SHEN ZHEN JIAN QIANG SHI HARDWARE PRODUCTS CO.,LTD.

QIANGSHI 6 BLOCK NO3 INDUSTRIAL PARK,JIANG BIAN SONG GANG TOWN,SHENZHEN

The following sample(s) was/were submitted and identified on behalf of the clients as : Hardware screw environment black zinc(in Chinese as 五金螺丝环保黑锌).

SGS Job No. :	RP17-000758 - SZ
Date of Sample Received :	23 Feb 2017
Testing Period :	23 Feb 2017 - 28 Feb 2017
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 comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Sunny Nie
Approved Signatory

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch Testing Center Chemical Laboratory

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	SZX17-000878.002	Black plated metal screw

Remarks :

(1) 1 mg/kg = 1 ppm = 0.0001%

(2) MDL = Method Detection Limit

(3) ND = Not Detected (< MDL)

(4) "-" = Not Regulated

RoHS Directive (EU) 2015/863 amending Annex II to 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 62321-7-1:2015 , determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.

Test Item(s)	Limit	Unit	MDL	*002*
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	ND
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▾	-	µg/cm²	0.10	ND

Notes :

(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.

(2) ▾= a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 µg/cm2. The sample coating is considered to contain CrVI

b. The sample is negative for CrVI if CrVI is ND (concentration less than 0.10 µg/cm2). The coating is considered a non-CrVI based coating

c. The result between 0.10 µg/cm2 and 0.13 µg/cm2 is considered to be inconclusive - unavoidable coating variations may influence the determination

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.

IEC 62321 series is equivalent to EN 62321 series

http://www.cenelec.eu/dyn/www/f? p=104:30:1742232870351101::::FSP_ORG_ID, FSP_LANG_ID:1258637,25

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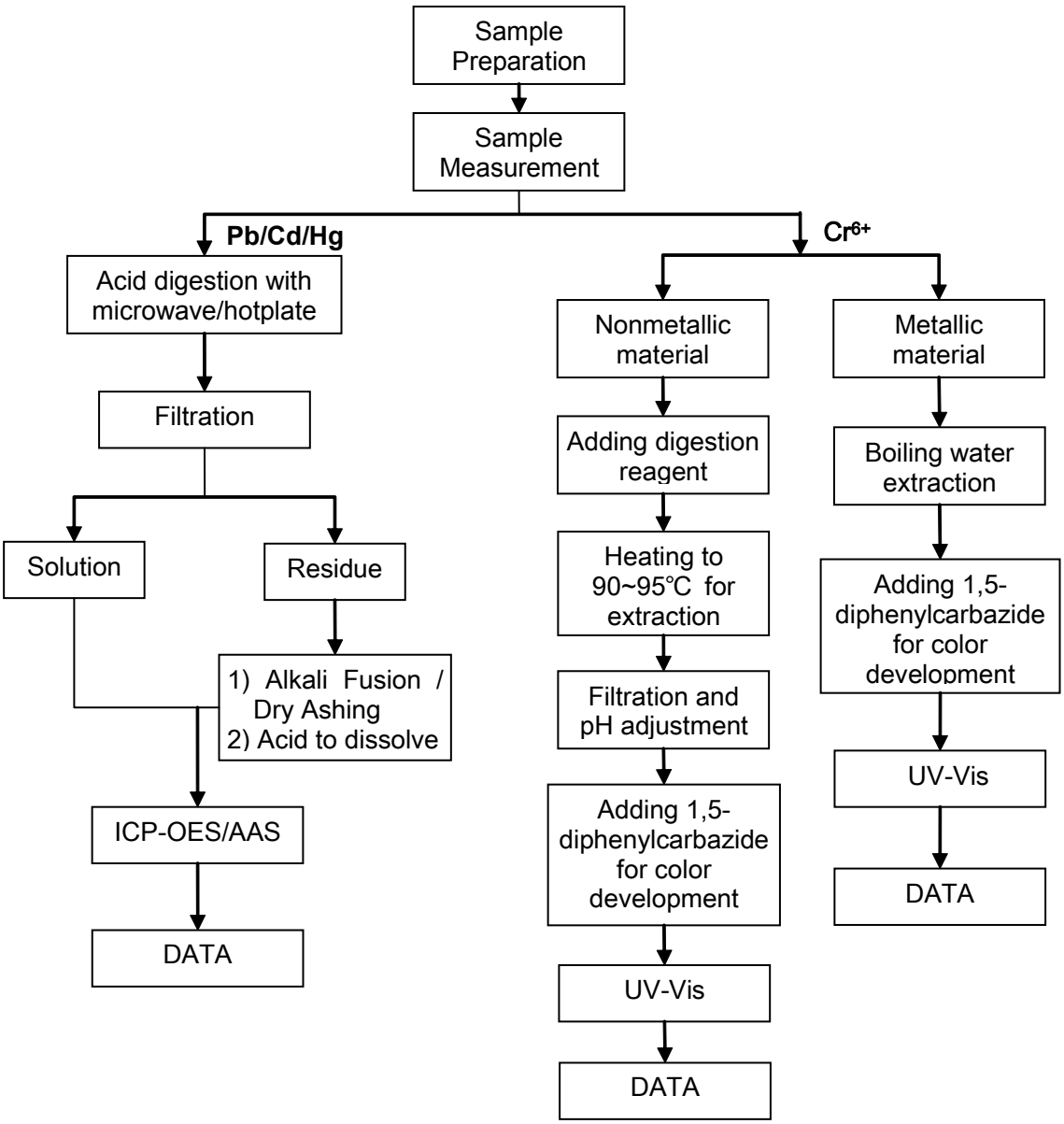
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ATTACHMENTS

Pb/Cd/Hg/Cr^{6+} Testing Flow Chart

1) Name of the person who made testing: Winsen Deng / Truly Ren
2) Name of the person in charge of testing: Zoe Luo / Muky Tong
3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr6+ test method excluded)



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Sample photo:



SZX17-000878.002

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*** End of Report ***

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