

No. SH8038195/CHEM

Date: Mar. 28, 2008

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CHANGZHOU HUAWEI ELECTRONIC CO., LTD SHIQIAO, ZOUQU TOWN, WUJIN DISTRICT, CHANGZHOU CITY

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

Sample Name

: ALUMINUM ELECTROLYTIC CAPACITOR

SGS Ref No.

: 10906693-3

Main Substance

: 1. ANODE FOIL, 2. CATHODE FOIL, 3 SEPARATOR, 4.ELECTROLYTE, 5.RUBBER,

6. AL CASE, 7. LEAD WIRE 8. PLASTICS TUBE, 9 INK

Sample Receiving Date: Mar.22, 2008, Mar.25, 2008

Testing Period

: Mar.22 - 28, 2008

Test Requested

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

Test Method

: (1) With reference to IEC 62321/2nd CDV (111/95/CDV) for Cadmium content.

Analysis was performed by ICP.

(2) With reference to IEC 62321/2nd CDV (111/95/CDV) for Lead content.

Analysis was performed by ICP and AAS.

(3) With reference to IEC 62321/2nd CDV (111/95/CDV) for Mercury content.

Analysis was performed by ICP.

(4) With reference to IEC 62321/2nd CDV (111/95/CDV) for Hexavalent

Chromium by spot test / Colorimetric Method.

(5) With reference to IEC 62321/2nd CDV (111/95/CDV) for PBBs / PBDEs content.

Analysis was performed by GC/MS.

Test Results

: Please refer to next pages

中国 - 上海 - 宜山路889号3号楼10层

Signed for and on behalf of SGS-CSTC Chemical Laboratory

> Ella Zhang Section Manager

Signed for and on behalf of GS-CSTC Chemical Laboratory

8 Ceco

hdy Hao ab Manager

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HL: (86-21) 61402594

HL: (86-21) 54500353

www.cn.sgs.com

e sgs.china@sgs.com



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

Test Item(s):	Method (refer to)	1	2	3	MDL	RoHS
Cadmium(Cd)	(1)	ND	ND	ND	2	100
Lead (Pb)	(2)	ND	ND	ND	2	1000
Mercury (Hg)	(3)	ND	ND	ND	2	
Hexavalent Chromium (CrVI)	(4)	NDO	NDO	ND	2	1000
Sum of PBBs	(.,			ND		
Monobromobiphenyl				ND	-	1000
Dibromobiphenyl				ND	5	-
Tribromobiphenyl				ND	5	-
Tetrabromobiphenyl	(5)			ND		-
Pentabromobiphenyl					5	-
Hexabromobiphenyl				ND	5	-
Heptabromobiphenyl				ND	5	-
Octabromobiphenyl				ND	5	-
Nonabromobiphenyl				ND	5	-
Decabromobiphenyl				ND	5	-
Sum of PBDEs (Note 4)				ND ND	5	-
Monobromodiphenyl ether				7.17	-	1000
Dibromodiphenyl ether				ND	5	-
Tribromodiphenyl ether	-			ND	5	-
Tetrabromodiphenyl ether				ND	5	-
Pentabromodiphenyl ether				ND	5	-
Hexabromodiphenyl ether				ND	5	-
Heptabromodiphenyl ether				ND	5	-
Octabromodiphenyl ether				ND	5	-
Nonabromodiphenyl ether				ND	5	-
Decabromodiphenyl ether				ND	5	-
Sum of PBDEs (Mono to Deca)				ND	5	-
Zam or r DDL3 (Mono to Deca)				ND	-	-

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Test Item(s):	Method (refer to)	4	<u>5</u>	<u>6</u>	MDL	RoHS Limit
Cadmium(Cd)	(1)	ND	ND	ND	2	100
Lead (Pb)	(2)	ND	13	6	2	1000
Mercury (Hg)	(3)	ND	ND	ND	2	1000
Hexavalent Chromium (CrVI)	(4)	ND	ND		2	1000
Hexavalent Chromium (CrVI) by Spot test / boiling water extraction	(4)			Negative	See Note (5)	#
Sum of PBBs	-	ND	ND		-	1000
Monobromobiphenyl		ND	ND		5	-
Dibromobiphenyl		ND	ND		5	-
Tribromobiphenyl		ND	ND		5	-
Tetrabromobiphenyl	7 1	ND	ND		5	-
Pentabromobiphenyl		ND	ND		5	-
Hexabromobiphenyl		ND	ND		5	-
Heptabromobiphenyl		ND	ND		5	-
Octabromobiphenyl		ND	ND		5	-
Nonabromobiphenyl		ND	ND		5	-
Decabromobiphenyl	(5)	ND	ND		5	-
Sum of PBDEs (Note 4)		ND	ND		-	1000
Monobromodiphenyl ether		ND	ND		5	-
Dibromodiphenyl ether		ND	ND		5	-
Tribromodiphenyl ether		ND	ND		5	-
Tetrabromodiphenyl ether		ND	ND		5	-
Pentabromodiphenyl ether		ND	ND		5	-
Hexabromodiphenyl ether		ND	ND		5	
Heptabromodiphenyl ether		ND	ND		5	-
Octabromodiphenyl ether		ND	ND		5	-
Nonabromodiphenyl ether		ND	ND		5	-
Decabromodiphenyl ether		ND	ND		5	-
Sum of PBDEs (Mono to Deca)		ND	ND		-	-

