

No.: ETR24100391 Date: 10-Jan-2024

TOWER SEMICONDUCTOR LTD. 20 SHAUL AMOR ST. MIGDAL HAEMEK ISRAEL

The following sample(s) was/were submitted and identified by the applicant as:

Sample Submitted By : TOWER SEMICONDUCTOR LTD.

Sample Name : SOI 8" TOWER SEMICONDUCTOR MH FAB2

Sample Receiving Date :

: 02-Jan-2024

Testing Period : 02-Jan-2024 to 10-Jan-2024

**Test Requested** : (1) As specified by client, with reference to RoHS 2011/65/EU Annex II and amending

Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs,

DBP, BBP, DEHP, DIBP contents in the submitted sample(s).

(2) Please refer to next pages for the other item(s).

Test Results :

Please refer to following pages.

**Conclusion** : (1) Based on the performed tests on submitted sample(s), the test results of Cadmium,

Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Troy Chang / Department Malager Signed for and on behalf of SGS TAIWAN LTD. Chemical Laboratory - Taipei CHECK REPORT

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PIN CODE: 41354AE1

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**Test Part Description** 

No.1 : SILICON WAFERS

#### Test Result(s)

Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Cadmium (Cd)	With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.	mg/kg	2	n.d.	100
Lead (Pb)	With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.	mg/kg	2	n.d.	1000
Mercury (Hg)	With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.	mg/kg	2	n.d.	1000
Hexavalent Chromium Cr(VI)	With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.	mg/kg	8	n.d.	1000
Monobromobiphenyl		mg/kg	5	n.d.	-
Dibromobiphenyl		mg/kg	5	n.d.	-
Tribromobiphenyl		mg/kg	5	n.d.	-
Tetrabromobiphenyl		mg/kg	5	n.d.	-
Pentabromobiphenyl	With reference to IEC 62321-6: 2015,	mg/kg	5	n.d.	-
Hexabromobiphenyl	analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Heptabromobiphenyl	analysis was performed by GC/1013.	mg/kg	5	n.d.	-
Octabromobiphenyl		mg/kg	5	n.d.	-
Nonabromobiphenyl		mg/kg	5	n.d.	-
Decabromobiphenyl		mg/kg	5	n.d.	1
Sum of PBBs		mg/kg	ı	n.d.	1000
Monobromodiphenyl ether		mg/kg	5	n.d.	ı
Dibromodiphenyl ether		mg/kg	5	n.d.	-
Tribromodiphenyl ether		mg/kg	5	n.d.	-
Tetrabromodiphenyl ether		mg/kg	5	n.d.	-
Pentabromodiphenyl ether	With reference to IEC 62321-6: 2015,	mg/kg	5	n.d.	-
Hexabromodiphenyl ether	analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Heptabromodiphenyl ether	analysis was performed by GC/1813.	mg/kg	5	n.d.	-
Octabromodiphenyl ether		mg/kg	5	n.d.	-
Nonabromodiphenyl ether		mg/kg	5	n.d.	-
Decabromodiphenyl ether		mg/kg	5	n.d.	-
Sum of PBDEs		mg/kg	1	n.d.	1000

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Butyl benzyl phthalate (BBP)	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	1000
	analysis was performed by GC/MS.				
Dibutyl phthalate (DBP)	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	1000
	analysis was performed by GC/MS.				
Di-(2-ethylhexyl) phthalate (DEHP)	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	1000
	analysis was performed by GC/MS.				
Diisobutyl phthalate (DIBP)	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	1000
	analysis was performed by GC/MS.				
Diisodecyl phthalate (DIDP) (CAS	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	-
No.: 26761-40-0, 68515-49-1)	analysis was performed by GC/MS.				
Diisononyl phthalate (DINP) (CAS	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	-
No.: 28553-12-0, 68515-48-0)	analysis was performed by GC/MS.				
Di-n-octyl phthalate (DNOP) (CAS	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	-
No.: 117-84-0)	analysis was performed by GC/MS.				
Bis(2-methoxyethyl) phthalate	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	-
(DMEP) (CAS No.: 117-82-8)	analysis was performed by GC/MS.				
1,2-Benzenedicarboxylic acid, di-C7-	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	-
11-branched and linear alkyl esters	analysis was performed by GC/MS.				
(DHNUP) (CAS No.: 68515-42-4)					
1,2-Benzenedicarboxylic acid, di-C6-	With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.	-
8-branched alkyl esters, C7-rich	analysis was performed by GC/MS.				
(DIHP) (CAS No.: 71888-89-6)					
Hexabromocyclododecane (HBCDD)	With reference to IEC 62321: 2008,	mg/kg	5	n.d.	_
and all major diastereoisomers	analysis was performed by GC/MS.				
identified (α- HBCDD, β- HBCDD, γ-					
HBCDD) (CAS No.: 25637-99-4,					
3194-55-6 (134237-51-7, 134237-					
50-6, 134237-52-8))					
Polychlorinated biphenyls (PCBs)	With reference to US EPA 3550C: 2007,	mg/kg	0.5	n.d.	-
	analysis was performed by GC/MS.				
Polychlorinated naphthalene (PCNs)	With reference to US EPA 3550C: 2007,	mg/kg	5	n.d.	-
	analysis was performed by GC/MS.				
Polychlorinated terphenyls (PCTs)	With reference to US EPA 3550C: 2007,	mg/kg	0.5	n.d.	-
	analysis was performed by GC/MS.				

