



Test Report

Report No. A2220271291101

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Company Name DONGGUAN CITY ZHILI GAS SPRING CO.,LTD
shown on Report
Address HONGLING INDUSTRIAL ZONE, SHENXIANG VILLAGE, QISHI
TOWN, DONGGUAN CITY, GUANGDONG PROVINCE, R.P. OF CHINA

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

Sample Name Gas Spring
Sample Received Date Jun. 29, 2022
Testing Period Jun. 29, 2022 to Jul. 2, 2022

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

Reviewed by

Approved by

Date

Jul. 2, 2022

Hill Zheng
Technical Manager

No. T166324610

Centre Testing International Group Co., Ltd.

CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

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Conclusion

<u>Tested Sample</u>	<u>According to standard/directive</u>	<u>Result</u>
Submitted Sample	RoHS Directive 2011/65/EU with amendment (EU) 2015/863	PASS

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.

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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	Limit
	001	002		
Lead (Pb)	N.D.	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	--	N.D.	8 mg/kg	1000 mg/kg
	N.D.▼	--	0.10 µg/cm ² (LOQ)	1000 mg/kg

Tested Item(s)	Result		MDL	Limit
	002			
Polybrominated Biphenyls (PBBs)				
Monobromobiphenyl	N.D.		5 mg/kg	1000 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	Limit
	002			
Polybrominated Diphenyl Ethers (PBDEs)				
Monobromodiphenyl ether	N.D.		5 mg/kg	1000 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	Limit
	002		
Phthalates (DBP, BBP, DEHP, DIBP)			
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg	1000 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg	1000 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg	1000 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 mg/kg

Sample/Part Description

- 001 Metal with black covering layer
- 002 Black coating

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
- 1000 mg/kg = 0.1%
- 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.

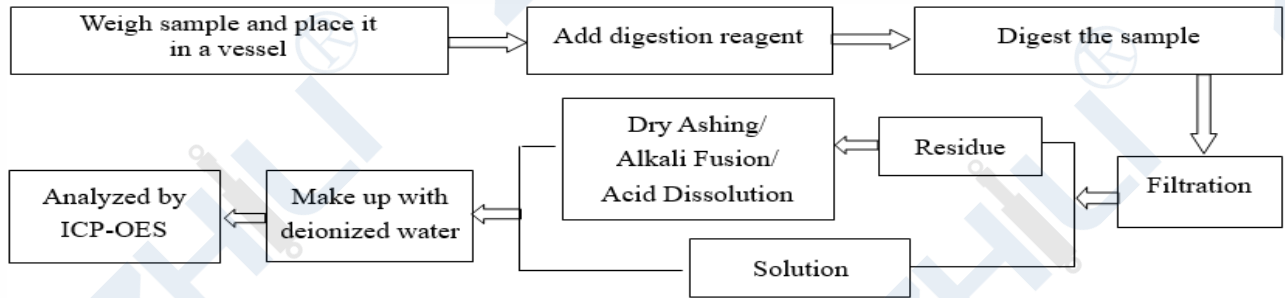
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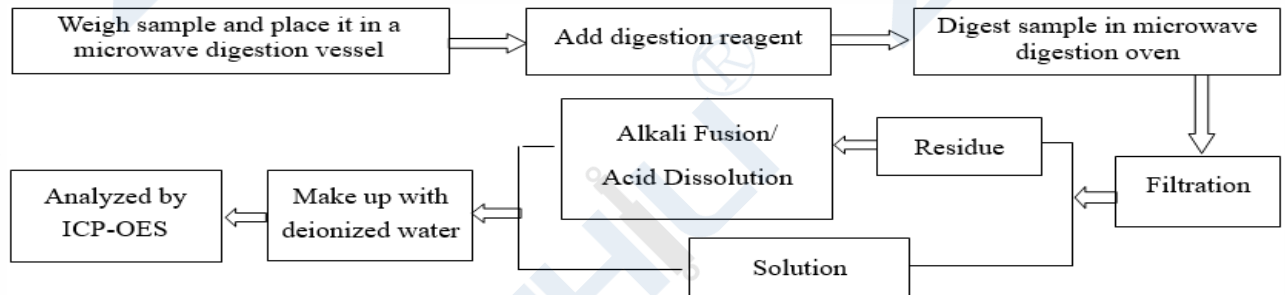
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Test Process

