

Test Report

Report No. ECL03G003062R1

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Applicant JINLONG MACHINERY & ELECTRONIC CO.,LTD
Address JINLONG SCIENCE & TECHNOLOGY PARK, JIN GANG AVENUE,
BAIXIANG , YUEQING , ZHEJIANG

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

Product Name Please refer to the following page(s)
Sample Name Please refer to the following page(s)
Sample Received Date Nov. 4, 2014
Testing Period Nov. 4, 2014 to Nov. 11, 2014

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyl(PBBs), Polybrominated Diphenyl Ethers(PBDEs), Fluorine(F), Chlorine(Cl), Bromine(Br), Iodine(I) in the submitted sample(s).

Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium (Cr(VI))	IEC 62321:2008 Ed.1 Annex B	UV-Vis
	IEC 62321:2008 Ed.1 Annex C	
Polybrominated Biphenyls (PBBs)	IEC 62321:2008 Ed.1 Annex A	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321:2008 Ed.1 Annex A	GC-MS
Fluorine(F)	Refer to BS EN 14582:2007	IC
Chlorine(Cl)	Refer to BS EN 14582:2007	IC
Bromine(Br)	Refer to BS EN 14582:2007	IC
Iodine(I)	Refer to BS EN 14582:2007	IC

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

Tested by Xixi Pan

Reviewed by Lin Zhang

Approved by Wei Miao

Date Nov. 14, 2014



Wei Miao
Approved Signatory

No. R138209676

Centre Testing International(Ningbo)Co.,Ltd. 7-8/F.,Building A,No.750.Chuangyuan Road,Gaoxin District,Ningbo,Zhejiang,China

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

No.	Product Name	Sample Name
1	cylinder series motor	Magnet
2		Bearing house
3		house
4		bearing
5		Fixed ring
6		snap ring
7		shaft
8		segments
9		brushes
10		Spring
11		insertion contacts
12		Lead wire
13		counter weight
14		bracket
15		Enameled wire
16		plastic
17		Washer
18		Rubber
19		Lead wire (red)
20		Lead wire (black)
21		Lead wire (blue)
22		end cap
23		Adhesive tape

Test Result(s)

Tested Item(s)	Result(mg/kg)					MDL	Limit of Directive 2011/65/EU
	1	2	3	4	5		
Lead (Pb)	N.D.	2582 ^{#1}	N.D.	27	3645 ^{#2}	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	—	—	—	—	—	2 mg/kg	1000 mg/kg
	Negative	Negative	Negative	Negative	Negative	/	

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Test Result(s)

Tested Item(s)	Result(mg/kg)					MDL	Limit of Directive 2011/65/EU
	6	7	8	9	10		
Lead (Pb)	N.D.	N.D.	N.D.	11	62	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	4	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	—	—	—	—	—	2 mg/kg	1000 mg/kg
	Negative	Negative	Negative	Negative	Negative	/	

Tested Item(s)	Result(mg/kg)					MDL	Limit of Directive 2011/65/EU
	11	12	13	14	15		
Lead (Pb)	37	N.D.	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	—	—	—	—	N.D.	2 mg/kg	1000 mg/kg
	Negative	Negative	Negative	Negative	—	/	

Tested Item(s)	Result(mg/kg)					MDL	Limit of Directive 2011/65/EU
	16	17	18	19	20		
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
	—	—	—	—	—	/	

Tested Item(s)	Result(mg/kg)			MDL	Limit of Directive 2011/65/EU
	21	22	23		
Lead (Pb)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
	—	—	—	/	

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Test Result(s)

Tested Item(s)	Result(mg/kg)					MDL	Limit of Directive 2011/65/EU
	15	16	17	18	19		
Polybrominated Biphenyls(PBBs)							
Monobromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	1000 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Tribromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Tetrabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Pentabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Hexabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Heptabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Octabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Nonabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Decabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Polybrominated Diphenyl Ethers(PBDEs)							
Monobromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	1000 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Tribromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Octabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Decabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	5 mg/kg	

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Test Result(s)