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Short Chain Chlorinated	With reference to ISO 18219-1: 2021,	mg/kg	50	n.d.	-
Paraffins(C10-C13) (SCCP) (CAS No.:	analysis was performed by GC/MS.				
85535-84-8)					
AZO Dyes					
4-aminodiphenyl (CAS No.: 92-67-1)	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				
Benzidine (CAS No.: 92-87-5)	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				
4-chloro-o-toluidine (CAS No.: 95-	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	=
69-2)	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				
2-naphthylamine (CAS No.: 91-59-8)	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				
o-aminoazotoluene (CAS No.: 97-56-	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	=
3)	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				
5-nitro-o-toluidine (CAS No.: 99-55-	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
8)	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				
4-chloroaniline (CAS No.: 106-47-8)	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				
2,4-diaminoanisole (CAS No.: 615-	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	=
05-4)	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				
4,4'-diaminodiphenylmethane	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
(MDA) (CAS No.: 101-77-9)	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				
3,3'-dichlorobenzidine (CAS No.: 91-	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
94-1)	2017, analysis was performed by				
	GC/MS and HPLC/DAD.				

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Test Item(s)	Method	Unit	MDL	Result No.1	Limit
3,3'-dimethoxybenzidine (CAS No.: 119-90-4)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
3,3'-dimethylbenzidine (CAS No.: 119-93-7)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
3,3'-dimethyl-4,4'- diaminodiphenylmethane (CAS No.: 838-88-0)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
2-methoxy-5-methylaniline (CAS No.: 120-71-8)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
4,4'-methylene-bis-(2-chloroaniline) (CAS No.: 101-14-4)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
4,4'-oxydianiline (CAS No.: 101-80-4)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
4,4'-thiodianiline (CAS No.: 139-65-1)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
o-toluidine (CAS No.: 95-53-4)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
2,4-diaminotoluene (CAS No.: 95-80-7)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
2,4,5-trimethylaniline (CAS No.: 137-17-7)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
o-anisidine (CAS No.: 90-04-0)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
4-aminoazobenzene (CAS No.: 60-	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
09-3)	2017 or/and EN ISO 14362-3: 2017,				
	analysis was performed by GC/MS &				
	HPLC/DAD.				
2,4-xylidine (CAS No.: 95-68-1)	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
	2017, analysis was performed by				
	GC/MS and HPLC/DAD.			<u> </u>	
2,6-xylidine (CAS No.: 87-62-7)	With reference to EN ISO 14362-1:	mg/kg	3	n.d.	-
	2017, analysis was performed by				
5	GC/MS and HPLC/DAD.		2		
Formaldehyde (CAS No.: 50-00-0)	With reference to ISO 17226-1: 2021,	mg/kg	3	n.d.	-
Asbestos	analysis was performed by LC/DAD.				
Actinolite (CAS No.: 77536-66-4)		_	_	Negative	_
Actinolite (CAS No.: 77330-00-4)  Amosite (CAS No.: 12172-73-5)	With reference to EPA 600/R-93/116:	-		Negative	-
Anthophyllite (CAS No.: 77536-67-5)	1993, analysis was performed by	-		Negative	-
Chrysotile (CAS No.: 12001-29-5)	Stereo Microscope (SM), Dispersion Staining Polarized Light Microscope	-	-		-
Crocidolite (CAS No.: 12001-29-3)	(DS-PLM) and X-ray Diffraction	-	-	Negative	-
` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	Spectrometer (XRD).	-	-	Negative	
Tremolite (CAS No.: 77536-68-6)	·		- 0.1	Negative	-
Dimethyl fumarate (DMFu) (CAS No.: 624-49-7)	With reference to US EPA 3550C: 2007,	mg/kg	0.1	n.d.	-
,	analysis was performed by GC/MS. With reference to ASTM E1252: 2021,	**		Negativo	
Polyvinyl chloride (PVC)	analysis was performed by FT-IR and		-	Negative	-
	Flame Test.				
Chlorofluorocarbons (CFCs)	rame rest.				
CFC-13 (CAS No.: 75-72-9)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	
(c) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	analysis was performed by GC/MS.	1119/119	_	11.0.	
CFC-111 (CAS No.: 354-56-3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
,	analysis was performed by GC/MS.	<i>J, J</i>			
CFC-112 (CAS No.: 76-12-0)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
, , , , , , , , , , , , , , , , , , ,	analysis was performed by GC/MS.	J. J.			
CFC-211 (CAS No.: 422-78-6)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
CFC-212 (CAS No.: 3182-26-1)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				

