Test Report

No. SH9217183/CHEM Date: Nov. 24, 2009

JAZZ SEMICONDUCTOR
4321 JAMBOREE RD NEWPORT BEACH, CA 92660

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

Sample Name : 3 SAME CONDUCTOR WAFERS
SGS Ref No. : 1856194
PO# : FB58070624
Style No. : SBC18HX-A0256, K79548.7 W#8, 21, 23

Sample Receiving Date : Nov.09, 2009
Testing Period : Nov.09 – 24, 2009

Test Requested / Test Method /Test Results : Please refer to next pages

Summary : (1) According to the specified scope and analytical technique, concentrations of all 15 SVHC are <0.1% in the submitted sample(s).

Signed for and on behalf of
SGS-CSTC Chemical Laboratory

Sandy Hao

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Sandy Hao
Lab Manager

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Test Requested : (1) Fifteen (15) Substances of Very High Concern (SVHC) screening in addition of cyclododecane by specific client`s request
Based on the SVHC candidate list published by European Chemicals Agency (ECHA) on 2008 October 28, regarding Regulation (EC) No 1907/2006 concerning REACH.
(2) In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.
(3) To determine the Halogen- Fluorine, Chlorine, Bromine, Iodine Content in the submitted sample.
(4) To determine the PFOS (Perfluorooctane Sulfonates) and PFOA (Perfluorooctanoic Acid) content of the submitted samples.
(5) As per client's request, to determination DBP, BBP, DEHP, DINP, DNOP and DIDP content of the submitted samples.
(6) To determine the TBBP-A Content in the submitted sample.
(7) To identify the presence of PVC (CAS No:9002-86-2) of the submitted sample.
(8) To determine the Hexabromocyclododecane (HBCDD) content of the submitted samples.
(9) To determine the Arsenic, Antimony, Selenium, Beryllium, Nickel, Bismuth content in the submitted sample.
(10) To determine the Short Chain Chlorinated Paraffin content of the submitted sample.
(11) To determine the PCBs (Polychlorinated Biphenyls) content of the submitted sample.
(12) To determine the Polychlorinated Naphthalene content of the submitted sample.
(13) To determine the Organostannic compounds content of the submitted sample.
(14) As specified by client, quantitative analysis of Ozone Depleting Substances (ODS) (Halons, CFCs, HCFCs, CHCs，HFC, PFC & HBFC, ibromofluoromethane, Methyl bromide, Bromochloromethane) of the submitted sample.
(15) ★To determine the Asbestos Content in the submitted sample.
(16) *As specified by client, detection and determination of certain listed aromatic amines derived from Azo Colorants

Test Method : (1) Please refer to next page(s).
(2-1) With reference to IEC 62321:2008 for Cadmium content.
Analysis was performed by ICP-OES
(2-2) With reference to IEC 62321:2008 for Lead content.
Analysis was performed by ICP-OES
(2-3) With reference to IEC 62321:2008 for Mercury content.
Analysis was performed by ICP-OES.
(2-4) With reference to US EPA Method 3060A & 7196A for Hexavalent Chromium.
Analysis was performed by UV/Vis Spectrophotometer.
(2-5) With reference to IEC 62321:2008 for PBBs / PBDEs content.
Analysis was performed by GC/MS.
(3) With reference to EN 14582: 2007.
(3-1) Determination of Fluorine by Ion Chromatograph (IC) method.
(3-2) Determination of Chlorine by Ion Chromatograph (IC) method.
(3-3) Determination of Bromine by Ion Chromatograph (IC) method.

(3-4) Determination of Iodine by Ion Chromatograph (IC) method.
(4) With reference to EPA 3550C: 2007.
Analysis was performed by High Performance Liquid Chromatograph-Mass Spectrometer (HPLC-MS).
(5) With reference to EN 14372: 2004. Analysis was performed by Gas Chromatograph / Mass Spectrometer (GC/MS).
(6) With reference to EPA 3550C: 2007. Analysis was performed by Gas Chromatograph / Mass Spectrometer (GC/MS).
(7) In-house method.
Analysis was performed by FTIR/HATR.
(8) With reference to EPA 3550C: 2007.
Analysis was performed by Gas chromatograph / Mass Spectrometer (GC-MS).
(9) With reference to US EPA 3052: 1996.
Analysis was performed by ICP-OES.
(10) With reference to US EPA 3550C: 2007, Analysis was performed by Gas Chromatograph / Electrical Conductivity Detector (GC/ECD).
(11) With reference to US EPA 8082A: 2007, Analysis was performed by Gas Chromatograph / Mass Spectrometer (GC/MS).
(12) With reference to US EPA 8081B: 2007, Analysis was performed by Gas Chromatograph / Mass Spectrometer (GC/MS).
(13) With reference to ISO 17353: 2004 with Carbamate, Analysis was performed by Gas Chromatograph / Mass Spectrometer (GC/MS).
(14) With reference to US EPA 5021A-2003.
Analysis was performed by Headspace Gas Chromatography.
(15) ★As per NIOSH 9000 method. Analysis was performed by XRD.
(16) * Ref. EN 14362-1:2003– Analysis was conducted with GC-MS/HPLC-DAD.

