

Test Report

No. CANEC1822580502

Date: 02 Nov 2018

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FO SHAN SQ UV CURING MATERIALS CO.,LTD
NO.26 FOLUO ROAD CHANCHENG DISTRICT, FOSHAN
CHINA

This report is to supersede test report CANEC1817543202

The following sample(s) was/were submitted and identified on behalf of the clients as : Liquid Photo Imageable Solder Mask Material

SGS Job No. : CP18-058642 - GZ
Model No. : PS-200
Client Ref. Info. : SEE REMARK
Date of Sample Received : 24 Aug 2018
Testing Period : 24 Aug 2018 - 29 Aug 2018
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, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) , and Diisobutyl phthalate (DIBP) 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. Guangzhou Branch

Echo Yeung

Echo Yeung
Approved Signatory



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

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN18-225805.002	Green paste

Remarks :

- (1) 1 mg/kg = 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 : With reference to IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 , IEC 62321-6:2015 and IEC 62321-8:2017, analyzed by ICP-OES , UV-Vis and GC-MS .

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 (CrVI)	1,000	mg/kg	8	ND
Sum of PBBs	1,000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1,000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND



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<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND
Dibutyl phthalate (DBP)	1000	mg/kg	50	ND
Butyl benzyl phthalate (BBP)	1000	mg/kg	50	ND
Bis (2-ethylhexyl) phthalate (DEHP)	1000	mg/kg	50	ND
Diisobutyl Phthalates (DIBP)	1000	mg/kg	50	ND

Notes :

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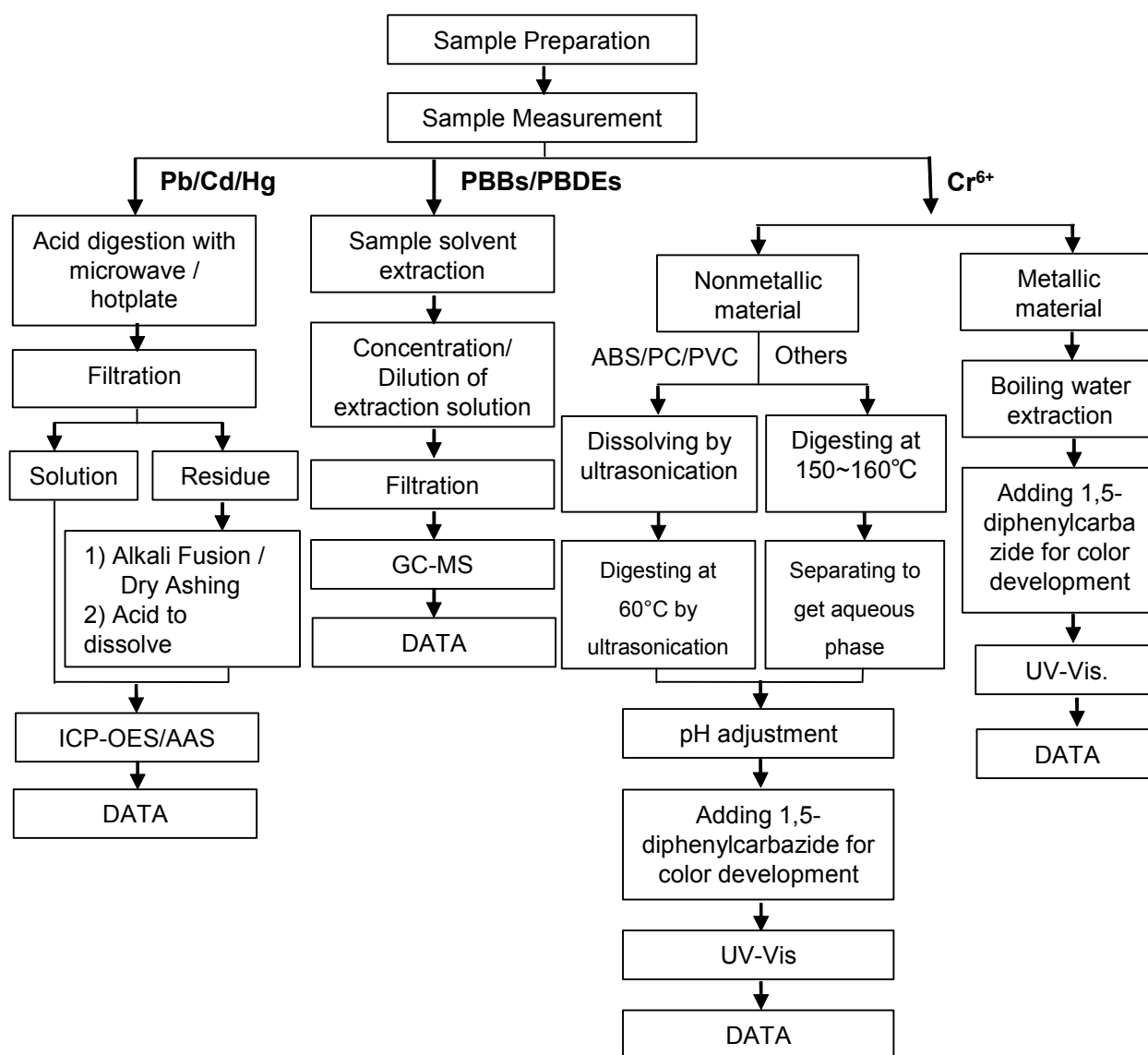
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ATTACHMENTS

