTN: A. CESISTA/ K. BACILA

DATE: OCT 31, 2011

**SAMPLE DESCRIPTION:**

One (1) submitted sample said to be: **Violet ink.**

Part Description : Ink - violet.

Part Number : 425911.

Date Sample Received : Oct.25, 2011.

Date Test Started : Oct.25, 2011.

\*\*\*\*\*

**TESTS CONDUCTED:**

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

\*\*\*\*\*

PREPARED AND CHECKED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

MYRA LV  
CHEMICAL LAB SENIOR MANAGER

AUTHORIZED BY:  
FOR INTERTEK TESTING SERVICES  
LTD., SHANGHAI

STEPHEN TSANG  
GENERAL MANAGER

**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED

1 PHthalate Content Test

WITH REFERENCE TO EN14372, BY GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS) ANALYSIS.

<u>TESTED COMPOUND</u>	<u>RESULT (% ,W/W)</u>	<u>LIMIT(% ,W/W)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	---
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	---
BENZYL BUTYL PHTHALATE (BBP)	ND	---
SUM OF THREE PHTHALATES	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO ANNEX XVII  
ITEMS 51 & 52 OF THE REACH REGULATION (EC) NO. 1907/2006  
& AMENDMENT NO. 552/2009 (FORMERLY KNOWN AS DIRECTIVE  
2005/84/EC) FOR PHTHALATE CONTENT IN TOYS AND CHILDREN  
CARE ARTICLES.

DETECTION LIMIT = 0.01% (W/W)

ND = NOT DETECTED

\*\*\*\*\*

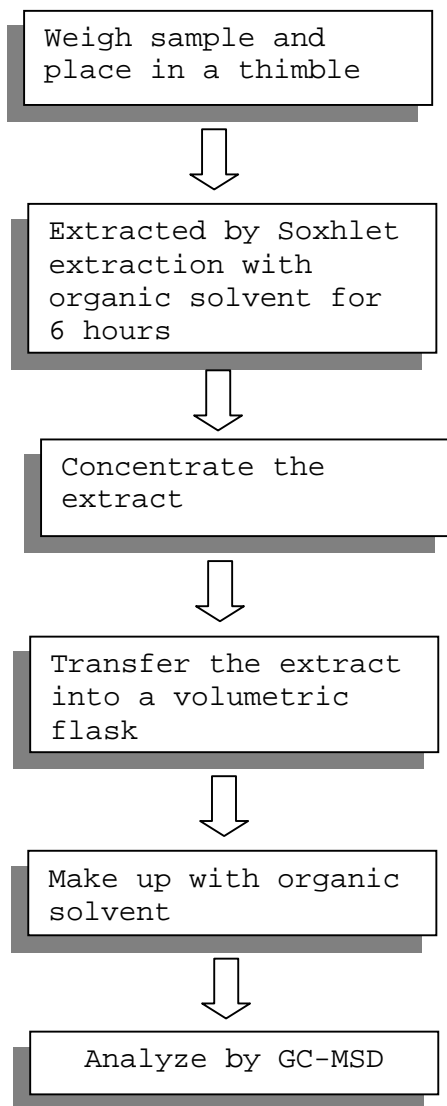
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES (EN14372) CONTENTS



\*\*\*\*\*  
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED

2 ( I ) Test Result Summary :

<u>Testing Item</u>	<u>Result (ppm)</u>
<b>Halogen Content</b>	
Fluorine (F)	ND
Chlorine (Cl)	11250
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample =  
mg/kg  
ND = Not detected

Responsibility Of Chemist : Ken He

Date Sample Received : OCT.28, 2011

Testing Period : OCT.28, 2011

( II ) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Halogen Content	With reference to EN 14582:2007 by combustion flask with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

