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Client Name: CSN

CSMC Technologies FAB2 CO.,LTD

Client Address: 8 Xinzhou Road, Wuxi, Jiangsu

Sample Name:

8 IN WAFER

Model No .:

Advance

The above sample(s) and information were provided by the client.

SGS Job No.: SP23-011485 Sample Receiving Date: Jun 30, 2023

Testing Period: Jun 30, 2023 ~ Jul 07, 2023

Test Requested: As requested by client, SVHC screening is performed according to:

(i) Two hundred and thirty-five (235) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before Jun 14, 2023 regarding

Regulation (EC) No 1907/2006 concerning the REACH.

(ii) One (1) potential Substances of Very High Concern (SVHC) in the

notification of WTO on Jun 1, 2021.

(iii) Eleven (11) potential Substances of Very High Concern (SVHC) in the Intention List published by European Chemicals Agency (ECHA) regarding

Regulation (EC) No 1907/2006 concerning the REACH.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

### Summary:

| According to the specified scope and evaluation screening, the test results of SVHC are 0.1% (w/w) in the submitted sample. | Pass |  |
|---|------|--|
|---|------|--|

Signed for and on behalf of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.



Dora Hu Approved Signatory





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### Remark:

1. The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the following SVHC related documents published by ECHA:

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http://echa.europa.eu/web/guest/candidate-list-table

These lists are under evaluation by ECHA and may subject to change in the future.

2. REACH obligation:

2.1 Concerning article(s):

Communication:

Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance in the Candidate List.

#### Notification:

In accordance with Regulation (EC) No 1907/2006, any EU producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance in the Candidate List is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance in the Candidate List is present in those articles above a concentration of 0.1% weight by weight (w/w).

SGS adopts the ruling of the Court of Justice of the European Union on the definition of an article under REACH unless indicated otherwise. Detail explanation is available at the following link: http://www.sgs.com/-/media/global/documents/technical-documents/technical-bulletins/sgscrs-position-statement-on-svhc-in-articles-a4-en-16-06.pdf?la=en

### 2.2 Concerning material(s):

Test results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. If this report refers to testing result of composite material group by equal weight proportion, the material in each composite test group may come from more than one article.

If the sample is a substance or mixture, and it directly exports to EU, client has the obligation to comply with the supply chain communication obligation under Article 31 of Regulation (EC) No. 1907/2006 and the conditions of Authorization of substance of very high concern included in the Annex XIV of the Regulation (EC) No. 1907/2006.

### 2.3 Concerning substance and preparation:

If a SVHC is found over 0.1% (w/w) and/or the specific concentration limit which is set in Regulation (EC) No 1272/2008 and its amendments, client is suggested to prepare a Safety Data Sheet (SDS) against the SVHC to comply with the supply chain communication obligation under Regulation (EC) No 1907/2006, in which:

- a substance that is classified as hazardous under the CLP Regulation (EC) No 1272/2008.
- a mixture that is classified as hazardous under the CLP Regulation (EC) No 1272/2008, when it contains a substance with concentration equal to, or greater than the classification limit as set in Regulation (EC) No. 1272/2008; or
- a mixture is not classified as hazardous under the CLP Regulation (EC) No 1272/2008, but contains either:



- (a) a substance posing human health or environmental hazards in an individual concentration
- of 1 % by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures) or 0.2 % by volume for gaseous mixtures; or
- (b) a substance that is PBT, or vPvB in an individual concentration of 0.1 % by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures); or
- (c) a substance on the SVHC candidate list (for reasons other than those listed above), in an individual concentration of 0.1 % by weight for non-gaseous mixtures; or
- (d) a substance for which there are Europe-wide workplace exposure limits
- 3. If a SVHC is found over the reporting limit, client is suggested to identify the composite component which contains the SVHC and the exact concentration of the SVHC b



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Test Results: (Substances in the Candidate List of SVHC)

| Batch | Substance Name                    | CAS No. | 001<br>Concentration (%) | RL (%) |
|-------|-----------------------------------|---------|--------------------------|--------|
| -     | All tested SVHC in Candidate list | =       | ND                       | 1      |

**Test Results: (Potential SVHC)** 

| Batch | Substance Name            | CAS No. | 001<br>Concentration (%) | RL (%) |
|-------|---------------------------|---------|--------------------------|--------|
| /     | All tested Potential SVHC | -       | ND                       | -      |

#### Notes:

- (1) The table above only shows detected SVHC, and SVHC that below RL are not reported. Please refer to Appendix for the full list of tested SVHC.
- (2) RL = Reporting Limit (Test data will be shown if it RL. RL is not regulatory limit.) ND = Not detected (lower than RL), ND is denoted on the SVHC substance.
- (3) \* The test result is based on the calculation of selected element(s) and to the worst-case scenario.