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Test Item(s)	Method	Unit	MDL	Result No.1	Limit
CFC-213 (CAS No.: 2354-06-5)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
CFC-214 (CAS No.: 29255-31-0)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
CFC-215 (CAS No.: 4259-43-2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
CFC-216 (CAS No.: 661-97-2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
CFC-217 (CAS No.: 422-86-6)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
CFC-12 (CAS No.: 75-71-8)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	1
CFC-11 (CAS No.: 75-69-4)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	1
CFC-115 (CAS No.: 76-15-3)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
CFC-114 (CAS No.: 76-14-2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
CFC-113 (CAS No.: 76-13-1)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
Hydrochlorofluorocarbons (HCFCs)					
HCFC-21 (CAS No.: 75-43-4)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-22 (CAS No.: 75-45-6)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-31 (CAS No.: 593-70-4)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-121 (CAS No.: 354-14-3)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-122 (CAS No.: 354-21-2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-123 (CAS No.: 306-83-2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-124 (CAS No.: 2837-89-0)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
HCFC-131 (CAS No.: 359-28-4)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-132b (CAS No.: 1649-08-7)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-133a (CAS No.: 75-88-7)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-142b (CAS No.: 75-68-3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-221 (CAS No.: 422-26-4)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-222 (CAS No.: 422-49-1)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-223 (CAS No.: 422-52-6)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-224 (CAS No.: 422-54-8)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-225ca (CAS No.: 422-56-0)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-225cb (CAS No.: 507-55-1)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-226 (CAS No.: 431-87-8)	With reference to US EPA 5021A: 2014,	mg/kg 1	mg/kg	n.d.	-
	analysis was performed by GC/MS.				
HCFC-231 (CAS No.: 421-94-3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-232 (CAS No.: 460-89-9)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-233 (CAS No.: 7125-84-0)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HCFC-234 (CAS No.: 425-94-5)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.	3 3			
HCFC-235 (CAS No.: 460-92-4)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.	3 3			
HCFC-241 (CAS No.: 666-27-3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
,	analysis was performed by GC/MS.				
HCFC-242 (CAS No.: 460-63-9)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
,	analysis was performed by GC/MS.				

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Test Item(s)	Method	Unit	MDL	Result No.1	Limit
HCFC-244	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-251 (CAS No.: 421-41-0)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-252 (CAS No.: 819-00-1)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-261 (CAS No.: 420-97-3)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	ı
HCFC-262 (CAS No.: 421-02-03)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-271 (CAS No.: 430-55-7)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-141b (CAS No.: 1717-00-6)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-243 (CAS No.: 460-69-5)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-253 (CAS No.: 460-35-5)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-141	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-142	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-151	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-225	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	=
Halons					
Halon-1211 (CAS No.: 353-59-3)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
Halon-1301 (CAS No.: 75-63-8)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
Halon-2402 (CAS No.: 124-73-2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
Methyl Bromide (CAS No.: 74-83-9)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result No.1	Limit
Hydrobromofluorocarbons (HBFCs)					
HBFC-271B1 (C3H6FBr)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-262B1 (C3H5F2Br)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-261B2 (C3H5FBr2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-253B1 (C3H4F3Br)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-252B2 (C3H4F2Br2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-251B3 (C3H4FBr3)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-244B1 (C3H3F4Br)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-243B2 (C3H3F3Br2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-242B3 (C3H3F2Br3)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-241B4 (C3H3FBr4)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-235B1 (C3H2F5Br)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-234B2 (C3H2F4Br2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-233B3 (C3H2F3Br3)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	1
HBFC-232B4 (C3H2F2Br4)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-231B5 (C3H2FBr5)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-226B1 (C3HF6Br)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-225B2 (C3HF5Br2)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
HBFC-224B3 (C3HF4Br3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-223B4 (C3HF3Br4)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-222B5 (C3HF2Br5)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-221B6 (C3HFBr6)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-151B1 (C2H4FBr)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-142B1 (C2H3F2Br)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-141B2 (C2H3FBr2)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.	3 3			
HBFC-133B1 (C2H2F3Br)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.	3 3			
HBFC-132B2 (C2H2F2Br2)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-131B3 (C2H2FBr3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-124B1 (C2HF4Br)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-123B2 (C2HF3Br2)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	_
	analysis was performed by GC/MS.				
HBFC-122B3 (C2HF2Br3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	_
	analysis was performed by GC/MS.				
HBFC-121B4 (C2HFBr4)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HBFC-31B1 (CH2FBr) (CAS No.: 373-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
52-4)	analysis was performed by GC/MS.				
HBFC-22B1 (CHF2Br) (CAS No.:	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
1511-62-2)	analysis was performed by GC/MS.				
HBFC-21B2 (CHFBr2) (CAS No.:	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
1868-53-7)	analysis was performed by GC/MS.				

