Test Report No. F690101/LF-CTSAYAA24-32117

Issued Date : 2024. 08. 27

YOUNG YIEL PRECISION CO., LTD
13, Beoman-ro 9-gil
Geumcheon-gu, Seoul
Korea

The following sample(s) was/were submitted and identified by/on behalf of the client as:-

SGS File No.	:	AYAA24-32117
Product Name	:	SUS + Ni Plating HEAT SPREADER
Item No./Part No.	:	N/A
Client Reference Data	:	HEAT STIFFENER, SLUG, SINGLE WINDOW, FORGED LID, HAT TYPE, SINK
Received Date	:	2024. 08. 20
Test Period	:	2024. 08. 20 to 2024. 08. 27
Report Comments	:	By the applicant's request, item No.s/part No.s & client reference information are stated/added on report.
Test Results	:	For further details, please refer to following page(s)

Monet Jeong

Monet Jeong

Technical Manager / SGS Korea Co., Ltd

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Sample No. : AYAA24-32117.001
Sample Description : SUS + Ni Plating HEAT SPREADER
Item No./Part No. : N/A
Materials : SUS304

Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5 : 2013, by ICP-OES	0.5	N.D.
Lead (Pb)	mg/kg	With reference to IEC 62321-5 : 2013, by ICP-OES	5	N.D.
Mercury (Hg)	mg/kg	With reference to IEC 62321-4 : 2013+AMD1:2017CSV, by ICP-OES	2	N.D.
Hexavalent Chromium (Cr VI)*	μg/cm²	With reference to IEC 62321-7-1 : 2015, by UV-Vis	0.1	N.D.

Total Metals

Test Items	Unit	Test Method	MDL	Results
Antimony (Sb)	mg/kg	With reference to EPA 3052 : 1996, EPA 6010D : 2018, by ICP-OES	10	N.D.
Arsenic (As)	mg/kg	With reference to EPA 3052 : 1996, EPA 6010D : 2018, by ICP-OES	10	N.D.
Beryllium (Be)	mg/kg	With reference to EPA 3052 : 1996, EPA 6010D : 2018, by ICP-OES	5	N.D.

Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Monobromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Dibromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Tribromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Pentabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Hexabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Heptabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Octabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Nonabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Decabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd. 322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Sample No. : AYAA24-32117.001
Sample Description : SUS + Ni Plating HEAT SPREADER
Item No./Part No. : N/A
Materials : SUS304

Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.

Phthalates

Test Items	Unit	Test Method	MDL	Results
Di-(2-ethylhexyl) phthalate (DEHP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-butyl phthalate (DBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Benzyl butyl phthalate (BBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-isobutyl phthalate (DIBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-isodecyl phthalate (DIDP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-isononyl phthalate (DINP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-n-octyl phthalate (DNOP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-n-hexyl phthalate (DNHP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Bis(2-methoxyethyl) phthalate (BMP, BMEP, DMEP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
[di(C6-C8 alkyl)phthalate] branched (DIHP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
[di(C7-C11 alkyl)phthalate] linear and branched (DHNUP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.

Chlorinated Paraffin

Test Items	Unit	Test Method	MDL	Results
Alkanes, C10~13, Short Chain Chlorinated Paraffins(SCCP)	mg/kg	With reference to ISO 18219, by GC-MS(CI)	50	N.D.

Chlorinated Organic Substances

Test Items	Unit	Test Method	MDL	Results
Polychlorinated Naphthalene (PCN)	mg/kg	With reference to US EPA 8081 A(US EPA 3550C), by GC/MS	5	N.D.

PCBs & PCTs

Test Items	Unit	Test Method	MDL	Results

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd. 322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Sample No. : AYAA24-32117.001
Sample Description : SUS + Ni Plating HEAT SPREADER
Item No./Part No. : N/A
Materials : SUS304

PCBs & PCTs

Test Items	Unit	Test Method	MDL	Results
Polychlorinated Biphenyls (PCBs)	mg/kg	With reference to US EPA 8082,(US EPA 3550C), by GC/MS	3	N.D.
Polychlorinated terphenyls (PCTs)	mg/kg	With reference to US EPA 8082,(US EPA 3550C), by GC/MS	3	N.D.

Polymer Identification

Test Items	Unit	Test Method	MDL	Results
PVC	**	FT-IR	-	Negative

Halogen Content

Test Items	Unit	Test Method	MDL	Results
Bromine(Br)	mg/kg	With reference to BS EN 14582 : 2016, by IC	30	N.D.
Chlorine(Cl)	mg/kg	With reference to BS EN 14582 : 2016, by IC	30	N.D.
Fluorine(F)	mg/kg	With reference to BS EN 14582 : 2016, by IC	30	N.D.
Iodine(I)	mg/kg	With reference to BS EN 14582 : 2016, by IC	50	N.D.

Organotin Compounds

Test Items	Unit	Test Method	MDL	Results
Dibutyltin (DBT)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.
Tributyltin (TBT)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.
Bis (tributyltin)oxide (TBTO)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.
Triphenyltin (TPhT)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.
Dioctyltin (DOT)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.

PFAS (Per-and polyfluoroalkyl substances)

Test Items	Unit	Test Method	MDL	Results
Perfluorootanoic acid (PFOA)	μg/kg	with reference to CEN/TS 15968 :2010, HPLC/MS/MS	10	N.D.
Perfluorooctanesulfonic Acid (PFOS)	μg/kg	with reference to CEN/TS 15968 :2010, HPLC/MS/MS	10	N.D.

