



# TEST REPORT

NO.: ASZ09081905301-1

Date: Aug 24, 2009

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**Customer:** Shenzhen Bencent Electronics Co., Ltd.

**Address:** 2F, Building 1, Pingshan Minqi Science&Technology Park, Xili, Nanshan, Shenzhen, China

**Report on the submitted sample said to be:**

**Sample name:** Transient voltage surge suppressors

**Model:** /

**Item/Lot No.:** QC-pw0906047

**Material:** /

**Buyer:** /

**Supplier:** /

**Manufacturer:** /

**Sample received date:** Aug 19, 2009

**Testing period:** From Aug 19, 2009 to Aug 24, 2009

**Testing Requested:**

- (1) As specified by client, to determine the Lead, Cadmium, Mercury, Hexavalent Chromium, PBB & PBDE content in the submitted sample in accordance with Directive 2002/95/EC (RoHS).
- (2) As specified by client, to determine PFOS content in the submitted samples in accordance with Directive 2006/122/EC.

**Testing method:**

(1) With reference to IEC 62321:2008

Testing Item	Pretreatment method	Measuring instrument	MQL
Lead (Pb)	IEC 62321, section 9/10	ICP-OES	2 mg/kg
Cadmium (Cd)	IEC 62321, section 9/10	ICP-OES	2 mg/kg
Mercury (Hg)	IEC 62321, section 7	CV-AAS	2 mg/kg
Chromium (Cr VI)	IEC 62321, Annex B/C	UV-VIS	2 mg/kg 0.02 mg/kg*
PBBs/ PBDEs	IEC 62321, Annex A	GC-MS	5 mg/kg

**Note:**

-\* 0.02 mg/kg refers to the MQL of sample extraction liquid.

(2)

Testing Item	Pretreatment method	Measuring instrument	MQL
PFOS	US EPA 3540C	LC-MS	5 mg/kg

**Conclusion:**

-When tested as specified the submitted sample complied with the requirements of commission Decision of 18 Aug 2005 amending Directive 2002/95/EC notified under document 2005/618/EC

\*\*\*\*\*FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S)\*\*\*\*\*

Written by :

*Alice*

Approved by:

*Jenah Lu*

Inspected by:

*Wally*

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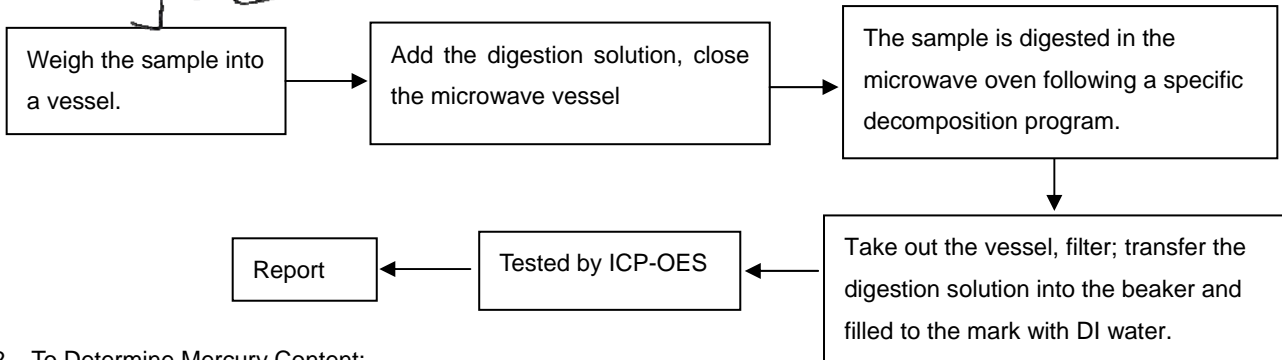
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**Test Flow:**