Tested Item(s)	Result(mg/kg)				MDL	Limit of Directive 2011/65/EU
	20	21	22	23		
Polybrominated Biphenyls(PBBs)						
Monobromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	1000 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Tribromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Tetrabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Pentabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Hexabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Heptabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Octabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Nonabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Decabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Polybrominated Diphenyl Ethers(PBDEs)						
Monobromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	1000 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Tribromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Octabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	
Decabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg	

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Test Result(s)

Tested Item(s)	Result					MDL
	15	16	17	18	19	
Halogen(s)						
Fluorine (F)	N.D.	246	N.D.	N.D.	N.D.	10 mg/kg
Chlorine (Cl)	N.D.	N.D.	N.D.	N.D.	164	10 mg/kg
Bromine (Br)	N.D.	N.D.	N.D.	N.D.	N.D.	10 mg/kg
Iodine (I)	N.D.	N.D.	N.D.	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result				MDL
	20	21	22	23	
Halogen(s)					
Fluorine (F)	N.D.	N.D.	262	N.D.	10 mg/kg
Chlorine (Cl)	N.D.	185	N.D.	N.D.	10 mg/kg
Bromine (Br)	N.D.	N.D.	N.D.	N.D.	10 mg/kg
Iodine (I)	N.D.	N.D.	N.D.	N.D.	10 mg/kg

Tested Sample/Part Description

- 1 Solid with silvery plating
- 2 Metal with silvery plating
- 3 Metal with silvery plating
- 4 Cupreous metal
- 5 Cupreous metal
- 6 Metal with light blue plating
- 7 Silvery metal
- 8 Cupreous/silvery metal
- 9 Metal with silvery plating
- 10 Cupreous metal
- 11 Metal with silvery plating
- 12 Metal with silvery plating
- 13 Metal with silvery plating
- 14 Metal with silvery plating
- 15 Cupreous enamelled wire
- 16 White plastic grains
- 17 White plastic
- 18 Black rubber
- 19 Red wire skin
- 20 Black wire skin
- 21 Blue wire skin
- 22 White plastic
- 23 Yellow adhesive tape

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

-MDL = Method Detection Limit

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

-mg/kg = ppm = parts per million

-Negative = Absence of Cr(VI), the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02 mg/kg with 50cm² sample surface area used.

According to the client's statement,

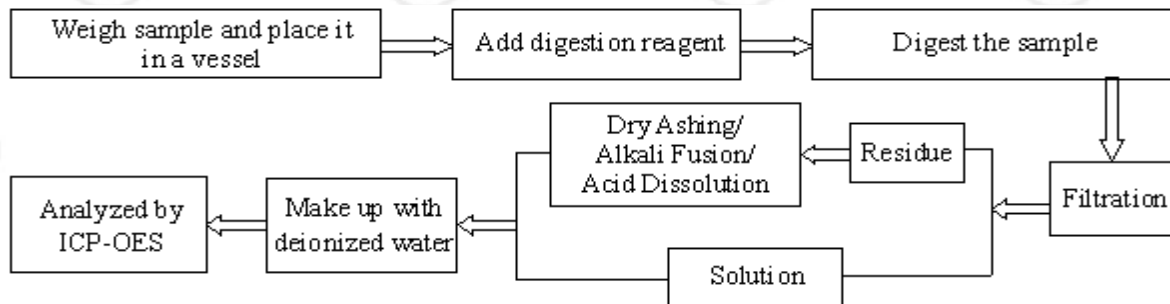
^{#1}=the material of the sample(s) fall into exemption items 6(a) according to EU Directive 2011/65/EU: Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35 % lead by weight.

^{#2}=the material of the sample(s) fall into exemption items 6(c) according to EU Directive 2011/65/EU: Copper alloy containing up to 4%(40000 mg/kg) lead by weight.