Ozone Depleting Substances

Test Items	Unit	Test Method	MDL	Results
Trichlorofluoromethane (CFC-11)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd. 322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Sample No. : AYAA24-32117.001
Sample Description : SUS + Ni Plating HEAT SPREADER
Item No./Part No. : N/A
Materials : SUS304

Ozone Depleting Substances

Test Items	Unit	Test Method	MDL	Results
1,1,2,2-Tetrachloro-1,2-difluoroethane (CFC-112)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC-114)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1-Chloro-1,1,2,2,2-pentafluoroethane (CFC-115)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Dichlorodifluoromethane (CFC-12)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Chlorotrifluoromethane (CFC-13)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,1,3,3,3-Hexachloro-2,2-difluoropropane (CFC-212)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,1,3,3-Pentachloro-2,2,3-trifluoropropane (CFC-213)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,3-Trichloro-1,2,2,3,3-pentafluoropropane (CFC-215cb)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2-Dichloro-1,1,2,3,3,3-hexafluoropropane (CFC-216)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1-Chloro-1,1,2,2,3,3,3-heptafluoropropane (CFC-217)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,2,2-Tetrachloro-1-fluoroethane (HCFC-121)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2,2-Trichloro-1,1-difluoroethane (HCFC-122)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
2,2-Dichloro-1,1,1-trifluoroethane (HCFC-123)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,2-Trichloro-2-fluoroethane (HCFC-131)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2-Dichloro-1,1-difluoroethane (HCFC-132b)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
2-Chloro-1,1,1-trifluoroethane (HCFC-133a)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1-Dichloro-1-fluoroethane (HCFC-141b)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1-Chloro-1,1-difluoroethane (HCFC-142b)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1-Chloro-1-fluoroethane (HCFC-151)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Dichlorofluoromethane (HCFC-21)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Chlorodifluoromethane (HCFC-22)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd. 322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Sample No. : AYAA24-32117.001
Sample Description : SUS + Ni Plating HEAT SPREADER
Item No./Part No. : N/A
Materials : SUS304

Ozone Depleting Substances

Test Items	Unit	Test Method	MDL	Results
1,3,3-Trichloro-1,1,2,2-tetrafluoropropane (HCFC-224ca)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
2-Chloro-1,1,1,3,3,3-hexafluoro-propane (HCFC-226da)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
3-Chloro-1,1,1-trifluoropropane (HCFC-253fb)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2-Dichloro-2-fluoropropane (HCFC-261ba)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Chlorofluoromethane (HCFC-31)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Methyl bromide (Halon-1001)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Bromochloromethane (Halon-1011)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Dibromodifluoromethane (Halon-1202)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Bromochlorodifluoromethane (Halon-1211)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Bromotrifluoromethane (Halon-1301)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2-Dibromo-1,1,2,2-tetrafluoroethane (Halon-2402)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2-Dibromo-1,1-difluoroethane (HBFC-132B2)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
2-Bromo-1,1,1-trifluoroethane (HBFC-133B1)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1-Bromo-2-fluoroethane (HBFC-151B1)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Dibromofluoromethane (HBFC-21B2)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Bromodifluoromethane (HBFC-22B1)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1-Bromo-3-fluoropropane (HBFC-271B1)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Bromofluoromethane (HBFC-31B1)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,1,2,2-Pentafluoroethane (HFC-125)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,2,2-Tetrafluoroethane (HFC-134)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,1,2-Tetrafluoroethane (HFC-134a)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,2-Trifluoroethane (HFC-143)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,1-Trifluoroethane (HFC-143a)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1-Difluoroethane (HFC-152a)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Sample No. : AYAA24-32117.001
Sample Description : SUS + Ni Plating HEAT SPREADER
Item No./Part No. : N/A
Materials : SUS304

Ozone Depleting Substances

Test Items	Unit	Test Method	MDL	Results
1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Fluoroform (HFC-23)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,1,3,3,3-Hexafluoropropane (HFC-236fa)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,2,2,3-Pentafluoropropane (HFC-245ca)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,4-Dihydrooctafluorobutane (HFC-338)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Fluoromethane (HFC-41)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
2-Perfluoromethylpentane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Carbon tetrafluoride	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Nonafluro-2-(trifluoromethyl)butane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Perfluoro-1-butane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Perfluorobutane (Decafluorobutane)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Perfluorocyclobutane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Perfluoroethane (Hexafluoroethane)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Perfluorohexane (Tetradecafluorohexane)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Perfluoroisobutene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Perfluoropentane (Dodecafluoropentane)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Perfluoropropane (Octafluoroproane)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,1,2-Tetrachloroethane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,2,2-Tetrachloroethane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1,2-Trichloroethane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1-Dichloroethane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1-Dichloroethene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,1-Dichloropropene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2,3-Trichloropropane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2-Dichloroethane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,2-Dichloropropane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1,3-Dichloropropane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
2,2-Dichloropropane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Carbon tetrachloride	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Chloroethane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Chloroform	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd. 322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Sample No. : AYAA24-32117.001
Sample Description : SUS + Ni Plating HEAT SPREADER
Item No./Part No. : N/A
Materials : SUS304

Ozone Depleting Substances

Test Items	Unit	Test Method	MDL	Results
cis-1,2-Dichloroethene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
cis-1,3-Dichloropropene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Dichloromethane	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Hexachlorobutadiene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Methyl chloride	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Methylchloroform	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Tetrachloroethene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
trans-1,2-Dichloroethene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
trans-1,3-Dichloropropene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Trichloroethylene	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
1-Bromopropane (n-Propyl bromide)	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Sulfur hexafluoride	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.
Trifluoromethyl iodide	mg/kg	EPA 5021A :2014, GC/MS	1	N.D.

Flame Retardants

Test Items	Unit	Test Method	MDL	Results
Tetrabromobisphenol A	mg/kg	With reference to US EPA 3540C, by GC-MS	10	N.D.
Hexabromocyclododecane (HBCDD)	mg/kg	With reference to USEPA 3540 C, by LC/MS	5	N.D.