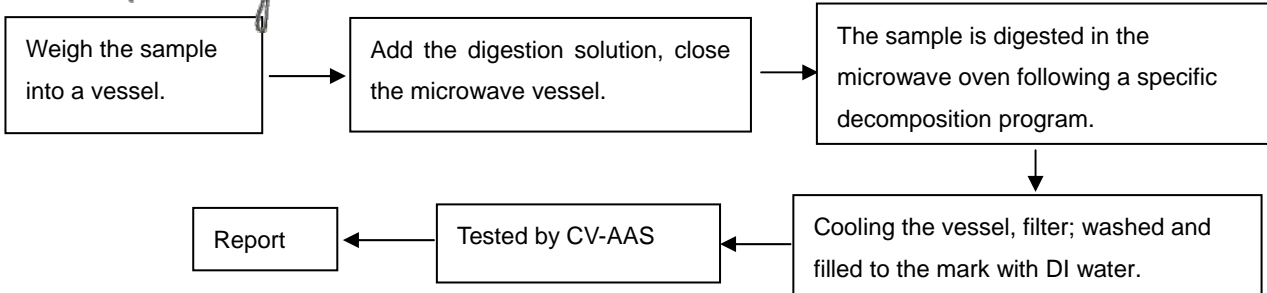
1. To Determine Lead, Cadmium Content (for Electronics):

Tested by: *Jure*



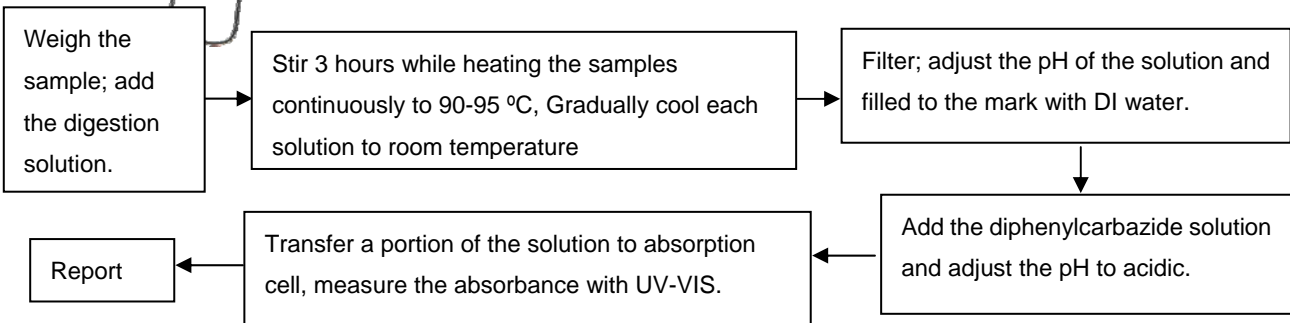
2. To Determine Mercury Content:

Tested by: *Rosany*



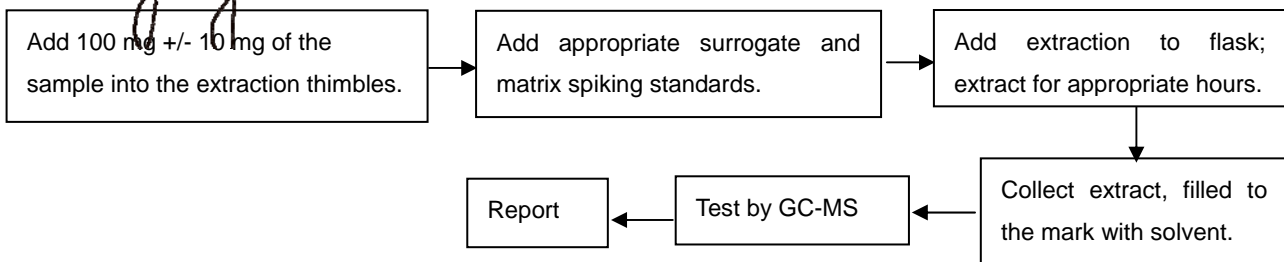
3. To Determine Hexavalent Chromium Content (for Electronics):