Test results by chemical method

(1)SVHC

Remark:

1. Definition of classification is listed in ***Appendix A*** of this report in accordance with 67/548/EEC and Regulation (EC) No 1907/2006.

Test Method:
SGS In-house method:

- Acid digestion and analyzed by ICP-OES ;
- Solvent extraction and analyzed by GC/MS and GC/ECD

Remarks:

1. The chemical analysis of 15 SVHC is performed by means of currently available analytical techniques against the SVHC candidate list published by ECHA on 2008 October 28, and shall refer to http://echa.europa.eu/chem_data/candidate_list_table_en.asp. This list is under evaluation by ECHA and may subject to change in the future.
2. In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of 0.1% weight by weight (w/w).
3. Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.
4. If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

Substance Name	CAS number	Concentration (%)1	Reporting Limit (%)	Classification
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	ND	0.01	PBT
Anthracene	120-12-7	ND	0.005	PBT
Benzyl butyl phthalate	85-68-7	ND	0.005	Toxic to Reproduction Category 2
Bis (2-ethylhexylphthalate) (DEHP)	117-81-7	ND	0.005	Toxic to Reproduction Category 2
Bis(tributyltin)oxide◆	56-35-9	ND	0.005	PBT
Cobalt dichloride◆	7646-79-9	ND	0.005	Carcinogen Category 2
4,4-Diaminodiphenylmethane	101-77-9	ND	0.005	Carcinogen Category 2

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Diarsenic pentaoxide◆	1303-28-2	ND	0.005	Carcinogen Category 1
Diarsenic trioxide◆	1327-53-3	ND	0.005	Carcinogen Category 1
Dibutyl phthalate	84-74-2	ND	0.005	Toxic to Reproduction Category 2
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α – HBCDD, β-HBCDD, γ-HBCDD)	25637-99-4 and 3194- 55-6 (134237-51-7, 134237-50-6, 134237-52-8)	ND	0.005	PBT
Lead hydrogen arsenate◆	7784-40-9	ND	0.005	Carcinogen Category 1; Toxic to Reproduction Category 1
Sodium dichromate◆	10588-01-9	ND	0.005	Carcinogen Category 2; Mutagen Category 2; Toxic to Reproduction Category 2
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	ND	0.005	vPvB
Triethyl arsenate◆	15606-95-8	ND	0.005	Carcinogen Category 1

Additional screening by client's request outside the scope of SVHC as published by ECHA on 2008 October 28:

Substance Name	CAS number	Concentration (%)1	Reporting Limit (%)	Classification
Cyclododecane	294-62-2	ND	0.005	PBT

Substance Name	CAS number	Concentration (%)2	Reporting Limit (%)	Classification
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	ND	0.01	PBT
Anthracene	120-12-7	ND	0.005	PBT
Benzyl butyl phthalate	85-68-7	ND	0.005	Toxic to Reproduction Category 2
Bis (2-ethylhexylphthalate) (DEHP)	117-81-7	ND	0.005	Toxic to Reproduction Category 2
Bis(tributyltin)oxide◆	56-35-9	ND	0.005	PBT
Cobalt dichloride◆	7646-79-9	ND	0.005	Carcinogen Category 2
4,4-Diaminodiphenylmethane	101-77-9	ND	0.005	Carcinogen Category 2
Diarsenic pentaoxide◆	1303-28-2	ND	0.005	Carcinogen Category 1
Diarsenic trioxide◆	1327-53-3	ND	0.005	Carcinogen Category 1
Dibutyl phthalate	84-74-2	ND	0.005	Toxic to Reproduction Category 2
Hexabromocyclododecane	25637-99-4 and	ND	0.005	PBT

(HBCDD) and all major diastereoisomers identified (α – HBCDD, β-HBCDD, γ-HBCDD)	3194- 55-6 (134237-51-7, 134237-50-6, 134237-52-8)			
Lead hydrogen arsenate◆	7784-40-9	ND	0.005	Carcinogen Category 1; Toxic to Reproduction Category 1
Sodium dichromate◆	10588-01-9	ND	0.005	Carcinogen Category 2; Mutagen Category 2; Toxic to Reproduction Category 2
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	ND	0.005	vPvB
Triethyl arsenate◆	15606-95-8	ND	0.005	Carcinogen Category 1

Additional screening by client's request outside the scope of SVHC as published by ECHA on 2008 October 28:

Substance Name	CAS number	Concentration (%)2	Reporting Limit (%)	Classification
Cyclododecane	294-62-2	ND	0.005	PBT

Remark:

1. ◆Calculated concentration of cobalt dichloride is based on the identified cobalt by ICP-OES and the identified chloride by IC method.
   Calculated concentration of diarsenic pentaoxide, diarsenic trioxide, dihydrate, lead hydrogen arsenate and triethyl arsenate are based on the identified heavy metal result (i.e. Arsenic, Lead)
   Calculated concentrations of sodium dichromate are based on the identified sodium by ICP-OES and the identified chromium(VI) by spectroscopic method. The test result is reported as sodium dichromate (CAS number 10588-01-9). Please note that sodium dichromate dihydrate (CAS number 7789-12-0) is no longer classified as SVHC according to the latest amendment of 67/548/EEC (31th Adapation to Technical progress).
   Calculated concentration of bis(tributyltin)oxide TBTO is based on the identified tin by ICP-OES and TLC.
   Identity of above metal substances present in the article has to be further confirmed.
   RL is evaluated for element (i.e. tin, cobalt, chloride, arsenic, lead, sodium, chromium (VI) respectively)
2. ND = Not detected (lower than Reporting Limit)
3. RL = Reporting Limit
4. All RL is based on homogenous material

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(2) Cadmium, Lead, Mercury, Hexavalent Chromium and PBBs/PBBEs Content(Unit: mg/kg)

Test Item(s):	Method (refer to)	1	2	MDL	RoHS Limit
Cadmium(Cd)	(2-1)	ND	ND	2	100
Lead (Pb)	(2-2)	ND	ND	2	1000
Mercury (Hg)	(2-3)	ND	ND	2	1000
Hexavalent Chromium (CrVI)	(2-4)	ND	ND	2	1000
Sum of PBBs	(2-5)	ND	ND	-	1000
Monobromobiphenyl		ND	ND	5	-
Dibromobiphenyl		ND	ND	5	-
Tribromobiphenyl		ND	ND	5	-
Tetrabromobiphenyl		ND	ND	5	-
Pentabromobiphenyl		ND	ND	5	-
Hexabromobiphenyl		ND	ND	5	-
Heptabromobiphenyl		ND	ND	5	-
Octabromobiphenyl		ND	ND	5	-
Nonabromobiphenyl		ND	ND	5	-
Decabromobiphenyl		ND	ND	5	-
Sum of PBDEs		ND	ND	-	1000
Monobromodiphenyl ether		ND	ND	5	-
Dibromodiphenyl ether		ND	ND	5	-
Tribromodiphenyl ether		ND	ND	5	-
Tetrabromodiphenyl ether		ND	ND	5	-
Pentabromodiphenyl ether		ND	ND	5	-
Hexabromodiphenyl ether		ND	ND	5	-
Heptabromodiphenyl ether		ND	ND	5	-
Octabromodiphenyl ether		ND	ND	5	-
Nonabromodiphenyl ether		ND	ND	5	-
Decabromodiphenyl ether		ND	ND	5	-

(3) Halogen Content(Unit: mg/kg)

Test Item(s):	Method (refer to)	1	2	MDL
Fluorine(F)	(3-1)	ND	ND	50
Chlorine(Cl)	(3-2)	ND	ND	50
Bromine(Br)	(3-3)	ND	ND	50
Iodine(I)	(3-4)	ND	ND	50

(4) PFOS (Perfluorooctane Sulfonates) and PFOA (Perfluorooctanoic Acid) Content (Unit: mg/kg)

Test Items	Test method (refer to)	1	2	MDL
Perfluorooctane Sulfonates (PFOS) PFOS – Acid PFOS – Metal Salt PFOS – Amide	(4)	ND	ND	10
Perfluorooctyl Acid (PFOA)		ND	ND	10

Note: PFOS Reference Information: Entry 53 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2006/122/EC)
(i) May not be placed on the market or used as a substance or constituent of preparations in a concentration equal to or higher than 0.005 % by mass.
(ii) May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PFOS is equal to or higher than 0.1 % by mass calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is equal to or higher than 1μg /m^2 of the coated material.
Please refer to Regulation (EC) No 552/2009 to get more detail information

(5) Phthalates Content (Unit: %)

Item	Method (refer to)	1	2	MDL
Dibutyl Phthalate (DBP) Content	(5)	ND	ND	0.003
Benzylbutyl Phthalate (BBP) Content		ND	ND	0.003
Bis-(2-ethylhexyl) Phthalate (DEHP) Content		ND	ND	0.003
Diisononyl Phthalate (DINP) Content		ND	ND	0.010
Di-n-octyl Phthalate (DNOP) Content		ND	ND	0.003
Diisodecyl Phthalate (DIDP) Content		ND	ND	0.010

