

**Test Report** No. SHAEC1414776901 Date: 14 Aug 2014 Page 1 of 10

CIXI FINESUN BEARING CO.,LTD

ROOM 423, JINHUI MANSION, NO. 1318, QIANYING ROAD, HUSHAN, CIXI, ZHEJIANG

The following sample(s) was/were submitted and identified on behalf of the clients as : angular contact ball

bearing

SGS Job No.: SP14-023848 - SH

Model No.: MH-P16

Main Substance : chrome steel GCr15 material

Client Ref. Information : MH-P03,MH-P03K,MH-P03H7,MH-P04,MH-P08,MH-P08H7,MH-P08H8,MH-P0

8F,MH-P09,MH-P09K,MR136,ACB518K,ACB3547H8,MH-P16H8,MH-P17,MH-P

21,MH-P22,MH-P25K,B543-2RS,T808

Date of Sample Received: 04 Aug 2014

Testing Period: 04 Aug 2014 - 14 Aug 2014

Test Requested: Selected test(s) as requested by client.

Test Method: Please refer to next page(s).

Test Results: Please refer to next page(s).

Conclusion: Based on the performed tests on submitted sample(s), the results of Lead,

Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) comply with the limits as set by RoHS

Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of SGS-CSTC Ltd.

Marry Ma

Approved Signatory



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Test Results:

### Test Part Description:

Specimen No.	SGS Sample ID	Description
SN1	SHA14-147769.001	Silvery metal
SN2	SHA14-147769.002	Silvery metal
SN3	SHA14-147769.003	Silvery metal
SN4	SHA14-147769.004	Silvery metal ball
SN5	SHA14-147769.005	Blue mud
SN6	SHA14-147769.006	Red soft solid
SN7	SHA14-147769.008	Black solid

#### Remarks:

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL)
- (4) "-" = Not Regulated

### RoHS Directive 2011/65/EU

Test Method: (1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.

(2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.

(3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.

(4) With reference to IEC 62321:2008, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.

(5) With reference to IEC 62321:2008, determination of PBBs and PBDEs by GC-MS.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>005</u>	<u>006</u>	<u>008</u>
Cadmium (Cd)	100	mg/kg	2	ND	ND	ND
Lead (Pb)	1000	mg/kg	2	ND	9	9
Mercury (Hg)	1000	mg/kg	2	ND	ND	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	2	ND	ND	ND
Sum of PBBs	1000	mg/kg	-	ND	ND	ND
Monobromobiphenyl	-	mg/kg	5	ND	ND	ND
Dibromobiphenyl	-	mg/kg	5	ND	ND	ND
Tribromobiphenyl	-	mg/kg	5	ND	ND	ND
Tetrabromobiphenyl	-	mg/kg	5	ND	ND	ND
Pentabromobiphenyl	-	mg/kg	5	ND	ND	ND



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Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>005</u>	<u>006</u>	<u>008</u>
Hexabromobiphenyl	-	mg/kg	5	ND	ND	ND
Heptabromobiphenyl	-	mg/kg	5	ND	ND	ND
Octabromobiphenyl	-	mg/kg	5	ND	ND	ND
Nonabromobiphenyl	-	mg/kg	5	ND	ND	ND
Decabromobiphenyl	-	mg/kg	5	ND	ND	ND
Sum of PBDEs	1000	mg/kg	-	ND	ND	ND
Monobromodiphenyl ether	-	mg/kg	5	ND	ND	ND
Dibromodiphenyl ether	-	mg/kg	5	ND	ND	ND
Tribromodiphenyl ether	-	mg/kg	5	ND	ND	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND	ND	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND	ND	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND	ND	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND	ND	ND
Octabromodiphenyl ether	-	mg/kg	5	ND	ND	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND	ND	ND
Decabromodiphenyl ether	-	mg/kg	5	ND	ND	ND

### Notes:

- (1) The maximum permissible limit is quoted from directive 2011/65/EU, Annex II
- (2) Sample 005:Result shown is of the total weight of wet sample.

