



## ICP Test Report Certification Packet

Company name: Littelfuse, Inc.

Product Series: 895 series

Product #: 895 series

Issue Date: June 8, 2010

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:

*Kristine L. De Guzman*  
Kristine L. De Guzman

<Global EHS Coordinator>

(1) Parts, sub-materials and unit parts

This document covers the 895 series 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	080707	Element-Olin 19025 98 Cu/ 1Ni/ 5Zn/o5P	3-14
2	080706	Element-Olin 151 99.9 Cu / Zn	3-14
3	425706	White Foil	3-14
4	057353	Housing	3-14
5	692536	Solder	15-18
6	057700	Base Cover	19-22
7	057785	Housing - Pink	23-26
8	057786	Housing - Green	27-30
9	057901	Colorant- Yellow	31-35
10	057787	Colorant- Red	36-40
11	057892	Colorant- Natural	41-45
12	057784	Colorant- Blue	16-50

**RESULTS REPORT**

**INTERTEK TESTING SERVICES**

**DE MEXICO SA DE CV**

**LABORATORIO CD. DE MEXICO**

DELIVER TO:

Littelfuse, S.A. de C.V.  
Blvd. Fausto Z. mtz. 1800, Col. Magisterio Sección 38, Piedras  
Negras, Coahuila

ATTENTION: Ing. Mario A. Falcón

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**Intertek Testing Services de México, S.A. de C.V.**  
Blvd. Manuel Ávila Camacho No. 182 Col. Lomas de Chapultepec  
C.P. 11650, México, D.F. Tel.: 50912150 Fax: 55407863  
[www.intertek.com](http://www.intertek.com)

## TEST REPORT

### APPLICANT

Littelfuse, S.A. de C.V.  
Blvd. Fausto Z. mtz. 1800, Col. Magisterio Sección 38, Piedras Negras, Coahuila  
Ing. Mario A. Falcón

### SAMPLE DESCRIPTION

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

Sample Description

NP

4) Serie 0895 P/N: 80707

5) Serie 0895 P/N: 80706

6) Serie 895 P/N: 057860

Item No.

7) Serie 895 P/N: 425706

8) Serie 895 P/N: 057353

Country of Origin NP

Buyer's Name NP

Supplier's Name NP

Date sample received 2010-05-26

Testing period 2010-06-01 to 2010-06-18

\*\*\*\*\*

### TEST CONDUCTED

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

\*\*\*\*\*

### CONCLUSION

	Testing item	Conclusion	Failed component	Failed result
4	Serie 0895 P/N: 80707	Pass See Result summary	---	---
5	Serie 0895 P/N: 80706	Pass See Result summary	---	---
6	Serie 895 P/N: 057860	Pass See Result summary	---	---
7	Serie 895 P/N: 425706	Pass See Result summary	---	---
8	Serie 895 P/N: 057353	Pass See Result summary	---	---

\*\*\*\*\*

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# TEST CONDUCTED

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

4) Serie 0895 P/N: 80707

5) Serie 0895 P/N: 80706

# TEST RESULT SUMMARY FOR RoHS DIRECTIVE :

TESTING ITEM	Ω RESULT (ppm)		Limit
	(4)	(5)	
Cadmium (Cd) content	ND	ND	0,01% (100 ppm)
Lead (Pb) content	15,6	ND	0,1% (1000 ppm)
Mercury (Hg) content	ND	ND	0,1% (1000 ppm)
Chromium (VI) (Cr <sup>6+</sup> )	ND	ND	0,1% (1000 ppm)

### TEST CONDUCTED

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

- 6) Serie 895 P/N: 057860
- 7) Serie 895 P/N: 425706
- 8) Serie 895 P/N: 057353

### TEST RESULT SUMMARY FOR RoHS DIRECTIVE :

TESTING ITEM	$\Omega$ RESULT (ppm)			Limit
	(6)	(7)	(8)	
Cadmium (Cd) content	ND	ND	ND	0,01% (100 ppm)
Lead (Pb) content	ND	12,100	ND	0,1% (1000 ppm)
Mercury (Hg) content	ND	ND	ND	0,1% (1000 ppm)
Chromium (VI) ( $Cr^{6+}$ )	ND	ND	ND	0,1% (1000 ppm)
<b>POLYBROMINATED BIPHENYLS (PBBs)</b>	ND	ND	ND	0,1% (1000 ppm)
Monobromobiphenyl (MonoBB)	ND	ND	ND	---
Dibromobiphenyl (DiBB)	ND	ND	ND	---
Tribromobiphenyl (TriBB)	ND	ND	ND	---
Tetrabromobiphenyl (TetraBB)	ND	ND	ND	---
Pentabromobiphenyl (PentaBB)	ND	ND	ND	---
Hexabromobiphenyl (HexaBB)	ND	ND	ND	---
Heptabromobiphenyl (HeptaBB)	ND	ND	ND	---
Octabromobiphenyl (OctaBB)	ND	ND	ND	---
Nonabromobiphenyl (NonaBB)	ND	ND	ND	---
Decabromobiphenyl (DecaBB)	ND	ND	ND	---
<b>POLYBROMINATED DIPHENYL ETHERS (PBDEs)</b>	ND	ND	ND	0,1% (1000 ppm)
Monobromodiphenyl (MonoBDE)	ND	ND	ND	---
Dibromodiphenyl (DiBDE)	ND	ND	ND	---
Tribromodiphenyl (TriBDE)	ND	ND	ND	---
Tetrabromodiphenyl (TetraBDE)	ND	ND	ND	---
Pentabromodiphenyl (PentaBDE)	ND	ND	ND	---
Hexabromodiphenyl (HexaBDE)	ND	ND	ND	---
Heptabromodiphenyl (HeptaBDE)	ND	ND	ND	---
Octabromodiphenyl (OctaBDE)	ND	ND	ND	---
Nonabromodiphenyl (NonaBDE)	ND	ND	ND	---
Decabromodiphenyl (DecaBDE)	ND	ND	ND	---

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ppm = parts per million based on dry weight of sample.

$\mu\text{g}/\text{cm}^2$  = microgram per square centimeter.

mg/kg WITH  $50\text{cm}^2$  = milligram per kilogram with 50 square centimeter.

< = less than.

ND = Not detected.

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

These Accreditations only apply for the methods listed in such. Not accredited under EMA  $\Omega$ .

Prepared and checked by :

For Intertek

*Irma López M*  
*[Signature]*  
*[Signature]*  
*[Signature]*

Laboratory Manager



The Official Mexican Standard NOM-008-SCFI-1993 establishes like separator decimal the comma (,).

NOTE :DecaBDE IN POLYMERIC APPLICATIONS IS EXEMPTED ACCORDING TO ROHS DIRECTIVE AMENDMENT 2005/717/EC.

# =ACCORDING TO IEC 62321, A POSITIVE RESULT INDICATES THE PRESENCE OF Cr(VI) COATING. IT IS THE Cr(VI) CONCENTRATION DETECTED IN THE BOILING-WATER-EXTRACTION SOLUTION AND SHOULD NOT BE INTERPRETED AS THE Cr(VI) CONCENTRATION IN THE COATING LAYER OF THE SAMPLE.

REMARK: AS REQUESTED BY THE APPLICANT, COATING WITH BASE MATERIAL OF TESTED COMPONENTS OF THE SAMPLE MX10 1165-4 WERE TESTED TOGETHER.

REMARK : AS REQUESTED BY THE APPLICANT, COATING WITH BASE MATERIAL OF TESTED COMPONENTS OF THE SAMPLE MX10 1165-5 WERE TESTED TOGETHER.

REMARK: AS REQUESTED BY THE APPLICANT, COATING WITH BASE MATERIAL OF TESTED COMPONENTS OF THE SAMPLE MX10 1165-6 WERE TESTED TOGETHER.

REMARK : AS REQUESTED BY THE APPLICANT, COATING WITH BASE MATERIAL OF TESTED COMPONENTS OF THE SAMPLE MX10 1165-7 WERE TESTED TOGETHER.

REMARK : AS REQUESTED BY THE APPLICANT, COATING WITH BASE MATERIAL OF TESTED COMPONENTS OF THE SAMPLE MX10 1165-8 WERE TESTED TOGETHER.

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05

**Test method :**

<u>No. de Muestra</u>	<u>Testing item</u>	<u>Ω Testing method</u>	<u>Quality control Batch:</u>	<u>Analysis Date:</u>	<u>Analyzed By:</u>	<u>Reporting limit ppm</u>
	Chromium VI (Cr <sup>6+</sup> ) content	With reference to USEPA 3060, by EPA 7196	QHU2009-3p99,100	2010-06-05	MTCM	2,0

<u>No. de Muestra</u>	<u>Testing item</u>	<u>Ω Testing method</u>	<u>Quality control Batch:</u>	<u>Analysis Date:</u>	<u>Analyzed By:</u>	<u>Reporting limit ppm</u>
	POLYBROMINATED BIPHENYLS (PBBs)	Determined by GC-MSD	2010-004481-PCL	2010-06-18	▲ Contract	50
	POLYBROMINATED DIPHENYL ETHERS (PBDEs)	Determined by GC-MSD	2010-004481-PCL	2010-06-18	▲ Contract	50

<u>No. de Muestra</u>	<u>Testing item</u>	<u>Ω Testing method</u>	<u>Quality control Batch:</u>	<u>Analysis Date:</u>	<u>Analyzed By:</u>	<u>Reporting limit ppm</u>
4	Lead (Pb) content	With reference to USEPA 3050MOD, by EPA 7420	MET2010-8p26	2010-06-03	MARY	10,0
5	Lead (Pb) content	With reference to USEPA 3050MOD, by EPA 7420	MET2010-8p26	2010-06-03	MARY	10,0
6	Lead (Pb) content	With reference to USEPA 3052MOD, by EPA 7420	MET2010-8p27	2010-06-03	MARY	10,0
7	Lead (Pb) content	With reference to USEPA 3052MOD, by EPA 7420	MET2010-8p27	2010-06-03	MARY	10,0
8	Lead (Pb) content	With reference to USEPA 3052MOD, by EPA 7420	MET2010-8p27	2010-06-03	MARY	10,0

<u>No. de Muestra</u>	<u>Testing item</u>	<u>Ω Testing method</u>	<u>Quality control Batch:</u>	<u>Analysis Date:</u>	<u>Analyzed By:</u>	<u>Reporting limit ppm</u>
4	Cadmium (Cd) content	With reference to USEPA 3050MOD, by EPA 7130	MET2010-8p26	2010-06-03	MARY	2,5
5	Cadmium (Cd) content	With reference to USEPA 3050MOD, by EPA 7130	MET2010-8p26	2010-06-03	MARY	2,5
6	Cadmium (Cd) content	With reference to USEPA 3052MOD, by EPA 7130	MET2010-8p27	2010-06-03	MARY	2,5
7	Cadmium (Cd) content	With reference to USEPA 3052MOD, by EPA 7130	MET2010-8p27	2010-06-03	MARY	2,5
8	Cadmium (Cd) content	With reference to USEPA 3052MOD, by EPA 7130	MET2010-8p27	2010-06-03	MARY	2,5

<u>No. de Muestra</u>	<u>Testing item</u>	<u>Ω Testing method</u>	<u>Quality control Batch:</u>	<u>Analysis Date:</u>	<u>Analyzed By:</u>	<u>Reporting limit ppm</u>
4	Mercury (Hg) content	With reference to USEPA 7471 by USEPA 7471	MET2010-8p23	2010-06-02	JAPM	0,083
5	Mercury (Hg) content	With reference to USEPA 7471 by USEPA 7471	MET2010-8p23	2010-06-02	JAPM	0,083
6	Mercury (Hg) content	With reference to USEPA 7471 by USEPA 7471	MET2010-8p22	2010-06-02	JAPM	0,083
7	Mercury (Hg) content	With reference to USEPA 7471 by USEPA 7471	MET2010-8p22	2010-06-02	JAPM	0,083
8	Mercury (Hg) content	With reference to USEPA 7471 by USEPA 7471	MET2010-8p22	2010-06-02	JAPM	0,083