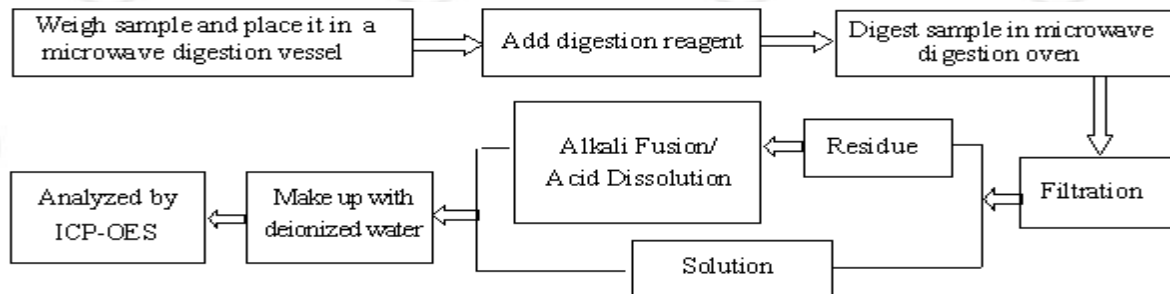
Remark: This testing report displaces the original report of No. ECL03G003062, and the original one No. ECL03G003062 was invalid since the date of this testing report released. The end sign of report number R1 represents the revised version.

Test Process

1. Pb/Cd



2. Hg



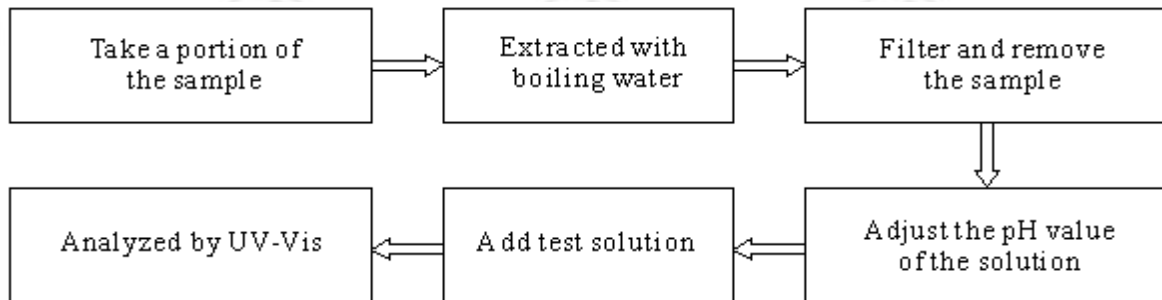
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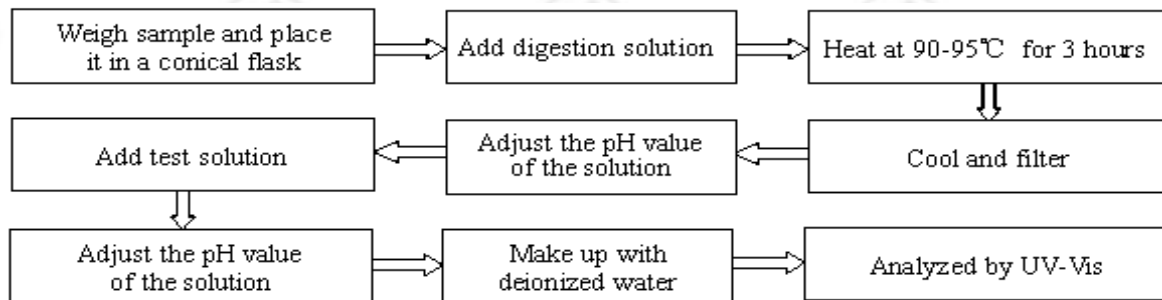
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3. Chromium(VI)

