Report No.: DACE250313006RL001

000003389

TEST REPORT

Applicant's Name	:	Shenzhen Sungold Solar Co., Ltd.
Address	:	2-5 Floor, H Building, Wentao Industrial Park, Ying Ren Shi, Shi Yan Town, Bao'an District, Shenzhen, Guangdong, China

Report on the submitted sample said to be:

Sample Name	:	Semi Flexible Solar Panel
Trade Mark	:	N/A
Model(s)	:	SG-TF-M2-450W, SG-TF-M2-xxxW（xxx=5~450W, in steps of 5W）
Manufacturer	:	Shenzhen Sungold Solar Co., Ltd.
Address	:	2-5 Floor, H Building, Wentao Industrial Park, Ying Ren Shi, Shi Yan Town, Bao'an District, Shenzhen, Guangdong, China
Testing Laboratory	:	Shenzhen DACE Testing Technology Co., Ltd.
Test Conclusion	:	Based on the performed tests on submitted samples, the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs). Polybrominated diphenyl ethers (PBDEs), Bis (2-ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP), Di Iso Butyl Ortho Phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.
Testing Period	:	Mar. 12, 2025to Mar. 19, 2025
Date of Report	:	Mar. 19, 2025

Testing Requested:	**Results**
Selected test(s) as requested by client	**Pass**

Prepared by: Trudie — Trudie

Examine By : Calvin Chen — Calvin Chen

(Approved Manager): Machael Mo — Machael Mo

Shenzhen DACE Testing Technology Co., Ltd. APPROVED

Testing method:

1. With reference to IEC 62321-1:2013, review was performed for the samples disjointed from the submitted articles submitted by the Applicant

2. Tests were performed for the samples indicated by the photos in the report with test methods reference to IEC 62321-1:2013, Procedures for the determination of Levels of Six regulated Substances in Electrotechnical Products

(1) With reference to IEC 62321-3-1:2013, Screening by XRF Fluorescence Spectrometry

(2) With reference to IEC 62321-2:2021, Perform disassembly and mechanical sample preparation

(3) Wet Chemical Test Method

a. With reference to IEC 62321-5:2013, Determination of Lead & Cadmium by ICP-OES or AAS

b. With reference to IEC 62321-4:2013+A1:2017, Determination of Mercury by ICP-OES

c. With reference to IEC 62321-7-1:2015 and IEC 62321-7-2:2017, Determination of Hexavalent Chromium by Spot or Colorimetic Method

d. With reference to IEC 62321-6:2015, Determination of PBBs and PBDEs by GC-MS

e. With reference to IEC 62321-8:2017, Determination of DEHP, DIBP, DBP and BBP by GC-MS

Part No.	Part Description	Restricted Substance	Results of EDXRF	Result of Wet Chemical Testing (2mg/kg)	Conclusion on RoHS
1.	Black plastic shell	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(Ⅵ)	BL	-	Comply
		Br	BL	-	Comply
		DEHP	IN	ND	Comply
		BBP	IN	ND	Comply
		DBP	IN	ND	Comply
		DIBP	IN	ND	Comply
2.	Black plastic wire cover	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(Ⅵ)	BL	-	Comply
		Br	BL	-	Comply
		DEHP	IN	ND	Comply
		BBP	IN	ND	Comply
		DBP	IN	ND	Comply
		DIBP	IN	ND	Comply
3.	Connecting terminal	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(Ⅵ)	BL	-	Comply
		Br	BL	-	Comply
		DEHP	IN	ND	Comply
		BBP	IN	ND	Comply
		DBP	IN	ND	Comply
		DIBP	IN	ND	Comply
4.	Copper core	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(Ⅵ)	BL	-	Comply
		Br	-	-	-
		DEHP	-	-	-
		BBP	-	-	-
		DBP	-	-	-
		DIBP	-	-	-