  \*\* The test result is based on the calculation of selected marker(s) and to the worst-case scenario.

  Calculated concentration of boric compounds are based on water extractive boron detected by ICP-OES.

  Calculated concentration of Barium diboron tetraoxide is based on water extractive boron and barium detected by ICP-OES.
  - RL = 0.005% is evaluated for element (i.e. cobalt, arsenic, lead, chromium (VI), aluminum, zirconium, boron, stronq56.nq5447.67 Tm0 g0 G[()] TJET $\mathbf{q}$ 56.64 387.89 481.9 183.98 reW\* nBT/0 g.9(I)5(t, 7.89 481



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Appendix Full list of tested SVHC:

| i dii iist oi | 100104 01 |  |                          |        |
|---------------|-----------|--|--------------------------|--------|
| Batch         | No.       | Substance Name   | CAS No.                  | RL (%) |
|               | 1         | 4,4'-Diaminodiphenylmethane(MDA)   | 101-77-9                 | 0.050  |
| I             | 2         | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)   | 81-15-2                  | 0.050  |
| I             | 3         | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)                                | 85535-84-8               | 0.050  |
| I             | 4         | Anthracene   | 120-12-7                 | 0.050  |
| I             | 5         | Benzyl butyl phthalate (BBP)   | 85-68-7                  | 0.050  |
| I             | 6         | Bis(2-ethylhexyl)phthalate (DEHP)  | 117-81-7                 | 0.050  |
|               | 7         | Bis(tributyltin)oxide (TBTO)   | 56-35-9                  | 0.050  |
| I             | 8         | Cobalt dichloride*   | 7646-79-9                | 0.005  |
| I             | 9         | Diarsenic pentaoxide*  | 1303-28-2                | 0.005  |
| I             | 10        | Diarsenic trioxide*  | 1327-53-3                | 0.005  |
| I             | 11        | Dibutyl phthalate (DBP)  | 84-74-2                  | 0.050  |
| I             | 12        | Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( -HBCDD, -HBCDD) | -                        | 0.050  |
|               | 13        | Lead hydrogen arsenate*  | 7784-40-9                | 0.005  |
| ı             | 14        | Sodium dichromate*   | 10588-01-9<br>/7789-12-0 | 0.005  |
| I             | 15        | Triethyl arsenate*   | 15606-95                 |        |