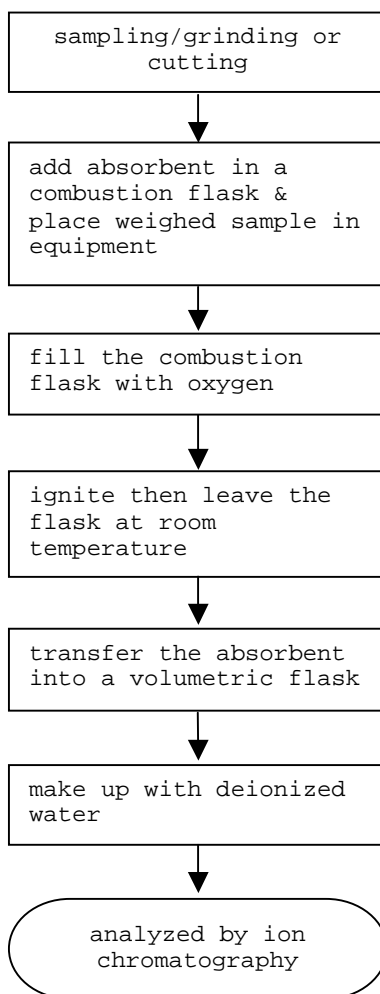
NUMBER: SHAH00287551

TESTS CONDUCTED

(III) Measurement Flowchart:

Test For Halogen Content

Reference Standard: EN 14582



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED

3 ( I ) Test Result Summary :

Testing Item	Result (ppm)
<b>Heavy Metal</b>	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr <sup>6+</sup> ) content	ND
<b>Polybrominated Biphenyls (PBBs)</b>	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED

Remarks: ppm = Parts per million = mg/kg  
ND = Not detected

Responsibility Of Chemist : Dent Fang / Ken He

Date Sample Received : OCT.25, 2011  
Testing Period : OCT.28, 2011

( II ) RoHS Requirement:

<u>Restricted Substances</u>	<u>Limits</u>
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment  
2005/618/EC for homogeneous material.

\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED

(III) Test Method:

<u>Testing Item</u>	<u>Testing Method</u>	<u>Reporting Limit</u>
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr <sup>6+</sup> ) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