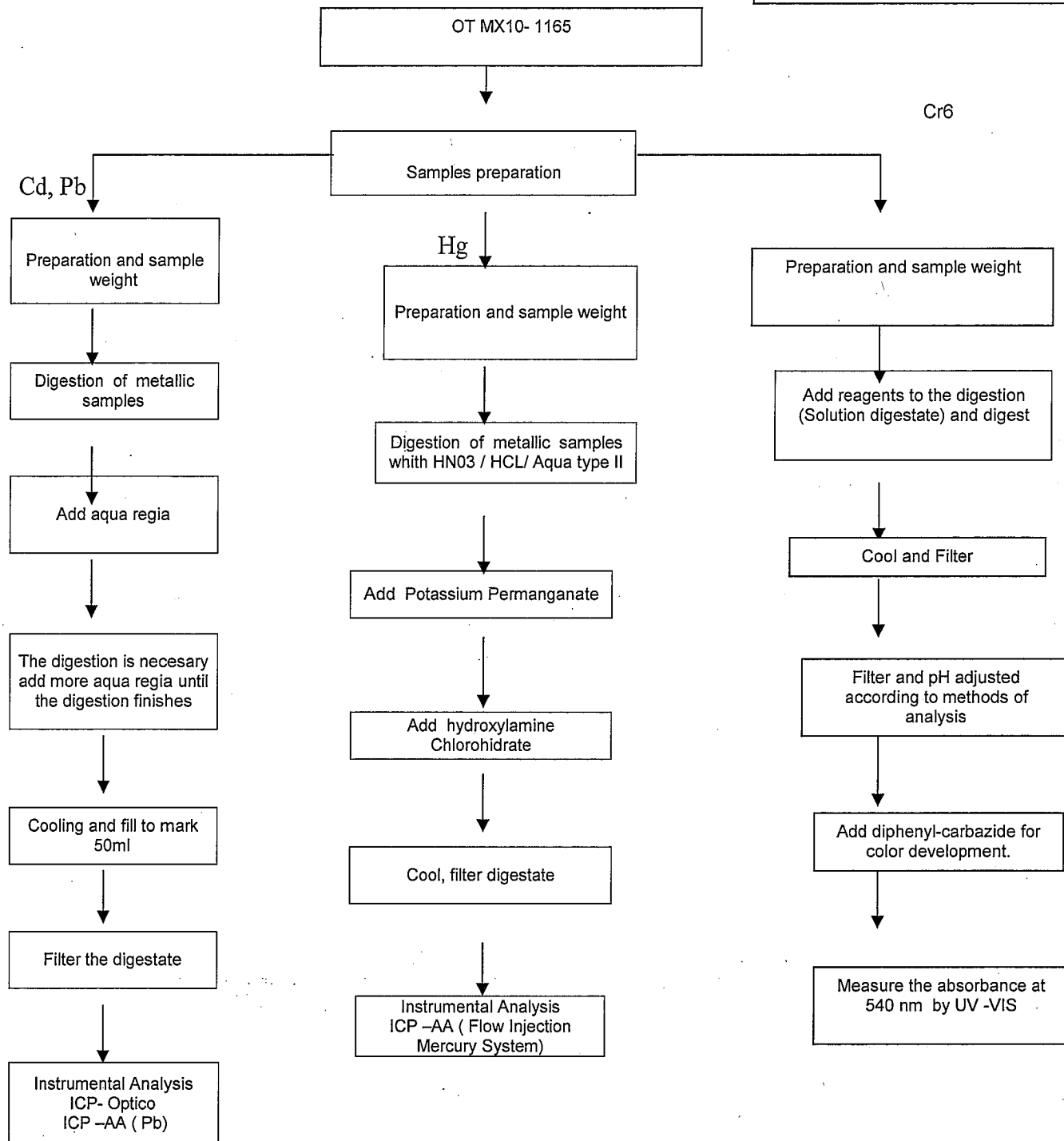
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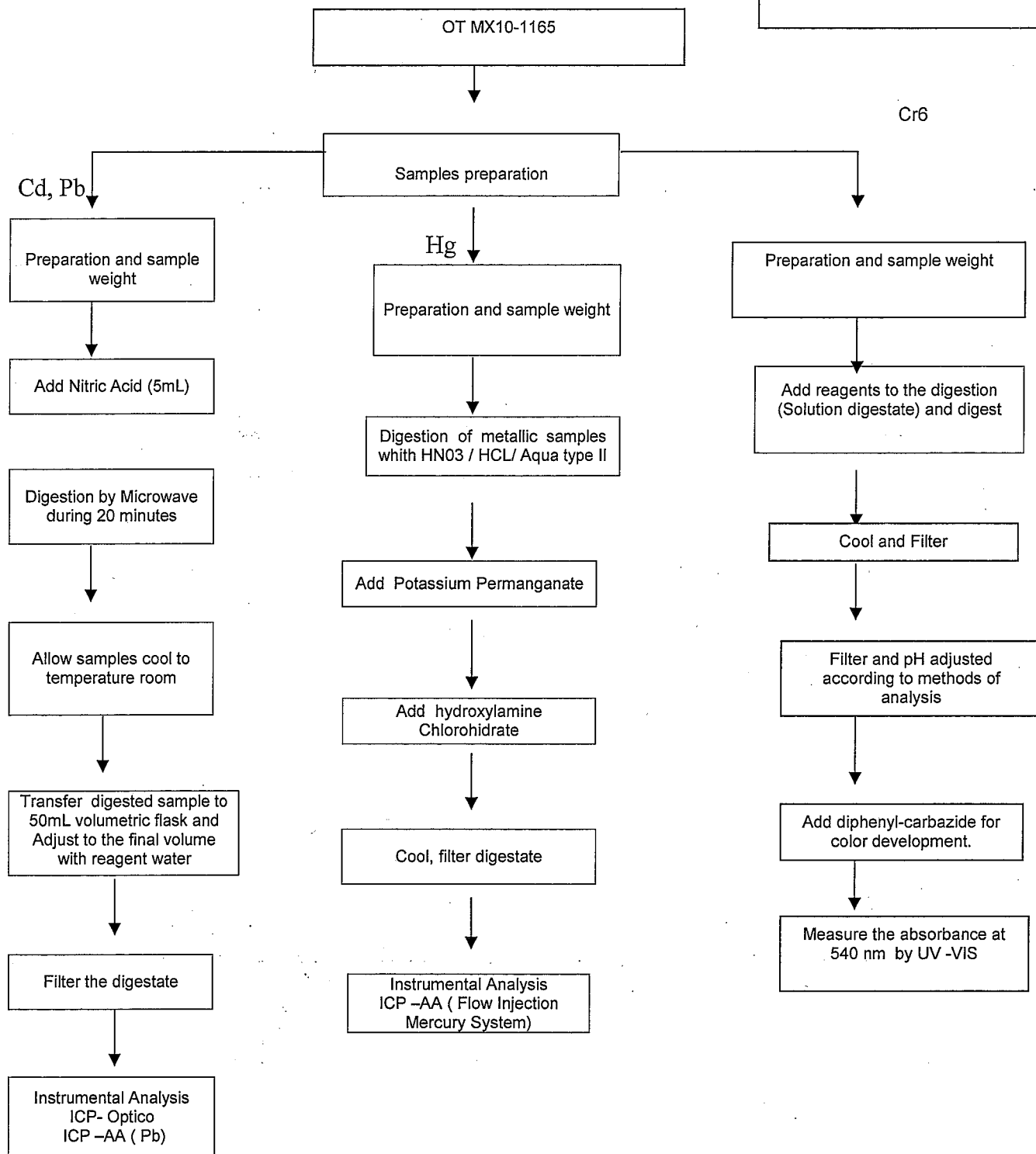


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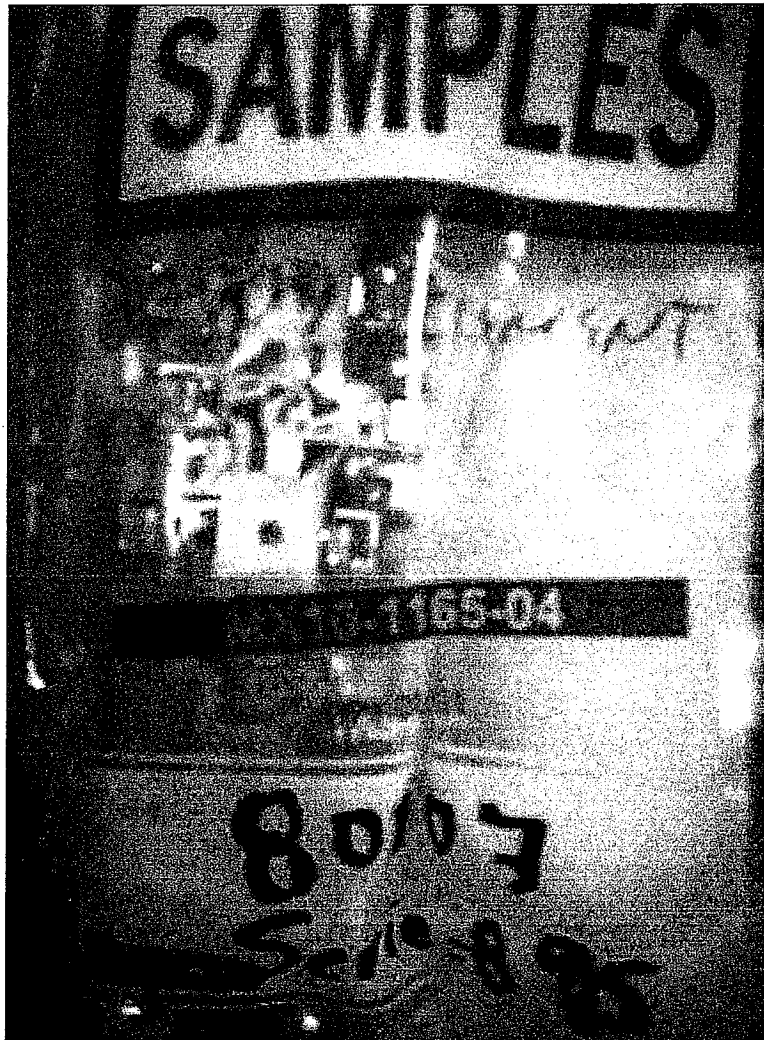
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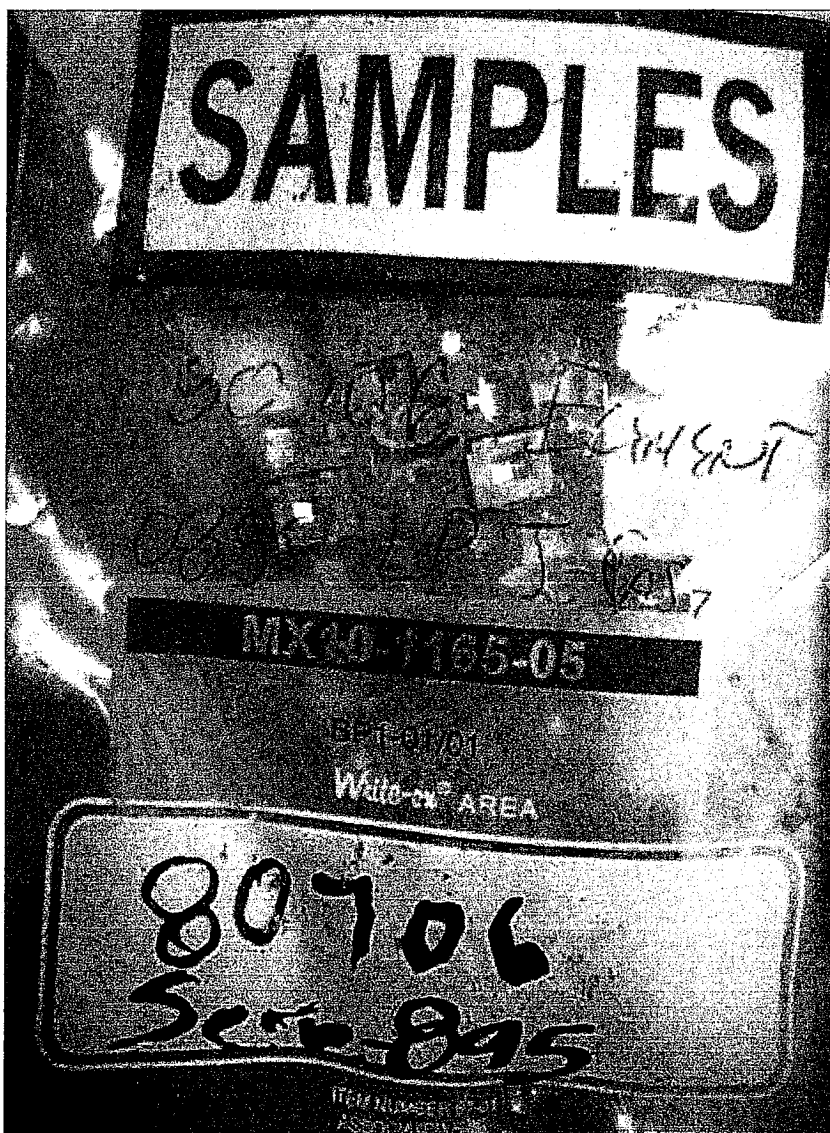
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**MX10-1165-04**