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| Batch | No. | Substance Name  | CAS No.    | RL (%) |
|-------|-----|---|------------|--------|
| Ш     | 36  | Trichloroethylene   | 79-01-6    | 0.050  |
| IV    | 37  | 2-Ethoxyethanol   | 110-80-5   | 0.050  |
| IV    | 38  | 2-Methoxyethanol  | 109-86-4   | 0.050  |
| IV    | 39  | Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid*   | -          | 0.005  |
| IV    | 40  | Chromium trioxide*  | 1333-82-0  | 0.005  |
| IV    | 41  | Cobalt(II) carbonate*   | 513-79-1   | 0.005  |
| IV    | 42  | Cobalt(II) diacetate*   | 71-48-7    | 0.005  |
| IV    | 43  | Cobalt(II) dinitrate*   | 10141-05-6 | 0.005  |
| IV    | 44  | Cobalt(II) sulphate*  | 10124-43-3 | 0.005  |
| V     | 45  | 1,2,3-trichloropropane  | 96-18-4    | 0.050  |
| V     | 46  | 1,2-Benzenedicarboxylic acid, di-C6-8-<br>branched alkyl esters, C7-rich  | 71888-89-6 | 0.050  |
| V     | 47  | 1,2-Benzenedicarboxylic acid, di-C7-11-<br>branched and linear alkyl esters   | 68515-42-4 | 0.050  |
| V     | 48  | 1-methyl-2-pyrrolidone  | 872-50-4   | 0.050  |
| V     | 49  | 2-ethoxyethyl acetate   | 111-15-9   | 0.050  |
| V     | 50  | Hydrazine   | 302-01-2   | 0.050  |
| V     | 51  | strontium chromate*   | 7789-06-2  | 0.005  |
| VI    | 52  | 1,2-Dichloroethane  | 107-06-2   | 0.050  |
| VI    | 53  | 2,2'-dichloro-4,4'-methylenedianiline   | 101-14-4   | 0.050  |
| VI    | 54  | 2-Methoxyaniline; o-Anisidine   | 90-04-0    | 0.050  |
| VI    | 55  | 4-(1,1,3,3-tetramethylbutyl)phenol  | 140-66-9   | 0.050  |
| VI    | 56  | Aluminosilicate Refractory Ceramic Fibres*  | -          | 0.005  |
| VI    | 57  | Arsenic acid*   | 7778-39-4  | 0.005  |
| VI    | 58  | Bis(2-methoxyethyl) ether   | 111-96-6   | 0.050  |
| VI    | 59  | Bis(2-methoxyethyl) phthalate   | 117-82-8   | 0.050  |
| VI    | 60  | Calcium arsenate*   | 7778-44-1  | 0.005  |
| VI    | 61  | Dichromium tris(chromate)*  | 24613-89-6 | 0.005  |
| VI    | 62  | Formaldehyde, oligomeric reaction products with aniline   | 25214-70-4 | 0.050  |
| VI    | 63  | Lead diazide, Lead azide*   | 13424-46-9 | 0.005  |
| VI    | 64  | Lead dipicrate*   | 6477-64-1  | 0.005  |
| VI    | 65  | Lead styphnate*   | 15245-44-0 | 0.005  |
| VI    | 66  | N,N-dimethylacetamide   | 127-19-5   | 0.050  |
| VI    | 67  | Pentazinc chromate octahydroxide*   | 49663-84-5 | 0.005  |
| VI    | 68  | Phenolphthalein   | 77-09-8    | 0.050  |
| VI    | 69  | Potassium hydroxyoctaoxodizincatedichromate*  | 11103-86-9 | 0.005  |
| VI    | 70  | Trilead diarsenate*   | 3687-31-8  | 0.005  |
| VI    | 71  | Zirconia Aluminosilicate Refractory Ceramic Fibres*   | -          | 0.005  |
| VII   | 72  | [4-[[4-anilino-1-naphthyl][4-<br>(dimethylamino)phenyl]methylene]cyclohexa-<br>2,5-dien-1-ylidene] dimethylammonium<br>chloride (C.I. Basic Blue 26)§ | 2580-56-5  | 0.050  |
| VII   | 73  | [4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-   | 548-62-9   | 0.050  |



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| Batch | No. | Substance Name   | CAS No.   | RL (%) |
|-------|-----|--|-----------|--------|
|       |     | ylidene]dimethylammonium chloride (C.I.<br>Basic Violet 3) § |           |        |
| VII   | 74  | 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)            | 112-49-2  | 0.050  |
| VII   | 75  | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)  | 110-71-4  | 0.050  |
| VII   | 76  | 4,4'-bis(dimethylamino) benzophenone (Michler's Ketone)      | 90-94-8   | 0.050  |
| VII   | 77  | 4,4'-bis(dimethylamino)-4"-(methylamino)trityl alcohol§      | 561-41-1  | 0.050  |
| VII   | 78  | Diboron trioxide*  | 1303-86-2 | 0.005  |
| VII   | 79  | Formamide  | 75-12-7   | 0.050  |

