



Centre of Testing Service

# TEST REPORT

**RoHS 2002/95/EC**

**Report No.:**

**CNB070831-01390-C**

**CENTRE OF TESTING SERVICE**

**Fl.2 South Huoju Building, No.181 Canghai Rd., Jianguo High-tech Park, Ningbo China**

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## TEST REPORT

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### 1 General Information

#### 1.1 Application Details

Name : CHANGZHOU CITY TONGDE ELECTRIC APPLIANCE  
EQUIPMENT CO., LTD.  
Address : NO. 45 YINGBIN ROAD, ZHENGLU TOWN, WUJIN DISTRICT,  
CHANGZHOU CITY, JIANGSU PROVINCE  
Country : CHINA  
Telephone : +86-519-83970332  
Fax : +86-519-83978500  
Contact : WENYAN CUI  
Telephone : +86-519-83970332

#### 1.2 Description of the Test Item

Type of product : LEAD-ACID BATTERY  
Type identification : TDQ-1D  
Brand name : /

#### 1.3 Directive

**2002/95/EC**

Restriction of the use of certain hazardous substances in electrical and electronic equipment  
27 January 2003

*in connection with:*

**2002/96/EC**

*Waste electrical and electronic equipment*  
27 January 2003

**2005/618/EC**

Establishing the maximum concentration values for certain hazardous substances in electrical and  
electronic equipment  
18 August 2005

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## 2 Survey report

### 2.1 Description of the Sample

Product: LEAD-ACID BATTERY  
Type: TDQ-1D  
Brand name: /

### 2.2 Sample Receiving Date

Aug. 31, 2007

### 2.3 Testing Period

Sep. 1, 2007 to Oct. 8, 2007

### 2.4 Requested

To combine the test reports for the submitted sample and test un-tested items.

### 2.5 Survey Report Contents

Test report	Report No	Issue date
	SGS SH6147290/CHEM	2006.12.08
	TUV TRHZPR0604422	2006.04.27

Conclusion: Based on the reports submitted by applicant, CTS quote the test data from the original reports as following



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### Survey part

Part name No.1	:	PVC (RED)
Model	:	PVC (RED)
Vendor	:	LTK WIRING CO., LTD.
Report No	:	SGS SH6147290/CHEM
Part name No.2	:	PVC 塑料粒子 (黄色)
Model	:	/
Vendor	:	余姚市泗门镇吉方线材厂
Report No	:	TUV TRHZPR0604422

### Test Data Summary

Item		Pb	Cd	Hg	Cr <sup>6+</sup>	PBBs	PBDEs
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit		1000	100	1000	1000	1000	1000
Part No.1 PVC(RED)	Red plastic	4	N.D.	N.D.	N.D.	N.D.	N.D.
Part No.2	PVC 塑料粒子 (黄色)	466.96	N.D.	N.D.	3.08	N.D.	N.D.

Note : 1. N.D.=Not detected (<MDL)  
 2. N.A.=Not applicable  
 3. N.C.=Not conducted  
 4. 1mg/kg=1ppm=0.0001%

Disclaim : 1. The method detect limit of other labs may be different from that of CTS.  
 2. CTS takes no responsibility for any mistakes caused by inaccurate and/or invalid information submitted by the applicant.



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**3 Test result of Selective Test**

**3.1 Test Requested**

As specified by applicant, to determine the Lead, Cadmium, Mercury, Hexavalent Chromium and PBBs & PBDEs content in the submitted sample in accordance with Directive 2002/95/EC (RoHS).

