

Test Report

No. : CE/2012/13756C Date : 2012/07/09 Page : 1 of 9

BOURNS, INC.
1200 COLUMBIA AVE. RIVERSIDE, CA 92507-2129, USA



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

Sample Description : GAS DISCHARGE TUBE
Style/Item No. : 2051/2054/2055/2045/2049/2052/2053/2056/2057/2061/2063/2087/2089/2093/2095/2097/2011
Sample Receiving Date : 2012/01/16
Testing Period : 2012/01/16 TO 2012/01/30

=====
Test Requested : (1) As specified by client, to test Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.

(2) As specified by client, to test Halogen-Fluorine, Chlorine, Bromine, Iodine contents in the submitted sample.

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

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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Test Report

No. : CE/2012/13756C Date : 2012/07/09 Page : 2 of 9

BOURNS, INC.
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Test Result(s)

PART NAME No.1 : SILVER COLORED METAL WIRE (INCLUDING THE PLATING LAYER) (0.8mm)
 PART NAME No.2 : SILVER COLORED METAL (INCLUDING THE PLATING LAYER)
 PART NAME No.3 : SILVER COLORED METAL (INCLUDING THE PLATING LAYER)
 PART NAME No.4 : WHITE CERAMIC/SILVER COLORED METAL
 PART NAME No.5 : BLUE INK

Test Item(s)	Unit	Method	MDL	Result				
				No.1	No.2	No.3	No.4	No.5
Cadmium (Cd)	mg/kg	With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.	n.d.	n.d.	n.d.	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.	n.d.	n.d.	n.d.	n.d.
Hexavalent Chromium Cr(VI)	**	With reference to IEC 62321: 2008 and performed by Boiling water extraction Method.	#	Negative	Negative	Negative	---	---
Hexavalent Chromium Cr(VI)	mg/kg	With reference to IEC 62321: 2008 and performed by UV-VIS.	2	---	---	---	n.d.	n.d.
Halogen								
Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	n.d.	n.d.	n.d.	n.d.
Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	n.d.	n.d.	n.d.	n.d.
Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	n.d.	n.d.	n.d.	n.d.
Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	n.d.	n.d.	n.d.	n.d.

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Test Report

No. : CE/2012/13756C Date : 2012/07/09 Page : 3 of 9

BOURNS, INC.
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Test Item(s)	Unit	Method	MDL	Result				
				No.1	No.2	No.3	No.4	No.5
Sum of PBBs	mg/kg	With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.	n.d.	n.d.	n.d.	n.d.
Monobromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Dibromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Tribromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Tetrabromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Pentabromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Hexabromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Heptabromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Octabromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Nonabromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Decabromobiphenyl			5	n.d.	n.d.	n.d.	n.d.	n.d.
Sum of PBDEs			-	n.d.	n.d.	n.d.	n.d.	n.d.
Monobromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.
Dibromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.
Tribromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.
Tetrabromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.
Pentabromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.
Hexabromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.
Heptabromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.
Octabromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.
Nonabromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.
Decabromodiphenyl ether			5	n.d.	n.d.	n.d.	n.d.	n.d.

Note :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated
5. ** = Qualitative analysis (No Unit)
6. # = a. Positive means the presence of CrVI on the tested areas
b. Negative means the absence of CrVI on the tested areas
The detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² tested areas.
7. "---" = Not Conducted
8. The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value.