Note: DBP,BBP,DEHP Reference information: Entry 51 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2005/84/EC):
i) Shall not be used as substances or in mixtures, in concentrations greater than 0.1 % by weight of the plasticised material, in toys and childcare articles.
ii) Toys and childcare articles containing these phthalates in a concentration greater than 0.1 % by weight of the plasticised material shall not be placed on the market.
Please refer to Regulation (EC) No 552/2009 to get more detail information
DINP, DNOP, DIDP Reference information: Entry 52 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2005/84/EC).
i) Shall not be used as substances or in mixtures, in concentrations greater than 0.1 % by weight of the plasticised material, in toys and childcare articles which can be placed in the mouth by children.
ii) Such toys and childcare articles containing these phthalates in a concentration greater than 0.1 % by weight of the plasticised material shall not be placed on the market.
Please refer to Regulation (EC) No 552/2009 to get more detail information

(6)TBBP-A Content (Unit: mg/kg)

Test Item(s):	Method (refer to)	1	2	MDL
TBBP-A	(6)	ND	ND	10

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(7) PVC Content (Unit: **)

Test Item(s):	Method (refer to)	1	2
PVC (CAS No:9002-86-2)	(7)	Negative	Negative

Note : (1) **= Qualitative analysis (No Unit)
(2) Negative = Undetectable / Positive = Detectable.

(8) Hexabromocyclododecane (HBCDD) Content (Unit: mg/kg)

Test Item:	Method (refer to)	1	2	MDL
Hexabromocyclododecane (HBCDD)	(8)	ND	ND	5

(9) Arsenic, Antimony, Selenium, Beryllium, Nickel, Bismuth Content (Unit: mg/kg)

Test Item(s):	Method (refer to)	1	2	MDL
Arsenic (As)	(9)	ND	ND	10
Antimony (Sb)		ND	ND	2
Selenium (Se)		ND	ND	5
Beryllium (Be)		ND	ND	5
Nickel (Ni)		ND	ND	5
Bismuth (Bi)		ND	ND	10

Note: Arsenic Reference Information: Entry 19 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2006/139/EC):
(1) Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use to prevent the fouling by micro-organisms, plants or animals of:
— the hulls of boats,
— cages, floats, nets and any other appliances or equipment used for fish or shellfish farming,
— any totally or partly submerged appliances or equipment.
(2) Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use in the treatment of industrial waters, irrespective of their use.
(3) Shall not be used in the preservation of wood. Furthermore, wood so treated shall not be placed on the market.
Please refer to Regulation (EC) No 552/2009 to get more detail information

(10) Short Chain Chlorinated Paraffin Content (Unit: mg/kg)

Test Item(s):	Method (refer to)	1	2	MDL
Short-chained Chlorinated Paraffins (SCCP) (C_{10}-C_{13})	(10)	ND	ND	30

Note: Short Chain Chlorinated Paraffin Reference Information: Entry 42 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2002/45/EC)

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Shall not be placed on the market, or used as substances, or as constituents of other substances or in mixtures in concentrations greater than 1% by weight, where the substance or mixture is intended for:
— metalworking
—fat liquoring of leather
Please refer to Regulation (EC) No 552/2009 to get more detail information

(11)-(12) PCBs(Polychlorinated Biphenyls) and Polychlorinated Naphthalene content (Unit: mg/kg)

Test Item(s):	Method (refer to)	1	2	MDL
PCBs(Polychlorinated Biphenyls) content	(11)	-	-	-
2.4.4'-Trichlorobiphenyl (PCB 28) CAS 7012-37-5		ND	ND	0.5
2.2'.5.5'-Tetrachloro-biphenyl (PCB 52) CAS 35693-99-3		ND	ND	0.5
2.2'.4.5.5'-Pentachloro-biphenyl (PCB 101) CAS 37680-73-2		ND	ND	0.5
2.3'.4.4'.5-Pentachlorobiphenyl (PCB 118) CAS 31508-00-6		ND	ND	0.5
2.2'3.4.4'.5'-Hexachloro-biphenyl (PCB 138) CAS 35065-28-2		ND	ND	0.5
2.2'.4.4'.5.5'-Hexachloro-biphenyl (PCB 153) CAS 35065-27-1		ND	ND	0.5
2.2'.3.4.4'.5.5'-Heptachlorobiphenyl (PCB 180) CAS 35065-29-3		ND	ND	0.5
Polychlorinated Naphthalene content	(12)	-	-	-
2-Chlorinated Naphthalene		ND	ND	5
1,4-Dichlorinated Naphthalene		ND	ND	5
1,5-Dichlorinated Naphthalene		ND	ND	5
1,2-Dichlorinated Naphthalene		ND	ND	5
1,8-Dichlorinated Naphthalene		ND	ND	5
1,2,3-Trichlorinated Naphthalene		ND	ND	5
1,2,3,4-Tetrachlorinated Naphthalene		ND	ND	5
1,2,3,4,6-Pentachlorinated Naphthalene		ND	ND	5
Octa-chlorinaed Naphthalene		ND	ND	5

(13) Organic-Tin compounds content (Unit: mg/kg)