\*\*\*\*\*

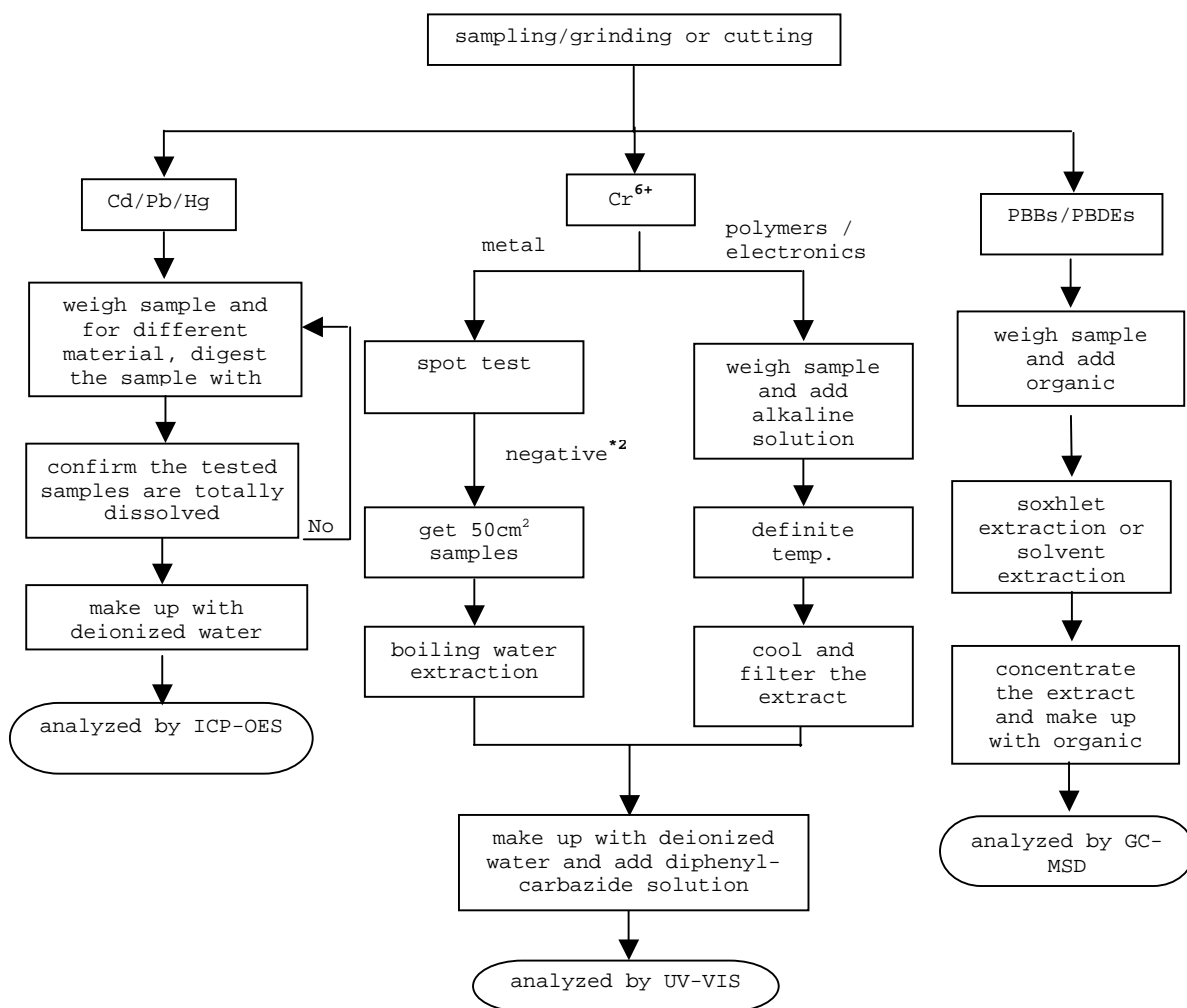
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED  
 (IV) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Contents  
 Reference Standard: IEC 62321 edition 1.0:2008



\*\*\*\*\*  
 TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED

REMARKS:

\*1: List of appropriate acid:

<u>Material</u>	<u>Acid added for digestion</u>
Polymers	HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCl, HF
Electronics	HNO <sub>3</sub> , HCl, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

\*2: If the result of spot test is positive, Chromium VI would be determined as detected.

\*\*\*\*\*

TO BE CONTINUED





**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED

4 PHthalate Content Test

WITH REFERENCE TO ASTM D3421, BY GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS) ANALYSIS.

	<u>RESULT (% , w/w)</u>	<u>LIMIT (% , w/w)</u> <u>(MAX. )</u>
DIBUTYL PHTHALATE (DBP)	ND	0.1
DI(2-ETHYL HEXYL) PHTHALATE (DEHP)	ND	0.1
BENZYL BUTYL PHTHALATE (BBP)	ND	0.1

REMARK: THE ABOVE LIMIT WAS QUOTED ACCORDING TO US CONSUMER PRODUCT SAFETY IMPROVEMENT ACT 2008 FOR PROHIBITION ON SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES.

DETECTION LIMIT = 0.01% (w/w)