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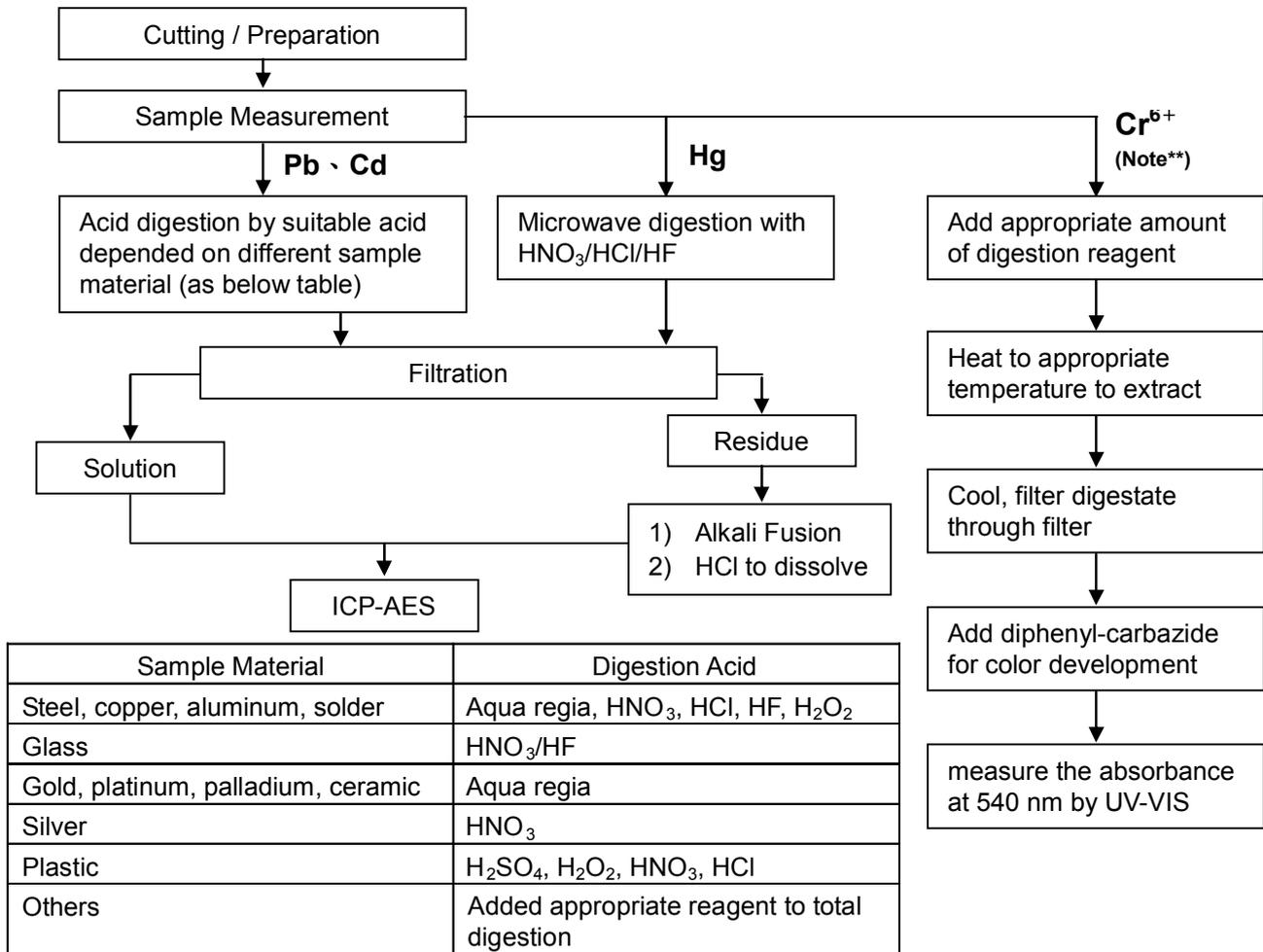
Test Report

No. : CE/2012/13756C Date : 2012/07/09 Page : 4 of 9

BOURNS, INC.
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- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)
- 2) Name of the person who made measurement: Climbgreat Yang
- 3) Name of the person in charge of measurement: Troy Chang



Note :** (1) For non-metallic material, add alkaline digestion reagent and heat to 90~95 °C.
(2) For metallic material, add pure water and heat to boiling.