Test Item(s):	Method (refer to)	1	2	MDL
Organic-Tin compounds content	(13)	-	-	-
Tributyl tin (TBT)		ND	ND	0.5
Triphenyl tin (TPT)		ND	ND	0.5
Tributyl Tin Oxide (TBTO)◆		ND	ND	0.5

Note: (1) Organostannic compounds Reference Information: Entry 20 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive

2002/62/EC)
(a) Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is acting as biocide in free association paint.
(b) Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture acts as biocide to prevent the fouling by micro-organisms, plants or animals of:
(b-1) all craft irrespective of their length intended for use in marine, coastal, estuarine and inland waterways and lakes;
(b-2) cages, floats, nets and any other appliances or equipment used for fish or shellfish farming;
(b-3) any totally or partly submerged appliance or equipment.
(c) Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use in the treatment of industrial waters.
Please refer to Regulation (EC) No 552/2009 to get more detail information
(2) ◆Tributyl Tin Oxide ([(C4H9)3Sn] 2 O) : Calculate from Tributyl Tin content by multiplying 1.0276

(14) Ozone Depleting Substances Content (unit: µg/g)

Test Item(s):	CAS No.	Method (refer to)	1	2	MDL
CFC	—	(14)	—	—	—
CFC-11	75-69-4		ND	ND	0.1
CFC-12	75-71-8		ND	ND	0.1
CFC-113	76-13-1		ND	ND	0.1
CFC-114	76-14-2		ND	ND	0.1
CFC-13	75-72-9		ND	ND	0.1
CFC-111	354-56-3		ND	ND	0.1
CFC-112	76-11-9		ND	ND	0.1
CFC-112	76-12-0		ND	ND	0.1
CFC-113	354-58-5		ND	ND	0.1
CFC-114	374-07-2		ND	ND	0.1
CFC-115	76-15-3		ND	ND	0.1
CFC-211	422-78-6		ND	ND	0.1
CFC-212	661-96-1		ND	ND	0.1
CFC-213	1652-89-7		ND	ND	0.1
CFC-214	677-68-9		ND	ND	0.1
CFC-215	1599-41-3		ND	ND	0.1
CFC-215	76-17-5		ND	ND	0.1
CFC-216	661-97-2		ND	ND	0.1
CFC-216	1652-80-8		ND	ND	0.1
CFC-217	422-86-6		ND	ND	0.1

Test Item(s):	CAS No.	Method (refer to)	1	2	MDL
HCFC	—		—	—	—
HCFC-21	75-43-4		ND	ND	0.1
HCFC-22	75-45-6		ND	ND	0.1
HCFC-123	306-83-2		ND	ND	0.1
HCFC-124	2837-89-0		ND	ND	0.1
HCFC-141b	1717-00-6		ND	ND	0.1
HCFC-142b	75-68-3		ND	ND	0.1
HCFC-31	593-70-4		ND	ND	0.1
HCFC-121	354-14-3		ND	ND	0.1
HCFC-122	354-21-2		ND	ND	0.1
HCFC-123a	354-23-4		ND	ND	0.1
HCFC-124a	354-25-6		ND	ND	0.1
HCFC-131	359-28-4		ND	ND	0.1
HCFC-131a	811-95-0		ND	ND	0.1
HCFC-132a	471-43-2		ND	ND	0.1
HCFC-132b	1649-08-7		ND	ND	0.1
HCFC-133a	75-88-7		ND	ND	0.1
HCFC-221	422-26-4		ND	ND	0.1
HCFC-222	422-30-0		ND	ND	0.1
HCFC-223	422-52-6		ND	ND	0.1
HCFC-225ca	422-56-0	(14)	ND	ND	0.1
HCFC-225cb	507-55-1		ND	ND	0.1
HCFC-226	431-87-8		ND	ND	0.1
HCFC-231	421-94-3		ND	ND	0.1
HCFC-232	460-89-9		ND	ND	0.1
HCFC-233	7125-84-0		ND	ND	0.1
HCFC-234	425-94-5		ND	ND	0.1
HCFC-235	460-92-4		ND	ND	0.1
HCFC-241	666-27-3		ND	ND	0.1
HCFC-242	460-63-9		ND	ND	0.1
HCFC-243	338-75-0		ND	ND	0.1
HCFC-244	679-85-6		ND	ND	0.1
HCFC-251	421-41-0		ND	ND	0.1
HCFC-252	819-00-1		ND	ND	0.1
HCFC-253	460-35-5		ND	ND	0.1
HCFC-261	7799-56-6		ND	ND	0.1
HCFC-261	420-97-3		ND	ND	0.1
HCFC-271	430-55-7		ND	ND	0.1
HCFC-262	102738-79-4		ND	ND	0.1
HCFC-262	420-99-5		ND	ND	0.1