**MX10-1165-05**



**MX10-1165-07**



**MX10-1165-08**

## TEST REPORT

Applicant : LITTLEFUSE TRIAD.INC  
Address : Rm 202, Korea Trade Tower 159-1, Samsung-dong, Kangnam-gu,  
Seoul, 135-729 Korea

Page: 1 of 4

Report No. RT10R-S2205-003-E

Date: May 26, 2010

Sample Description : The following submitted sample(s) said to be:-

Name/Type of Product : Solder  
Sample ID No. : RT10R-S2205-003  
Item No. : 692536  
Manufacturer/Vender : LITTLEFUSE TRIAD.INC

Sample received : May 24, 2010  
Testing Date : May 24, 2010 ~ May 26, 2010  
Testing Laboratory : Intertek Testing Center  
Testing Environment : Temperature : ( 24 ± 2 ) °C, Humidity : ( 60 ± 5 ) % R.H.

Test Type : RoHS wet chemical analysis  
Test Method(s) : Please see the following page(s).  
Test Result(s) : Please see the following page(s).

\* Note 1 : The test results presented in this report relate only to the object tested.

\* Note 2 : This report shall not be reproduced except in full without the written approval of the testing laboratory.

\* Note 3 : The item no. is assigned by client and indicated according to their requirement and guarantee letter.

Approved by,



Jade Jang / Lab. Technical Manager

Authorized by,



Bo Park / Lab. General Manager

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Intertek Testing Services Korea Ltd.



## TEST REPORT

Report No. RT10R-S2205-003-E

Page: 2 of 4

Date: May 26, 2010

Sample ID No. : RT10R-S2205-003

Sample Description : Solder

Test Item	Unit	Test Method	MDL	Result
Cadmium (Cd)	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by acid digestion and determined by ICP-OES	0.5	N.D.
Lead (Pb)	mg/kg		5	137
Mercury (Hg)	mg/kg		2	N.D.
Hexavalent Chromium (Cr <sup>6+</sup> ) (For metal)	-	With reference to IEC 62321 Edition 1.0 : 2008, by Spot test	(Threshold of 1 mg/kg)	Negative
Hexavalent Chromium (Cr <sup>6+</sup> ) (For metal)	-	With reference to IEC 62321 Edition 1.0 : 2008, by boiling water extraction and determined by UV-VIS Spectrophotometer	(Threshold of 0.02 mg/kg with 50 cm <sup>2</sup> )	Negative

Tested by : Nikkie Lee, Peter Kim

Notes : mg/kg = ppm = parts per million

mg/kg with 50 cm<sup>2</sup> = milligram per kilogram with 50 square centimeter

&lt; = Less than

N.D. = Not detected ( &lt;MDL )

MDL = Method detection limit

Positive = A positive test result indicated the presence of Cr(VI) at the time of testing, equal to or greater than threshold of 1 mg/kg for spot test procedures or 0.02 mg/kg for boiling water extraction procedures with a sample surface area of 50 cm<sup>2</sup> used. However, it shall not be interpreted as the Cr(VI) concentration in the coating layer of the sample and should not be used as a method detection limit for this qualitative test.

Negative = A negative test result indicates above positive observation was not found at the time of testing. When the spot test showed a negative result, the boiling water extraction procedure shall be used to verify the result.

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Intertek Testing Services Korea Ltd.

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Seoul Lab. Address : 1/F, A-ju Digital Tower, #284-56, Seongsu 2-ga, Seongdong-Gu, Seoul, 133-833 Korea

Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea



**TEST REPORT**

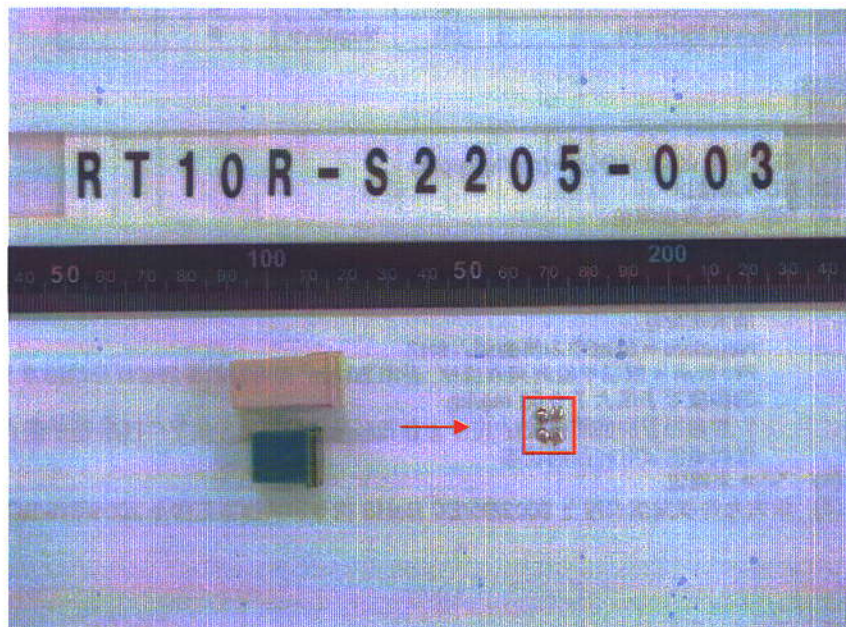
Page: 3 of 4  
Date: May 26, 2010

Report No. RT10R-S2205-003-E

Sample ID No. : RT10R-S2205-003

Sample Description : Solder

\* View of sample as received;-



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Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea

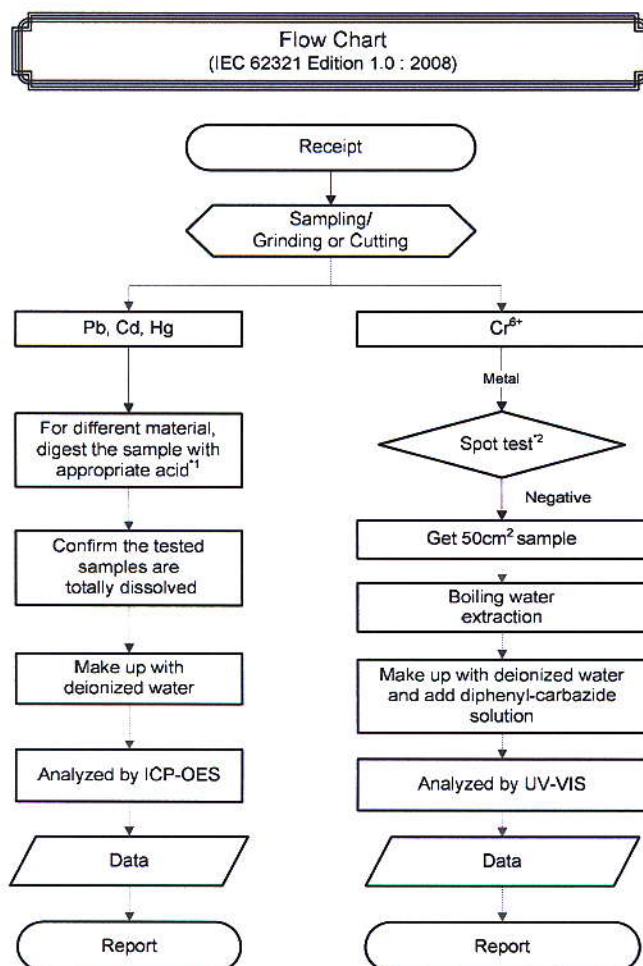
# TEST REPORT

Report No. RT10R-S2205-003-E

Page: 4 of 4  
Date: May 26, 2010

Sample ID No. : RT10R-S2205-003

Sample Description : Solder



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.  
No further analysis is required.

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

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Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea

## TEST REPORT

Applicant : LITTLEFUSE TRIAD.INC  
Address : Rm 202, Korea Trade Tower 159-1, Samsung-dong, Kangnam-gu,  
Seoul, 135-729 Korea

Page: 1 of 4

Report No. RT10R-S2205-001-E

Date: May 26, 2010

Sample Description : The following submitted sample(s) said to be:-

Name/Type of Product : Base cover  
Sample ID No. : RT10R-S2205-001  
Item No. : 057700  
Manufacturer/Vender : LITTLEFUSE TRIAD.INC

Sample received : May 24, 2010  
Testing Date : May 24, 2010 ~ May 26, 2010  
Testing Laboratory : Intertek Testing Center  
Testing Environment : Temperature : ( 24 ± 2 ) °C, Humidity : ( 60 ± 5 ) % R.H.

Test Type : RoHS wet chemical analysis  
Test Method(s) : Please see the following page(s).  
Test Result(s) : Please see the following page(s).

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\* Note 3 : The item no. is assigned by client and indicated according to their requirement and guarantee letter.

Approved by,



Jade Jang / Lab. Technical Manager

Authorized by,



Bo Park / Lab. General Manager

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Seoul Lab. Address : 1/F, A-ju Digital Tower, #284-56, Seongsu 2-ga, Seongdong-Gu, Seoul, 133-833 Korea  
Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea



## TEST REPORT

Report No. RT10R-S2205-001-E

Sample ID No. : RT10R-S2205-001

Sample Description : Base cover

Test Item	Unit	Test Method	MDL	Result
Cadmium (Cd)	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by acid digestion and determined by ICP-OES	0.5	N.D.
Lead (Pb)	mg/kg		5	N.D.
Mercury (Hg)	mg/kg		2	N.D.
Hexavalent Chromium (Cr <sup>6+</sup> ) (For non-metal)	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by alkaline digestion and determined by UV-VIS Spectrophotometer	1	N.D.
Polybrominated Biphenyl (PBBs)				
Monobromobiphenyl	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by solvent extraction and determined by GC/MS	5	N.D.
Dibromobiphenyl	mg/kg		5	N.D.
Tribromobiphenyl	mg/kg		5	N.D.
Tetrabromobiphenyl	mg/kg		5	N.D.
Pentabromobiphenyl	mg/kg		5	N.D.
Hexabromobiphenyl	mg/kg		5	N.D.
Heptabromobiphenyl	mg/kg		5	N.D.
Octabromobiphenyl	mg/kg		5	N.D.
Nonabromobiphenyl	mg/kg		5	N.D.
Decabromobiphenyl	mg/kg		5	N.D.
Polybrominated Diphenyl Ether (PBDEs)				
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by solvent extraction and determined by GC/MS	5	N.D.
Dibromodiphenyl ether	mg/kg		5	N.D.
Tribromodiphenyl ether	mg/kg		5	N.D.
Tetrabromodiphenyl ether	mg/kg		5	N.D.
Pentabromodiphenyl ether	mg/kg		5	N.D.
Hexabromodiphenyl ether	mg/kg		5	N.D.
Heptabromodiphenyl ether	mg/kg		5	N.D.
Octabromodiphenyl ether	mg/kg		5	N.D.
Nonabromodiphenyl ether	mg/kg		5	N.D.
Decabromodiphenyl ether	mg/kg		5	N.D.