Part No.	Part Description	Restricted Substance	Results of EDXRF	Result of Wet Chemical Testing (2mg/kg)	Conclusion on RoHS
5.	Metal ring	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(Ⅵ)	BL	-	Comply
		Br	-	-	-
		DEHP	-	-	-
		BBP	-	-	-
		DBP	-	-	-
		DIBP	-	-	-
6.	Solar cell	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(Ⅵ)	BL	-	Comply
		Br	BL	-	Comply
		DEHP	IN	ND	Comply
		BBP	IN	ND	Comply
		DBP	IN	ND	Comply
		DIBP	IN	ND	Comply
7.	Red sealing ring	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(Ⅵ)	BL	-	Comply
		Br	BL	-	Comply
		DEHP	IN	ND	Comply
		BBP	IN	ND	Comply
		DBP	IN	ND	Comply
		DIBP	IN	ND	Comply
8.	Black adhesive	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(Ⅵ)	BL	-	Comply
		Br	BL	-	Comply
		DEHP	IN	ND	Comply
		BBP	IN	ND	Comply
		DBP	IN	ND	Comply
		DIBP	IN	ND	Comply

Remark:

(1) (a) It is the result on total Br while test item on restricted is PBBs\PBDEs. It is the result on total Cr^{6+} while test item on restricted substances is Cr^{6+}.

(b) Results are obtained by EDXRF for primary screening ,and further chemical testing by ICP(for Cd, Pb, Hg), UV-VIS(for Cr^{6+}) and GC\MS (for PBBs, PBDEs) is recommended to be performed , if the concentration exceeds the below warning value according to IEC62321(unit: mg\kg)

Element	Polymer	Metal	Composite Materals
Cd	BL≤（70-3σ）<X<(130+3σ) ≤OL	BL≤（70-3σ）<X<(130+3σ) ≤OL	LOD<X<(150+3σ) ≤OL
Pb	BL≤（700-3σ）<X<(1300+3σ) ≤OL	BL≤（700-3σ）<X<(1300+3σ) ≤OL	BL≤（500-3σ）<X<(1500+3σ) ≤OL
Hg	BL≤（700-3σ）<X<(1300+3σ) ≤OL	BL≤（700-3σ）<X<(1300+3σ) ≤OL	BL≤（500-3σ）<X<(1500+3σ) ≤OL
Br	BL≤（300-3σ）<X	--	BL≤（250-3σ）<X
Cr	BL≤（700-3σ）<X	BL≤（700-3σ）<X	BL≤（500-3σ）<X

(c)BL=Below Limit, OL=Over Limit, IN=Inconclusive, LOD=Limit of Detection,-=Not Regulated,

Negative = A negative test result indicated above positive observation was not found at the time of testing. When the spot-test showed a negative result, the boiling-water-extraction procedure shall be used to verify the result.

(#1) = As claimed by the declaration submitted by the client, the Lead content of the components is coming from the constituent of ceramic part of the electronic component only. According to EU RoHS Directive, Lead in electronic ceramic parts of this component can be exempted.

(d)The XRF screening test for RoHS elements-The reading may be different to the actual content in the sample be of non-uniformity composition,

(2) (a) mg\kg=ppm=0.0001%, ND=Not Detected{<MDL)),

(b)Unit and Method Detection Limit(MDL)in wet chemical test

Test Items	Units	MDL	EU RoHS Limit
Pb	mg/kg	2	1000
Cd	mg/kg	2	100
Hg	mg/kg	2	1000
Cr(VI)	mg/kg	0.02 mg/50 cm^2(Metal) 2	1000
PBBs	mg/kg	5	1000
PBDEs	mg/kg	5	1000
DEHP	mg/kg	5	1000
BBP	mg/kg	5	1000
DBP	mg/kg	5	1000
DIBP	mg/kg	5	1000

(c) According to IEC 62321, result on Cr for metal sample is shown as Positive\Negative, Negative=Absence of Cr^{6+} coating, Positive=Presence of Cr^{6+} coating.

(d) ▲As declared by the client the materials fall into exemption items according to RoHS Directive 2011\65\EU recasting 2002\95\EC

Photograph of sample

DACE authenticate the photo on original report only

Photo 1

Photo 2

Photo 3

※※※※※END OF REPORT※※※※※