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Test Item(s):	CAS No.	Method (refer to)	1	2	MDL
Halon	—	(14)	—	—	—
Halon 1211	353-59-3		ND	ND	0.1
Halon 1301	75-63-8		ND	ND	0.1
Halon 2402	124-73-2		ND	ND	0.1

Test Item(s):	CAS No.	Method (refer to)	1	2	MDL
HBFC	—	(14)	—	—	—
CHF_2Br	1511-62-2		ND	ND	0.1
CH_2FBr	373-52-4		ND	ND	0.1
C_2HFBr_4	-		ND	ND	0.1
$C_2HF_2Br_3$	-		ND	ND	0.1
$C_2HF_3Br_2$	354-04-1		ND	ND	0.1
C_2HF_4Br	-		ND	ND	0.1
$C_2H_2FBr_3$	-		ND	ND	0.1
$C_2H_2F_2Br_2$	75-82-1		ND	ND	0.1
$C_2H_2F_3Br$	421-06-7		ND	ND	0.1
$C_2H_3FBr_2$	-		ND	ND	0.1
$C_2H_3F_2Br$	359-07-9		ND	ND	0.1
C_2H_4FBr	762-49-2		ND	ND	0.1
C_3HFBr_6	-		ND	ND	0.1
$C_3HF_2Br_5$	-		ND	ND	0.1
$C_3HF_3Br_4$	-		ND	ND	0.1
$C_3HF_4Br_3$	-		ND	ND	0.1
$C_3HF_5Br_2$	-		ND	ND	0.1
C_3HF_6Br	-		ND	ND	0.1
$C_3H_2FBr_5$	-		ND	ND	0.1
$C_3H_2F_2Br_4$	-		ND	ND	0.1
$C_3H_2F_3Br_3$	-		ND	ND	0.1
$C_3H_2F_4Br_2$	-		ND	ND	0.1
$C_3H_2F_5Br$	-		ND	ND	0.1
$C_3H_3FBr_4$	-		ND	ND	0.1
$C_3H_3F_2Br_3$	-		ND	ND	0.1
$C_3H_3F_3Br_2$	-		ND	ND	0.1
$C_3H_3F_4Br$	-		ND	ND	0.1
$C_3H_4FBr_3$	-		ND	ND	0.1
$C_3H_4F_2Br_2$	-		ND	ND	0.1
$C_3H_4F_3Br$	-		ND	ND	0.1
$C_3H_5FBr_2$	-		ND	ND	0.1
$C_3H_5F_2Br$	-		ND	ND	0.1
C_3H_6FBr	-		ND	ND	0.1

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Test Item(s):	CAS No.	Method (refer to)	1	2	MDL
Others	—	(14)	—	—	—
Dibromofluoromethane	1868-53-7		ND	ND	0.1
Methyl bromide	74-83-9		ND	ND	0.1
Bromochloromethane	74-97-5		ND	ND	0.1

Test Item(s):	CAS No.	Method (refer to)	1	2	MDL
HFC	—	(14)	—	—	—
HFC-23	75-46-7		ND	ND	0.1
HFC-32	75-10-5		ND	ND	0.1
HFC-41	593-53-3		ND	ND	0.1
HFC-43-10mee	—		ND	ND	0.1
HFC-125	354-33-6		ND	ND	0.1
HFC-134	359-35-3		ND	ND	0.1
HFC-134a	811-97-2		ND	ND	0.1
HFC-152a	75-37-6		ND	ND	0.1
HFC-143	420-46-2		ND	ND	0.1
HFC-143a	430-66-0		ND	ND	0.1
HFC-227ea	—		ND	ND	0.1
HFC-236 cb	—		ND	ND	0.1
HFC-236ea	431-63-0		ND	ND	0.1
HFC-236fa	690-39-1		ND	ND	0.1
HFC-245ca	679-86-7		ND	ND	0.1
HFC-245fa	—		ND	ND	0.1
HFC-365mfc	—		ND	ND	0.1

Test Item(s):	CAS No.	Method (refer to)	1	2	MDL
PFC	—	(14)	—	—	—
Perfluoromethane	75-73-0		ND	ND	0.1
Perfluoroethane	76-16-4		ND	ND	0.1
Perfluoropropane	76-19-7		ND	ND	0.1
Perfluorobutane	355-25-9		ND	ND	0.1
Perfluoropentane	678-26-2		ND	ND	0.1
Perfluorohexane	355-42-0		ND	ND	0.1
Perfluorocyclobutane	115-25-3		ND	ND	0.1

