



# Test Report

Report No. A2190075088101001

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**Applicant** BEKEN CORPORATION

**Address** BUILDING 41, CAPITAL OF TECH LEADERS, 1387 ZHANGDONG ROAD, ZHANGJIANG  
HIGH-TECH PARK, PUDONG NEW DISTRICT, SHANGHAI, 201203, CHINA

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

Sample Name(s) QFN4\*4  
Part No. BK3266QN32  
Client Reference Information Please refer to page 7  
Sample Received Date Apr. 8, 2019  
Testing Period Apr. 8, 2019 to Apr. 11, 2019

**Test Requested** As specified by client, to test Lead(Pb), Cadmium(Cd), Mercury(Hg),  
Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs),  
Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP,  
DIBP) in the submitted sample(s).

**Test Method/Test Result(s)** Please refer to the following page(s).

Tested by

*Li Zhengsu*

Reviewed by

*Taoying*

Approved by

*Chen Kaimin*

Date

Apr. 11, 2019

Chen kaimin  
Lab Manager

No. R188383276

Centre Testing International Pinbiao(Shanghai) Co., Ltd.

No. 1996, Xinqiniao Road, Pudong New District, Shanghai, China



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## Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead(Pb)	IEC 62321-5:2013	ICP-OES
Cadmium(Cd)	IEC 62321-5:2013	ICP-OES
Mercury(Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
	IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
Polybrominated Biphenyls(PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS

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## Test Result(s)

Tested Item(s)	Result		MDL
	001	002	
Lead (Pb)	N.D.	12 mg/kg	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	--	8 mg/kg
	--	N.D. ▼	0.10 µg/cm <sup>2</sup> (LOQ)

Tested Item(s)	Result	MDL
	001	
Polybrominated Biphenyls(PBBs)		
Monobromobiphenyl	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	5 mg/kg

Tested Item(s)	Result	MDL
	001	
Polybrominated Diphenyl Ethers (PBDEs)		
Monobromodiphenyl ether	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	5 mg/kg

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Tested Item(s)	Result	MDL
	001	
Phthalates (DBP, BBP, DEHP, DIBP)		
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg

## Tested Sample/Part Description

001 Black body with silvery metal pin

002 Silvery metal

**Remark:** The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL or LOQ)

-mg/kg = ppm = parts per million

-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10  $\mu\text{g}/\text{cm}^2$

-▼The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10  $\mu\text{g}/\text{cm}^2$ . The coating is considered a non-Cr(VI) based coating.

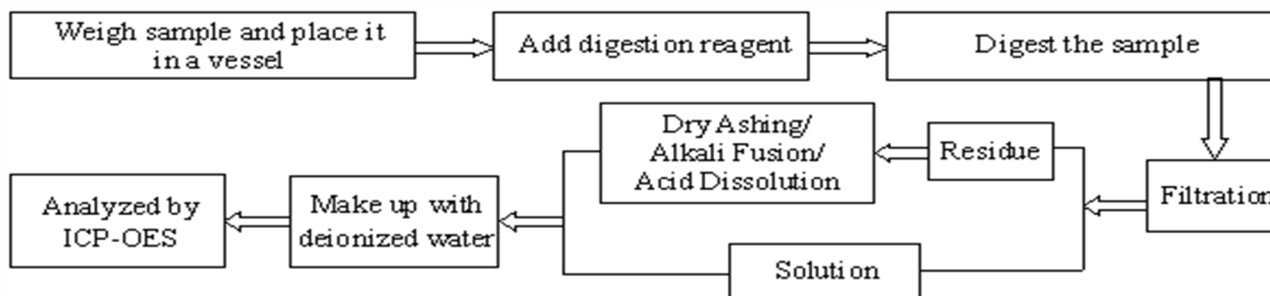
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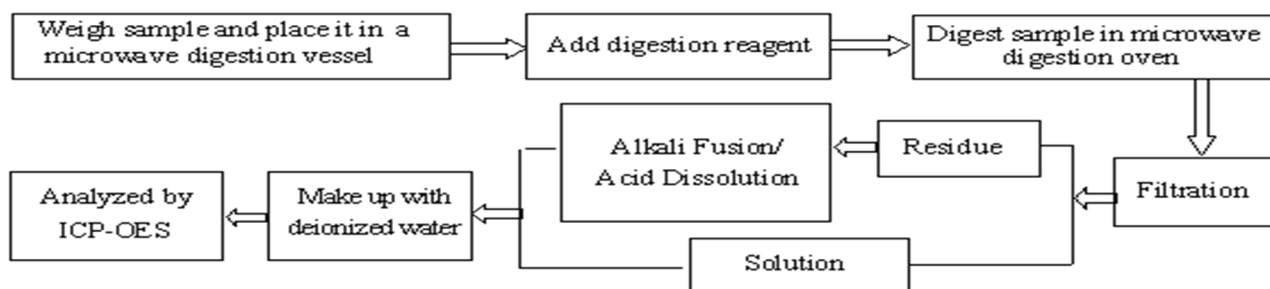
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## Test Process