Azo Dyes

Test Items	Unit	Test Method	MDL	Results
o-Toluidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
2,4-Xylidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
2,6-Xylidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
o-Anisidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
p-Chloroaniline	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
p-Cresidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
2,4,5-Trimethylaniline	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd. 322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Sample No. : AYAA24-32117.001
Sample Description : SUS + Ni Plating HEAT SPREADER
Item No./Part No. : N/A
Materials : SUS304

Azo Dyes

Test Items	Unit	Test Method	MDL	Results
4-Chloro-o-Toluidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
2,4-Toluenediamine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
2,4-Diaminoanisole	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
2-Naphtylamine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
2-Amino-4-Nitrotoluene	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
4-Aminodiphenyl	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
4,4'-Oxydianiline	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
Benzidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
4,4'-diaminodiphenylmethane	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
o-Aminoazotoluene	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
3,3-Dimethyl-4.4'-diaminodiphenyl methane	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
3,3-Dimethylbenzidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
4,4'-Thiodianiline	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
3,3'-Dichlorobenzidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
4,4'-Methylen-bis-(2-chloroaniline)	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
3,3-Dimethoxybenzidine	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.
4-Aminoazobenzene	mg/kg	With reference to EN 14362-1:2012, GC/MS & HPLC/DAD	5	N.D.

Other(s)

Test Items	Unit	Test Method	MDL	Results
2-Benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	mg/kg	THF extraction with reference to ISO 24040, GC/MS	50	N.D.

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

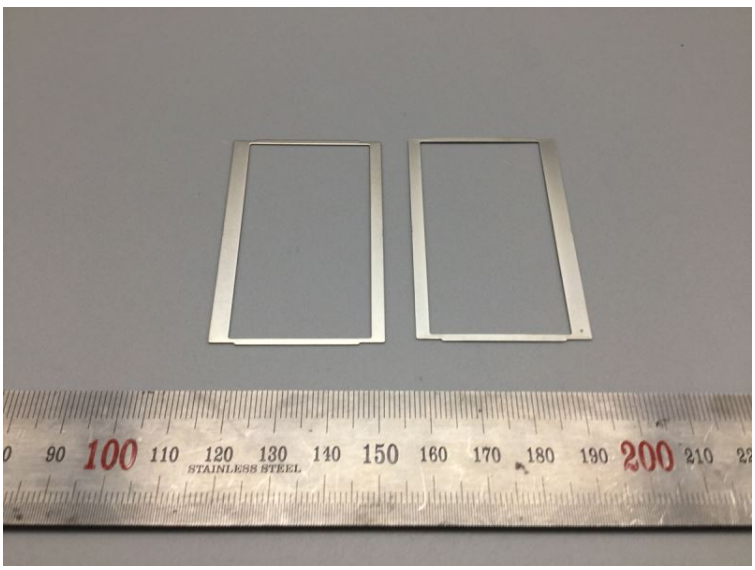
SGS Korea Co.,Ltd. 322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Sample No. : AYAA24-32117.001
Sample Description : SUS + Ni Plating HEAT SPREADER
Item No./Part No. : N/A
Materials : SUS304

NOTE: (1) N.D. = Not detected. (<MDL)
(2) mg/kg = ppm, ug/kg = ppb, mg/L = ppm
(3) MDL = Method Detection Limit
(4) - = No regulation
(5) ** = Qualitative analysis (No Unit)
(6) Negative = Undetectable / Positive = Detectable
(7) * = a. The sample is positive for Cr VI if the Cr VI concentration is greater than 0.13 ug/cm2. The sample coating is considered to contain Cr VI.
b. The sample is negative for Cr VI if Cr VI is ND(concentration less than 0.10 ug/cm2). The coating is considered a non-Cr VI based coating.
c. The result between 0.10 ug/cm2 and 0.13 ug/cm2 is considered to be inconclusive – unavoidable coating variations may influence the determination.
(8) Ozone Depleting Substance test result(s) was/were obtained by semi-quantitative analysis using reference substances
(9) The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test report is not related to Korea Laboratory Accreditation Scheme.

Picture of Sample as Received:



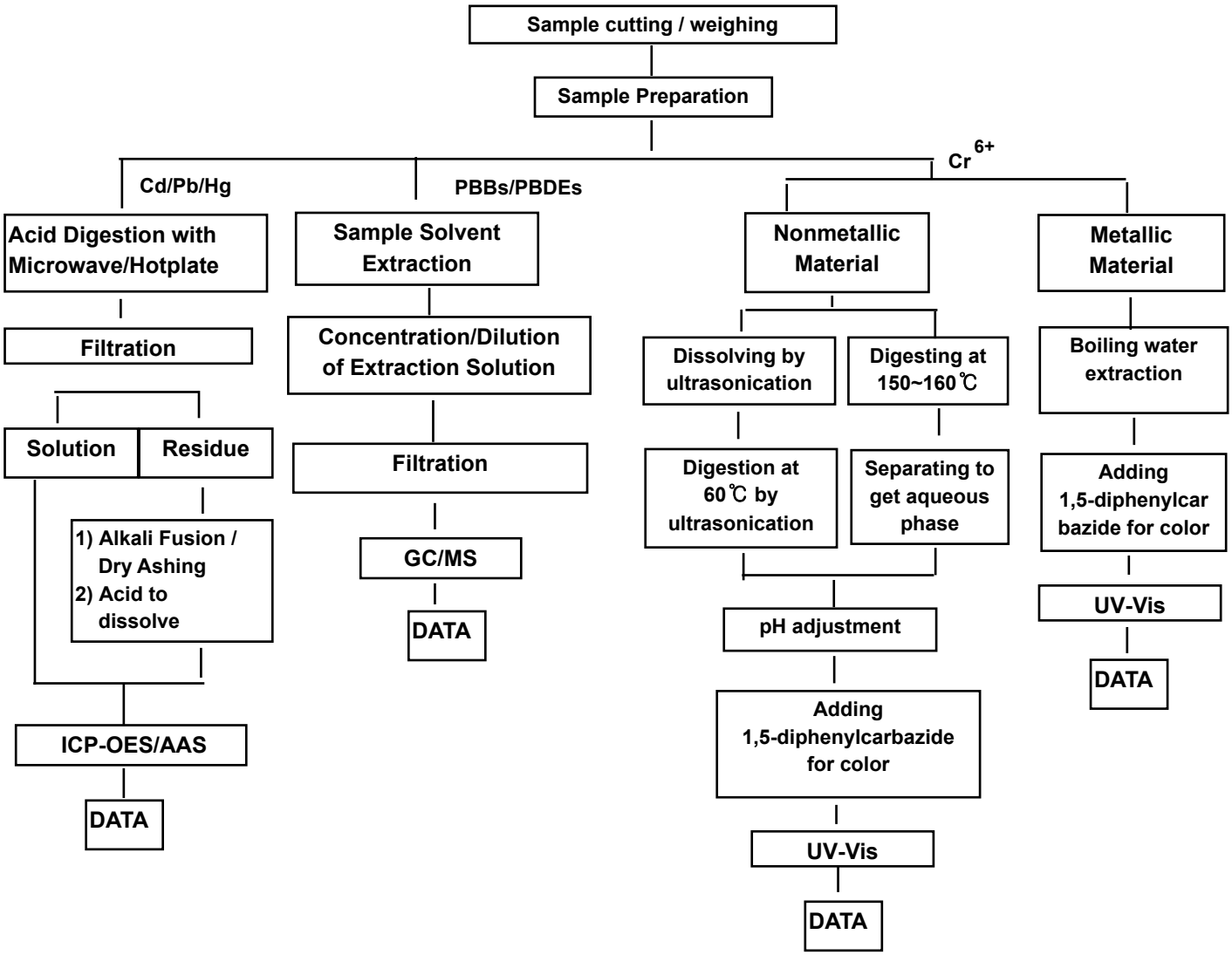
AYAA24-32117.001

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Testing Flow Chart for RoHS:Cd/Pb/Hg/Cr^{6+} /PBBs&PBDEs Testing



The samples were dissolved totally at the acid digestion step of the above flow chart for Cd,Pb,Hg
Section Chief : Hwangsik Kim

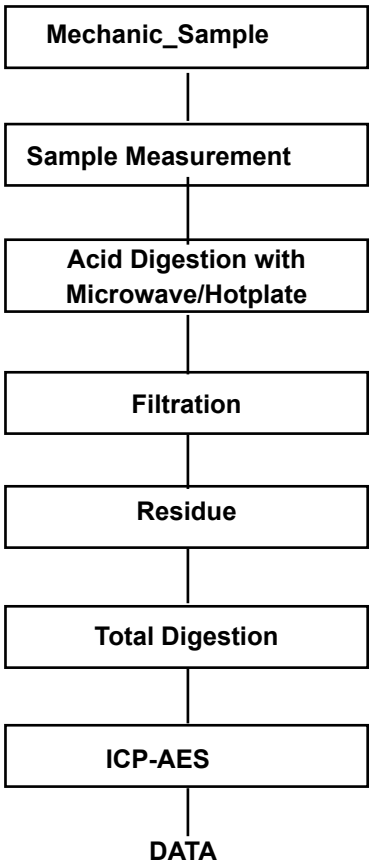
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Flow Chart for Inorganic Elements Testing

Inorganic Elements



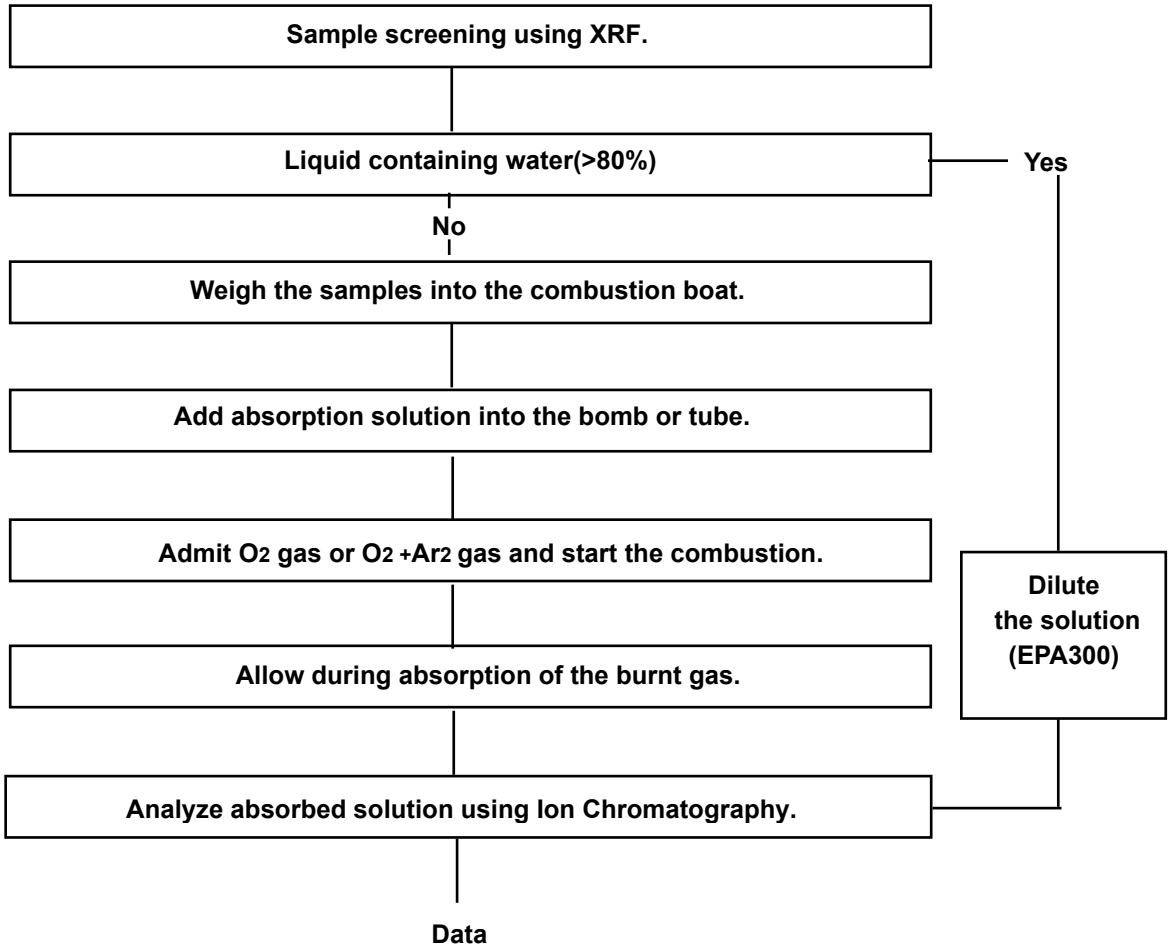
Major Inorganic Heavy Metals	Antimony(Sb) , Beryllium(Be) , Phosphorus(P) , Arsenic(As) etc.