Tested by : Nikkie Lee, Peter Kim, Ellen Jung, Jessica Kang

Notes : mg/kg = ppm = parts per million  
 < = Less than  
 N.D. = Not detected ( <MDL )  
 MDL = Method detection limit

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 Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea

**TEST REPORT**

Report No. RT10R-S2205-001-E

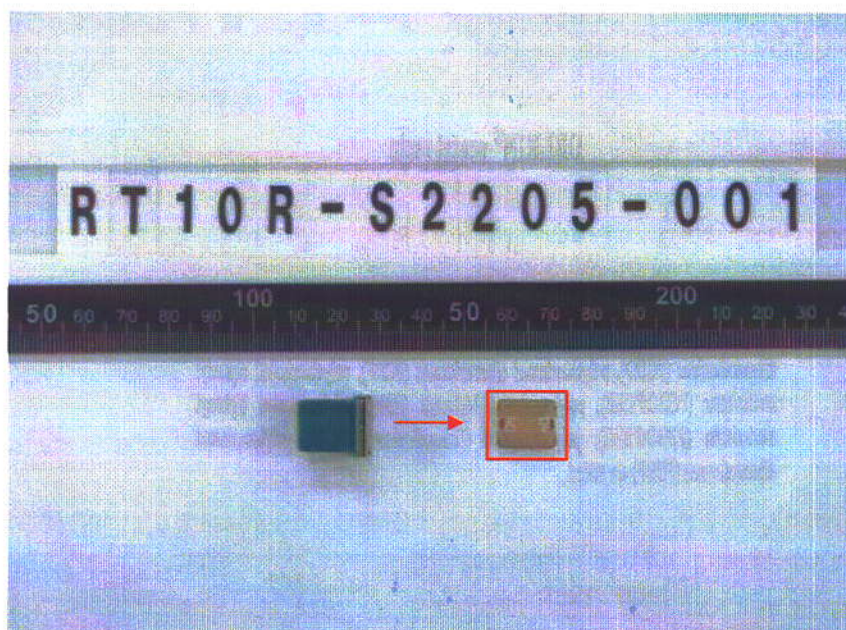
Page: 3 of 4

Date: May 26, 2010

Sample ID No. : RT10R-S2205-001

Sample Description : Base cover

\* View of sample as received:-



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# TEST REPORT

Report No. RT10R-S2205-001-E

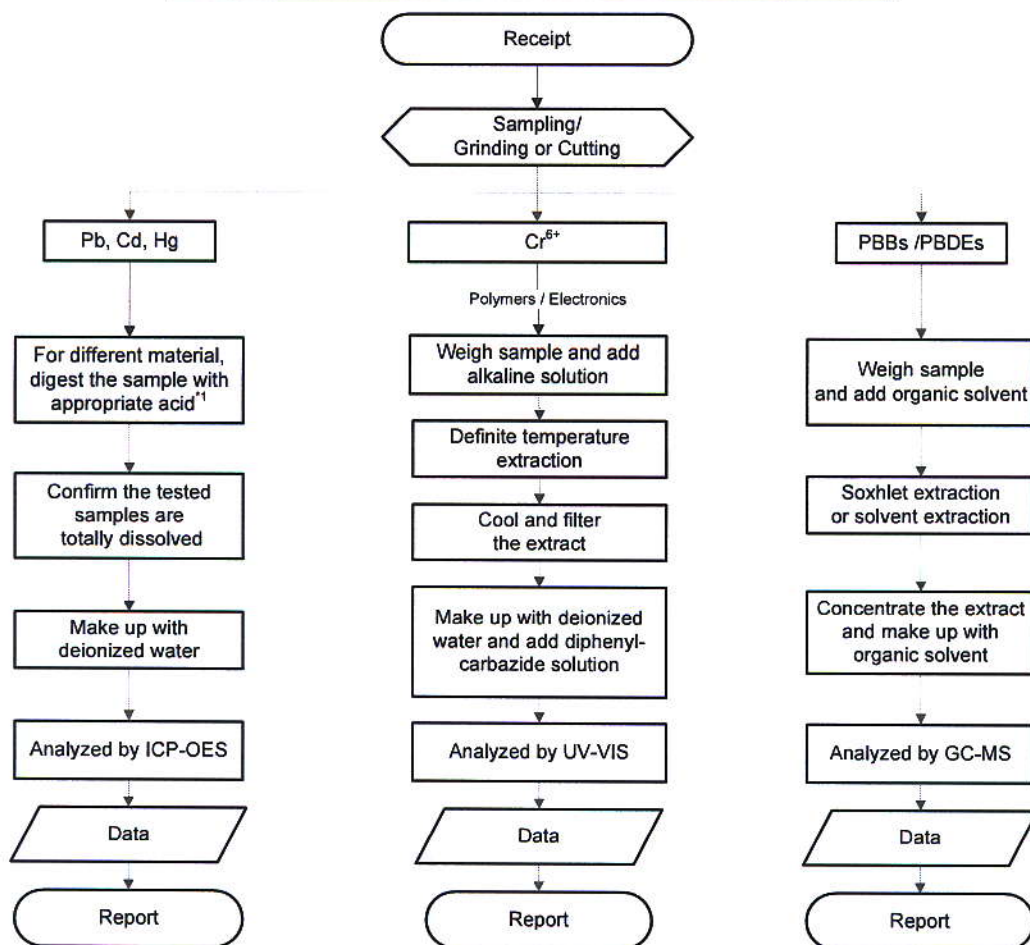
Page: 4 of 4

Date: May 26, 2010

Sample ID No. : RT10R-S2205-001

Sample Description : Base cover

## Flow Chart (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>

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

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 Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea

## TEST REPORT

Applicant : LITTLEFUSE TRIAD.INC  
Address : Rm 202, Korea Trade Tower 159-1, Samsung-dong, Kangnam-gu,  
Seoul, 135-729 Korea

Page: 1 of 4

Report No. RT10R-S2205-006-E

Date: May 26, 2010

Sample Description : The following submitted sample(s) said to be:-

Name/Type of Product : Housing  
Sample ID No. : RT10R-S2205-006  
Item No. : 057785  
Manufacturer/Vender : LITTLEFUSE TRIAD.INC

Sample received : May 24, 2010  
Testing Date : May 24, 2010 ~ May 26, 2010  
Testing Laboratory : Intertek Testing Center  
Testing Environment : Temperature : (  $24 \pm 2$  ) °C, Humidity : (  $60 \pm 5$  ) % R.H.

Test Type : RoHS wet chemical analysis  
Test Method(s) : Please see the following page(s).  
Test Result(s) : Please see the following page(s).

\* Note 1 : The test results presented in this report relate only to the object tested.

\* Note 2 : This report shall not be reproduced except in full without the written approval of the testing laboratory.

\* Note 3 : The item no. is assigned by client and indicated according to their requirement and guarantee letter.

Approved by,



Jade Jang / Lab. Technical Manager

Authorized by,



Bo Park / Lab. General Manager

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Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea

# TEST REPORT

Report No. RT10R-S2205-006-E

Page: 2 of 4  
Date: May 26, 2010

Sample ID No. : RT10R-S2205-006

Sample Description : Housing

Test Item	Unit	Test Method	MDL	Result
Cadmium (Cd)	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by acid digestion and determined by ICP-OES	0.5	N.D.
Lead (Pb)	mg/kg		5	N.D.
Mercury (Hg)	mg/kg		2	N.D.
Hexavalent Chromium (Cr <sup>6+</sup> ) (For non-metal)	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by alkaline digestion and determined by UV-VIS Spectrophotometer	1	N.D.
Polybrominated Biphenyl (PBBs)				
Monobromobiphenyl	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by solvent extraction and determined by GC/MS	5	N.D.
Dibromobiphenyl	mg/kg		5	N.D.
Tribromobiphenyl	mg/kg		5	N.D.
Tetrabromobiphenyl	mg/kg		5	N.D.
Pentabromobiphenyl	mg/kg		5	N.D.
Hexabromobiphenyl	mg/kg		5	N.D.
Heptabromobiphenyl	mg/kg		5	N.D.
Octabromobiphenyl	mg/kg		5	N.D.
Nonabromobiphenyl	mg/kg		5	N.D.
Decabromobiphenyl	mg/kg		5	N.D.
Polybrominated Diphenyl Ether (PBDEs)				
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by solvent extraction and determined by GC/MS	5	N.D.
Dibromodiphenyl ether	mg/kg		5	N.D.
Tribromodiphenyl ether	mg/kg		5	N.D.
Tetrabromodiphenyl ether	mg/kg		5	N.D.
Pentabromodiphenyl ether	mg/kg		5	N.D.
Hexabromodiphenyl ether	mg/kg		5	N.D.
Heptabromodiphenyl ether	mg/kg		5	N.D.
Octabromodiphenyl ether	mg/kg		5	N.D.
Nonabromodiphenyl ether	mg/kg		5	N.D.
Decabromodiphenyl ether	mg/kg		5	N.D.

Tested by : Nikkie Lee, Peter Kim, Ellen Jung, Jessica Kang

Notes : mg/kg = ppm = parts per million

< = Less than

N.D. = Not detected ( <MDL )

MDL = Method detection limit

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Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea



**TEST REPORT**

Report No. RT10R-S2205-006-E

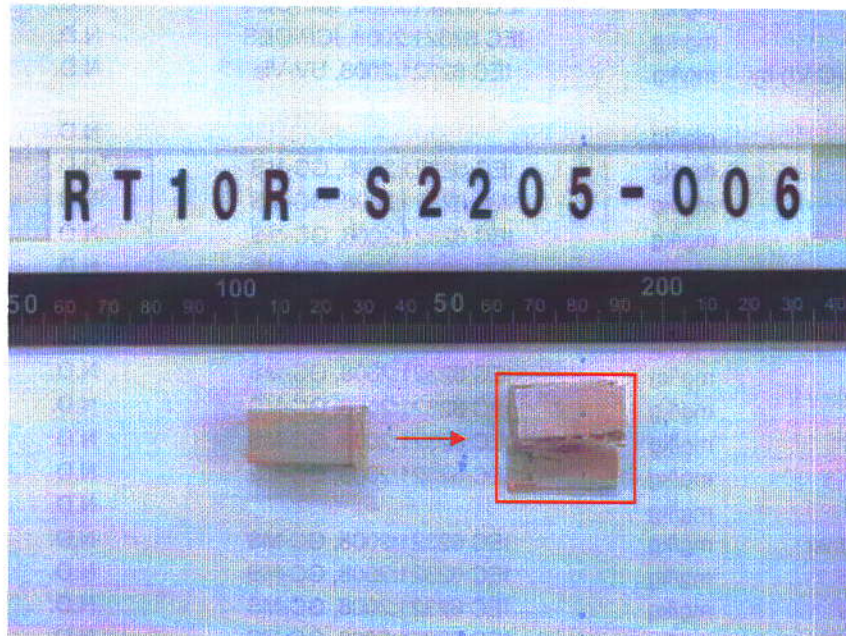
Page: 3 of 4

Date: May 26, 2010

Sample ID No. : RT10R-S2205-006

Sample Description : Housing

\* View of sample as received:-



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Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea

