RoHS
TEST REPORT

For

LED STRING LIGHT

Model No.:	**VT-713, VT-7135**
Applicant :	**V-TAC EXPORTS LIMITED**
	ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
Manufacturer :	**V-TAC EXPORTS LIMITED**
	ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
Issued By :	**Global-Standard Testing Service Co., Ltd.**
	Room 1505, Building B, Chuangxin Plaza, Pingshan Avenue, Pingshan District, Shenzhen, China
Tel :	**+86 755 33863599**
Email :	market@gstslab.com
Report Number :	**GST.190514.M103R**
Issued Date :	**May 22, 2019**
Date of Report :	**May 22, 2019**

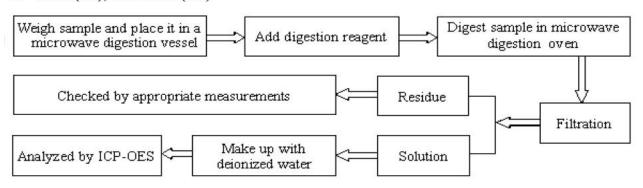*Note:*

1. The test data and result is based on the tested sample only.
2. Please verify information in the report on GST web: www.gstslab.com through report number.
3. All rights reserve, the pirate edition investigates necessarily! This report shall not be reproduced unless under the authority of Global-Standard Testing Service Co., Ltd.
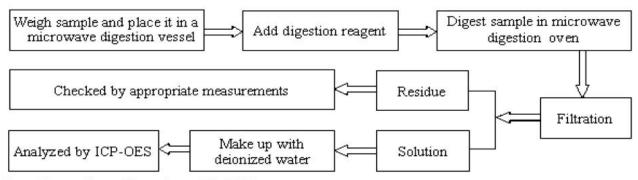
Test process

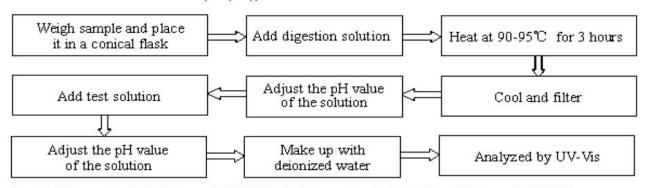## 1. Lead(Pb), Cadmium(Cd)

```
┌─────────────────────────┐     ┌──────────────────┐     ┌──────────────────────┐
│ Weigh sample and place  │ ──> │ Add digestion    │ ──> │ Digest sample in     │
│ it in a microwave       │     │ reagent          │     │ microwave digestion  │
│ digestion vessel        │     │                  │     │ oven                 │
└─────────────────────────┘     └──────────────────┘     └──────────────────────┘
                                                                     │
                                                                     v
┌─────────────────────────┐     ┌──────────────┐          ┌──────────────┐
│ Checked by appropriate  │ <── │ Residue      │ <──       │              │
│ measurements            │     │              │     <──── │  Filtration  │
└─────────────────────────┘     └──────────────┘          └──────────────┘
                                                                 │
┌──────────────────┐     ┌──────────────────┐     ┌──────────────┐
│ Analyzed by      │ <── │ Make up with     │ <── │ Solution     │
│ ICP-OES          │     │ deionized water  │     │              │
└──────────────────┘     └──────────────────┘     └──────────────┘
```
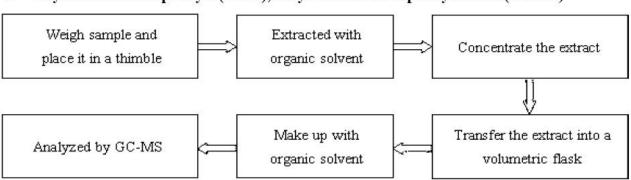
2. Mercury(Hg)

```
┌─────────────────────────┐     ┌──────────────────┐     ┌──────────────────────┐
│ Weigh sample and place  │ ──> │ Add digestion    │ ──> │ Digest sample in     │
│ it in a microwave       │     │ reagent          │     │ microwave digestion  │
│ digestion vessel        │     │                  │     │ oven                 │
└─────────────────────────┘     └──────────────────┘     └──────────────────────┘
                                                                     │
                                                                     v
┌─────────────────────────┐     ┌──────────────┐          ┌──────────────┐
│ Checked by appropriate  │ <── │ Residue      │ <──       │              │
│ measurements            │     │              │     <──── │  Filtration  │
└─────────────────────────┘     └──────────────┘          └──────────────┘
                                                                 │
┌──────────────────┐     ┌──────────────────┐     ┌──────────────┐
│ Analyzed by      │ <── │ Make up with     │ <── │ Solution     │
│ ICP-OES          │     │ deionized water  │     │              │
└──────────────────┘     └──────────────────┘     └──────────────┘
```