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Flow Chart for Halogen Test

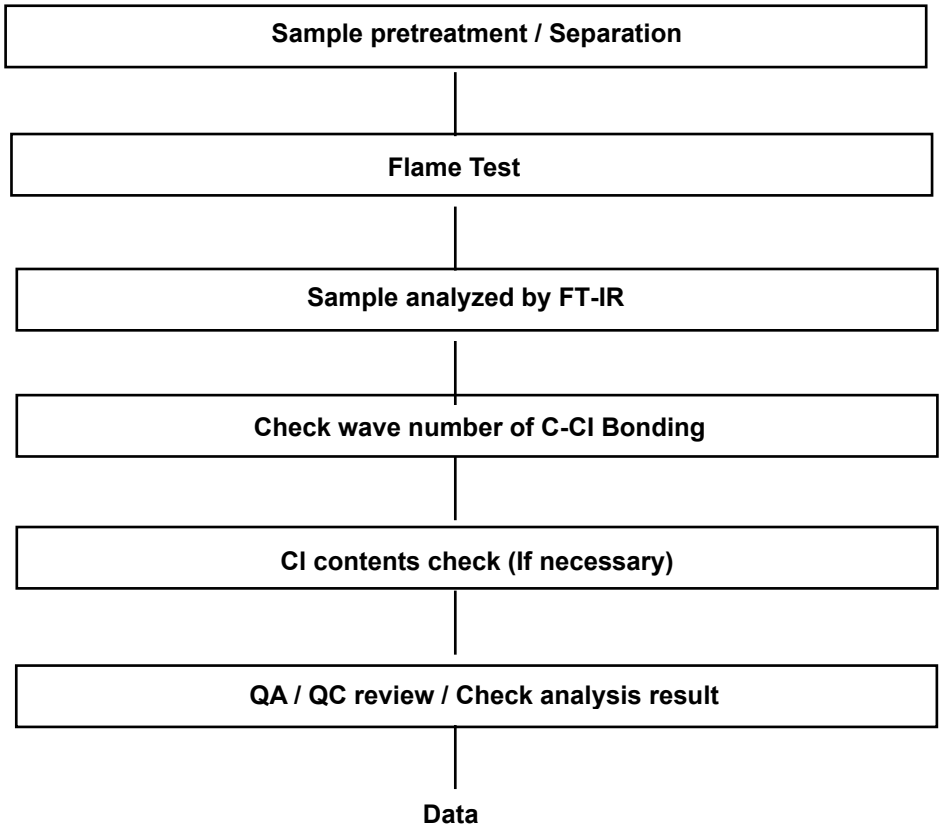


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Flow Chart for PVC Test

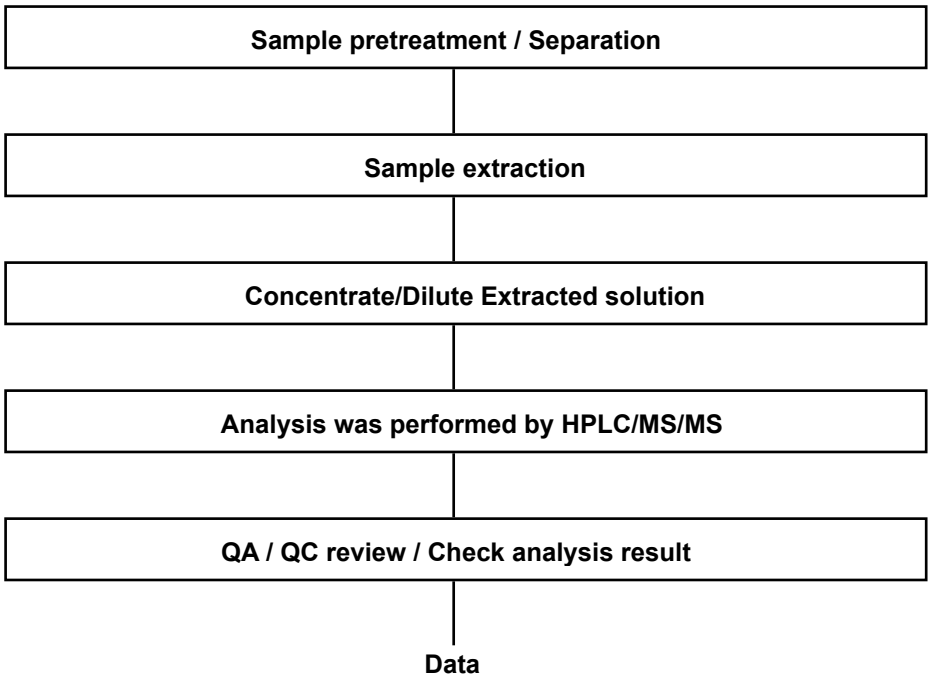


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Flow Chart for PFOS/PFOA Test