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs Testing Flow Chart

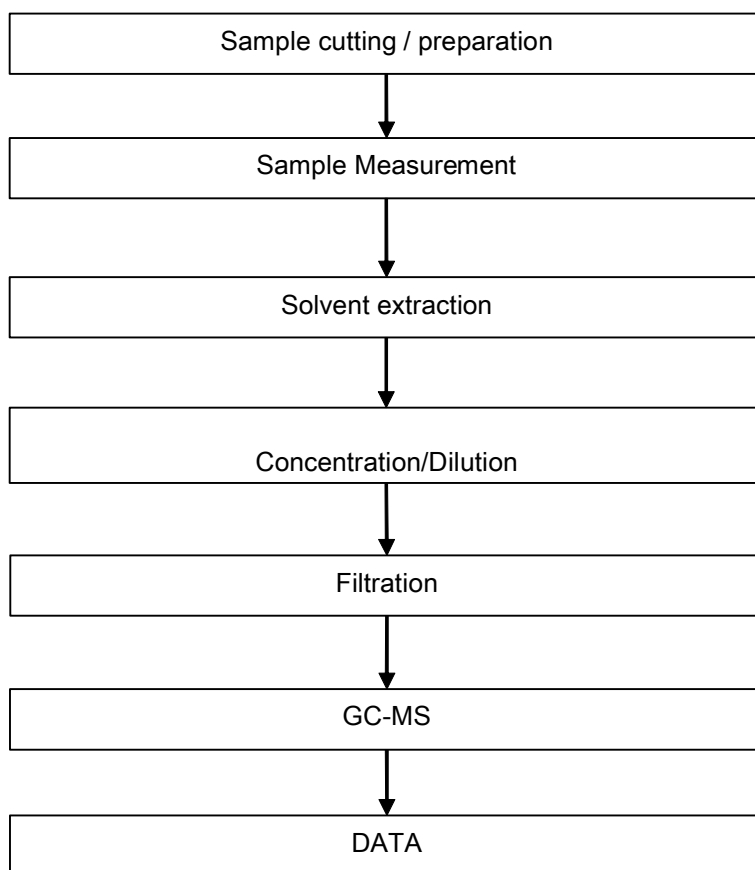
- 1) Name of the person who made testing: Edith Zhang / Sunny Hu
- 2) Name of the person in charge of testing: Bella Wang / Qiong Liu
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ and PBBs/PBDEs test method excluded).



ATTACHMENTS

Phthalates Testing Flow Chart

- 1) Name of the person who made testing: Sunny Hu
- 2) Name of the person in charge of testing: Qiong Liu



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REMARK:

G01, G02, G03, G04, G05, G06, G07, G08, G09, G10, G20, G21, G22, G23, G24, G25, G26, G27, G28, G29, G40, G41, G42, G43, G44, G45, G46, G47, G48, G49, G01M, G02M, G03M, G21M, G22M, G23M, G41M, G42M, G43M, G44M, G45M, G46M, G47M, G48M, G49M, SG11, SG12, SG13, SG14, SG15, SG16, SG17, SG18, SG19, SG30, SG31, SG32, SG33, SG34, SG35, SG36, SG37, SG38, SG39, SG50, SG51, SG52, SG53, SG54, SG55, SG56, SG57, SG58, SG59, SG11M, SG12M, SG13M, SG31M, SG32M, SG33M, SG51M, SG52M, SG53M, G01N, G02N, G03N, G04N, G05N, G06N, G07N, G08N, G09N, G20N, G21N, G22N, G23N, G24N, G25N, G26N, G27N, G28N, G29N, G40N, G41N, G42N, G43N, G44N, G45N, G46N, G47N, G48N, G49N, G01MN, G02MN, G03MN, G21MN, G22MN, G23MN, G41MN, G42MN, G43MN, SG11N, SG12N, SG13N, SG14N, SG15N, SG16N, SG17N, SG18N, SG19N, SG30N, SG31N, SG32N, SG33N, SG34N, SG35N, SG36N, SG37N, SG38N, SG39N, SG50N, SG51N, SG52N, SG53N, SG54N, SG55N, SG56N, SG57N, SG58N, SG59N, SG11MN, SG12MN, SG13MN, SG31N, SG32MN, SG33MN, SG51MN, SG52MN, SG53MN

BK01, BK02, BK03, BK04, BK05, BK01M, BK02M, BK03M, SBK11, SBK12, SBK13, SBK14, SBK15, SBK10M, SBK11M, SBK12M, BK01N, BK02N, BK03N, BK04N, BK05N, BK01MN, BK02MN, BK03MN, SBK11N, SBK12N, SBK13N, SBK14N, SBK15N, SBK01MN, SBK02MN, SBK03MN, SBK04MN, SBK05MN, SBK06MN, SBK07MN, SBK08MN, SBK09MN, SBK10MN, SBK11MN, SBK12MN

Y01, Y02, Y03, Y04, Y05, Y01M, Y02M, Y03M, SY11, SY12, SY13, SY14, SY15, SY11M, SY12M, SY13M, Y01N, Y02N, Y03N, Y04N, Y05N, Y01MN, Y02MN, Y03MN, SY11N, SY12N, SY13N, SY14N, SY15N, SY11MN, SY12MN, SY13MN

BL01, BL02, BL03, BL04, BL05, BL01M, BL02M, BL03M, SBL11, SBL12, SBL13, SBL14, SBL15, SBL11M, SBL12M, SBL13M, BL01N, BL02N, BL03N, BL04N, BL05N, BL01MN, BL02MN, BL03MN, SBL11N, SBL12N, SBL13N, SBL14N, SBL15N, SBL11MN, SBL12MN, SBL13MN

R01, R02, R03, R04, R05, R01M, R02M, R03M, SR11, SR12, SR13, SR14, SR15, SR11M, SR12M, SR13M, R01N, R02N, R03N, R04N, R05N, R01MN, R02MN, R03MN, SR11N, SR12N, SR13N, SR14N, SR15N, SR11MN, SR12MN, SR13MN



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Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***



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