# TEST REPORT

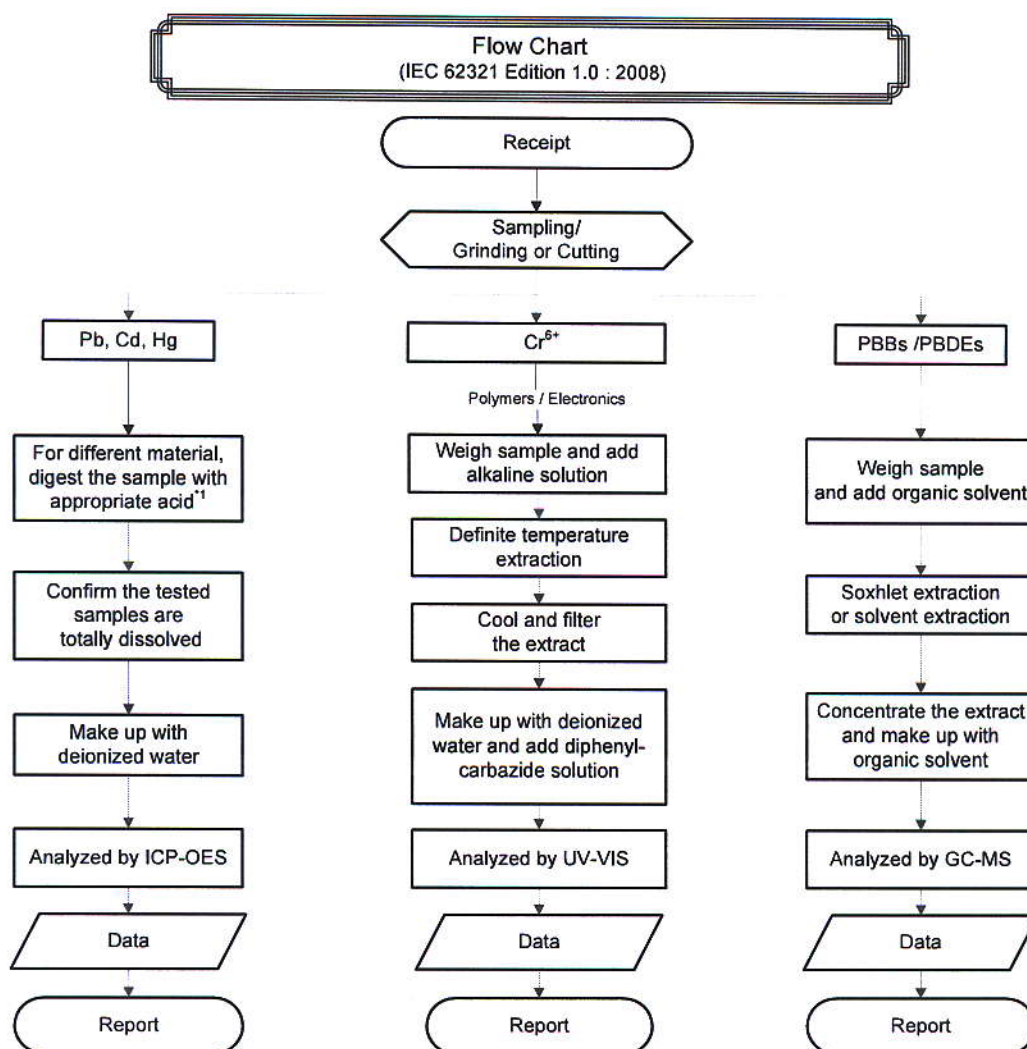
Report No. RT10R-S2205-006-E

Page: 4 of 4

Date: May 26, 2010

Sample ID No. : RT10R-S2205-006

Sample Description : Housing



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>

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

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Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea

## TEST REPORT

Applicant : LITTLEFUSE TRIAD.INC  
Address : Rm 202, Korea Trade Tower 159-1, Samsung-dong, Kangnam-gu,  
Seoul, 135-729 Korea

Page: 1 of 4

Report No. RT10R-S2205-002-E

Date: May 26, 2010

Sample Description : The following submitted sample(s) said to be:-

Name/Type of Product : Housing  
Sample ID No. : RT10R-S2205-002  
Item No. : 057786 (Green)  
Manufacturer/Vender : LITTLEFUSE TRIAD.INC

Sample received : May 24, 2010  
Testing Date : May 24, 2010 ~ May 26, 2010  
Testing Laboratory : Intertek Testing Center  
Testing Environment : Temperature : ( 24  $\pm$  2 )  $^{\circ}$ C, Humidity : ( 60  $\pm$  5 ) % R.H.

Test Type : RoHS wet chemical analysis  
Test Method(s) : Please see the following page(s).  
Test Result(s) : Please see the following page(s).

\* Note 1 : The test results presented in this report relate only to the object tested.

\* Note 2 : This report shall not be reproduced except in full without the written approval of the testing laboratory.

\* Note 3 : The item no. is assigned by client and indicated according to their requirement and guarantee letter.

Approved by,



Jade Jang / Lab. Technical Manager

Authorized by,



Bo Park / Lab. General Manager

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Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea



# TEST REPORT

Report No. RT10R-S2205-002-E

Page: 2 of 4

Date: May 26, 2010

Sample ID No. : RT10R-S2205-002

Sample Description : Housing

Test Item	Unit	Test Method	MDL	Result
Cadmium (Cd)	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by acid digestion and determined by ICP-OES	0.5	N.D.
Lead (Pb)	mg/kg		5	N.D.
Mercury (Hg)	mg/kg		2	N.D.
Hexavalent Chromium (Cr <sup>6+</sup> ) (For non-metal)	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by alkaline digestion and determined by UV-VIS Spectrophotometer	1	N.D.
Polybrominated Biphenyl (PBBs)				
Monobromobiphenyl	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by solvent extraction and determined by GC/MS	5	N.D.
Dibromobiphenyl	mg/kg		5	N.D.
Tribromobiphenyl	mg/kg		5	N.D.
Tetrabromobiphenyl	mg/kg		5	N.D.
Pentabromobiphenyl	mg/kg		5	N.D.
Hexabromobiphenyl	mg/kg		5	N.D.
Heptabromobiphenyl	mg/kg		5	N.D.
Octabromobiphenyl	mg/kg		5	N.D.
Nonabromobiphenyl	mg/kg		5	N.D.
Decabromobiphenyl	mg/kg		5	N.D.
Polybrominated Diphenyl Ether (PBDEs)				
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by solvent extraction and determined by GC/MS	5	N.D.
Dibromodiphenyl ether	mg/kg		5	N.D.
Tribromodiphenyl ether	mg/kg		5	N.D.
Tetrabromodiphenyl ether	mg/kg		5	N.D.
Pentabromodiphenyl ether	mg/kg		5	N.D.
Hexabromodiphenyl ether	mg/kg		5	N.D.
Heptabromodiphenyl ether	mg/kg		5	N.D.
Octabromodiphenyl ether	mg/kg		5	N.D.
Nonabromodiphenyl ether	mg/kg		5	N.D.
Decabromodiphenyl ether	mg/kg		5	N.D.

Tested by : Nikkie Lee, Peter Kim, Ellen Jung, Jessica Kang

Notes : mg/kg = ppm = parts per million  
 < = Less than  
 N.D. = Not detected ( <MDL )  
 MDL = Method detection limit

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**TEST REPORT**

Report No. RT10R-S2205-002-E

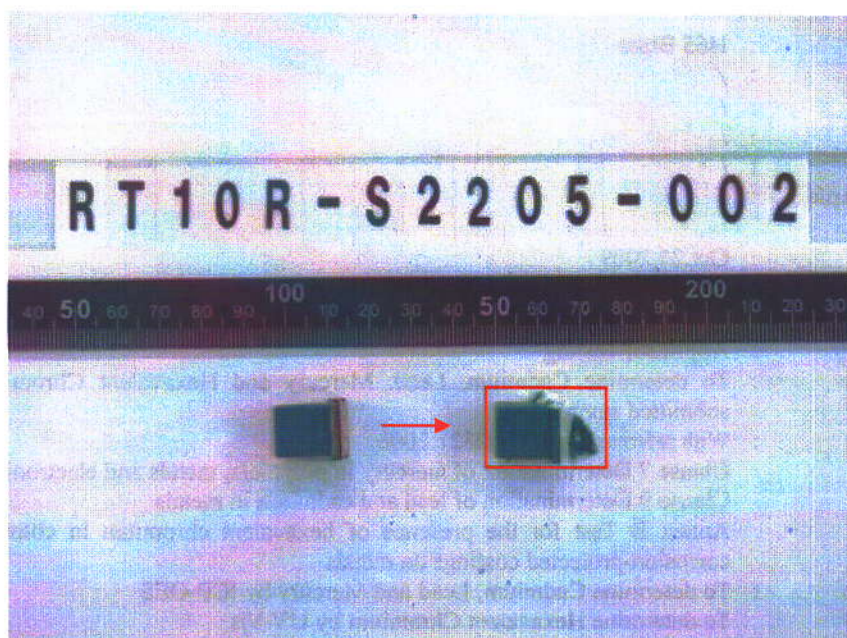
Page: 3 of 4

Date: May 26, 2010

Sample ID No. : RT10R-S2205-002

Sample Description : Housing

\* View of sample as received:-



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# TEST REPORT

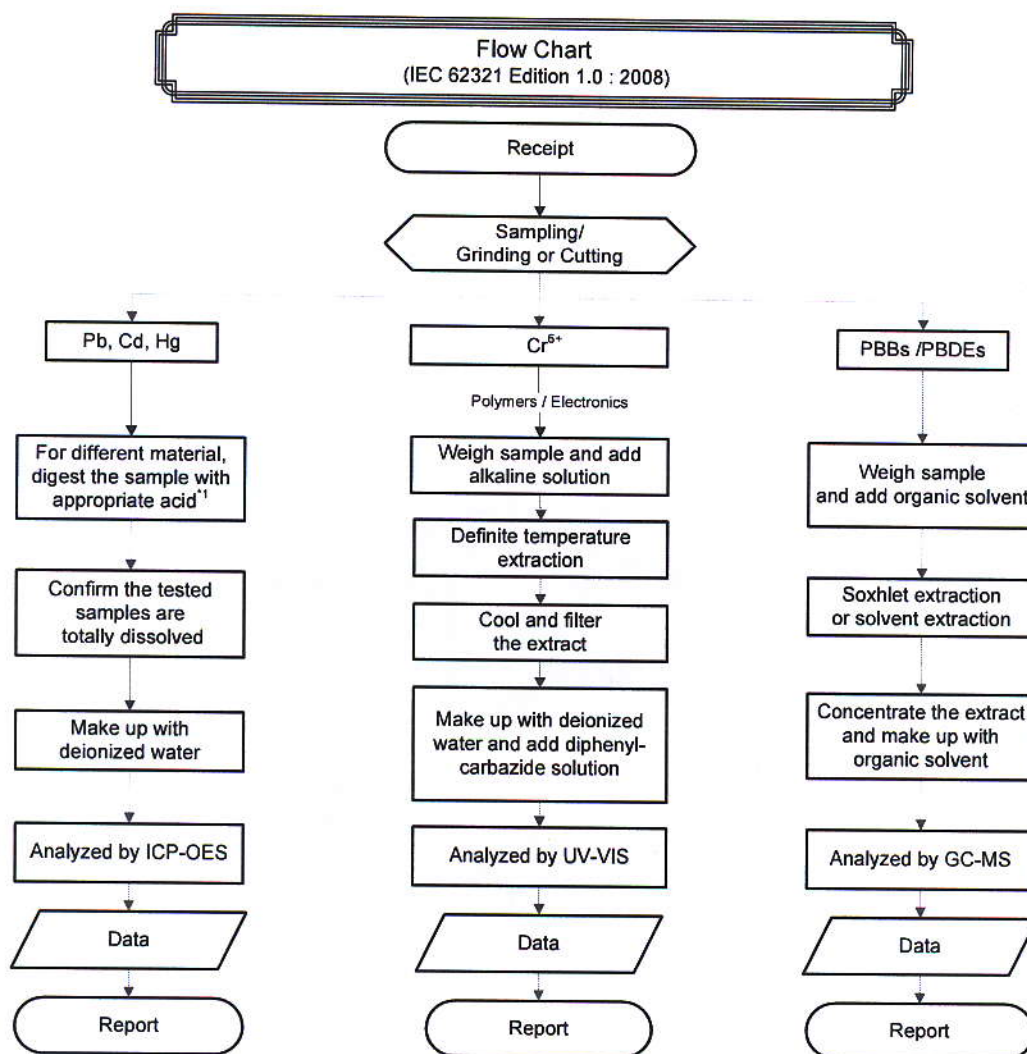
Report No. RT10R-S2205-002-E

Page: 4 of 4

Date: May 26, 2010

Sample ID No. : RT10R-S2205-002

Sample Description : Housing



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>

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Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea