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Chlorinate hydrocarbon (CHCs)					
1,1-Dichloropropene (CAS No.: 563-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
58-6)	analysis was performed by GC/MS.				
1,2-Dichloroethane (CAS No.: 107-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
06-2)	analysis was performed by GC/MS.				
2,2-Dichloropropane (CAS No.: 594-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
20-7)	analysis was performed by GC/MS.				
Carbon tetrachloride (CAS No.: 56-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
23-5)	analysis was performed by GC/MS.				
Chloromethane (CAS No.: 74-87-3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
cis-1,2-Dichloroethene (CAS No.:	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
156-59-2)	analysis was performed by GC/MS.				
cis-1,3-Dichloropropene (CAS No.:	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
10061-01-5)	analysis was performed by GC/MS.				
Hexachlorobutadiene (CAS No.: 87-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
68-3)	analysis was performed by GC/MS.				
trans-1,2-Dichloroethene (CAS No.:	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
156-60-5)	analysis was performed by GC/MS.				
trans-1,3-Dichloropropene (CAS No.:	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
10061-02-6)	analysis was performed by GC/MS.				
Dichloromethane, Methylene	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
chloride (CAS No.: 75-09-2)	analysis was performed by GC/MS.				
1,2-Dichloropropane (CAS No.: 78-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
87-5)	analysis was performed by GC/MS.				
1,1,1,2-Tetrachloroethane (CAS No.:	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
630-20-6)	analysis was performed by GC/MS.				
1,1,1-Trichloroethane (CAS No.: 71-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
55-6)	analysis was performed by GC/MS.				
1,1,2-Trichloroethane (CAS No.: 79-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
00-5)	analysis was performed by GC/MS.				
1,1,2,2-Tetrachloroethane (CAS No.:	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
79-34-5)	analysis was performed by GC/MS.				
1,1-Dichloroethylene (CAS No.: 75-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
35-4)	analysis was performed by GC/MS.				

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Test Item(s)	Method	Unit	MDL	Result	Limit
.,				No.1	
1,1-Dichloroethane (CAS No.: 75-34-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
3)	analysis was performed by GC/MS.				
Chloroethane (CAS No.: 75-00-3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
Tetrachloroethene (CAS No.: 127-18-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
4)	analysis was performed by GC/MS.				
Trichloroethylene (CAS No.: 79-01-6)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
1,3-Dichloropropane (CAS No.: 142-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
28-9)	analysis was performed by GC/MS.				
Chloroform (CAS No.: 67-66-3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
1,2,3-Trichloropropane (CAS No.: 96-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
18-4)	analysis was performed by GC/MS.				
Hydrofluorocarbon (HFCs)					
HFC-23 (CHF3) (CAS No.: 75-46-7)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-32 (CH2F2) (CAS No.: 75-10-5)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-41 (CH3F) (CAS No.: 593-53-3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-43-10mee (C5H2F10)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-125 (C2HF5)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-134 (C2H2F4)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-134a (CH2FCF3) (CAS No.: 811-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
97-2)	analysis was performed by GC/MS.				
HFC-143 (C2H3F3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-143a (C2H3F3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.	-			
HFC-152a (C2H4F2) (CAS No.: 75-37-	•	mg/kg	1	n.d.	-
6)	analysis was performed by GC/MS.				

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
HFC-227ea (C3HF7) (CAS No.: 431-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
89-0)	analysis was performed by GC/MS.				
HFC-236fa (CAS No.: 431-63-0)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-245ca (C3H3F5)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-245fa (C3H3F5)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
HFC-365mfc (C4H5F5)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	_
	analysis was performed by GC/MS.				
HFC-236ea (C3H2F6) (CAS No.: 431-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	_
63-0)	analysis was performed by GC/MS.				
Perfluorocarbon (PFCs)					
1,4-dihydrooctafluorobutane (CAS	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	_
No.: 377-36-6)	analysis was performed by GC/MS.				
2-Perfluoromethylpentane (CAS No.:	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	_
355-04-4)	analysis was performed by GC/MS.				
Decafluorobutane (CAS No.: 355-25-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	_
9)	analysis was performed by GC/MS.				
F14 (CAS No.: 75-73-0)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	_
	analysis was performed by GC/MS.				
Fluorocarbon 116 (CAS No.: 76-16-4)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
Freon 218 (CAS No.: 76-19-7)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	_
	analysis was performed by GC/MS.				
Freon C318 (CAS No.: 115-25-3)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
Nonafluor-2-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
(trifluoromethyl)butane (CAS No.:	analysis was performed by GC/MS.				
594-91-2)					
Perfluorisobutene (CAS No.: 382-21-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
8)	analysis was performed by GC/MS.				
Perfluorohexane (CAS No.: 355-42-0)	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
	analysis was performed by GC/MS.				
Perfluoro-n-pentane (CAS No.: 678-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
26-2)	analysis was performed by GC/MS.				