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Test Item(s):	CAS No.	Method (refer to)	1	2	MDL
CHC	—	(14)	—	—	—
1,3-dichloropropane	142-28-9		ND	ND	0.1
2,2-dichloropropane	594-20-7		ND	ND	0.1
Carbon tetrachloride	56-23-5		ND	ND	0.1
chloroethane	75-00-3		ND	ND	0.1
Chloroform	67-66-3		ND	ND	0.1
chloromethane	74-87-3		ND	ND	0.1
Cis-1,2-dichloroethene	156-59-2		ND	ND	0.1
Cis-1,3-dichloropropene	10061-01-5		ND	ND	0.1
Hexachlorobutadiene	87-68-3		ND	ND	0.1
Methylene chloride	75-09-2		ND	ND	0.1
Tetrachloroethene	127-18-4		ND	ND	0.1
Trans-1,2-dichloroethene	156-60-5		ND	ND	0.1
Trans-1,3-dichloropropene	10061-02-6		ND	ND	0.1
Trichloroethylene	79-01-6		ND	ND	0.1
1,1,1,2-tetrachloroethane	630-20-6		ND	ND	0.1
1,1,1-trichloroethane	71-55-6		ND	ND	0.1
1,1,2,2-tetrachloroethane	79-34-5		ND	ND	0.1
1,1,2-trichloroethane	79-00-5		ND	ND	0.1
1,1-dichloroethane	75-34-3		ND	ND	0.1
1,1-dichloroethene	75-35-4		ND	ND	0.1
1,1-dichloropropene	563-58-6		ND	ND	0.1
1,2,3-trichloropropane	96-18-4		ND	ND	0.1
1,2-dichloroethane	107-06-2		ND	ND	0.1
1,2-dichloropropane	78-87-5		ND	ND	0.1

(15)★Asbestos Content (Unit: %)

Test Item(s):	Method (refer to)	1	2	MDL
Actinolite (CAS No.: 077536-66-4)	(15)	Negative	Negative	1
Amosite (CAS No.: 012172-73-5)		Negative	Negative	1
Anthophyllite (CAS No.: 077536-67-5)		Negative	Negative	1
Chrysotile (CAS No.: 012001-29-5)		Negative	Negative	1
Crocidolite (CAS No.: 012001-28-4)		Negative	Negative	1
Tremolite (CAS No.: 077536-68-6)		Negative	Negative	1

Note: Negative =<1.0%, Positive= >1.0%

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(16) *Detection and determination of certain listed aromatic amines derived from Azo Colorants(unit:mg/kg).

Amines	CAS-No.	**Result**	
		1	2
4-Aminobiphenyl	92-67-1	ND	ND
Benzidine	92-87-5	ND	ND
4-Chlor-o-toluidine	95-69-2	ND	ND
2-Naphthylamine	91-59-8	ND	ND
o-Aminoazotoluene	97-56-3	ND	ND
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	ND	ND
4-Chloroaniline	106-47-8	ND	ND
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	ND	ND
4,4'-Diaminodiphenylmethane	101-77-9	ND	ND
3,3'-Dichlorobenzidine	91-94-1	ND	ND
3,3'-Dimethoxybenzidine	119-90-4	ND	ND
n.d.3,3'-Dimethybenzidine	119-93-7	ND	ND
4,4'-methylenedi-o-toluidine / 3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	ND	ND
p-Cresidine	120-71-8	ND	ND
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	ND	ND
4,4'-Oxydianiline	101-80-4	ND	ND
4,4'-Thiodianiline	139-65-1	ND	ND
o-Toluidine	95-53-4	ND	ND
4-methyl-m-phenylenediamine / 2,4-Toluylendiamine	95-80-7	ND	ND
2,4,5-Trimethylaniline	137-17-7	ND	ND
4-aminoazobenzene	60-09-3	ND	ND
O-Anisidine	90-04-0	ND	ND
Conclusion		**#**	**#**

Note: ND = not detected
Detection Limit = 5 mg/kg (for individual compound)

 # Remark: For textiles no relevant amine exceeding 30 ppm (mg/kg) is required, the test method is only applicable for textile and the result is only for client's information.

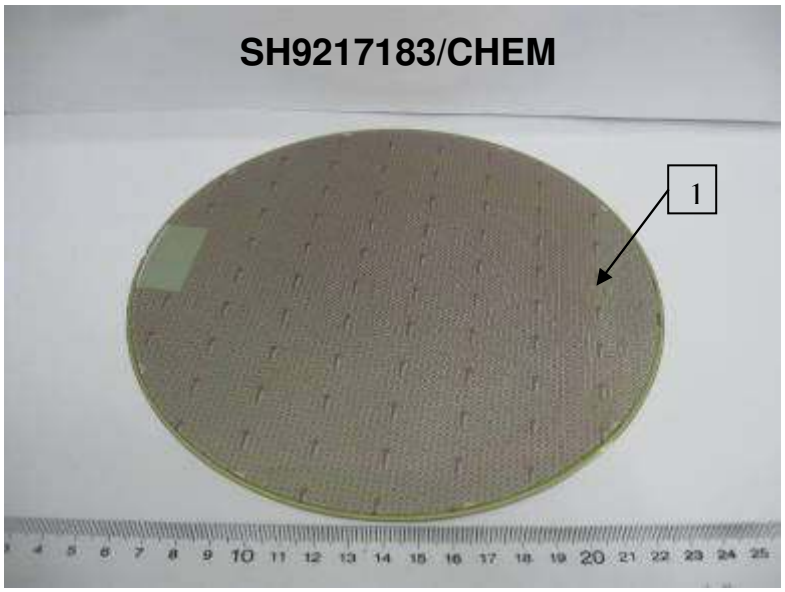
Remark: Test result for 4-aminoazobenzene (CAS no.: 60-09-3) is considered as "not detected" (i.e. <5mg/kg) since both aniline and/or 1,4-phenylenediamine is not found (i.e. <5mg/kg) by mentioned test method