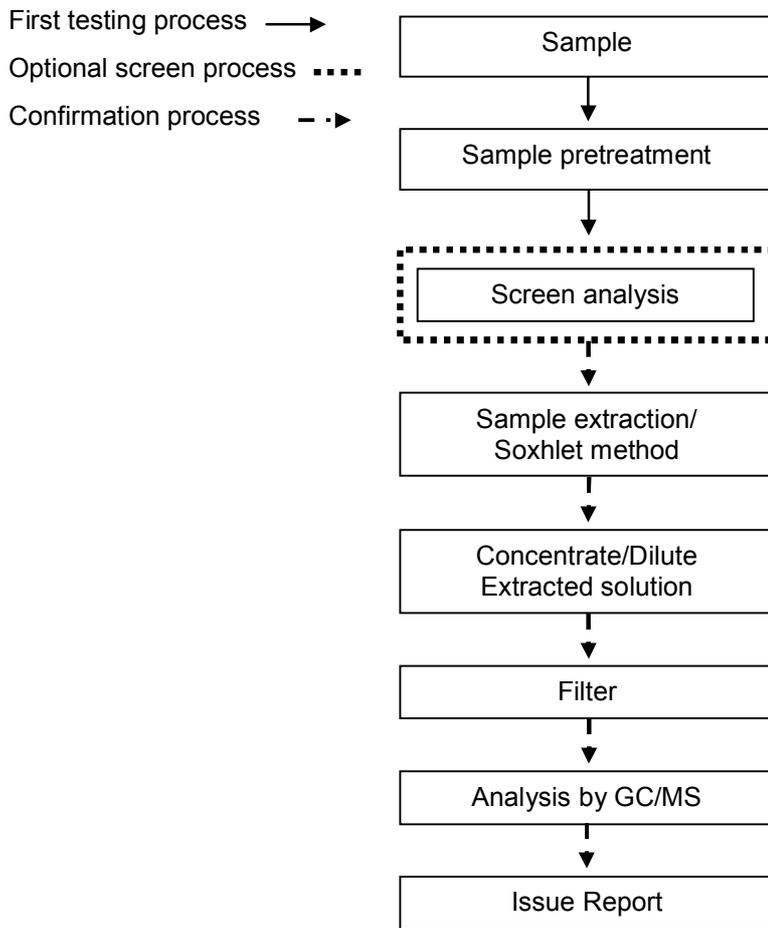
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PBB/PBDE analytical FLOW CHART

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



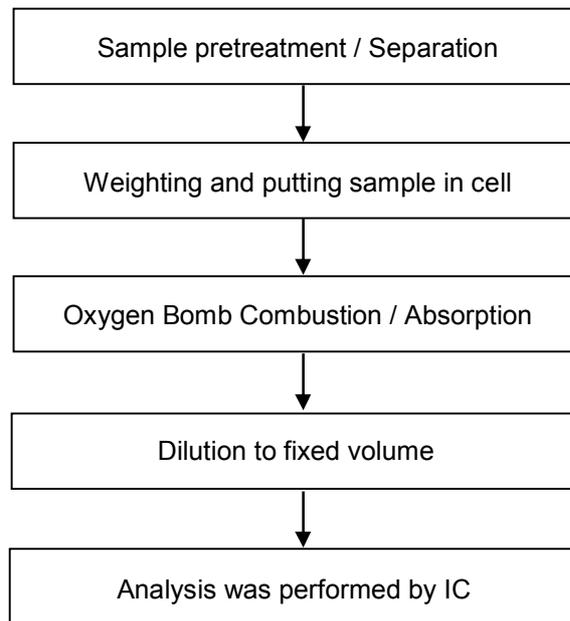
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Analytical flow chart of halogen content

- 1) Name of the person who made measurement: Rita Chen
- 2) Name of the person in charge of measurement: Troy Chang



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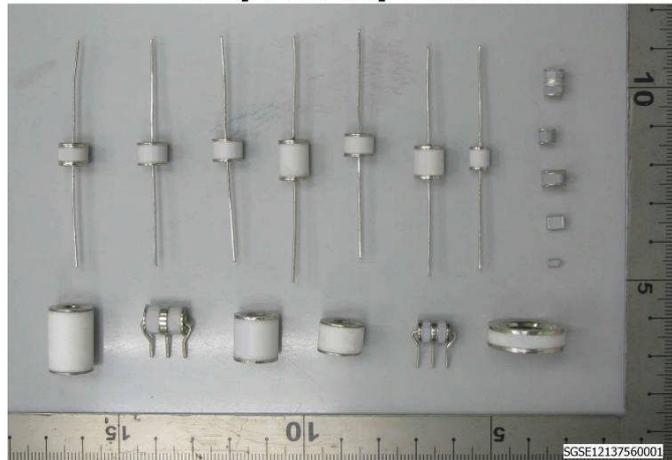
Test Report No. : CE/2012/13756C Date : 2012/07/09 Page : 7 of 9

BOURNS, INC.
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* The tested sample / part is marked by an arrow if it's shown on the photo. *

CE/2012/13756



CE/2012/13756 NO.1



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Test Report No. : CE/2012/13756C Date : 2012/07/09 Page : 8 of 9

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CE/2012/13756 NO.2



CE/2012/13756 NO.3



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Test Report No. : CE/2012/13756C Date : 2012/07/09 Page : 9 of 9

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CE/2012/13756 NO.4



CE/2012/13756 NO.5



**** End of Report ****

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