ND = NOT DETECTED

\*\*\*\*\*

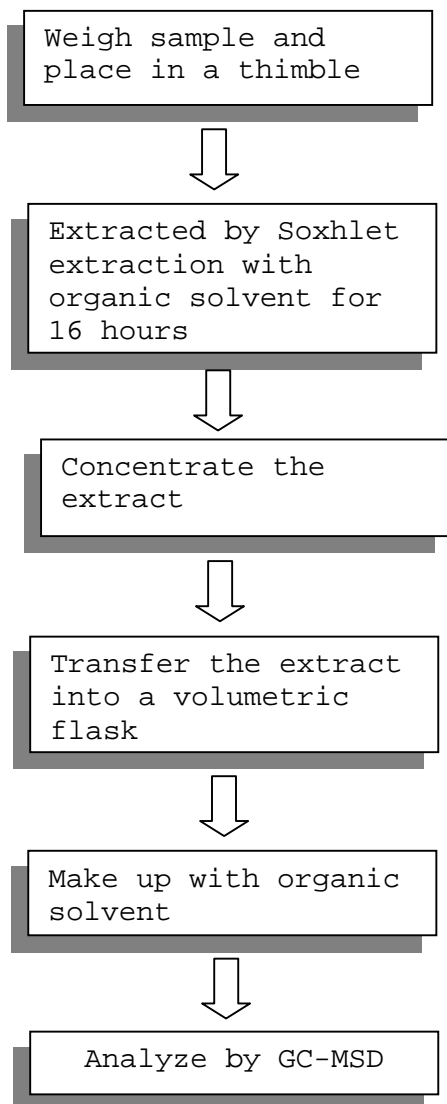
TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED  
MEASUREMENT FLOWCHART:

TEST FOR PHTHALATES (ASTM D3421) CONTENTS



\*\*\*\*\*

TO BE CONTINUED



**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED

5 (A) TEST RESULT SUMMARY:

<u>TESTING ITEM</u>	<u>RESULT (ppm)</u>
HBCDD (HEXABROMOCYCLODODECANE)	ND

REMARKS:

ppm = PARTS PER MILLION = mg/kg

ND = NOT DETECTED

(B) TEST METHOD :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
HBCDD (HEXABROMOCYCLODODECANE)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS	10 ppm

DATE SAMPLE RECEIVED : OCT.25, 2011

TESTING PERIOD : OCT.25, 2011 TO OCT.28, 2011

\*\*\*\*\*

TO BE CONTINUED

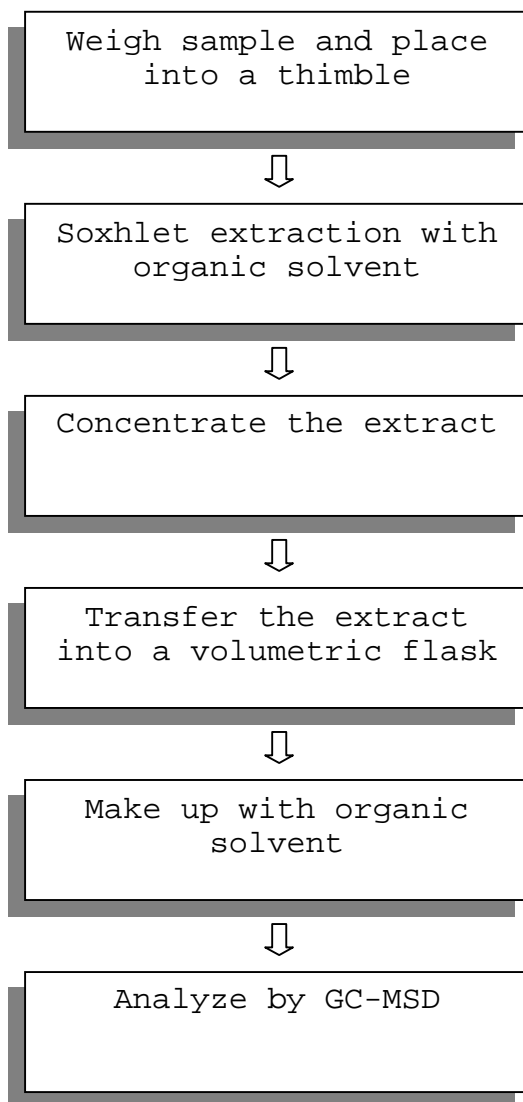
**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED

MEASUREMENT FLOWCHART:

TEST FOR HBCDD (Hexabromocyclododecane) CONTENT



\*\*\*\*\*

TO BE CONTINUED

**TEST REPORT**

NUMBER: SHAH00287551

TESTS CONDUCTED



\*\*\*\*\*

END OF REPORT