## Test Report

No. : CE/2008/15648

Date : 2008/01/24

Page : 2 of 5

LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result	MDL
		No.1	
Cadmium (Cd)	(1)	n.d.	2
Lead (Pb)	(2)	14	2
Mercury (Hg)	(3)	n.d.	2
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2
<b>Sum of PBBs</b>	(5)	n.d.	-
Monobromobiphenyl		n.d.	5
Dibromobiphenyl		n.d.	5
Tribromobiphenyl		n.d.	5
Tetrabromobiphenyl		n.d.	5
Pentabromobiphenyl		n.d.	5
Hexabromobiphenyl		n.d.	5
Heptabromobiphenyl		n.d.	5
Octabromobiphenyl		n.d.	5
Nonabromobiphenyl		n.d.	5
Decabromobiphenyl		n.d.	5
<b>Sum of PBDEs (Mono to Nona) (Note 4)</b>		n.d.	-
Monobromobiphenyl ether		n.d.	5
Dibromobiphenyl ether		n.d.	5
Tribromobiphenyl ether		n.d.	5
Tetrabromobiphenyl ether		n.d.	5
Pentabromobiphenyl ether		n.d.	5
Hexabromobiphenyl ether		n.d.	5
Heptabromobiphenyl ether		n.d.	5
Octabromobiphenyl ether		n.d.	5
Nonabromobiphenyl ether		n.d.	5
Decabromobiphenyl ether		n.d.	5
<b>Sum of PBDEs (Mono to Deca)</b>		n.d.	-

### TEST PART DESCRIPTION:

NO.1 : YELLOW PLASTIC PELLETS

Note : 1. mg/kg = ppm

2. n.d. = Not Detected

3. MDL = Method Detection Limit

4. According to 2005/717/EC DecaBDE is exempt.

5. "-" = Not Regulated

## Test Report

No. : CE/2008/15648

Date : 2008/01/24

Page : 3 of 5

LITTELFUSE INC.

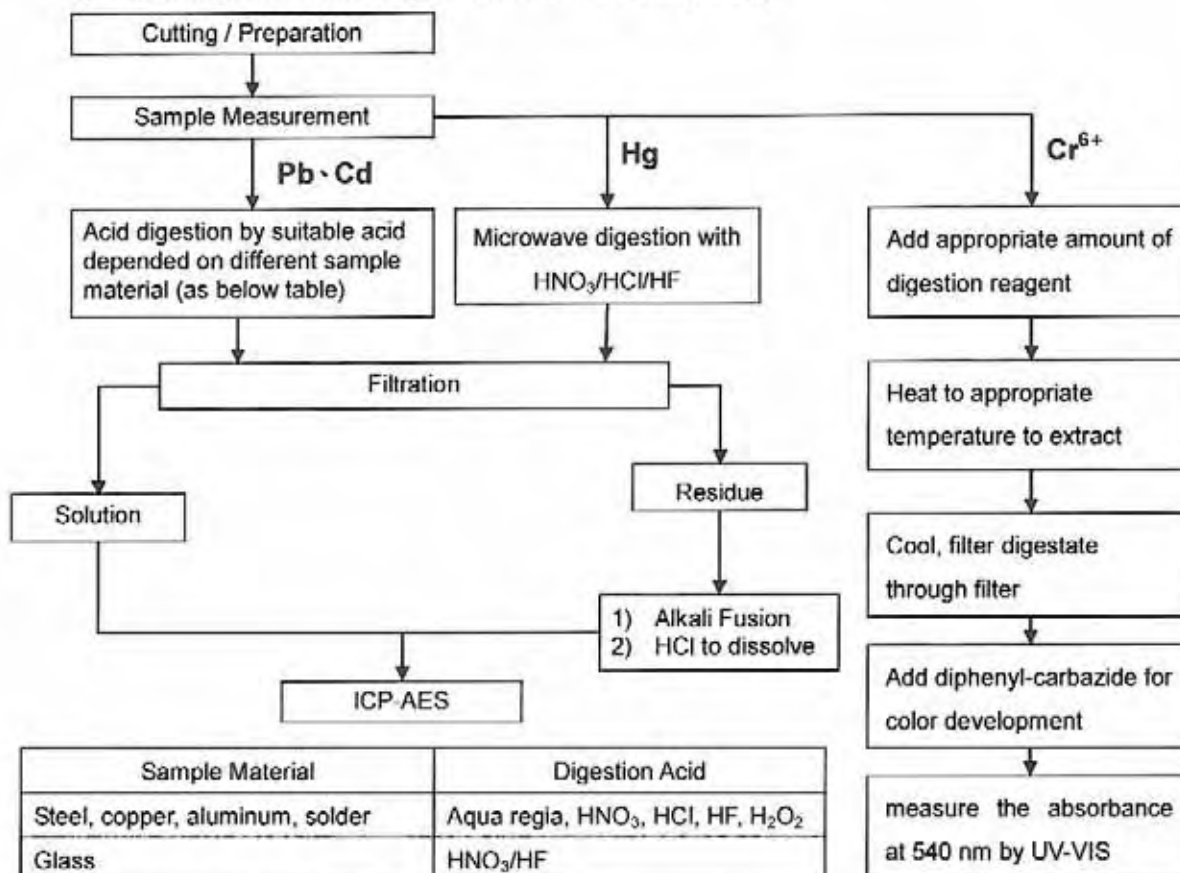
800 E. NORTHWEST HWY. DES PLAINES, IL 60016



- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion



## Test Report

No. : CE/2008/15648

Date : 2008/01/24

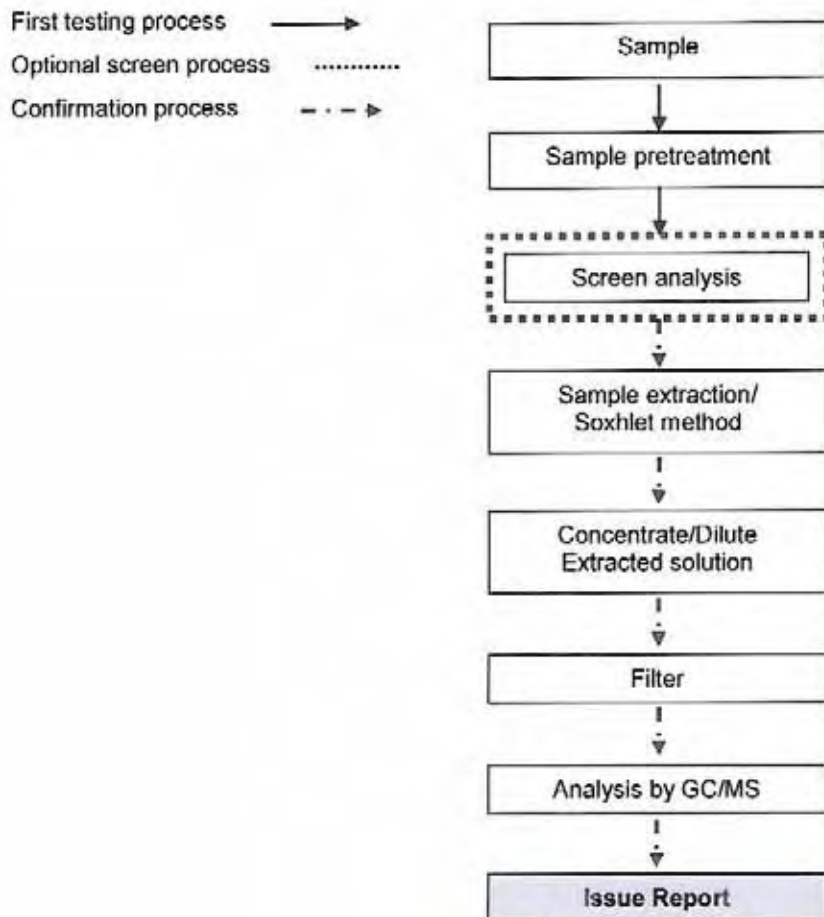
Page : 4 of 5

LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



### PBB/PBDE analytical FLOW CHART



## Test Report

No. : CE/2008/15648

Date : 2008/01/24

Page : 1 of 5

LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



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

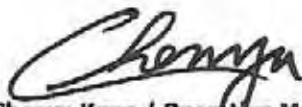
Sample Description : BASE COLORANT  
 Style/Item No. : 057901  
 Facility : DP-AUTOMOTIVE  
 Sample Receiving Date : 2008/01/21  
 Testing Period : 2008/01/21 TO 2008/01/24

Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

Test Method : With reference to IEC 62321, Ed.1 111/54/CDV  
 Procedures for the Determination of Levels of Regulated Substances in Electrotechnical Products.

- (1) Determination of Cadmium by ICP-AES.
- (2) Determination of Lead by ICP-AES.
- (3) Determination of Mercury by ICP-AES.
- (4) Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.
- (5) Determination of PBB and PBDE by GC/MS.

Test Result(s) : Please refer to next page(s).

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

## Test Report

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LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



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

## Test Report

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LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



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

Sample Description : BASE COLORANT  
Style/Item No. : 057787  
Facility : DP-AUTOMOTIVE  
Sample Receiving Date : 2008/01/21  
Testing Period : 2008/01/21 TO 2008/01/24


=====

Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

Test Method : With reference to IEC 62321, Ed.1 111/54/CDV  
Procedures for the Determination of Levels of Regulated Substances in Electrotechnical Products.

- (1) Determination of Cadmium by ICP-AES.
- (2) Determination of Lead by ICP-AES.
- (3) Determination of Mercury by ICP-AES.
- (4) Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.
- (5) Determination of PBB and PBDE by GC/MS.

Test Result(s) : Please refer to next page(s).