### 1. Lead(Pb), Cadmium(Cd), Chromium(Cr)

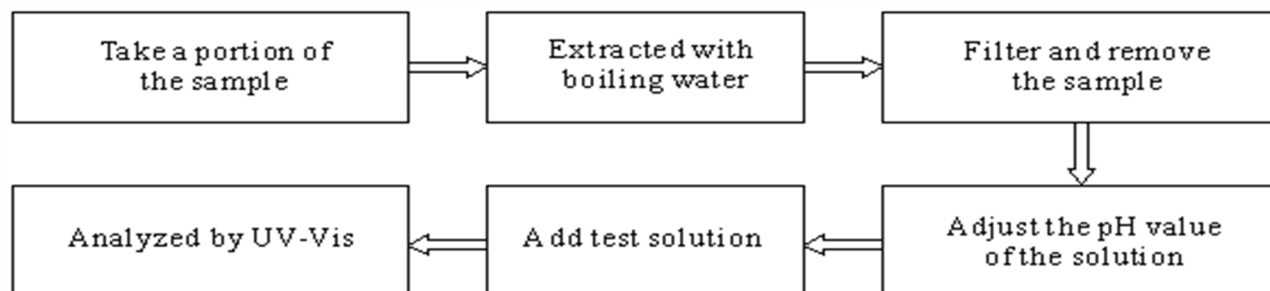


### 2. Mercury(Hg)

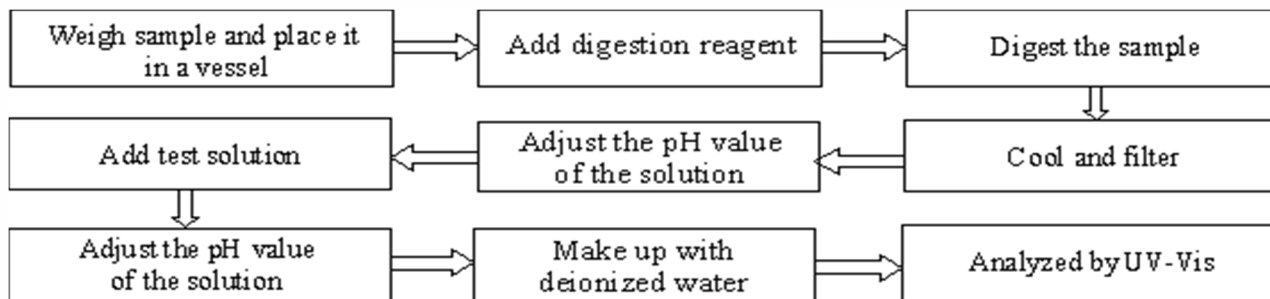


### 3. Hexavalent Chromium(Cr(VI))

#### (1) IEC 62321-7-1:2015



#### (2) IEC 62321-7-2:2017

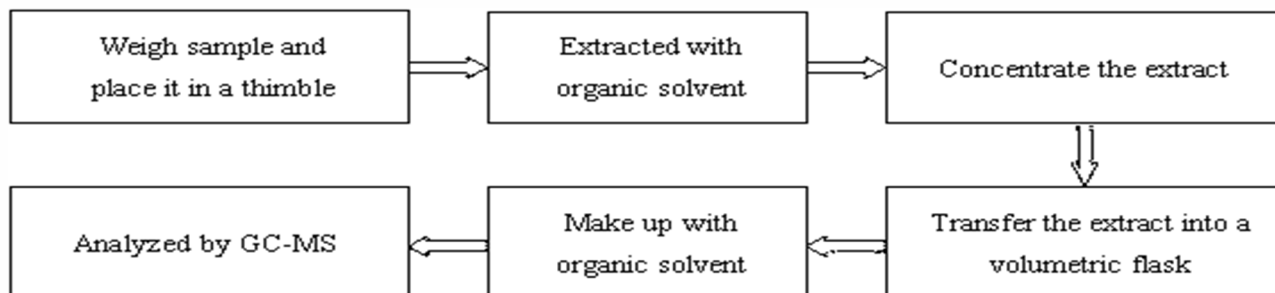


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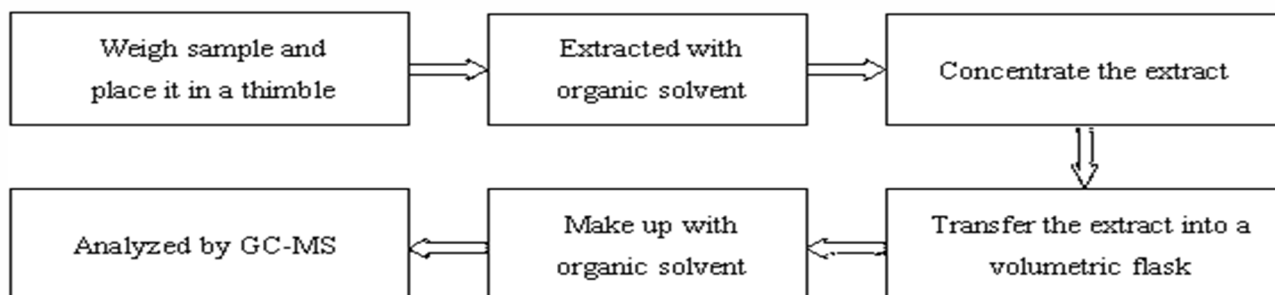
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## 4. Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers (PBDEs)



## 5. Phthalates (DBP, BBP, DEHP, DIBP)



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## Client Reference Information

QFN4\*4可覆盖型号:

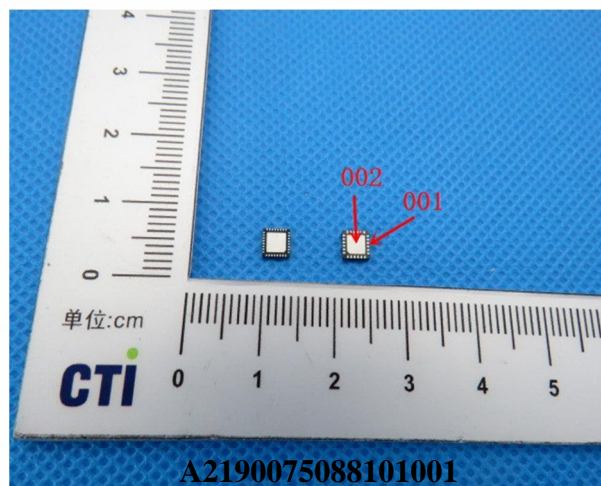
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## Photo(s) of the sample(s)



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

### Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The sample(s) and sample information was/were provided by the client who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
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