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

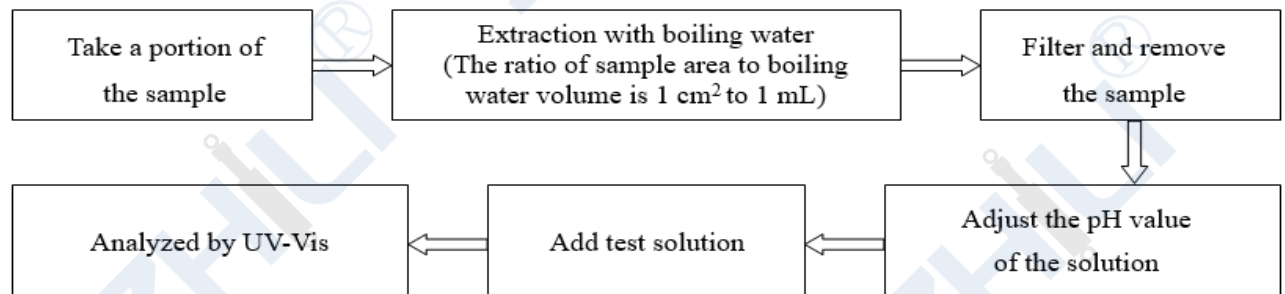


2. Mercury (Hg)

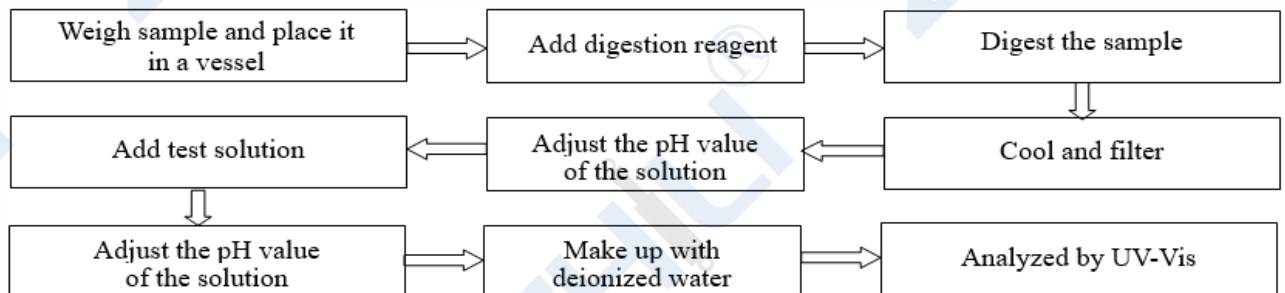


3. Hexavalent Chromium (Cr(VI))

(1) IEC 62321-7-1:2015



(2) IEC 62321-7-2:2017

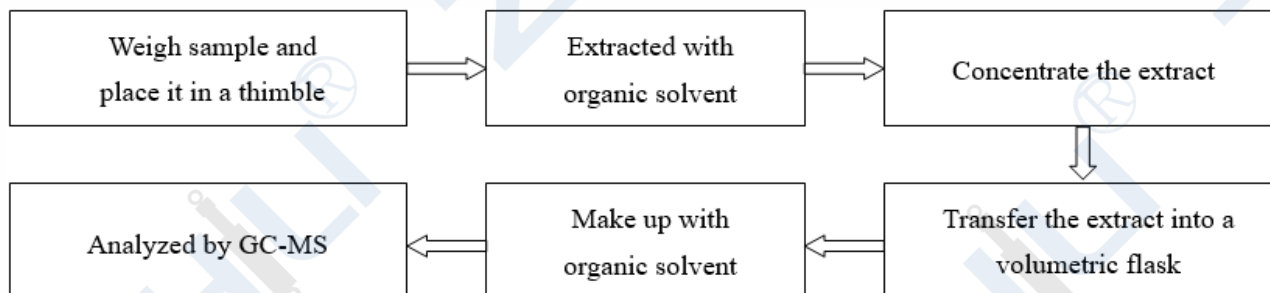


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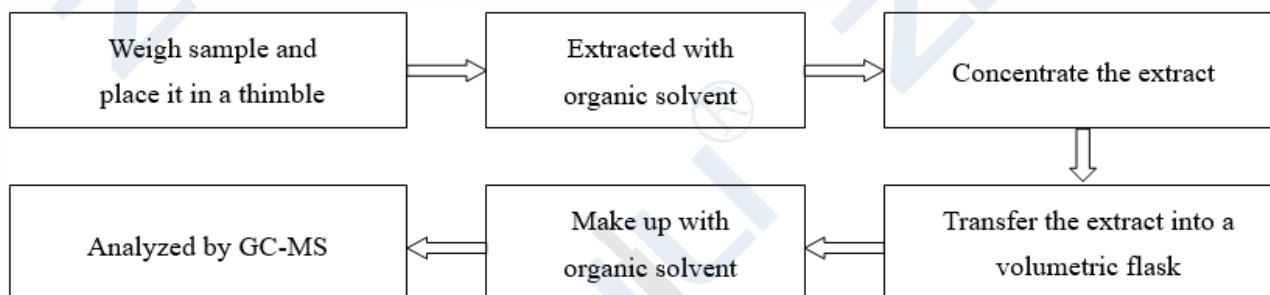
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4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



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

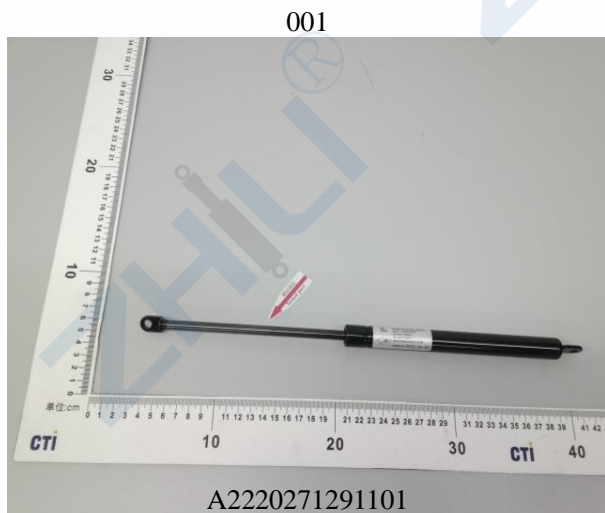


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Photo(s) of the sample(s)



Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant 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;
4. Without written approval of CTI, this report can't be reproduced except in full;
5. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** End of Report ***