Tested by: *Gary*



4. To Determine PBBs/PBDEs Content:

Tested by: *Young*



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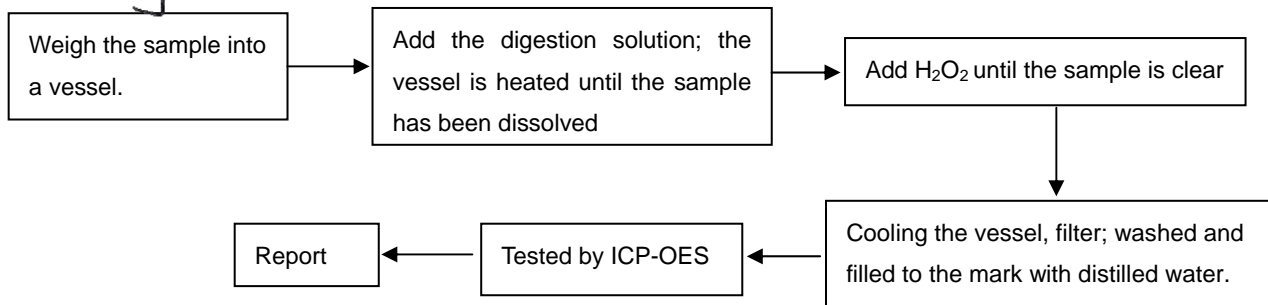
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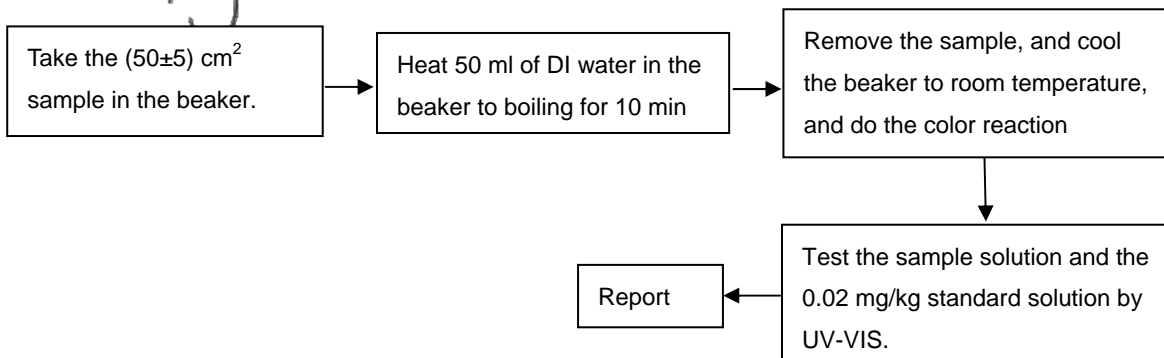
5. To Determine Lead, Cadmium Content (for metal):

Tested by: *Jure*



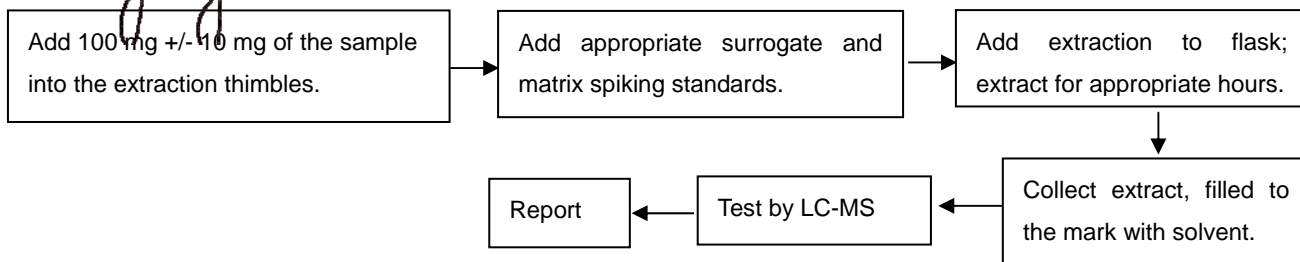
6. To Determine Hexavalent Chromium Content in metals (boiling- water- extraction):