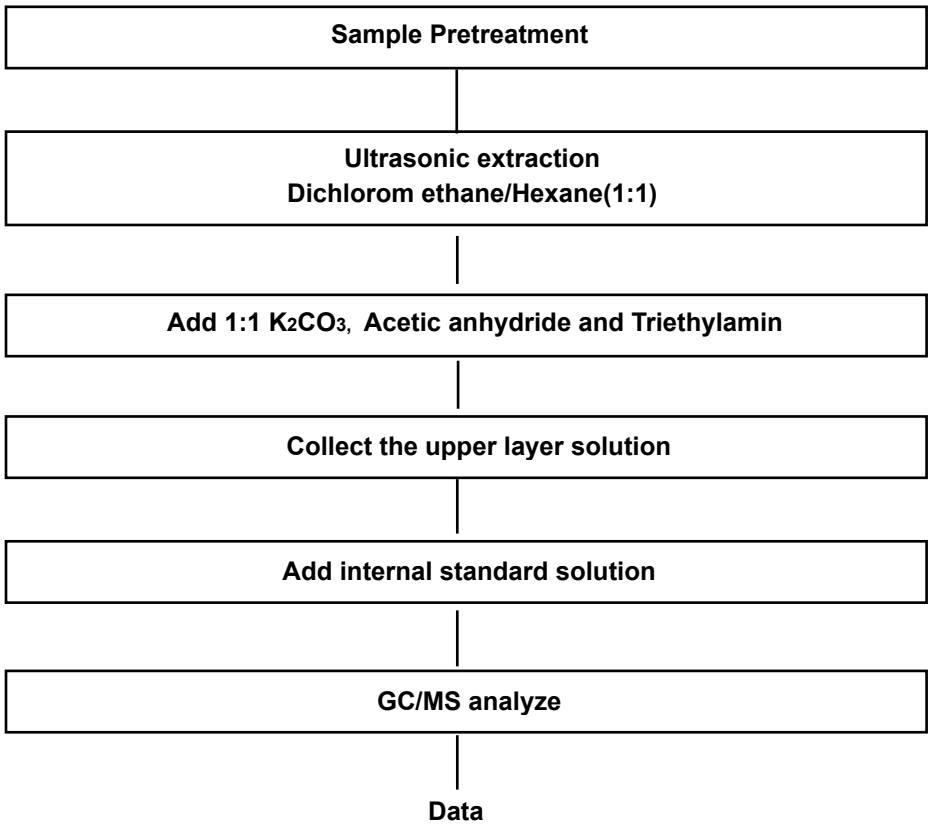


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Flow Chart for TBBPA Test

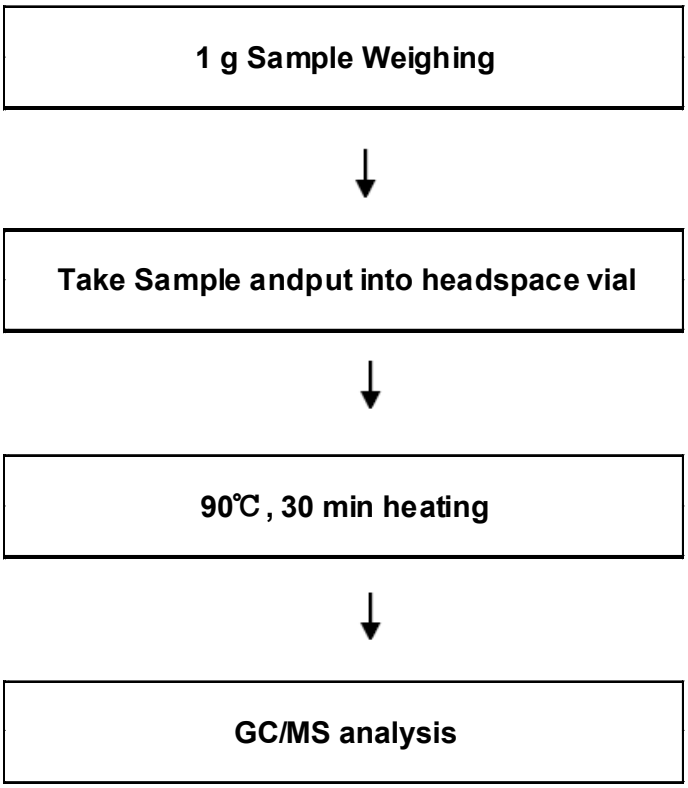


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

ODS Analysis Flow Chart

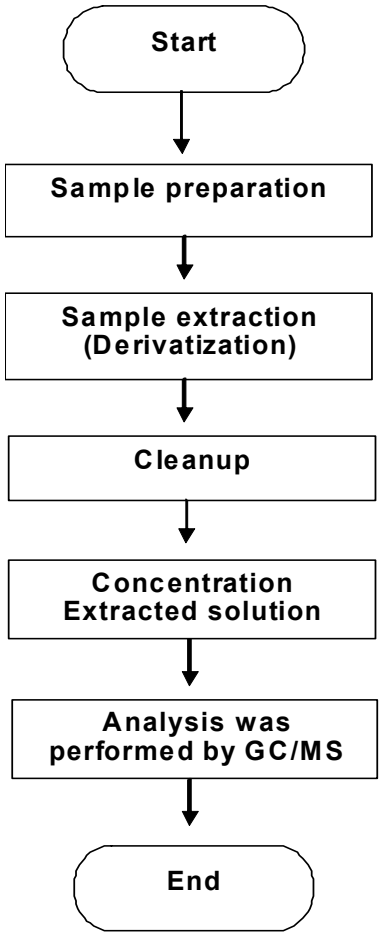


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Organotin Flow Chart

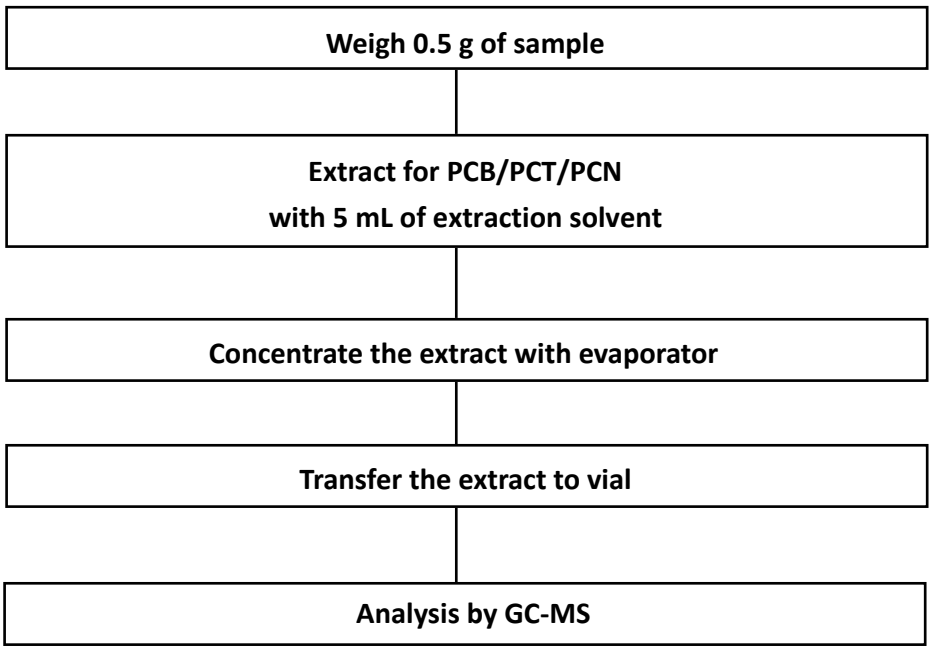


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Flow Chart for (PCB/PCT/PCN)