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Perfluor-1-butene (CAS No.: 357-26-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	=
6)	analysis was performed by GC/MS.				
Sulfur hexafluoride (CAS No.: 2551-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	=
62-4)	analysis was performed by GC/MS.				
Bromochloromethan (CAS No.: 74-	With reference to US EPA 5021A: 2014,	mg/kg	1	n.d.	-
97-5)	analysis was performed by GC/MS.				
Fluorine (F) (CAS No.: 14762-94-8)	With reference to BS EN 14582: 2016,	mg/kg	50	n.d.	-
	analysis was performed by IC.				
Chlorine (Cl) (CAS No.: 22537-15-1)	With reference to BS EN 14582: 2016,	mg/kg	50	n.d.	-
	analysis was performed by IC.				
Bromine (Br) (CAS No.: 10097-32-2)	With reference to BS EN 14582: 2016,	mg/kg	50	n.d.	=
	analysis was performed by IC.				
lodine (I) (CAS No.: 14362-44-8)	With reference to BS EN 14582: 2016,	mg/kg	50	n.d.	-
	analysis was performed by IC.				
Triphenyl tin (TPT)	With reference to ISO 17353: 2004,	mg/kg	0.03	n.d.	-
	analysis was performed by GC/FPD.				
Tributyl tin (TBT)	With reference to ISO 17353: 2004,	mg/kg	0.03	n.d.	-
	analysis was performed by GC/FPD.				
Dioctyl tin (DOT)	With reference to ISO 17353: 2004,	mg/kg	0.03	n.d.	-
	analysis was performed by GC/FPD.				
Dibutyl tin (DBT)	With reference to ISO 17353: 2004,	mg/kg	0.03	n.d.	-
	analysis was performed by GC/FPD.				
Bis(tributyltin) oxide (TBTO) (CAS	Calculated from the result of Tributyl	mg/kg	0.03 🛦	n.d.	-
No.: 56-35-9)	Tin (TBT).				
Hexabromobenzene (CAS No.: 87-	With reference to US EPA 3550C: 2007,	mg/kg	5	n.d.	-
82-1)	analysis was performed by GC/MS.				
Brominated styrene	With reference to US EPA 3550C: 2007,	mg/kg	5	n.d.	-
	analysis was performed by GC/MS.				
TBBP-A-bis (CAS No.: 21850-44-2)	With reference to US EPA 3550C: 2007,	mg/kg	5	n.d.	-
	analysis was performed by GC/MS.				
Tetrabromobisphenol A (TBBP-A)	With reference to RSTS-E&E-121,	mg/kg	10	n.d.	=
(CAS No.: 79-94-7)	analysis was performed by LC/MS.				

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TOWER SEMICONDUCTOR LTD.
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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Monomethyl dibromodiphenyl methane (DBBT) (CAS No.: 99688- 47-8)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	0.5	n.d.	-
Monomethyl dichlorodiphenyl methane (Ugilec121) (CAS No.: 81161-70-8)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	0.5	n.d.	-
Monomethyl tetrachlorodiphenyl methane (Ugilec141) (CAS No.: 76253-60-6)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	0.5	n.d.	-
Red Phosphorus	Analysis was performed by Pyrolyzer-GC/MS.	**	-	Negative	-
Uranium (U) (Radioactive element) (CAS No.: 7440-61-1)	With reference to US EPA 3052: 1996 & 6020B: 2014, analysis was performed by ICP-MS.	mg/kg	1	n.d.	-
Thorium (Th) (Radioactive element) (CAS No.: 7440-29-1)	With reference to US EPA 3052: 1996 & 6020B: 2014, analysis was performed by ICP-MS.	mg/kg	1	n.d.	-
Strontium (Sr) (Radioactive element) (CAS No.: 7440-24-6)	With reference to US EPA 3052: 1996 & 6020B: 2014, analysis was performed by ICP-MS.	mg/kg	1	n.d.	-
Caesium (Cs) (Radioactive element) (CAS No.: 7440-46-2)	With reference to US EPA 3052: 1996 & 6020B: 2014, analysis was performed by ICP-MS.	mg/kg	1	n.d.	-
Perchlorate (CAS No.: 14797-73-0)	Analysis was performed by IC.	μg/g	0.006	n.d.	-
PFOS and its salts (CAS No.: 1763- 23-1 and its salts)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
2-benzotriazol-2-yl-4,6-di-tert- butylphenol (UV-320) (CAS No.: 3846-71-7)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Arsenic (As) (CAS No.: 7440-38-2)	With reference to US EPA 3052: 1996,	mg/kg	2	n.d.	=
	analysis was performed by ICP-OES.				
Diarsenic trioxide ( $As_2O_3$ ) (CAS No.: 1327-53-3)	Calculated from the result of Arsenic.	mg/kg	2▲	n.d.	-
Diarsenic pentaoxide (As <sub>2</sub> O <sub>5</sub> ) (CAS No.: 1303-28-2)	Calculated from the result of Arsenic.	mg/kg	2▲	n.d.	-
Beryllium (Be) (CAS No.: 7440-41-7)	With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-
Boron (B) (CAS No.: 7440-42-8)	With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-
Cobalt (Co) (CAS No.: 7440-48-4)	With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-
Cobalt dichloride (CoCl <sub>2</sub> ) (CAS No.: 7646-79-9)	Analysis was performed by ICP-OES, IC. Calculated from the results of Cobalt, Chlorine.	mg/kg	50▲	n.d.	-
Tris(2-chloroethyl) phosphate (TCEP) (CAS No.: 115-96-8)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Diethylene glycol dimethyl ether (DEGDME) (CAS No.: 111-96-6)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	10	n.d.	-
4-Tert-octylphenol (CAS No.: 140- 66-9)	With reference to US EPA 3550C: 2007, analysis was performed by LC/MS.	mg/kg	10	n.d.	-
N,N-Dimethylacetamide (DMAC) (CAS No.: 127-19-5)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	10	n.d.	-
Antimony (Sb) (CAS No.: 7440-36-0)	With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-