### RoHS Directive 2011/65/EU

Test Method:

- (1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
- (2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
- (3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
- (4) With reference to IEC 62321:2008, determination of Hexavalent Chromium by spot test / Colorimetric Method using UV-Vis.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>	<u>002</u>	<u>003</u>
Cadmium (Cd)	100	mg/kg	2	ND	ND	ND
Lead (Pb)	1000	mg/kg	2	ND	ND	ND
Mercury (Hg)	1000	mg/kg	2	ND	ND	ND
Hexavalent Chromium (Cr(VI))	-	-	$\Diamond$	Negative	Negative	Negative
Test Item(s)	<u>Limit</u>	<u>Unit</u>	MDL	<u>004</u>		
Cadmium (Cd)	100	mg/kg	2	ND		
Lead (Pb)	1000	mg/kg	2	ND		
Mercury (Hg)	1000	mg/kg	2	ND		



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Test Item(s) Limit Unit MDL 004

Hexavalent Chromium (Cr(VI)) - → Negative

### Notes:

- (1) The maximum permissible limit is quoted from directive 2011/65/EU, Annex II
- (2) \$Spot-test:

Negative = Absence of Cr(VI) coating, Positive = Presence of Cr(VI) 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 Cr(VI) coating

Positive = Presence of Cr(VI) coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.



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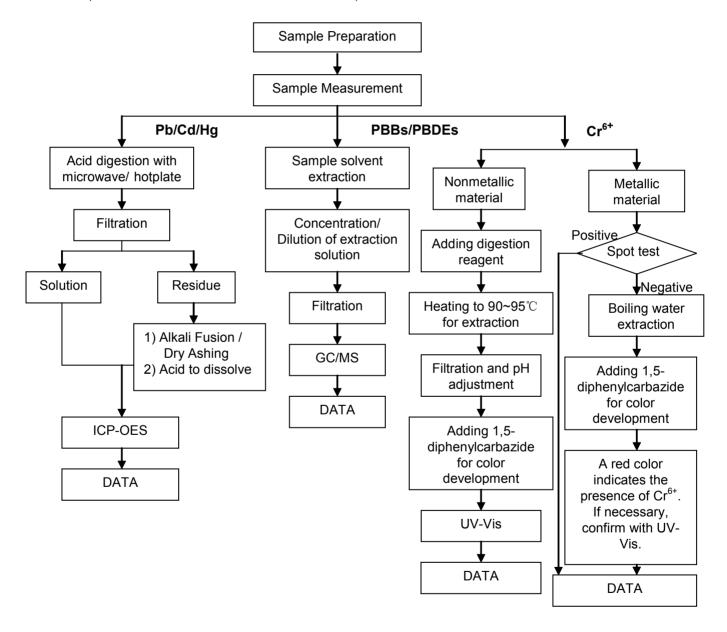


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### **ATTACHMENTS**

## **RoHS Testing Flow Chart**

- 1) Name of the person who made testing: Jan Shi/Star Wang/Stone Chen/Gary Xu
- 2) Name of the person in charge of testing: Jeff Zhang/ Jessy Huang
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> and PBBs/PBDEs test method excluded)





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Sample photo:





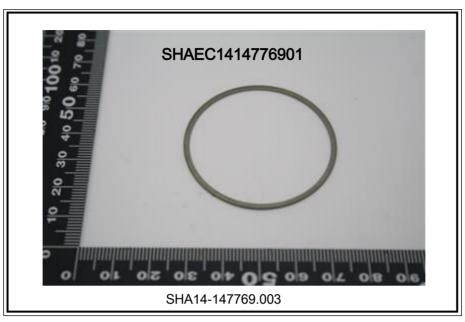


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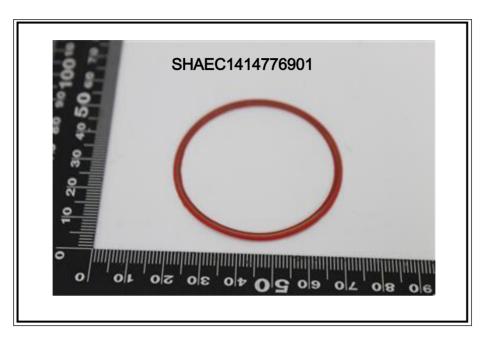
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