

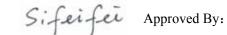
#### No.SET2015-08557

# **TEST REPORT**

Customer information	Client	SHENZHEN GAJITONE ELECTRONICS CO.,LTD.		
	Address	Room 1810, International Chamber of Commerce Building, Futian,		
	Address	Shenzhen, Guandong China PRC.		
	Name of sample	ALUMINUM ELECTROLYTIC CAPACITORS		
	Order No.			
Sample	Item No./Lot No.			
information	Manufacturer	SHENZHEN GAJITONE ELECTRONICS CO.,LTD.		
	Address	Room 1810, International Chamber of Commerce Building, Futian,		
		Shenzhen, Guandong China PRC.		
	Sample received	Jun. 17, 2015		
	Testing date	Jun. 17, 2015 ~ Jun. 23, 2015		
	Test sort	Commission Test		
	Requested/item	<ul><li>(1) Cd, Pb, Hg</li><li>(2) Cr(VI), PBBs, PBDEs</li></ul>		
Test information		<ul> <li>(1) According to IEC 62321-5:2013, Cadmium, lead and chromium in polymers and electronics and cadmium and lead in metals by ICP-OES</li> <li>According to IEC 62321-4:2013, Mercury in polymers, metals and</li> </ul>		
	Standard/Foundation	<ul> <li>electronics by ICP-OES</li> <li>(2) According to IEC 62321:2008, determination of Hexavalent Chromium by Colorimetric method, determination of PBBs and PBDEs by GC-MS</li> </ul>		
	Summary	The tested parts of submitted sample complied with RoHS directive (2011/65/EU).		
Remark				

Tested By:

Yangsu Ping Checked By:



Billow

Date:

Jun. 23, 2015

Date:

Jun. 23, 2015

Date:

Jun. 23, 2015

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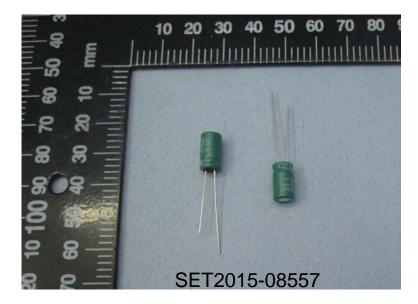
Add: Building 28/29, Shigudong, Xili Industrial Area, Xili Street, Nanshan District, Shenzhen, Guangdong, China (pc: 518055) http://www.ccic-set.com Tel: 0755-86913585, 26701907 Fax: 0755-26701436



## Tested components:

SAMPLE No.	COMPONENTS	COLOR AND MATERIAL	TEST ITEM	
1	Electrolyte	Electrolyte	Cd, Pb, Hg, Cr (VI), PBBs & PBDEs	
2	Aluminium shell	Aluminium shell	Cd, Pb, Hg, Cr (VI)	
3	Rubber plug	Rubber plug	Cd, Pb, Hg, Cr (VI), PBBs & PBDEs	
4	Down-lead	Down-lead	Cd, Pb, Hg, Cr (VI)	
5	Tube	Tube		
6	Aluminum foil	Aluminum foil	Cd, Pb, Hg, Cr (VI), PBBs & PBDEs	
7	Electrolytic paper	Electrolytic paper		

## Sample photo:





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### Test result:

SAMPLE No.	SAMPLE CONCENTRATION (mg/kg)				MDL	REQUIRED LIMIT
ITEM	1	2	3	4	(mg/kg)	(mg/kg)
Cd	N.D.	N.D.	N.D.	N.D.	2	<100
Cr(VI)	N.D.	* Negative	N.D.	* Negative	2	<1000
Hg	N.D.	N.D.	N.D.	N.D.	2	<1000
Pb	N.D.	N.D.	N.D.	N.D.	2	<1000
Monobromobiphenyl	N.D.	/	N.D.	/	5	
Dibromobiphenyl	N.D.	/	N.D.	/	5	
Tribromobiphenyl	N.D.	/	N.D.	/	5	
Tetrabromobiphenyl	N.D.	/	N.D.	/	5	
Pentabromobiphenyl	N.D.	/	N.D.	/	5	
Hexabromobiphenyl	N.D.	/	N.D.	/	5	
Heptabromobiphenyl	N.D.	/	N.D.	/	5	
Octabromobiphenyl	N.D.	/	N.D.	/	5	
Nonabromobiphenyl	N.D.	/	N.D.	/	5	
Decabromobiphenyl	N.D.	/	N.D.	/	5	
Polybrominated Biphenyls (PBBs)	N.D.	/	N.D.	/		<1000
Monobromodiphenyl ether	N.D.	/	N.D.	/	5	
Dibromodiphenyl ether	N.D.	/	N.D.	/	5	
Tribromodiphenyl ether	N.D.	/	N.D.	/	5	
Tetrabromodiphenyl ether	N.D.	/	N.D.	/	5	
Pentabromodiphenyl ether	N.D.	/	N.D.	/	5	
Hexabromodiphenyl ether	N.D.	/	N.D.	/	5	
Heptabromodiphenyl ether	N.D.	/	N.D.	/	5	
Octabromodiphenyl ether	N.D.	/	N.D.	/	5	
Nonabromodiphenyl ether	N.D.	/	N.D.	/	5	
Decabromodiphenyl ether	N.D.	/	N.D.	/	5	
Polybrominated Diphenyl ethers (PBDEs)	N.D.	/	N.D.	/		<1000
Conclusion (P/F)	Р	Р	Р	Р		