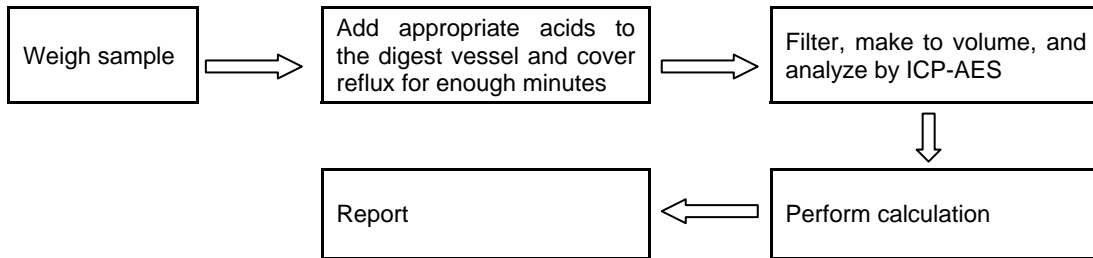
**3.2 Test Method**

Test Item(s)	Test Method	Test Instrument	MDL
Lead (Pb)	Refer to US EPA3050B	ICP-AES	2mg/kg
Cadmium (Cd)	Refer to EN1122:2001B	ICP-AES	2mg/kg
Mercury (Hg)	Refer to US EPA3052	ICP-AES	2mg/kg
Chromium (Cr VI)	Refer to US EPA3060A & US EPA 7196A	UV-Vis	2mg/kg
PBBs	Refer to US EPA3540C	GC-MS	5mg/kg
PBDEs	Refer to US EPA3540C	GC-MS	5mg/kg

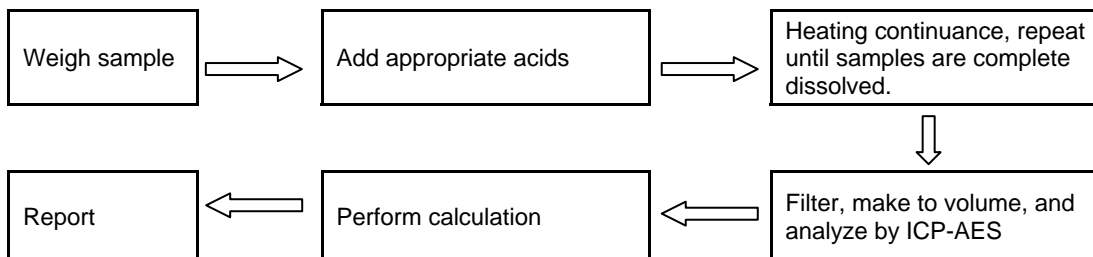
Remark: MDL= Method Detect Limit

**3.3 Test Method Flow Chart**

1. EPA3050B:



2. EN1122 2001 method B:



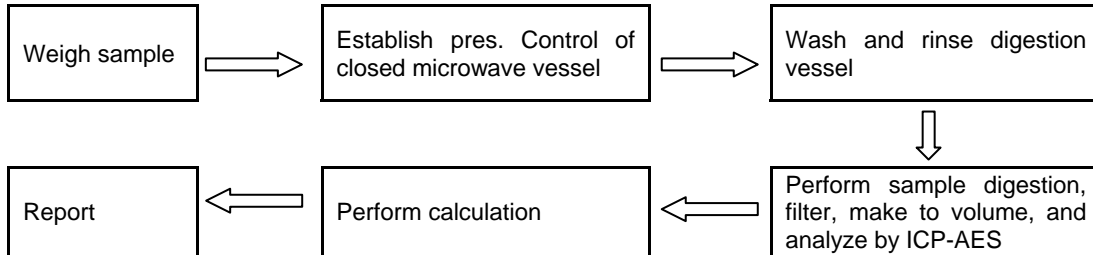
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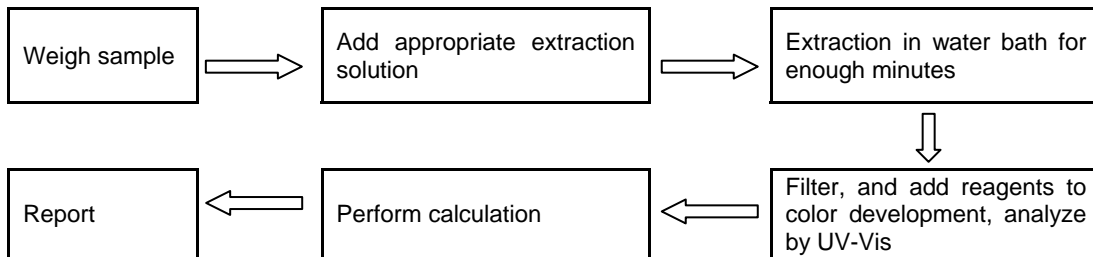
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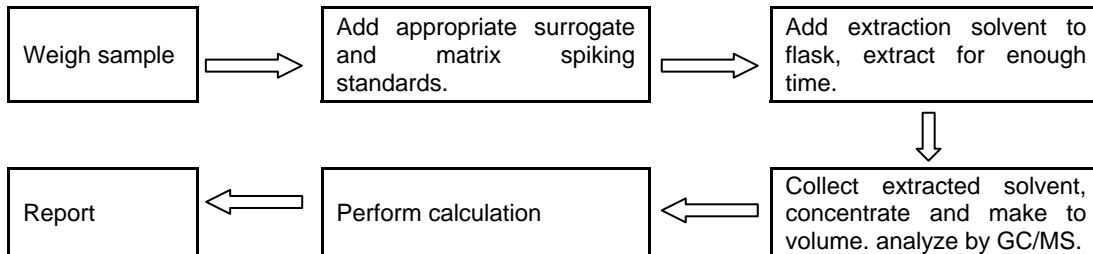
### 3. EPA3052:



### 4. EPA3060A & EPA 7196A:



### 5. EPA3540C:



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### 3.4 Test Results

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

Test Item(s)	Unit	Limit	Result				
			No.1	No.2	No.3	No.4	No.5
Lead (Pb)	mg/kg	1000	104	185	108	147	152
Cadmium (Cd)	mg/kg	100	9	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Chromium VI (CrVI)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBBs	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Monobromobiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Dibromobiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Tibromobiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrabromobiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Pentabromobiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Hexabromobiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Heptabromobiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Octabromobiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Nonabromodiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Decabromodiphenyl	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBDEs	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Monobromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Dibromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Tibromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrabromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Pentabromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Hexabromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Heptabromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Octabromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Nonabromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.
Decabromodiphenyl ether	mg/kg	---	N.D.	N.D.	N.D.	N.D.	N.D.

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Test Item(s)	Unit	Limit	Result				
			No.6	No.7	No.8	No.9	No.10
Lead (Pb)	mg/kg	1000	8188*	N.C.	N.C.	N.C.	N.C.
Cadmium (Cd)	mg/kg	100	6	N.D.	N.C.	71	11
Mercury (Hg)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Chromium VI (CrVI)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBBs	mg/kg	1000	N.A.	N.A.	N.A.	N.A.	N.A.
Monobromobiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Dibromobiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Tribromobiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Tetrabromobiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Pentabromobiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Hexabromobiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Heptabromobiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Octabromobiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Nonabromodiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Decabromodiphenyl	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Sum of PBDEs	mg/kg	1000	N.A.	N.A.	N.A.	N.A.	N.A.
Monobromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Dibromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Tribromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Tetrabromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Pentabromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Hexabromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Heptabromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Octabromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Nonabromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.
Decabromodiphenyl ether	mg/kg	---	N.A.	N.A.	N.A.	N.A.	N.A.

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Test Item(s)	Unit	Limit	Result				
			No.11	No.12	No.13	No.14	No.15
Lead (Pb)	mg/kg	1000	N.C.	22	708	301	433
Cadmium (Cd)	mg/kg	100	N.C.	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Chromium VI (CrVI)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBBs	mg/kg	1000	N.A.	N.D.	N.D.	N.D.	N.A.
Monobromobiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Dibromobiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Tibromobiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Tetrabromobiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Pentabromobiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Hexabromobiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Heptabromobiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Octabromobiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Nonabromodiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Decabromodiphenyl	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Sum of PBDEs	mg/kg	1000	N.A.	N.D.	N.D.	N.D.	N.A.
Monobromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Dibromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Tibromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Tetrabromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Pentabromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Hexabromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Heptabromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Octabromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Nonabromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.
Decabromodiphenyl ether	mg/kg	---	N.A.	N.D.	N.D.	N.D.	N.A.