3. Hexavalent Chromium (Cr(VI))

```
┌─────────────────────┐     ┌──────────────────┐     ┌──────────────────────┐
│ Weigh sample and    │ ──> │ Add digestion    │ ──> │ Heat at 90-95°C for  │
│ place it in a       │     │ solution         │     │ 3 hours              │
│ conical flask       │     │                  │     │                      │
└─────────────────────┘     └──────────────────┘     └──────────────────────┘
                                                                 │
                                                                 v
┌──────────────────┐     ┌──────────────────┐     ┌──────────────────┐
│ Add test         │ <── │ Adjust the pH    │ <── │ Cool and filter  │
│ solution         │     │ value of the     │     │                  │
│                  │     │ solution         │     │                  │
└──────────────────┘     └──────────────────┘     └──────────────────┘
        │
        v
┌──────────────────┐     ┌──────────────────┐     ┌──────────────────┐
│ Adjust the pH    │ ──> │ Make up with     │ ──> │ Analyzed by      │
│ value of the     │     │ deionized water  │     │ UV-Vis           │
│ solution         │     │                  │     │                  │
└──────────────────┘     └──────────────────┘     └──────────────────┘
```

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

```
┌─────────────────────┐     ┌──────────────────┐     ┌──────────────────────┐
│ Weigh sample and    │ ──> │ Extracted with   │ ──> │ Concentrate the      │
│ place it in a       │     │ organic solvent  │     │ extract              │
│ thimble             │     │                  │     │                      │
└─────────────────────┘     └──────────────────┘     └──────────────────────┘
                                                                 │
                                                                 v
┌──────────────────┐     ┌──────────────────┐     ┌──────────────────────┐
│ Analyzed by      │ <── │ Make up with     │ <── │ Transfer the extract │
│ GC-MS            │     │ organic solvent  │     │ into a volumetric    │
│                  │     │                  │     │ flask                │
└──────────────────┘     └──────────────────┘     └──────────────────────┘
```

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Method Detection Limit (MDL) in wet chemical test

Test Items	Pb	Cd	Hg	PBBs & PBDEs
Unit	mg/kg	mg/kg	mg/kg	mg/kg
MDL	2	2	2	2

Result	:	Pass
Conclusion	:	An independent evaluation on the above-mentioned product(s) has been conducted pursuant to 2011/65/EU and (EU)2015/863 of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, and canceled that the equipment under evaluation met the legislative requirements of this directive.