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Test Report

SAMPLE No.	SAMPLE C	CONCENTRAT	MDL	REQUIRED LIMIT	
ITEM	5	6	7	(mg/kg)	(mg/kg)
Cd	N.D.	N.D.	N.D.	2	<100
Cr(VI)	N.D.	N.D.	N.D.	2	<1000
Hg	N.D.	N.D.	N.D.	2	<1000
Pb	N.D.	N.D.	N.D.	2	<1000
Monobromobiphenyl	N.D.	N.D.	N.D.	5	
Dibromobiphenyl	N.D.	N.D.	N.D.	5	
Tribromobiphenyl	N.D.	N.D.	N.D.	5	
Tetrabromobiphenyl	N.D.	N.D.	N.D.	5	
Pentabromobiphenyl	N.D.	N.D.	N.D.	5	
Hexabromobiphenyl	N.D.	N.D.	N.D.	5	
Heptabromobiphenyl	N.D.	N.D.	N.D.	5	
Octabromobiphenyl	N.D.	N.D.	N.D.	5	
Nonabromobiphenyl	N.D.	N.D.	N.D.	5	
Decabromobiphenyl	N.D.	N.D.	N.D.	5	
Polybrominated Biphenyls (PBBs)	N.D.	N.D.	N.D.		<1000
Monobromodiphenyl ether	N.D.	N.D.	N.D.	5	
Dibromodiphenyl ether	N.D.	N.D.	N.D.	5	
Tribromodiphenyl ether	N.D.	N.D.	N.D.	5	
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	5	
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	5	
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	5	
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	5	
Octabromodiphenyl ether	N.D.	N.D.	N.D.	5	
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	5	
Decabromodiphenyl ether	N.D.	N.D.	N.D.	5	
Polybrominated Diphenyl ethers (PBDEs)	N.D.	N.D.	N.D.		<1000
Conclusion (P/F)	Р	Р	Р		

Note: P = Pass, F = Fail, MDL = Method Detection Limit, N.D. = Not Detected(<MDL).

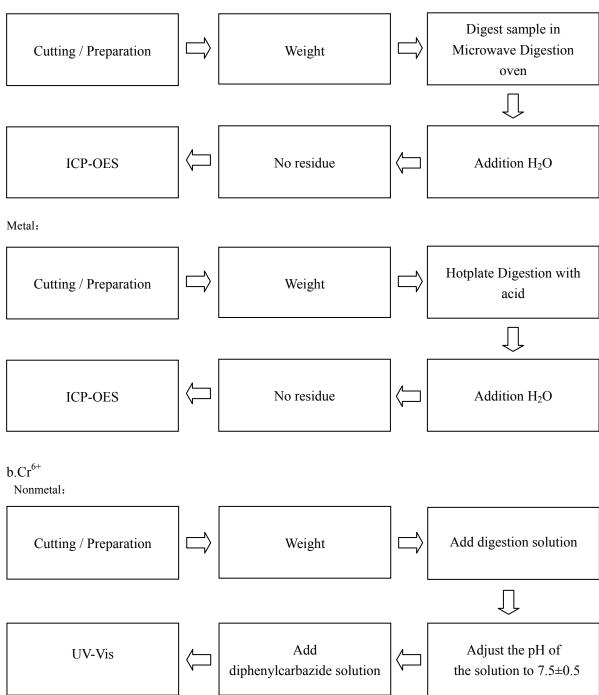
\*= According to the standard of IEC 62321:2008, Hexavalent Chromium test on the coating of metal by the method of Boiling Water Extraction, the acreage of sample should be 50 cm<sup>2</sup>. If the content of Hexavalent Chromium testing is above or equal to 0.02 mg/kg, the results of test indicate positive and contains Cr(VI), otherwise, it indicates negative.



Test Process:

a. Cd,Pb,Hg

Nonmetal:



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Test Report

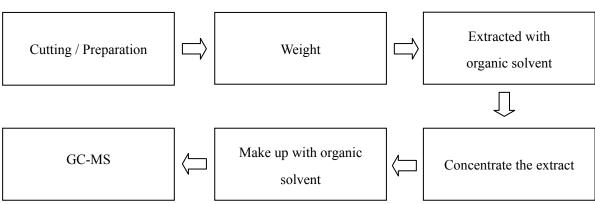
Add reagent to dissolve

Cooling to

room temperature

Metal: Cutting / Preparation UV-Vis Metal: Select a test piece measuring about 50cm<sup>2</sup>

#### c. PBBs&PBDEs



#### List of apparatus:

No.	Name	Model	Calibration Valid Date	USE(√)
1	ICP-OES	VISTA-MPX	2015/09/21	$\checkmark$
2	GC-MS	5975i	2015/09/21	$\checkmark$
3	UV-Vis	UV1100	2015/09/21	$\checkmark$

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

#### STATEMENT

- 1. This test laboratory is accredited by CNAS, Accreditation Certificate No.L1659.
- 2. The test report is invalid without stamp of laboratory.
- 3. The test report is invalid without signature of person(s) testing and authorizing.
- 4. The test report is invalid if erased and corrected.
- 5. Test results of the report is valid to the test samples if sampling by client.
- 6. " $\ddagger$ "item cannot be Accredited by CNAS.
- 7. The test report shall not be reproduced except in full, without written approval of the laboratory.
- 8. If there is any objection to report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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