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#### Note:

- 1. mg/kg = ppm; 0.1wt% = 0.1% = 1000ppm
- 2. MDL = Method Detection Limit
- 3. n.d. = Not Detected (Less than MDL)
- 4. "-" = Not Regulated
- 5. \*\*= Qualitative analysis (No Unit)
- 6. Negative = Undetectable ; Positive = Detectable
- 7. Testing range of asbestos qualitative analysis is from less than 0.1% to 100%. The judgment criterion: asbestos fibers being found is shown as "Positive"; asbestos fibers not being found is shown as "Negative".
- 8. ▲ : The MDL was evaluated for element / tested substance.

Conversion Formula :  $AX = A \times F$ 

AX	Α	F
Diarsenic pentaoxide	Arsenic	1.5339
Diarsenic trioxide	Arsenic	1.3203
Bis(tributyltin)oxide (TBTO)	Tributyl Tin (TBT)	1.0276

Parameter Conversion Table: https://eecloud.sgs.com/Region\_TW/DocDownload.aspx?name=Others

9. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.

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#### PFAS Remark:

The quantitative technology of PFAS is to analyze the specific structure of PFAS substances. However, PFAS acid and its salts with the same carbon number group have the same specific structure that can be identified. The tested results of the analyzed specific structure cannot be distinguished to identify the contribution from PFAS acid or its salts. Therefore, the tested results display the sum of concentrations of PFAS acids and its salts with the same carbon number group. The concentration of PFAS substances in the below table have been included in the tested results, please refer to the table for relevant information: (The listed PFAS substances are examples only, it do not include all PFAS salts with the same carbon number group.)

Group Name	Substance Name	CAS No.
	Perfluorooctane sulfonates (PFOS)	1763-23-1
	Potassium perfluorooctanesulfonate (PFOS-K)	2795-39-3
	Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	29457-72-5
	Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH <sub>4</sub> )	29081-56-9
	Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) <sub>2</sub> )	70225-14-8
PFOS, its salts & derivatives	Perfluorooctanesulfonic acid,tetraethylammonium salt (PFOS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> )	56773-42-3
	N-decyl-N,N-dimethyldecan-1-aminium 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane- 1-sulfonate (PFOS-DDA)	251099-16-8
	Perfluorooctane sulfonyl fluoride (POSF)	307-35-7
	Perfluorooctanesulfonic acid, magnesium salt (PFOS-Mg)	91036-71-4
	Perfluorooctanesulfonic acid, sodium salt (PFOS-Na)	4021-47-0
	Piperidine 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- heptadecafluorooctanesulfonate	71463-74-6

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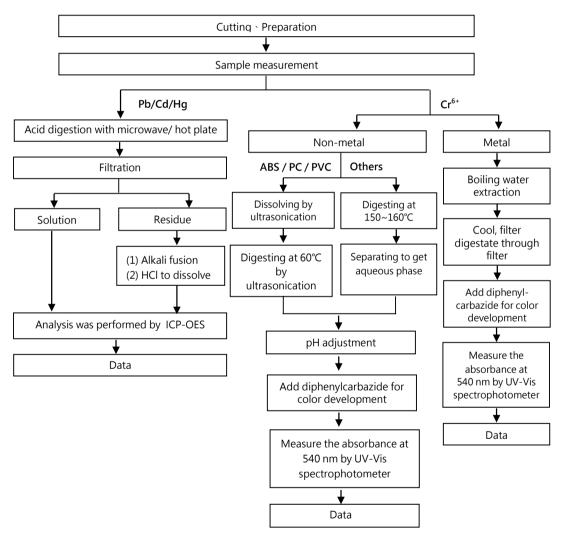
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#### Analytical flow chart of heavy metal

These samples were dissolved totally by pre-conditioning method according to below flow chart.

( Cr<sup>6+</sup> test method excluded )



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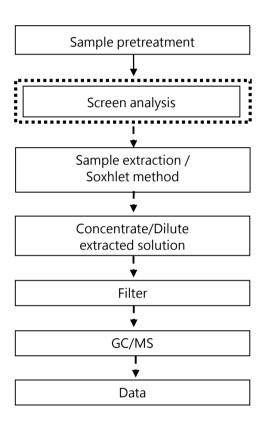
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#### Analytical flow chart - PBBs / PBDEs

First testing process

Optional screen process

Confirmation process



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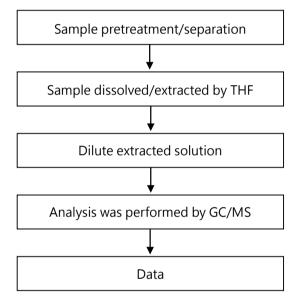


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#### Analytical flow chart - Phthalate