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| Batch | No.        | Substance Name  | CAS No.                   | RL (%) |
|-------|------------|---|---------------------------|--------|
| Χ     | 146        | Dihexyl phthalate   | 84-75-3                   | 0.050  |
| Х     | 147        | Disodium 3,3'-[[1,1'-biphenyl]-4,4'-<br>diylbis(azo)]bis(4-aminonaphthalene-1-<br>sulphonate) (C.I. Direct Red 28)  | 573-58-0                  | 0.050  |
| X     | 148        | Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)   | 1937-37-7                 | 0.050  |
| Χ     | 149        | Imidazolidine-2-thione; (2-imidazoline-2-thiol)   | 96-45-7                   | 0.050  |
| Χ     | 150        | Lead di(acetate)*   | 301-04-2                  | 0.005  |
| Χ     | 151        | Trixylyl phosphate  | 25155-23-1                | 0.050  |
| ΧI    | 152        | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear  | 68515-50-4                | 0.050  |
| ΧI    | 153        | Cadmium chloride*   | 10108-64-2                | 0.005  |
| ΧI    | 154        | Sodium perborate; perboric acid, sodium salt*   | -                         | 0.005  |
| ΧI    | 155        | Sodium peroxometaborate*  | 7632-04-4                 | 0.005  |
| XII   | 156        | 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)  | 25973-55-1                | 0.050  |
| XII   | 157        | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)  | 3846-71-7                 | 0.050  |
| XII   | 158        | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-<br>3,5-dithia-4-stannatetradecanoate (DOTE)  | 15571-58-1                | 0.050  |
| XII   | 159        | Cadmium fluoride*   | 7790-79-6                 | 0.005  |
| XII   | 160        | Cadmium sulphate*   | 10124-36-4<br>/31119-53-6 | 0.005  |
| XII   | 161        | Reaction mass of 2-ethylhexyl 10-ethyl-4,4-<br>dioctyl-7-oxo-8-oxa-3,5-dithia-4-<br>stannatetradecanoate & 2-ethylhexyl 10-ethyl-<br>4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-<br>octyl-7-oxo-8-oxa-3,5-dithia-4-<br>stannatetradecanoate (reaction mass of<br>DOTE & MOTE) | -                         | 0.050  |
| XIII  | 162        | 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with 0.3% of dihexyl phthalate  | -                         | 0.050  |
| XIII  | 163        | 5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]   | -                         | 0.050  |
| XIV   | 164        | 1,3-propanesultone  | 1120-71-4                 | 0.050  |
|       | 1          |   |                           |        |
| XIV   | 165        | 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl) phenol (UV-327)   | 3864-99-1                 | 0.050  |
| XIV   | 165<br>166 | 2,4-di-tert-butyl-6-(5-chiorobenzotriazoi-2-yi)<br>phenol (UV-327)<br>2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-<br>butyl) phenol (UV-350)   | 3864-99-1<br>36437-37-3   | 0.050  |



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|-------|-----|--|-------------|---------|
| Batch | No. | Substance Name   | CAS No.     | RL (%)  |
| XXI   | 201 | Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with 0.1% w/w of 4-nonylphenol, branched and linear (4-NP) | -           | 0.050   |
| XXII  | 202 | 2-benzyl-2-dimethylamino-4'-<br>morpholinobutyrophenone  | 119313-12-1 | 0.050   |
| XXII  | 203 | 2-methyl-1-(4-methylthiophenyl)-2-<br>morpholinopropan-1-one   | 71868-10-5  | 0.050   |
| XXII  | 204 | Diisohexyl phthalate   | 71850-09-4  | 0.050   |
| XXII  | 205 | Perfluorobutane sulfonic acid (PFBS) and its salts   | -           | 0.050   |
| XXIII | 206 | 1-vinylimidazole   | 1072-63-5   | 0.050   |
| XXIII | 207 | 2-methylimidazole  | 693-98-1    | 0.050   |
| XXIII | 208 | Butyl 4-hydroxybenzoate  | 94-26-8     | 0.050   |
| XXIII | 209 | Dibur56.57 553.  | •           | •       |



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| Batch  | No. | Substance Name   | CAS No.    | RL (%) |
|--------|-----|--|------------|--------|
|        |     | (isopropyl or isobutyl or 2-ethylhexyl)                    |            |        |
|        |     | phosphorodithioate   |            |        |
| XXVI   | 223 | Tris(2-methoxyethoxy)vinylsilane                           | 1067-53-4  | 0.050  |
| XXVII  | 224 | N-(hydroxymethyl)acrylamide                                | 924-42-5   | 0.050  |
| XXVIII | 225 | 1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-<br>tribromobenzene] | 37853-59-1 | 0.050  |
| XXVIII | 226 | 2,2',6,6'-tetrabromo-4,4'-<br>isopropylidenediphenol       | 79-94-7    | 0.050  |
| XXVIII | 227 | 4,4'-sulphonyldiphenol                                     | 80-09-1    | 0.050  |
| XXVIII | 228 | Barium diboron tetraoxide*                                 | 13701-59-2 | 0.005  |

Bis(2-ethylhexyl) tetrabromophthalate

229 covering any of the individual isomers and/or - 0.050

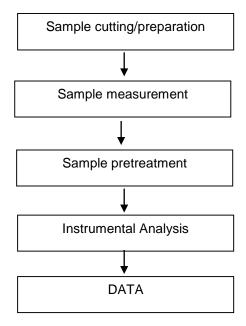
combinations thereof



**ATTACHMENTS** 

### **Testing Flow Chart**

Name of the person who made testing: Jo Li/ Winnie Shi Name of the person in charge of testing: Katie Huang





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Sample photos:



SGS authenticate the photo on original report only

\*\*\* End of Report \*\*\*