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Test Item(s):	Method (refer to)	7	8	9	MDL	RoHS Limit
Cadmium(Cd)	(1)	ND	ND	ND	2	100
Lead (Pb)	(2)	ND	ND	ND	2	1000
Mercury (Hg)	(3)	ND	ND	ND	2	1000
Hexavalent Chromium (CrVI)	(4)		ND	ND	2	1000
Hexavalent Chromium (CrVI) by Spot test / boiling water extraction	(4)	Negative			See Note (5)	#
Sum of PBBs			ND	ND	-	1000
Monobromobiphenyl			ND	ND	5	-
Dibromobiphenyl			ND	ND	5	-
Tribromobiphenyl			ND	ND	5	-
Tetrabromobiphenyl			ND	ND	5	-
Pentabromobiphenyl			ND	ND	5	-
Hexabromobiphenyl	(5)		ND	ND	5	-
Heptabromobiphenyl			ND	ND	5	-
Octabromobiphenyl			ND	ND	5	-
Nonabromobiphenyl			ND	ND	5	-
Decabromobiphenyl			ND	ND	5	-
Sum of PBDEs (Note 4)			ND	ND	-	1000
Monobromodiphenyl ether			ND	ND	5	-
Dibromodiphenyl ether	7		ND	ND	5	-
Tribromodiphenyl ether			ND	ND	5	-
Tetrabromodiphenyl ether			ND	ND	5	-
Pentabromodiphenyl ether			ND	ND	5	-
Hexabromodiphenyl ether			ND	ND	5	-
Heptabromodiphenyl ether			ND	ND	5	-
Octabromodiphenyl ether			ND	ND	5	-
Nonabromodiphenyl ether			ND	ND	5	-
Decabromodiphenyl ether			ND	ND	5	-
Sum of PBDEs (Mono to Deca)			ND	ND	-	-

Test Part Description:

- 1. Grey metal anode foil
- 2. Silvery metal cathode foil
- Beige-yellow separator
- 4. Electrolyte
- 5. Black plastic pellet
- Silver metal shell
- 7. Silvery metal pin
- 8. Black plastic tube
- 9. White ink

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Note:

- (1) mg/kg = ppm
- (2) ND = Not Detected
- (3) MDL = Method Detection Limit
- (4) Sum of Mono to NonaBDE & according to 2005/717/EC DecaBDE is exempt.
- (5) 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 cm² sample surface area.

- (6) # = Positive indicates the presence of Hexavalent Chromium on the tested areas Negative indicates the absence of CrVI on the tested areas.
- (7) "-" = Not Regulated
- (8) "---" = Not Conducted
- (9) The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2002/95/EC
- (10) Hexavalent Chromium was absent on the surface of the metal sample. Analysis was performed by IEC 62321/2nd CDV (111/95/CDV) spot-test/boiling-water-extraction.

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Sample photo:





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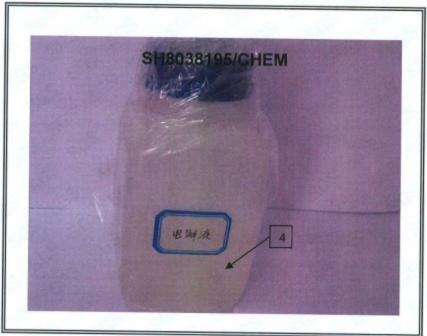


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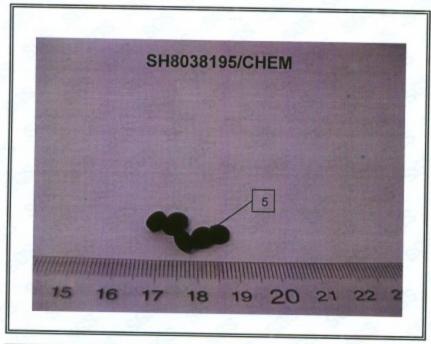
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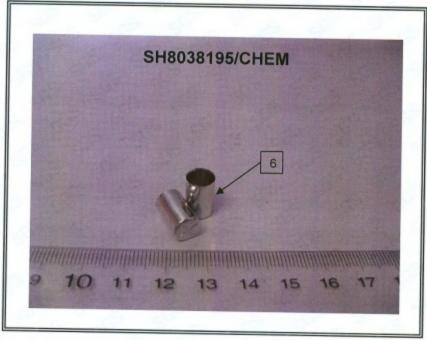


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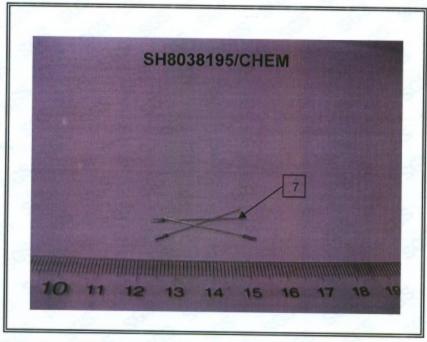
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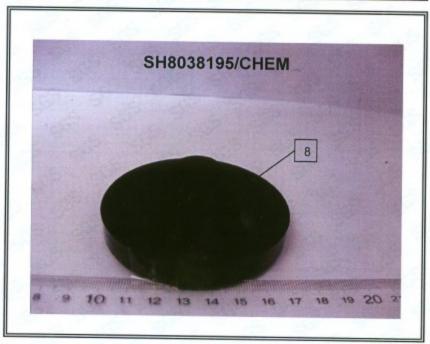


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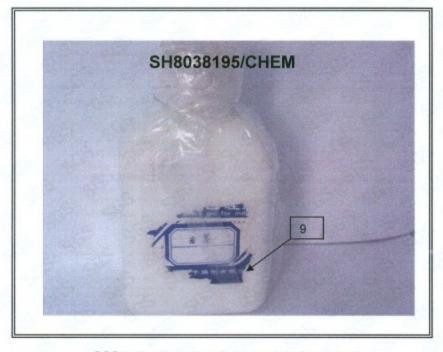
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