Test Part Description:
1. Copper silicone core sheet with golden gridding
2. Copper silicone core sheet with golden gridding

Note:

(1) mg/kg = ppm
(2) ND = Not Detected
(3) MDL = Method Detection Limit
(4) "-" = Not Regulated
(5) The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2002/95/EC
(6) ★These tests were subcontracted to SGS Taiwan Ltd (Date of testing: 2009/11/10-11/17).
(7) *These tests were subcontracted to SGS-SHSL TEXTILE LAB (Date of testing: 2009/11/09-11/12).

Sample photo:



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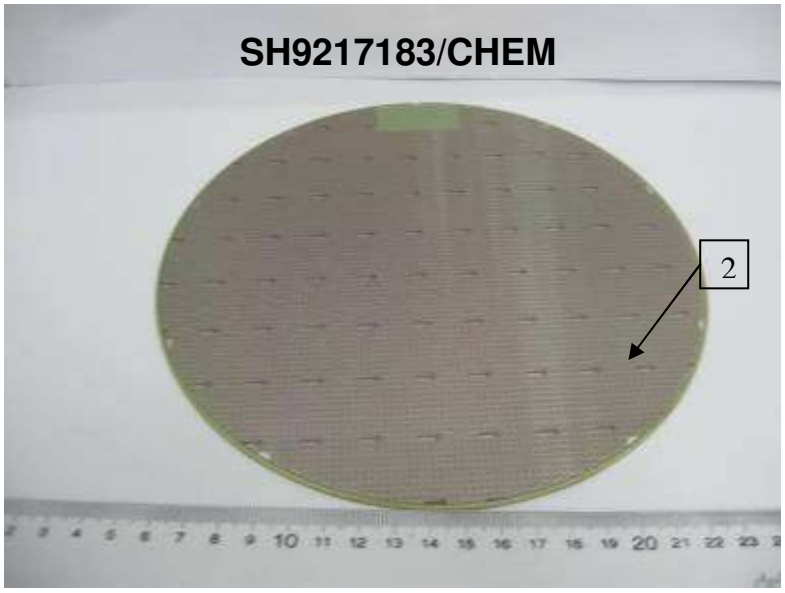

SGS authenticate the photo on original report only

Appendix A

Classification	Definition under 67/548/EEC and Regulation (EC) No 1907/2006
Carcinogen Category 1:	Substances known to be carcinogenic to man. There is sufficient evidence to establish a causal association between human exposure to a substance and the development of cancer.
Carcinogen Category 2:	Substances which should be regarded as if they are carcinogenic to man. There is sufficient evidence to provide a strong presumption that human exposure to a substance may result in the development of cancer. Generally on the basis of: - appropriate long-term animal studies - other relevant information.
Mutagen Category 1:	Substances known to be mutagenic to man. There is sufficient evidence to establish a causal association between human exposure to a substance and heritable genetic damage.
Mutagen Category 2:	Substances which should be regarded as if they are mutagenic to man. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in the development of heritable genetic damage, generally on the basis of: - appropriate animal studies, - other relevant information.
Toxic to Reproduction Category 1:	Substances known to impair fertility in humans. There is sufficient evidence to establish a causal relationship between human exposure to the substance and impaired fertility. Substances known to cause developmental toxicity in humans. There is sufficient evidence to establish a causal relationship between human exposure to the substance and subsequent developmental toxic effects in the progeny.
Toxic to Reproduction Category 2:	Substances which should be regarded as if they impair fertility in humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in impaired fertility on the basis of: - clear evidence in animal studies of impaired fertility in the absence of toxic effects, or, evidence of impaired fertility occurring at around the same dose levels as other toxic effects but which is not a secondary nonspecific consequence of the other toxic effects, - other relevant information. Substances which should be regarded as if they cause developmental toxicity to humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in developmental toxicity, generally on the basis of: - clear results in appropriate animal studies where effects have been observed in the absence of signs of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not a secondary non-specific consequence of the other toxic effects, - other relevant information.
PBT & vPvB:	Substances which are persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) pose a particular challenge to the chemicals safety management. For these substances a “safe” concentration in the environment cannot be established with sufficient reliability.

*** End of Report ***

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