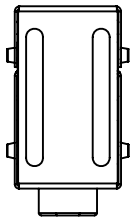
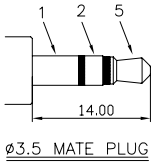
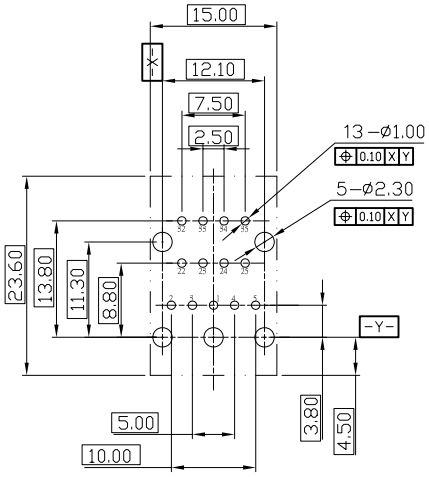
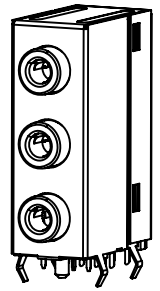
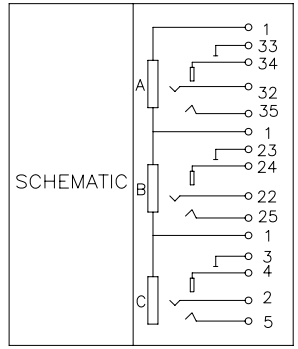
www.dzyjzj.com Tel:0755-27575531 Fax:0755-27576267

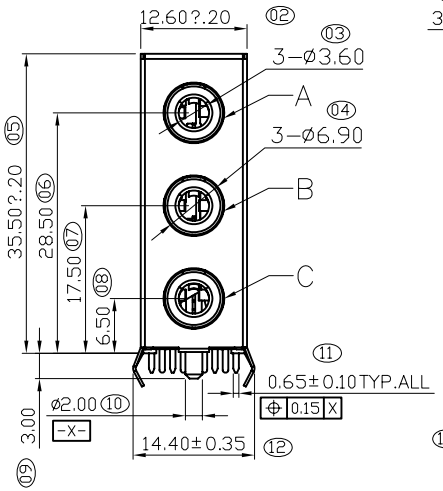


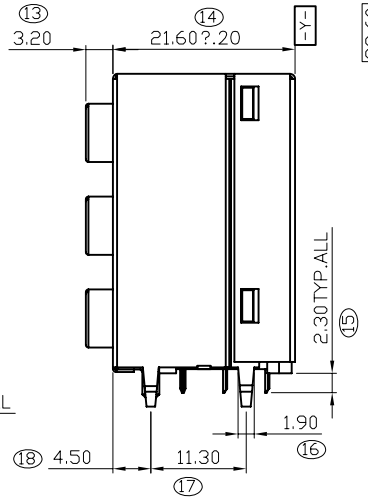


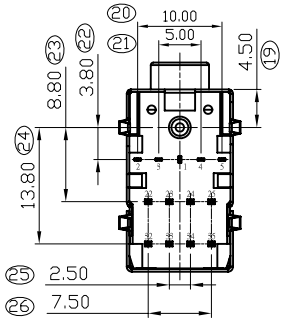




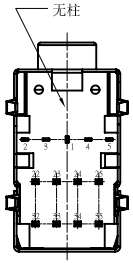




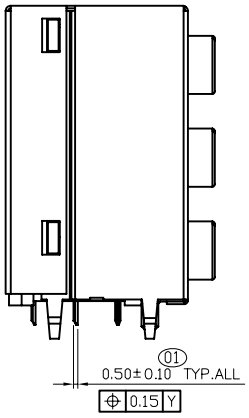




A TYPE



B TYPE



ITEM	NAME	MATERIAL	FINISH	SUM
19	A-Plastic Bushing	PA66+15%G.F, UL94V-0	Pantone #284C(Light Blue)	1
18	B-Plastic Bushing	PA66+15%G.F, UL94V-0	Pantone #577C(Lime)	1
17	C-Plastic Bushing	PA66+15%G.F, UL94V-0	Pantone #701C(Pink)	1
16	Housing	PBT+30%G.F, UL94V-0	Black	1
15	Cover	PBT+30%G.F, UL94V-0 PA66+30%G.F, UL94V-0	Black	1
14	Shield	SUS430 SPCC-SD	Matte Tin Plated on Kink Over Nickel Bright Tin Plated Cover Nickel Plated	1
13	3-Tip Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
12	3-TS Terminal	C2680R-EH	Au1~3u" & Tin Plated & Nickel Plated	1
11	3-RS Terminal	C2680R-EH	Au1~3u" & Tin Plated & Nickel Plated	1
10	3-Ring Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
9	2-Tip Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
8	2-TS Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
7	2-RS Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
6	2-Ring Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
5	Tip Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
4	TS Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
3	RS Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
2	Ring Terminal	C2680R-EH	Tin Plated & Nickel Plated	1
1	Sleeve Terminal	C2680R-EH	Au1~3u" & Tin Plated & Nickel Plated	1

深圳市华宇创精密电子有限公司

HOAUC

TOLERANCE: X.X ±0.30 X.XX ±0.25 X.XXX ±0.15 X.° ±2° X.X° ±0.5°	DRAWED BY : 陈一鸣	DATE : 2014-02-23	PART NAME: 三层耳机座
	CHECKED BY: 马跃	DATE : 2014-02-23	PART NO. HYC-PJ350-355
			MOLD NO.
UNIT: mm [inch]	APPROVED BY: 邱国夷	DATE : 2014-02-23	DRAW NO: HYC-PJ16062210
SCALE:1:1 SIZE: A4			SHEET NO. 1 OF 1