Tested by: *Gary*



7. To Determine PFOS Content:

Tested by: *Young*



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**Test Results:**

Item	Unit	RoHS Limit	A	B
Lead (Pb)	mg/kg	1000	28334#	33.7
Cadmium (Cd)	mg/kg	100	N.D.	N.D.
Mercury (Hg)	mg/kg	1000	N.D.	N.D.
Chromium (CrVI)	mg/kg	1000	N.D.	/
Chromium(CrVI) by boiling water extraction	/	/	/	Negative

Flame Retardants	Unit	RoHS Limit	A
PBBs	mg/kg	1000	N.D.
MonoBB	mg/kg	/	N.D.
DiBB	mg/kg	/	N.D.
TriBB	mg/kg	/	N.D.
TetraBB	mg/kg	/	N.D.
PentaBB	mg/kg	/	N.D.
HexaBB	mg/kg	/	N.D.
HeptaBB	mg/kg	/	N.D.
OctaBB	mg/kg	/	N.D.
NonaBB	mg/kg	/	N.D.
DecaBB	mg/kg	/	N.D.
PBDEs	mg/kg	1000	N.D.
MonoBDE	mg/kg	/	N.D.
DiBDE	mg/kg	/	N.D.
TriBDE	mg/kg	/	N.D.
TetraBDE	mg/kg	/	N.D.
PentaBDE	mg/kg	/	N.D.
HexaBDE	mg/kg	/	N.D.
HeptaBDE	mg/kg	/	N.D.
OctaBDE	mg/kg	/	N.D.
NonaBDE	mg/kg	/	N.D.
DecaBDE	mg/kg	/	N.D.

Item	Unit	Limit	A
PFOS	mg/kg	1000	N.D.

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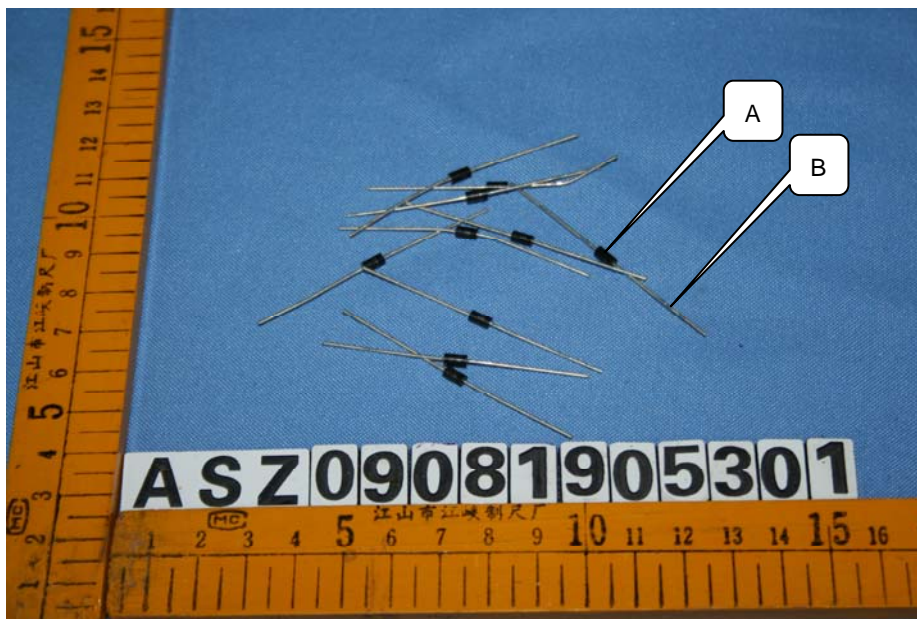
**Specimen Description:**

No.	Sample Description
A	Transient voltage surge suppressors body
B	Silvery metal

**Note:**

- Specimens, which requested to determine Cadmium, Mercury and Lead Content, have been dissolved completely.
- mg/kg=ppm
- N.D.=not detected(<MQL)
- MQL=Method Quantitation Limit
- Negative=Absence of Cr(VI);
- #The lead content in high melting temperature type solders is exempted by annex directive of 21 October 2005 amending directive 2002/95/EC notified under document 2005/747/EC
- Photo is included

**Photograph of Sample**



Transient voltage surge suppressors

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