[Test method: IEC 62321-8]



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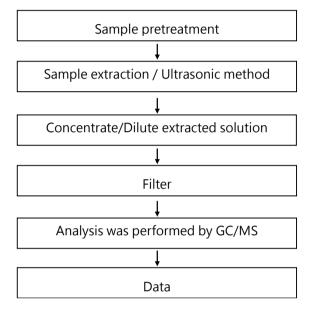
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#### Analytical flow chart - HBCDD



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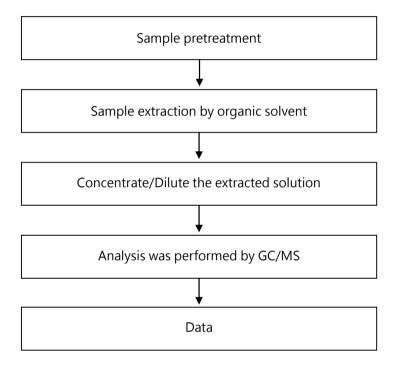


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#### Analytical flow chart

\* Apply to: PCBs, PCNs, PCTs, Mirex, Chlorinated Paraffins, DBBT



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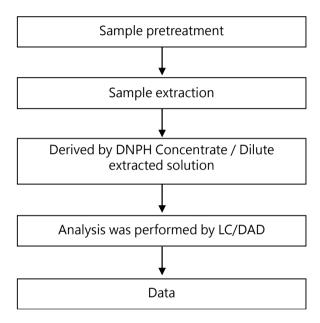
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#### Analytical flow chart - Formaldehyde



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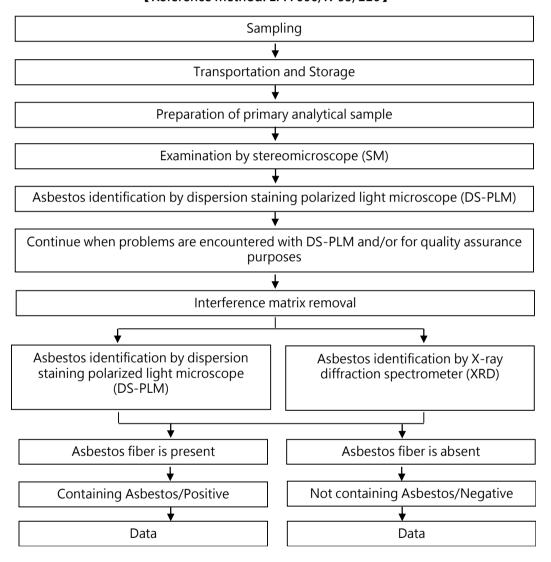
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#### Analysis flow chart for determination of Asbestos 【Reference method: EPA 600/R-93/116】



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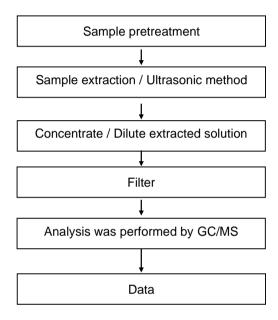
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#### **Analytical flow chart - Dimethyl Fumarate**



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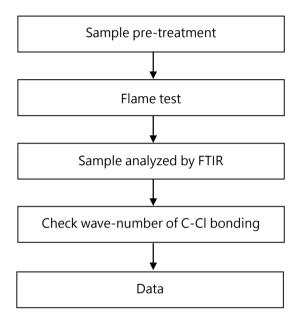
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#### Analysis flow chart - PVC



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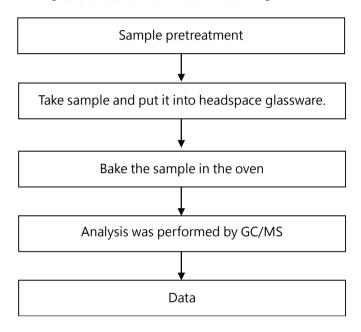


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#### Analytical flow chart of volatile organic compounds (VOCs)

【Reference method: US EPA 5021A】



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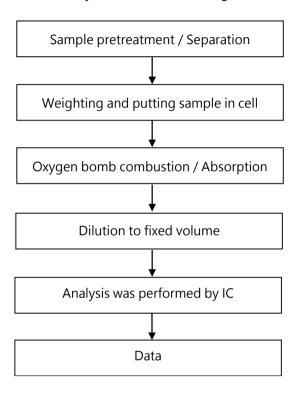
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#### Analytical flow chart - Halogen



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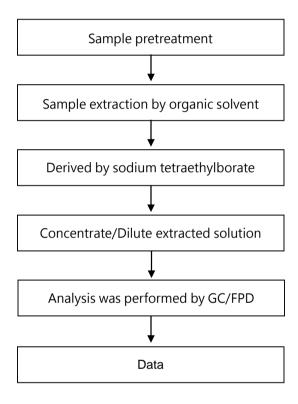
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#### Analytical flow chart - Organic-Tin



