

บริษัท แคนาเดียนโซลาร์ แมนูแฟคเจอริ่ง ประเทศไทย จำกัด

CANADIAN SOLAR MANUFACTURING (THAILAND) CO., LTD.

CHEMICAL LIST

NO.	FORMULA	CHEMICAL NAME	CAS NO.	REMARKS
1	N2	Nitrogen	7727-37-9	
2	O2	Oxygen	7782-44-7	
3	NH3	AMMONIA	7664-41-7	
4	SiH4	SILANE : SILICON HYDRIDE	7803-62-5	
5	CH4	NATURAL GAS	74-82-8	
6	(CH3)3Al	TMAI : TRIMETHYLALUMINUM	75-24-1	
7	HF	HYDROFLUORIC ACID 49%	7664-39-3	
8	HNO3	NITRIC ACID 69%	7697-37-2	
9	H2O2	HYDROGEN PEROXIDE 30%	7722-84-1	
10	HCL	HYDROCHORIC ACID 37%	7647-01-0	
11	KOH	POTASSIUM HYDROXIDE 48%	1310-58-3	
12	NaOH	SODIUM HYDROXIDE 30%,32%&50%	1310-73-2	
13	PAC	POLYACUMINIUM CHLORIDE SOLID 30%	1327-41-9	
14	PAM	POLYACRYLAMIDE 90%	NA	
15	NaOCl	SODIUM HYPOCHLORITE	7681-52-9	
16	HCl2	HYDROGEN CHLORIDE 20%	NA	
17	Ca(OH)2	CALCIUM HYDROXIDE 99% (Solid)ปูนขาว	1305-62-0	
18	CaCl2	CALCIUM CHLORIDE 74%	10043-52-4	
19	NaHSO3	SODIUM BISULFITE	7631-90-5, 7681-57-4	
20	Na2S2O3	SODIUM THIOSULFATE (SOLUTION)	10102-17-7	
21	C2H6O	ETHANOL 95%	64-17-5	
22	POCl3	Phosphorus oxychloride	10025-87-3	
23	-	Silver paste	7440-22-4, 8000-41-7,	
24	-	Aluminum paste	7429-90-5 112-34-5	
25	TS45	Single crystal silicon solar cell flocking aid	200-315-5	
26	C2H6O2	ETHYLENE GLYCOL	107-21-1	
27	-	LEAD FREE FLUX	67-63-0	
28	C6H4(CH3)2	XYLENE	1330-20-7	
29	-	MOBIL SHC 630	118-82-1	
30	-	SPRAY TOA	141-78-6 67-64-1	
31	-	Thinner	64742-82-1	
32	H2SO4	SULFURIC ACID 50%&98%	7664-93-9	
33	N2O	Nitrous oxide	10024-97-2	

บริษัท ตงหง จำกัด

เอกสารข้อมูล SDS ของโครงการ



Test Report

No. CANEC2124938401

Date: 07 Jan 2022

Page 1 of 5

GUANGDONG JIAJING TECHNOLOGY CO.,LTD

NO 9, JINGYE ROAD, SHIBU LIAOBU TOWN, DONGGUAN CITY, GUANGDONG PROVINCE

The following sample(s) was/were submitted and identified on behalf of the clients as : Water-based ink(mixture)

SGS Job No. : CP21-069443 - SZ
Client Ref. Info. : Please see remark
Date of Sample Received : 31 Dec 2021
Testing Period : 31 Dec 2021 - 07 Jan 2022
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).

Result Summary :

Test Requested	Conclusion
EN 71-3:2019+A1:2021 - Migration of Certain Elements (Category III: Scrapped-off toy material)	PASS

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

Coral Qiu

Coral Qiu
Approved Signatory

scan to see the report



2C6BE229



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Testing Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sciencetech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn
t (86-20) 82155555 sgs.china@sgs.com

Member of the SGS Group (SGS SA)

Test Report

No. CANEC2124938401

Date: 07 Jan 2022

Page 2 of 5

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN21-249384.001	Black liquid

Remarks :

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

EN 71-3:2019+A1:2021 - Migration of Certain Elements (Category III: Scrapped-off toy material)

Test Method : With reference to EN 71-3:2019+A1:2021, analysis was performed by ICP-OES.
Chromium (VI) was analyzed by IC-UV/LC-ICP-MS.