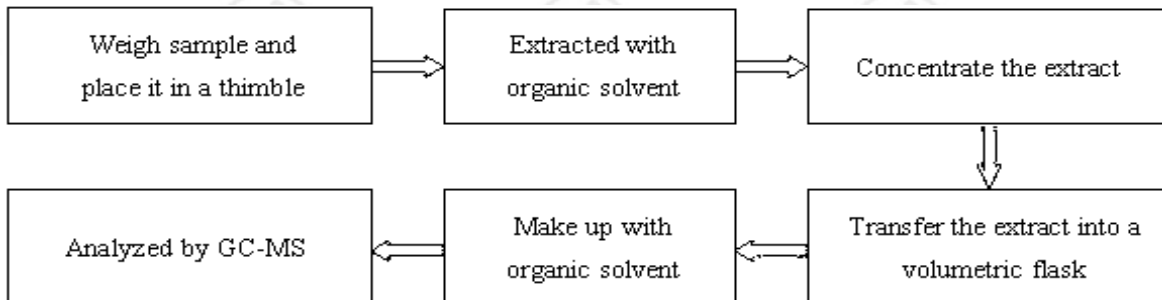
IEC 62321:2008 Ed.1 Annex B



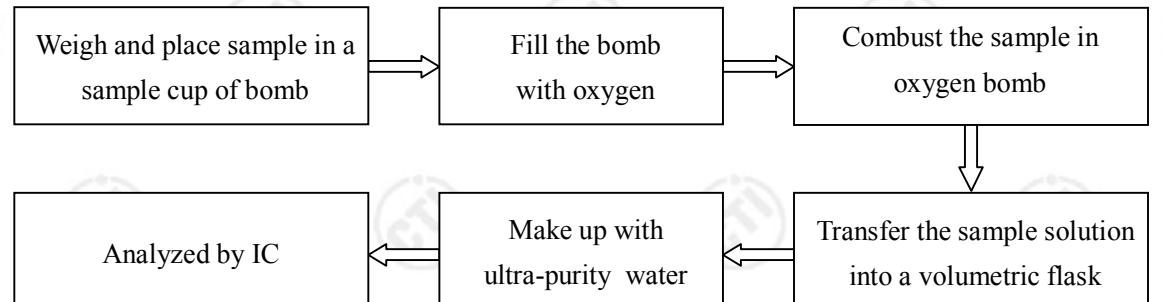
IEC 62321:2008 Ed.1 Annex C



4. PBBs/PBDEs



5. Fluorine(F), Chlorine(Cl), Bromine(Br), Iodine(I)

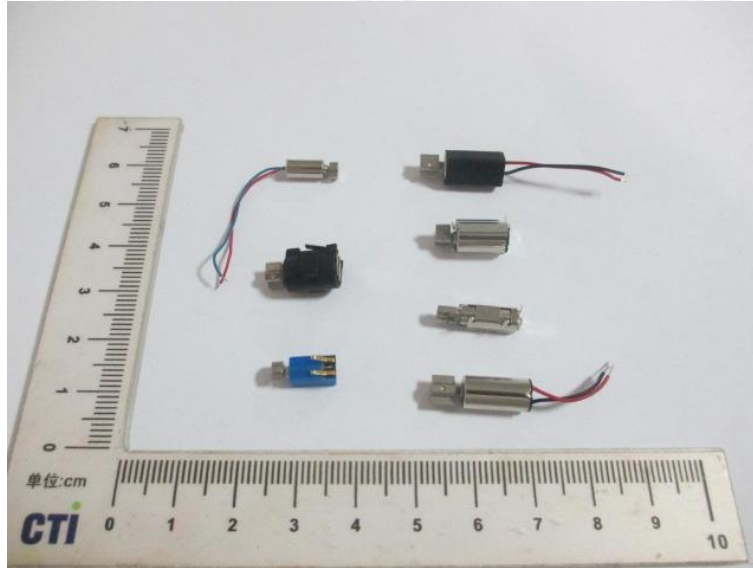


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Photo(s) of the product(s)

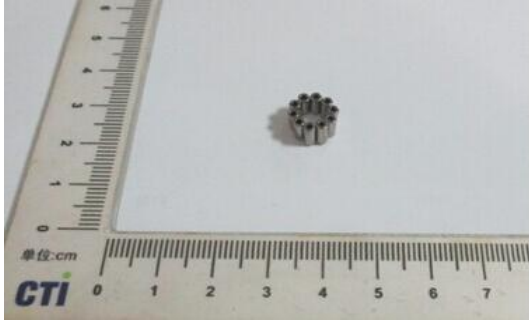


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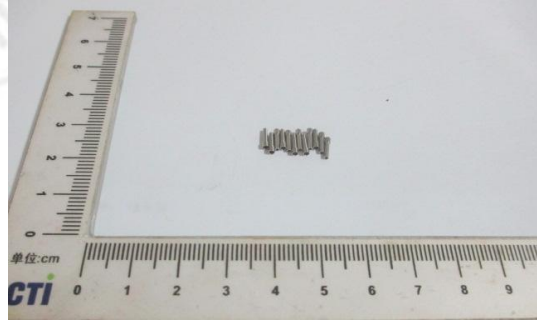
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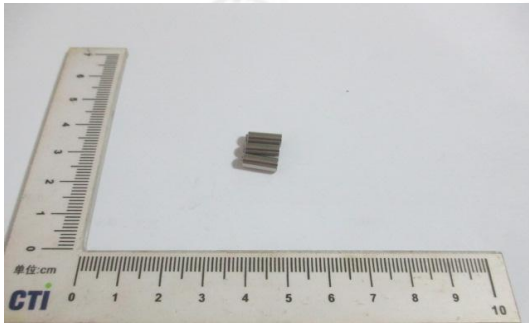
Photo(s) of the sample(s)