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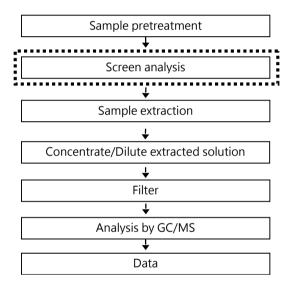
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#### Analytical flow chart - TBBP-A-bis

First testing process

Optional screen process

Confirmation process



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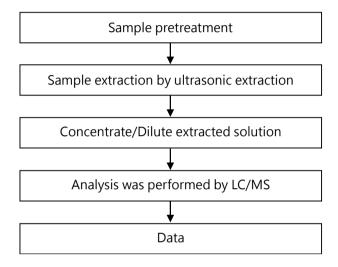
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#### Analytical flow chart - TBBP-A



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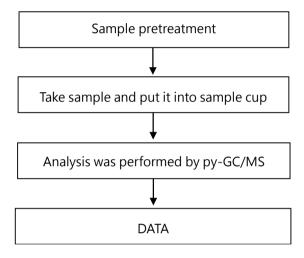
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#### Analytical flow chart - Red phosphorus



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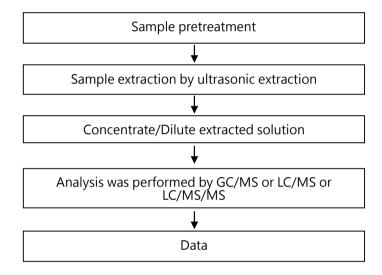
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#### Analytical flow chart - PFAS (including PFOA/PFOS/its related compound, etc.)



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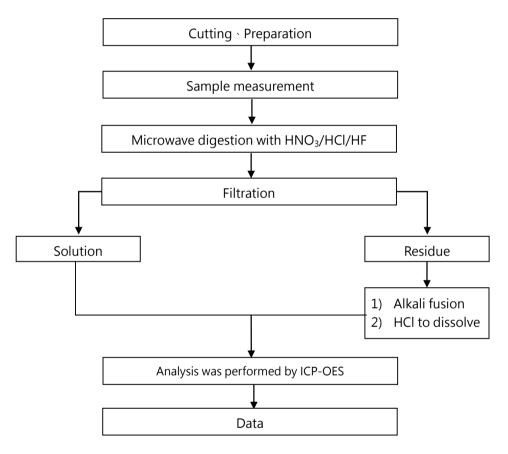
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#### Analytical flow chart of elements (Heavy metal included)

These samples were dissolved totally by pre-conditioning method according to below flow chart.

【Reference method: US EPA 3051A、US EPA 3052】



\* US EPA 3051A method does not add HF.

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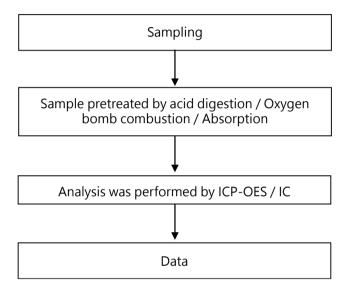
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#### Analytical flow chart - Cobalt dichloride



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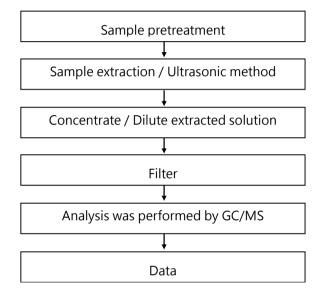
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#### Analytical flow chart - Organic phosphorus compounds



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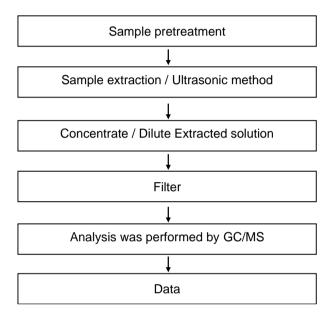
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#### Analytical flow chart - Ethylene glycol ether



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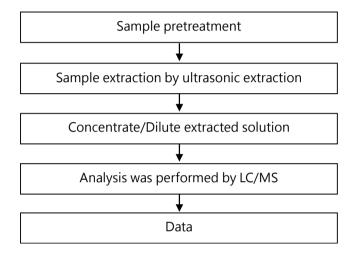
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#### Analytical flow chart - NP \ OP \ 4-t-OP \ NPEO \ OPEO



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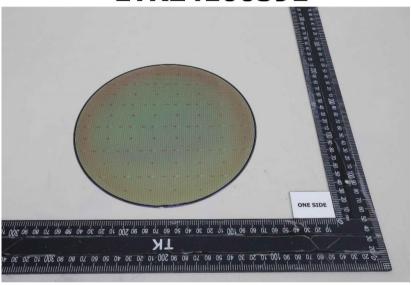


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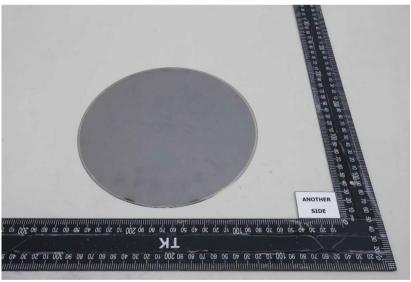
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\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

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\*\* End of Report \*\*

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