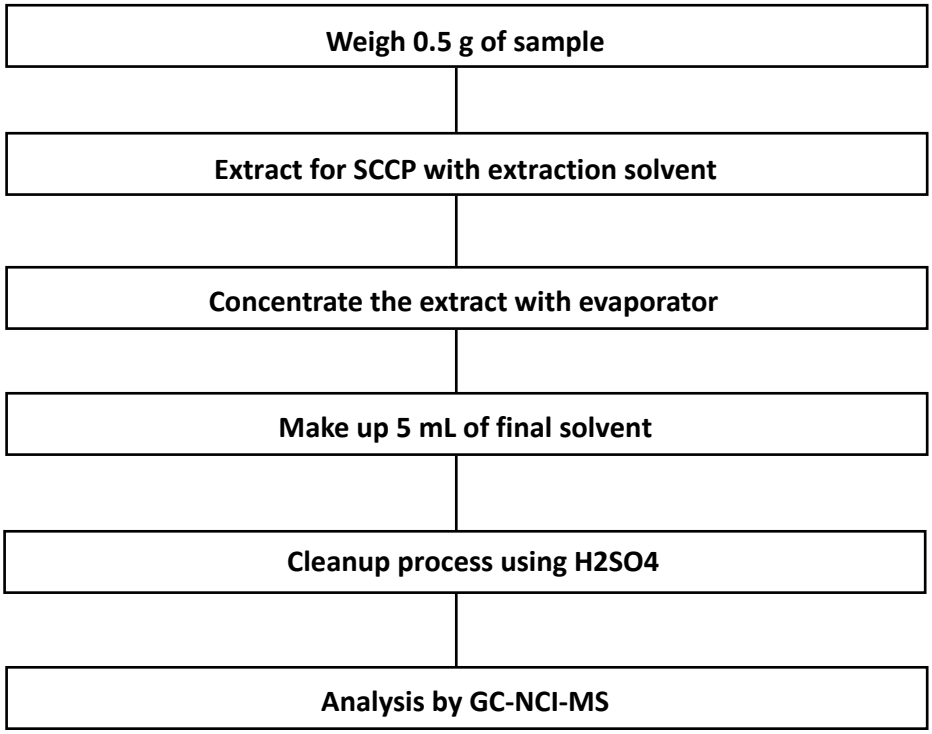


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Flow Chart for SCCP

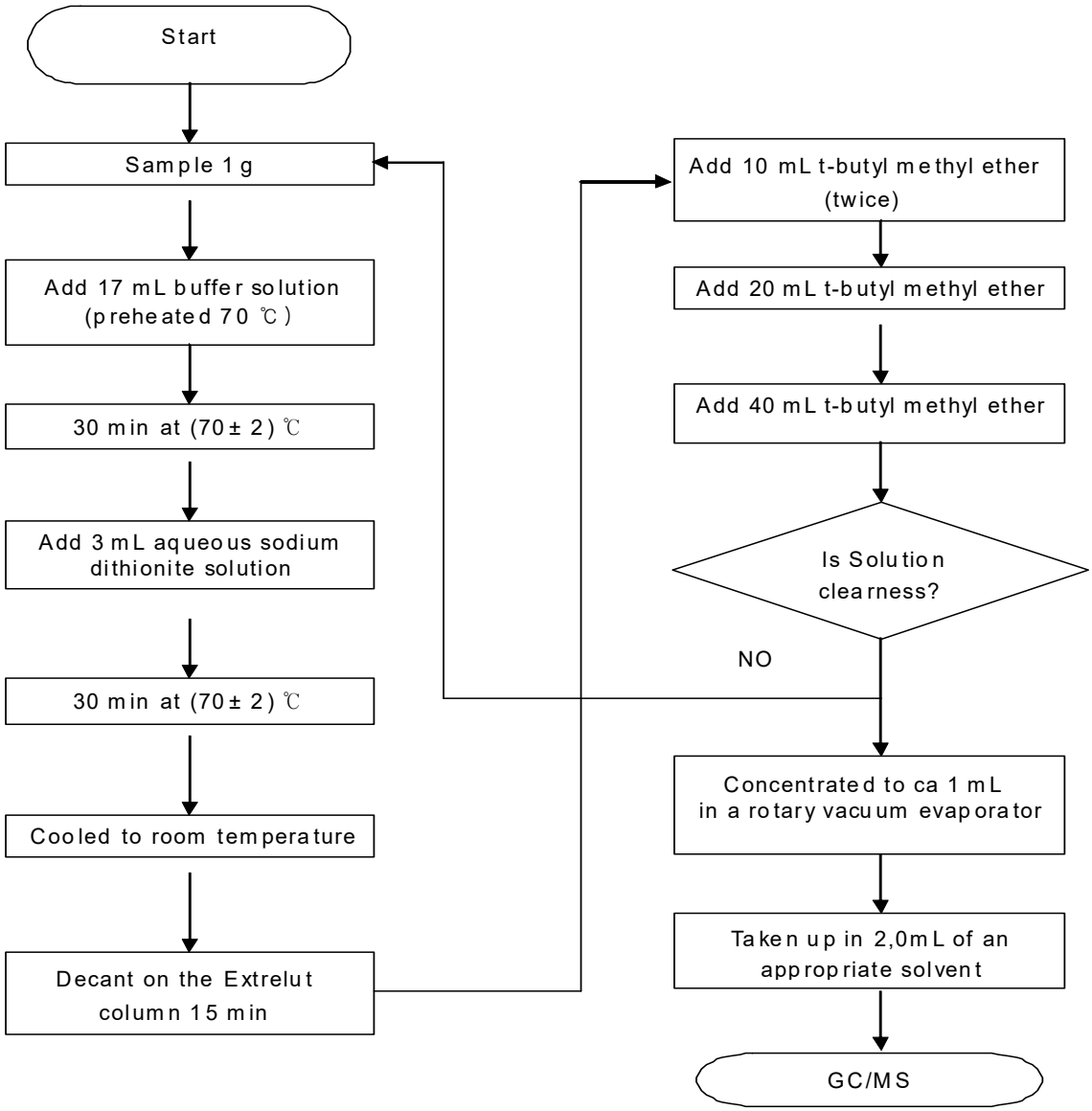


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

AZO Flow Chart

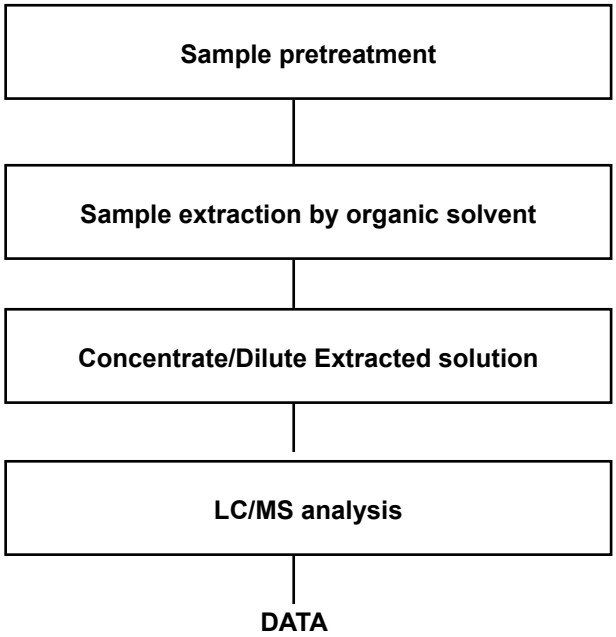


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Testing Flow Chart for HBCD

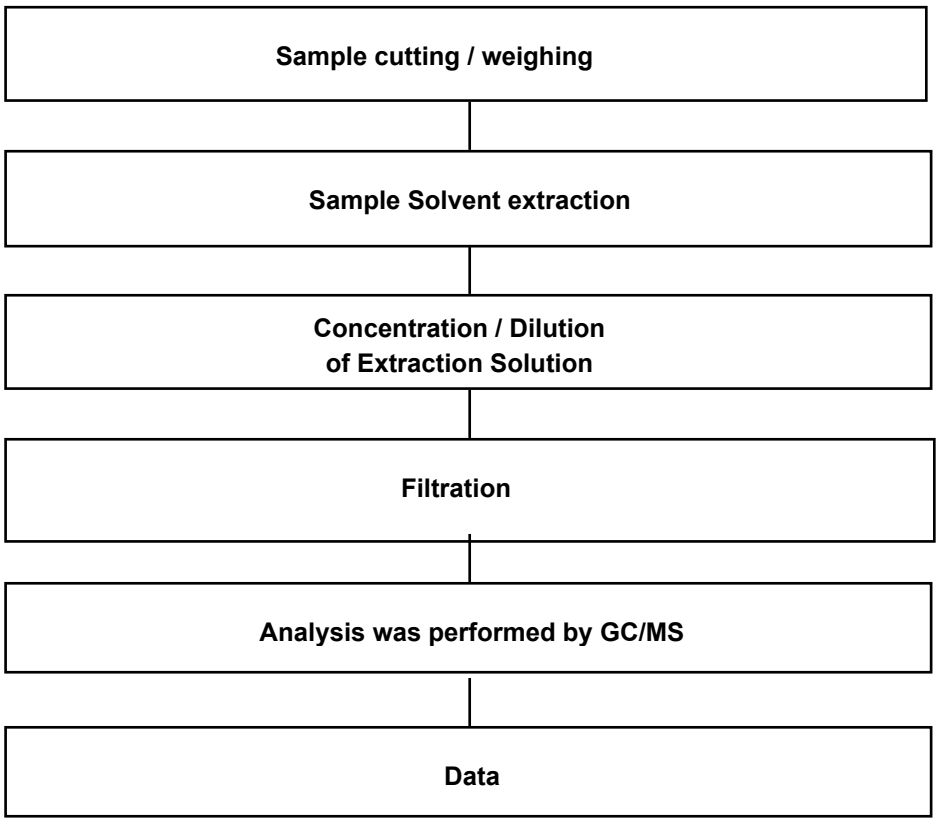


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)

Flow Chart for PhthalateTest



*** End of Report ***

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 https://www.sgs.com/en/terms-and-conditions/terms-e-document . 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).

SGS Korea Co.,Ltd.
322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgsgroup.kr

Member of the SGS Group (Société Générale de Surveillance)