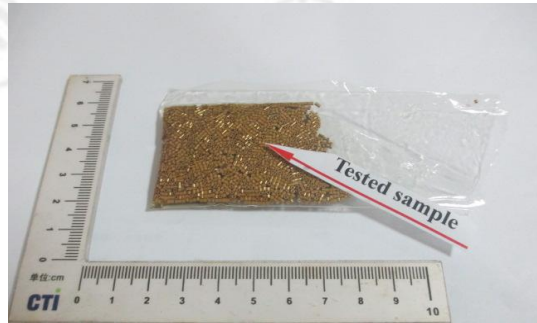
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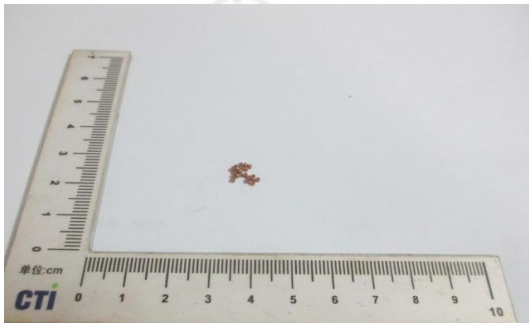
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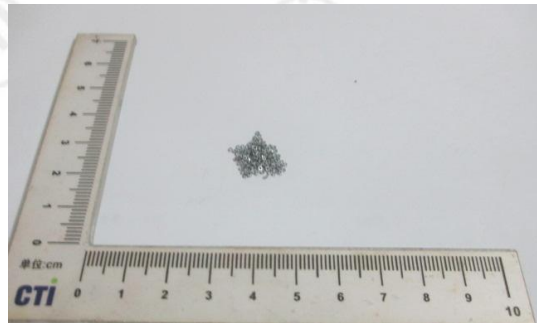
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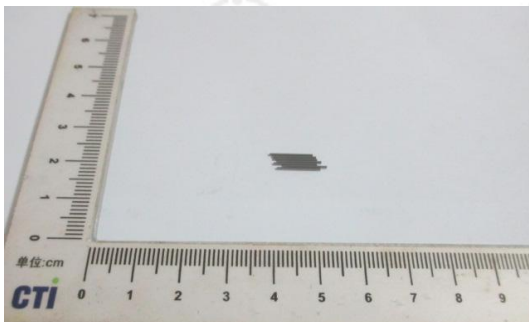
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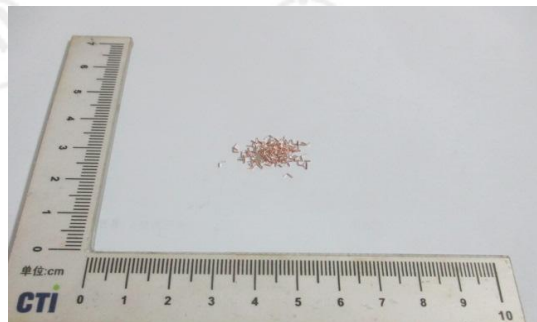
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7