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



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LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result	MDL
		No.1	
Cadmium (Cd)	(1)	n.d.	2
Lead (Pb)	(2)	n.d.	2
Mercury (Hg)	(3)	n.d.	2
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2
<b>Sum of PBBs</b>	(5)	n.d.	-
Monobromobiphenyl		n.d.	5
Dibromobiphenyl		n.d.	5
Tribromobiphenyl		n.d.	5
Tetrabromobiphenyl		n.d.	5
Pentabromobiphenyl		n.d.	5
Hexabromobiphenyl		n.d.	5
Heptabromobiphenyl		n.d.	5
Octabromobiphenyl		n.d.	5
Nonabromobiphenyl		n.d.	5
Decabromobiphenyl		n.d.	5
<b>Sum of PBDEs (Mono to Nona) (Note 4)</b>		n.d.	-
Monobromobiphenyl ether		n.d.	5
Dibromobiphenyl ether		n.d.	5
Tribromobiphenyl ether		n.d.	5
Tetrabromobiphenyl ether		n.d.	5
Pentabromobiphenyl ether		n.d.	5
Hexabromobiphenyl ether		n.d.	5
Heptabromobiphenyl ether		n.d.	5
Octabromobiphenyl ether		n.d.	5
Nonabromobiphenyl ether		n.d.	5
Decabromobiphenyl ether		n.d.	5
<b>Sum of PBDEs (Mono to Deca)</b>		n.d.	-

### TEST PART DESCRIPTION:

NO.1 : RED PLASTIC PELLETS

Note : 1. mg/kg = ppm

2. n.d. = Not Detected

3. MDL = Method Detection Limit

4. According to 2005/717/EC DecaBDE is exempt.

5. "-" = Not Regulated

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LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016

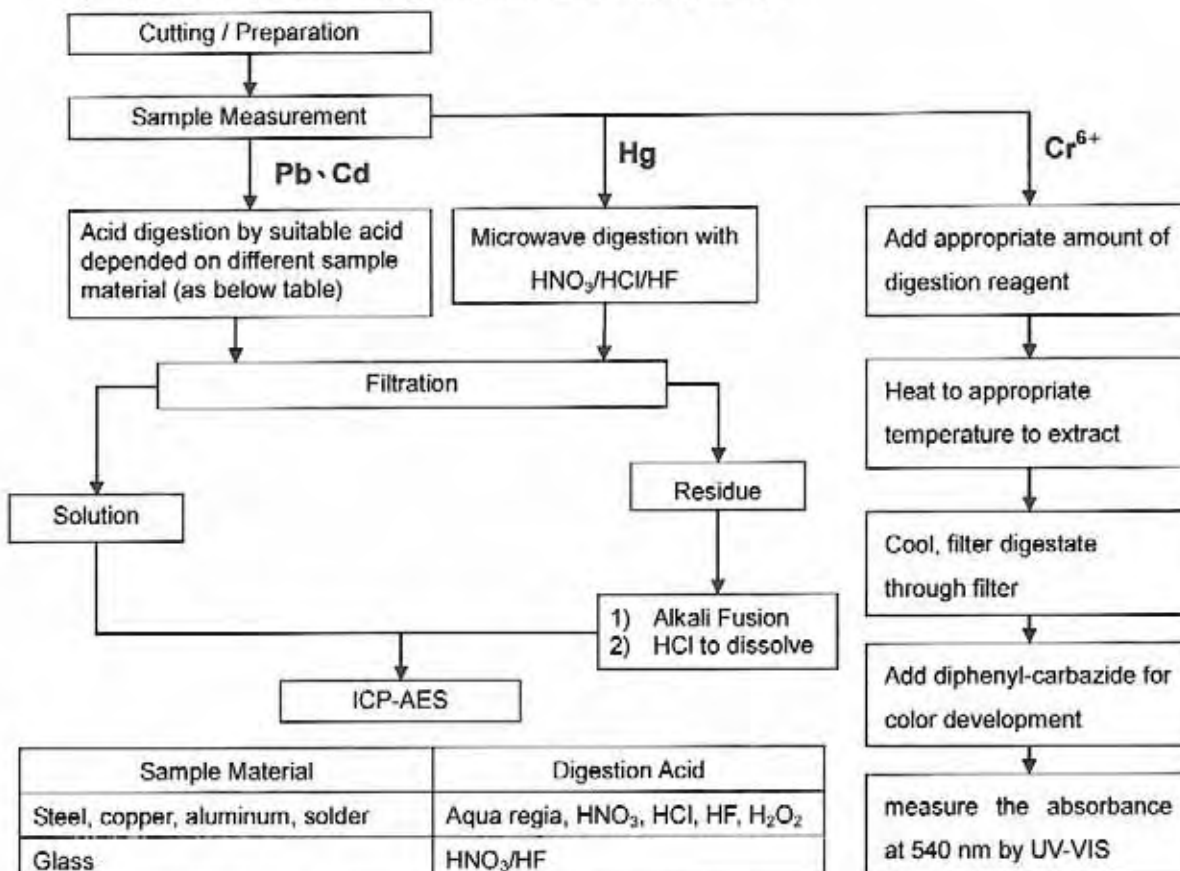


1) These samples were dissolved totally by pre-conditioning method according to below flow chart.

(Cr<sup>6+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

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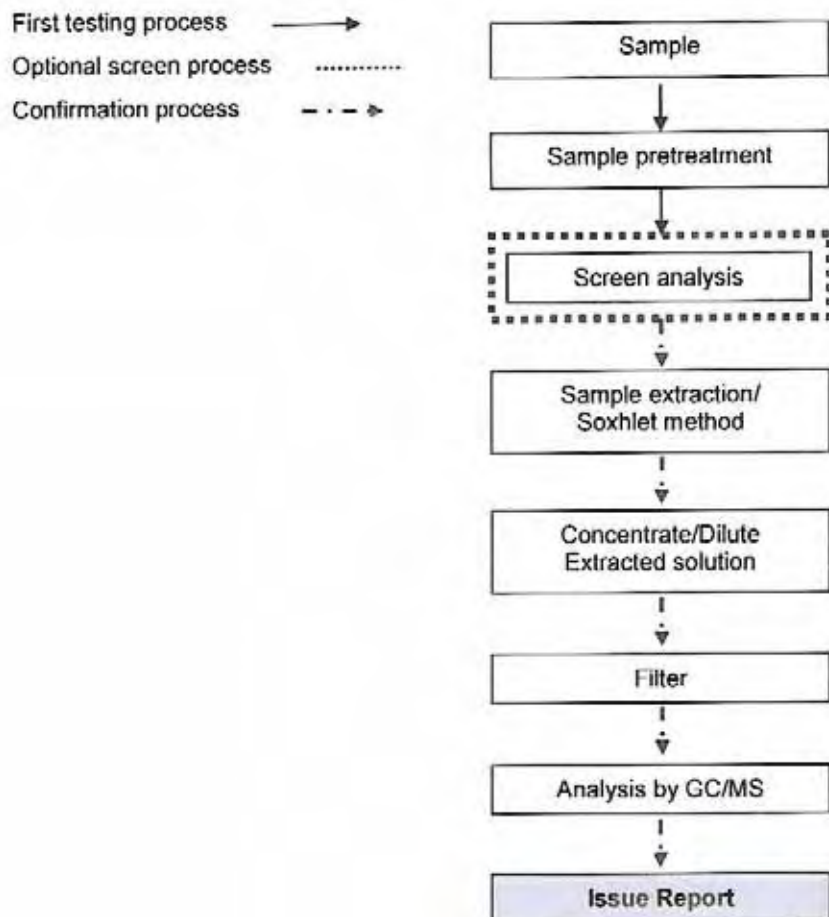
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LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



### PBB/PBDE analytical FLOW CHART



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800 E. NORTHWEST HWY. DES PLAINES, IL 60016



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



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LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



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


Sample Description : BASE COLORANT  
Style/Item No. : 057892  
Facility : DP-AUTOMOTIVE  
Sample Receiving Date : 2008/01/21  
Testing Period : 2008/01/21 TO 2008/01/24

Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

Test Method : With reference to IEC 62321, Ed.1 111/54/CDV  
Procedures for the Determination of Levels of Regulated  
Substances in Electrotechnical Products.

- (1) Determination of Cadmium by ICP-AES.
- (2) Determination of Lead by ICP-AES.
- (3) Determination of Mercury by ICP-AES.
- (4) Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.
- (5) Determination of PBB and PBDE by GC/MS.

Test Result(s) : Please refer to next page(s).

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

## Test Report

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LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result	MDL
		No.1	
Cadmium (Cd)	(1)	n.d.	2
Lead (Pb)	(2)	n.d.	2
Mercury (Hg)	(3)	n.d.	2
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2
<b>Sum of PBBs</b>	(5)	n.d.	-
Monobromobiphenyl		n.d.	5
Dibromobiphenyl		n.d.	5
Tribromobiphenyl		n.d.	5
Tetrabromobiphenyl		n.d.	5
Pentabromobiphenyl		n.d.	5
Hexabromobiphenyl		n.d.	5
Heptabromobiphenyl		n.d.	5
Octabromobiphenyl		n.d.	5
Nonabromobiphenyl		n.d.	5
Decabromobiphenyl		n.d.	5
<b>Sum of PBDEs (Mono to Nona) (Note 4)</b>		n.d.	-
Monobromobiphenyl ether		n.d.	5
Dibromobiphenyl ether		n.d.	5
Tribromobiphenyl ether		n.d.	5
Tetrabromobiphenyl ether		n.d.	5
Pentabromobiphenyl ether		n.d.	5
Hexabromobiphenyl ether		n.d.	5
Heptabromobiphenyl ether		n.d.	5
Octabromobiphenyl ether		n.d.	5
Nonabromobiphenyl ether		n.d.	5
Decabromobiphenyl ether		n.d.	5
<b>Sum of PBDEs (Mono to Deca)</b>		n.d.	-

### TEST PART DESCRIPTION:

NO.1 : WHITE PLASTIC PELLETS

Note : 1. mg/kg = ppm

2. n.d. = Not Detected

3. MDL = Method Detection Limit

4. According to 2005/717/EC DecaBDE is exempt.

5. "-" = Not Regulated

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LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016

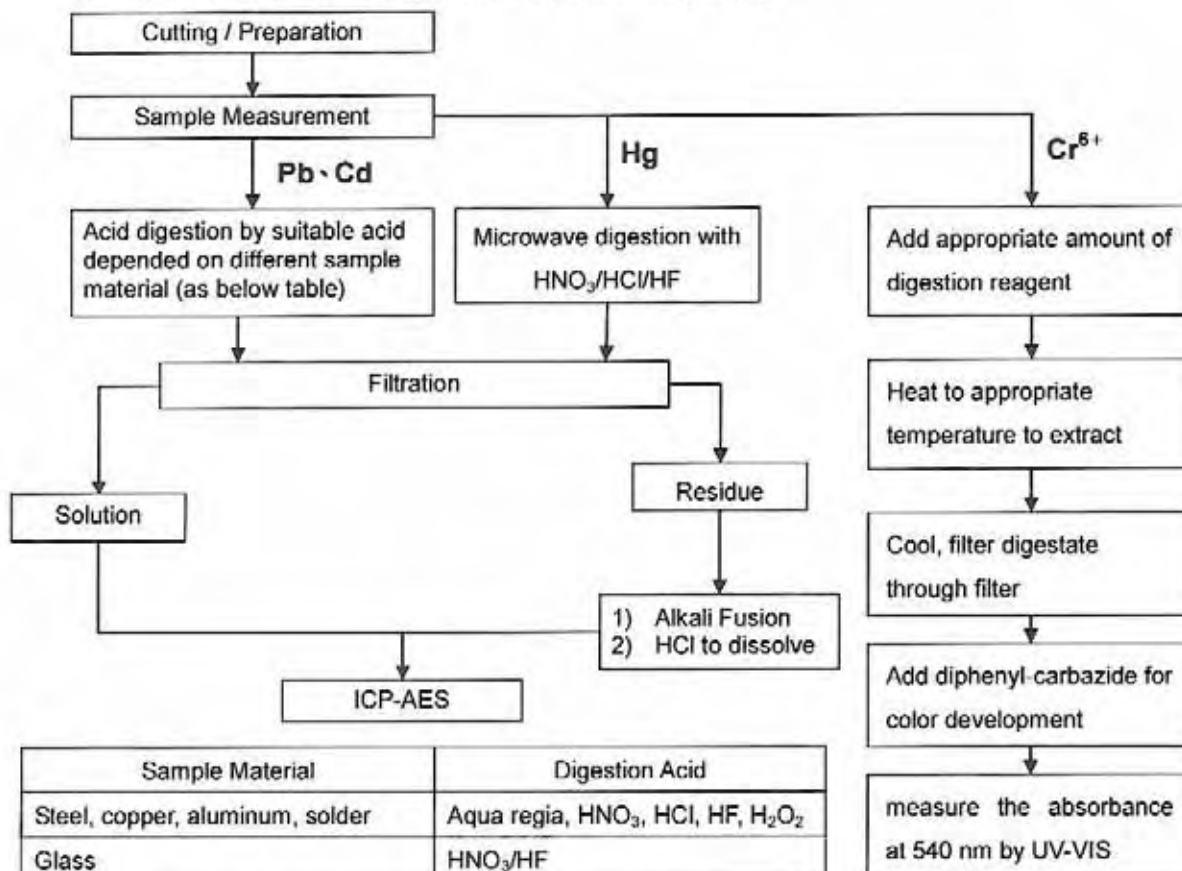


1) These samples were dissolved totally by pre-conditioning method according to below flow chart.