Test Item(s)	Limit	Unit	MDL	001
Soluble Aluminum (Al)	28130	mg/kg	50	ND
Soluble Arsenic (As)	47	mg/kg	10	ND
Soluble Boron (B)	15000	mg/kg	50	ND
Soluble Barium (Ba)	18750	mg/kg	50	ND
Soluble Cadmium (Cd)	17	mg/kg	5	ND
Soluble Cobalt (Co)	130	mg/kg	10	ND
Soluble Chromium (III) (Cr III)	460	mg/kg	5	ND
Soluble Copper (Cu)	7700	mg/kg	50	ND
Soluble Mercury (Hg)	94	mg/kg	10	ND
Soluble Manganese (Mn)	15000	mg/kg	50	ND
Soluble Nickel (Ni)	930	mg/kg	10	ND
Soluble Lead (Pb)	23	mg/kg	10	ND
Soluble Antimony (Sb)	560	mg/kg	10	ND
Soluble Selenium (Se)	460	mg/kg	10	ND
Soluble Zinc (Zn)	46000	mg/kg	50	ND
Soluble Strontium (Sr)	56000	mg/kg	50	ND
Soluble Tin (Sn)	180000	mg/kg	4.9	ND
Soluble Organic Tin	12	mg/kg	-	ND
Soluble Chromium (VI) (Cr VI)	0.053	mg/kg	0.020	ND

Comment

PASS

Notes :

1. According to Chapter of 10.1.2 of EN 71-3:2019+A1:2021, Chromium (III) is calculated by the following



SGS-CTC (Guangzhou) Technical Services Co., Ltd.
Guangzhou Branch Testing & Inspection Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Science Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgs.com.cn
t (86-20) 82155555 sgs.china@sgs.com



Test Report

No. CANEC2124938401

Date: 07 Jan 2022

Page 3 of 5

formula: Soluble Chromium (III)= Soluble Total Chromium- Soluble Chromium (VI)

2. Confirmation test of soluble organic tin is not required in case of soluble tin, after conversion, does not exceed the soluble organic tin requirement as specified in EN 71-3:2019+A1:2021.

Remark: The result(s) shown is/are of the total weight of dried sample.



SGS CSTC (Guangzhou) Technical Services Co., Ltd.
Guangzhou Branch Testing and Calibration Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's Instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn
t (86-20) 82155555 sgs.china@sgs.com

Member of the SGS Group (SGS SA)



Test Report

No. CANEC2124938401

Date: 07 Jan 2022

Page 4 of 5

Remark:

Ingredient is as follows,mixture:

WFB502 Blue ; WFG601 Green ; WFH802 Black ; WFH804 Black ; WFH805 Black
WFH803 Black ; WFY306 Orange ; WFR403 Red ; WFR404 Red ; WFR405 Red
WFR409 ; WFR406 Red ; WFR420 Red ; WFT102 ; WFT103 ; WFFV701 Red ;
WFFV703 Violet ; WFW205 White ; WFW204 White ; WFY302 Yellow ;

WPHH801 Black ; WPHW201 White ; WPHW203 White; WPHY302 Yellow ; WPHY303
Yellow ; WPHY304 Yellow; WPHY305 Yellow ; WPHY306 Orange ; WPHR401 Orange ;
WPHR403 Red ; WPHR407 Red ; WPHR410 Red ; WPHR411 Red ; WPHR412 Red
WPHR415 Red ; WPHR416 Red ; WPHR417 Red ; WPHR419 Red ; WPHR420 Red
WPHB502 Blue ; WPHB504 Blue ; WPHG601 Green ; WPHV705 Violet ; WPHV706
Violet ; WPHB080 Blue ; WPHW202T White ; WPHY301 Yellow

WZR48 Red ; WZR146 Red ; WZR403 Red ; WZR411 Red; WZR416 Red ; WZB502
Blue ; WZY302 Yellow ; WZY303 Yellow ; WZF306 Orange ; WZW201 White ;
WZW202 White ; WZH-804 Black ; WZG601 Green ; WZV705 Violet ;



SGS CSTC (Guangzhou) Technical Services Co., Ltd.
Guangzhou Branch of SGS Chemical Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663

t (86-20) 82155555

www.sgs.com

t (86-20) 82155555

sgs.china@sgs.com

Member of the SGS Group (SGS SA)

Test Report

No. CANEC2124938401

Date: 07 Jan 2022

Page 5 of 5

Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***



SGS-CSI (Guangzhou) Technical Services Co., Ltd.
Guangzhou Branch of SGS Chemical Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663

t (86-20) 82155555

www.sgsgroup.com.cn

t (86-20) 82155555

sgs.china@sgs.com

Member of the SGS Group (SGS SA)