Test Part Description :

- No.1 : Green plastic shell
- No.2 : White plastic cover
- No.3 : Black rubber cover
- No.4 : Red marking glue

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No.5 : Blue marking blue  
No.6 : Silvery wiring terminal  
No.7 : Electricity A bus bar  
No.8 : Anode board gridding  
No.9 : Filler of the anode board gridding  
No.10 : Cathode board gridding  
No.11 : Filler of the cathode board gridding  
No.12 : Clapboard with electrolyte  
No.13 : Blue plastic jacket of the lead  
No.14 : Black pyrocondensation tube of the lead  
No.15 : Cupreous wire of the lead

Note : 1. Specimens, which requested to determine Cadmium, Mercury and Lead Content, have been dissolved completely  
2. N.D. = not detected (less than MDL)  
3. N.A. = not applicable  
4. N.C. = not conducted  
5. 1mg/kg=1ppm=0.0001%  
6. The test results only apply to the materials requested by applicant.  
7. \* Sample No.6 is copper alloy. The lead content which is under 4% (40000ppm) is exempted from the requirement of RoHS Directive (2002/95/EC).

Written by: *Tracy*

Inspected by: *Theresa*

Approved by: *Jerry*

Jerry Hu  
CHEMICAL MANAGER



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

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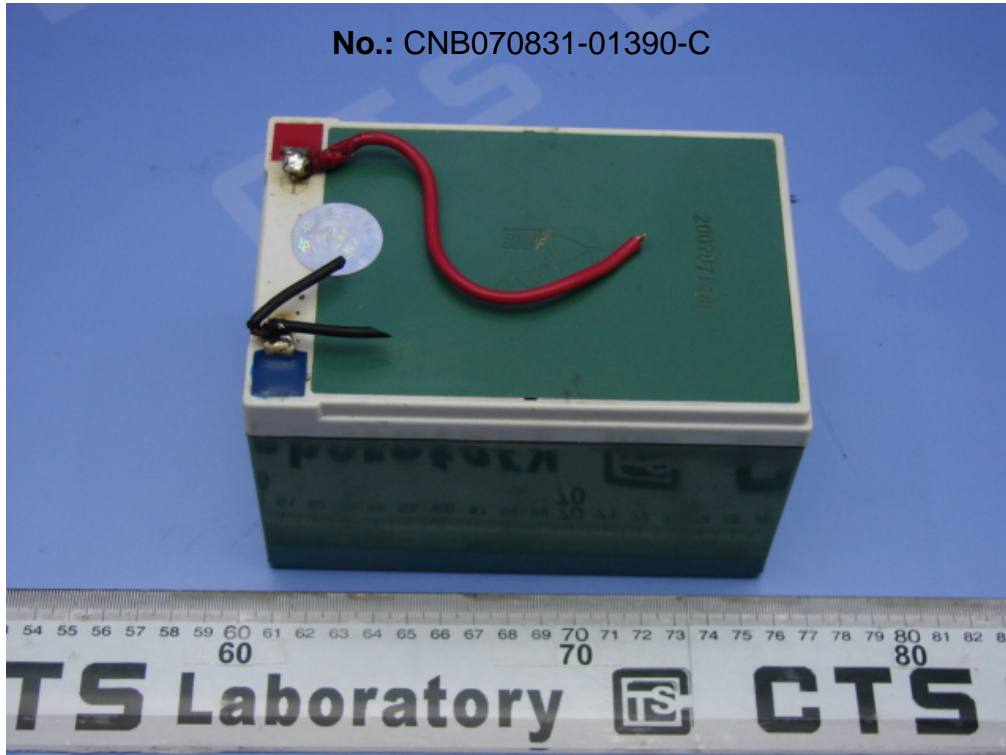
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**4 Sample Reference Photo**



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