8

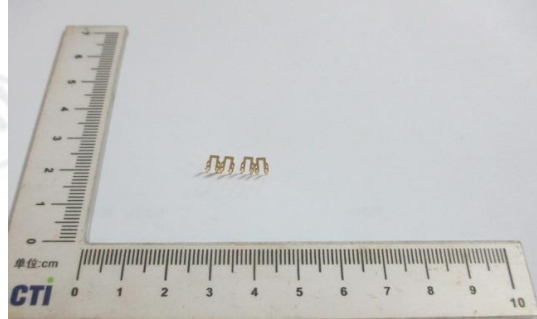
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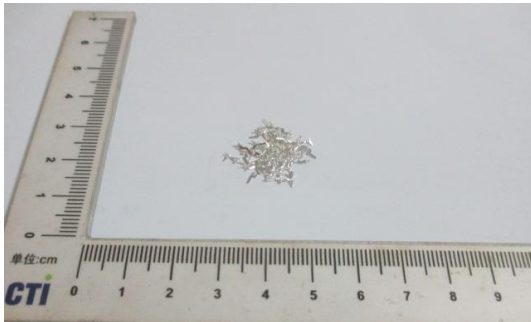
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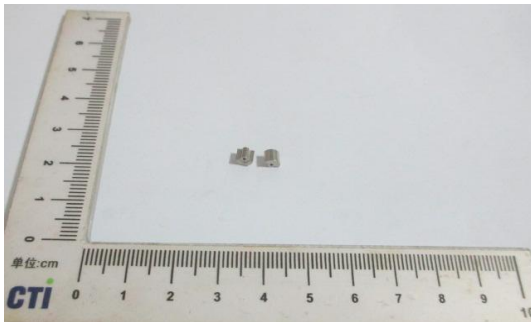
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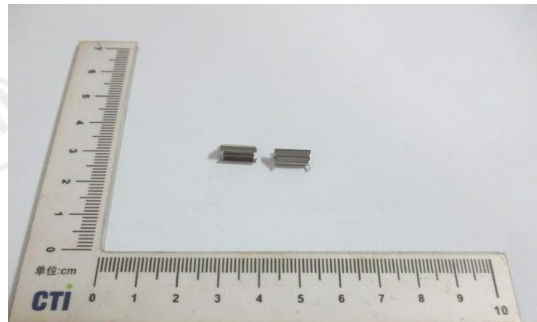
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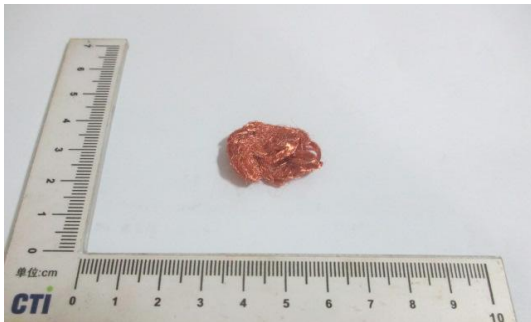
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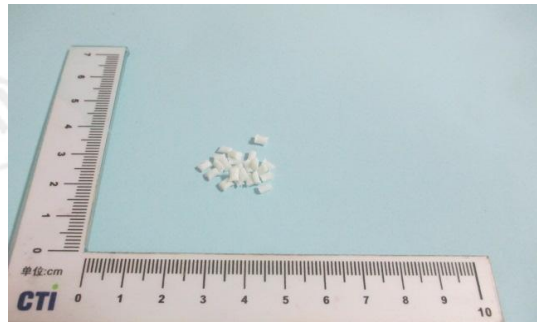
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14



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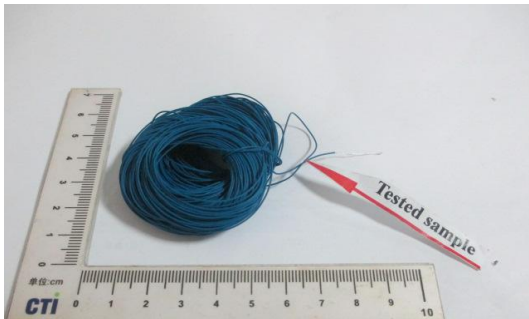
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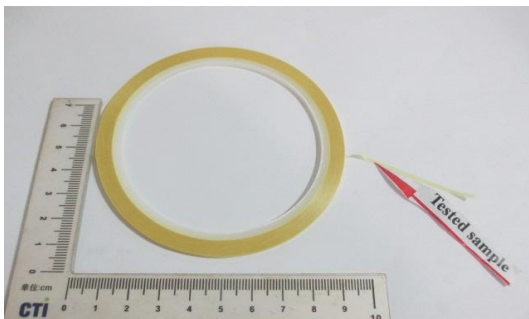
20



21



22



23

*** End of report ***

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