(Cr<sup>6+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

## Test Report

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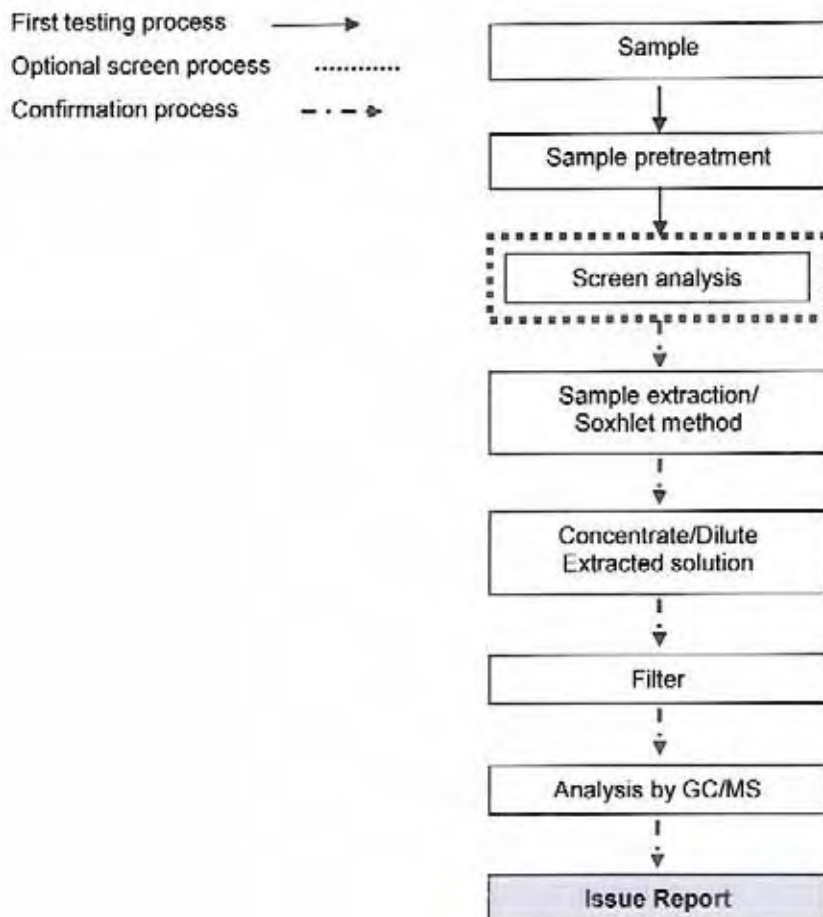
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800 E. NORTHWEST HWY. DES PLAINES, IL 60016



### PBB/PBDE analytical FLOW CHART





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\*\* End of Report \*\*

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LITTELFUSE INC.


800 E. NORTHWEST HWY. DES PLAINES, IL 60016



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

Sample Description	:	BASE COLORANT
Style/Item No.	:	057784
Facility	:	DP-AUTOMOTIVE
Sample Receiving Date	:	2008/01/21
Testing Period	:	2008/01/21 TO 2008/01/24

<b>Test Requested</b>	:	In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.
<b>Test Method</b>	:	<p>With reference to IEC 62321, Ed.1 111/54/CDV            Procedures for the Determination of Levels of Regulated            Substances in Electrotechnical Products.</p> <ol style="list-style-type: none"> <li>(1) Determination of Cadmium by ICP-AES.</li> <li>(2) Determination of Lead by ICP-AES.</li> <li>(3) Determination of Mercury by ICP-AES.</li> <li>(4) Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.</li> <li>(5) Determination of PBB and PBDE by GC/MS.</li> </ol>
<b>Test Result(s)</b>	:	Please refer to next page(s).

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

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LITTELFUSE INC.

800 E. NORTHWEST HWY. DES PLAINES, IL 60016



Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result	MDL
		No.1	
Cadmium (Cd)	(1)	n.d.	2
Lead (Pb)	(2)	n.d.	2
Mercury (Hg)	(3)	n.d.	2
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2
<b>Sum of PBBs</b>	(5)	n.d.	-
Monobromobiphenyl		n.d.	5
Dibromobiphenyl		n.d.	5
Tribromobiphenyl		n.d.	5
Tetrabromobiphenyl		n.d.	5
Pentabromobiphenyl		n.d.	5
Hexabromobiphenyl		n.d.	5
Heptabromobiphenyl		n.d.	5
Octabromobiphenyl		n.d.	5
Nonabromobiphenyl		n.d.	5
Decabromobiphenyl		n.d.	5
<b>Sum of PBDEs (Mono to Nona) (Note 4)</b>		n.d.	-
Monobromobiphenyl ether		n.d.	5
Dibromobiphenyl ether		n.d.	5
Tribromobiphenyl ether		n.d.	5
Tetrabromobiphenyl ether		n.d.	5
Pentabromobiphenyl ether		n.d.	5
Hexabromobiphenyl ether		n.d.	5
Heptabromobiphenyl ether		n.d.	5
Octabromobiphenyl ether		n.d.	5
Nonabromobiphenyl ether		n.d.	5
Decabromobiphenyl ether		n.d.	5
<b>Sum of PBDEs (Mono to Deca)</b>		n.d.	-

## TEST PART DESCRIPTION:

NO.1 : BLUE PLASTIC PELLETS

Note : 1. mg/kg = ppm

2. n.d. = Not Detected

3. MDL = Method Detection Limit

4. According to 2005/717/EC DecaBDE is exempt.

5. "-" = Not Regulated

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LITTELFUSE INC.

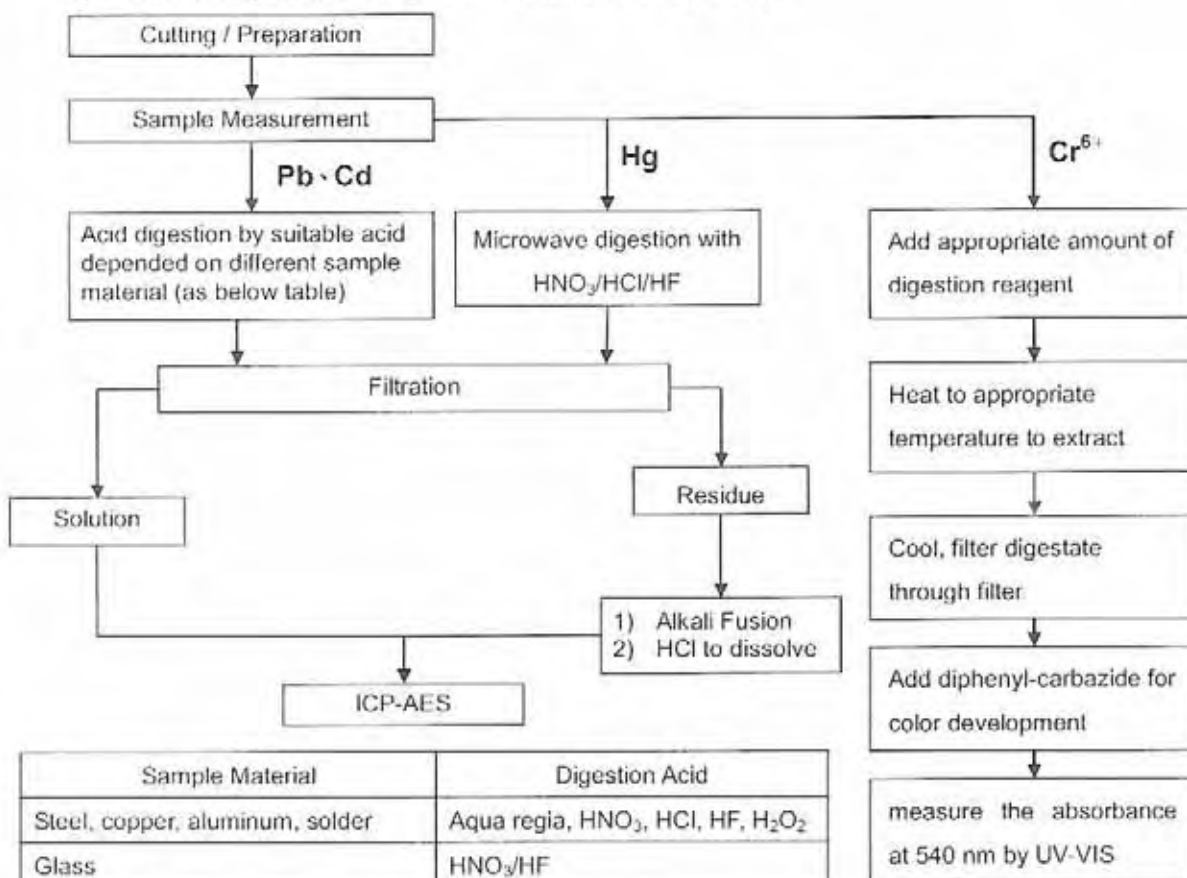
800 E. NORTHWEST HWY. DES PLAINES, IL 60016



- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>5+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion



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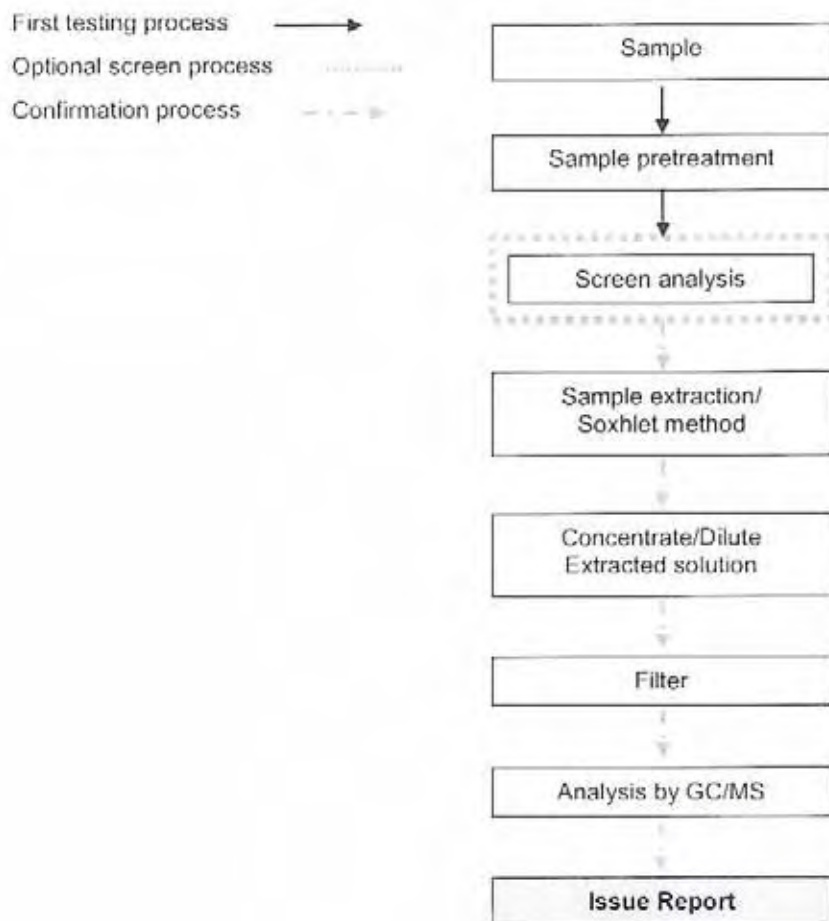
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LITTELFUSE INC.

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### PBB/PBDE analytical FLOW CHART



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