Reviewed by

APPROVED

Nico Xie
Manager
May 22, 2019

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Test Data Summary

SAMPLE NO.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Results of testing(mg/kg)	Chemical testing limit (mg/kg)	Conclusion (P/F)
1	Plastic enclosure	Cd	P	N.D.	＜100	P
		Cr	P	N.D.	＜1000	P
		Hg	P	N.D.	＜1000	P
		Pb	P	N.D.	＜1000	P
		PBBs	D	N.D.	＜1000	P
		PBDEs	D	N.D.	＜1000	P
		HBCDD	D	N.D.	＜1000	P
		DEHP	D	N.D.	＜1000	P
		DBP	D	N.D.	＜1000	P
		BBP	D	N.D.	＜1000	P
2	Wire	Cd	P	N.D.	＜100	P
		Cr	P	N.D.	＜1000	P
		Hg	P	N.D.	＜1000	P
		Pb	P	N.D.	＜1000	P
		PBBs	D	N.D.	＜1000	P
		PBDEs	D	N.D.	＜1000	P
		HBCDD	D	N.D.	＜1000	P
		DEHP	D	N.D.	＜1000	P
		DBP	D	N.D.	＜1000	P
		BBP	D	N.D.	＜1000	P
3	Connector	Cd	P	N.D.	＜100	P
		Cr	P	N.D.	＜1000	P
		Hg	P	N.D.	＜1000	P
		Pb	P	N.D.	＜1000	P
		PBBs	D	N.D.	＜1000	P
		PBDEs	D	N.D.	＜1000	P
		HBCDD	D	N.D.	＜1000	P
		DEHP	D	N.D.	＜1000	P
		DBP	D	N.D.	＜1000	P
		BBP	D	N.D.	＜1000	P
4	Plug	Cd	P	N.D.	＜100	P
		Cr	P	N.D.	＜1000	P
		Hg	P	N.D.	＜1000	P
		Pb	P	N.D.	＜1000	P
		PBBs	D	N.D.	＜1000	P
		PBDEs	D	N.D.	＜1000	P
		HBCDD	D	N.D.	＜1000	P
		DEHP	D	N.D.	＜1000	P
		DBP	D	N.D.	＜1000	P
		BBP	D	N.D.	＜1000	P

SAMPLE NO.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Results of testing(mg/kg)	Chemical testing limit (mg/kg)	Conclusion (P/F)
5	Lampholder	Cd	P	N.D.	＜100	P
		Cr	P	N.D.	＜1000	P
		Hg	P	N.D.	＜1000	P
		Pb	P	N.D.	＜1000	P
		PBBs	D	N.D.	＜1000	P
		PBDEs	D	N.D.	＜1000	P
		HBCDD	D	N.D.	＜1000	P
		DEHP	D	N.D.	＜1000	P
		DBP	D	N.D.	＜1000	P
		BBP	D	N.D.	＜1000	P
6	Other metal accessories	Cd	P	N.D.	＜100	P
		Cr	P	N.D.	＜1000	P
		Hg	P	N.D.	＜1000	P
		Pb	P	N.D.	＜1000	P
		PBBs	D	/	＜1000	P
		PBDEs	D	/	＜1000	P
		HBCDD	D	/	＜1000	P
		DEHP	D	/	＜1000	P
		DBP	D	/	＜1000	P
		BBP	D	/	＜1000	P
7	Other plastic accessories	Cd	P	N.D.	＜100	P
		Cr	P	N.D.	＜1000	P
		Hg	P	N.D.	＜1000	P
		Pb	P	N.D.	＜1000	P
		PBBs	D	N.D.	＜1000	P
		PBDEs	D	N.D.	＜1000	P
		HBCDD	D	N.D.	＜1000	P
		DEHP	D	N.D.	＜1000	P
		DBP	D	N.D.	＜1000	P
		BBP	D	N.D.	＜1000	P

Note:

(1) N.D. = Not detected (<MDL)

(2) ppm = mg/kg

(3) N.A. = Not Analyzed

(4) Negative = the concentration of Hexavalent Chromium extracted from $50cm^2$ sample is less than the detection limit.

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Photo Documentation

Photo 1	
Model 550064	
[√] Front	
[ ] Rear	
[ ] Right side	
[ ] Left side	
[ ] Top	
[ ] Bottom	
[ ] Internal	

Photo 2	
Model 550064	
[√] Front	
[ ] Rear	
[ ] Right side	
[ ] Left side	
[ ] Top	
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[ ] Internal	

--END--

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