深圳市华宇创精密电子有限公司

樣 品 檢 驗 記 錄 表

2017 年 04 月 25 日

料　號		品　名	三层 ODJACK 成品		訂單號	樣品	判 ☐ ACC 定 ☐ REJ
檢驗數	1PCS	抽樣數	1PCS	不良數	不良率	0%	

檢驗要點		檢驗標準	檢驗記錄	判　定		量 具	備 注
				OK	NG		
尺寸規格	1	0.50±0.10	0.52	■		B	
	2	12.60±0.20	12.68	■		B	
	3	3.60±0.30	3.59/3.60/3.61	■		B	
	4	6.90±0.30	6.91/6.89/6.88	■		B	
	5	35.50±0.20	35.60	■		B	
	6	28.50±0.30	28.45	■		B	
	7	17.50±0.30	17.46	■		B	
	8	6.50±0.30	6.50	■		B	
	9	3.00±0.30	3.00	■		B	
	10	2.00±0.30	2.00	■		B	
	11	0.65±0.10	0.65	■		B	
	12	14.40±0.35	14.44	■		B	
	13	3.20±0.30	3.21	■		B	
	14	21.60±0.20	21.66	■		B	
	15	2.30±0.30	2.32	■		B	
	16	1.90±0.30	1.90	■		B	
	17	11.30±0.30	11.30	■		B	
	18	4.50±0.30	4.43	■		B	
	19	4.50±0.30	4.45	■		B	
外观检验							
材质检验							
试装检验							

備 注:

量 具: A 游標卡尺　B 投影機　C 分厘卡　D 工具顯微鏡　E 治具　F 目視　G 免驗

核 準:　　審 核:　　檢測員:

深圳市华宇创精密电子有限公司

料　號		品　名	三层 ODJACK 成品		訂單號	樣品	判 □ ACC 定 □ REJ
檢驗數	1PCS	抽樣數	1PCS	不良數	不良率	0%	

檢驗要點		檢驗標準	檢驗記錄	判　定		量 具	備 注
				OK	NG		
尺寸規格	20	10.00 ± 0.30	10.00	■		B	
	21	5.00 ± 0.30	5.02	■		B	
	22	3.80 ± 0.30	3.88	■		B	
	23	8.80 ± 0.30	8.82	■		B	
	24	13.80 ± 0.30	13.79	■		B	
	25	2.50 ± 0.30	2.52	■		B	
	26	7.50 ± 0.30	7.51	■		B	
	27						
	28						
	29						
	30						
	31						
	32						
	33						
	34						
	35						
	36						
	37						
	38						
	39						
材質檢驗							
試裝檢驗							

備 注:

量 具: A 游標卡尺　B 投影機　C 分厘卡　D 工具顯微鏡　E 治具　F 目視　G 免驗

FM-CP-09A

核 準:　　審 核:　　檢測員:

環境管理物質成份或部件展開表

The Ingredients or Parts List of Enviromental Management Substances

★ 按下列表單展開產品的成份或部件。
Ingredients or parts of the product are reported in the following form

公司名稱 Company Name: ON Semiconductor
公司印章 Company Seal:

★ 不同的成份或部件需提供相應的測試報告以及MSDS文件, 測試項目爲:Cd、Pb、Hg、Cr^{6+}、PBB、PBDE、Cl、Br及客戶限制使用的其它有害物質。
Test report and MSDS documentation must be provided for different ingredients or parts ,test items are as followings: Pb,Cd,Hg,Cr6+,PBB , PBDE,Cl,Br and other restricted hazardous substances required by customers.

★ 有害物質/材料含量必須滿足富士康之《有害物質和材料管理規范》的要求(ESD-A0RH-001)。
The concentration of harzardous substances/material must meet "Specification for Hazardous Substances and Materials Management" of Foxconn (ESD-A0RH-001).

產品名稱 Commodity Name	產品料號 Product No.	產品料號版本 Version of P/N	組成部件 Ingredients or Parts	組成部件料號 Part No. of Ingredients or Parts	部件重量 Part Weight (g)	組成部件均質材料名稱 Homogeneous Material Name	均質材料重量 Homogeneous Material Weight (g)	原材料厂商名稱 Raw Material Manufacturer Name	均質材料中有害物質含量 Hazardous Substances Concentration in Homogeneous Material (PPM)										有害物質測試報告編號 Test Report No. of Hazardous Material	測試日期 Test Date (YY-MM-DD)	其他不可測試物質之物質安全資料表 MSDS for Other Unmeasurable Substances	備註 Remark
									Cd	Pb	Hg	Cr6+	PBB	PBDE	Cl	Br	其它(others)					
OD JACK3P成品	J3100D-A5GJ-1701R		Shield			Shield		禾泰	2	2	2	0.1							CANEC1617171601	2016.09.02	N/A	
			PIN			PIN		捷美	2	41	2	0.1	5	5					SCL01I037570002	2016.05.12	N/A	
			Housing			Housing		上洲	2	6	2	2	5	5					SCL01J000197005	2017.01.06	N/A	
			Cocer			Cocer		上洲	2	18	2	2	5	5					SCL01J000197009	2017.01.06	N/A	
			PlOSTIC Bushing			PlOSTIC Bushing		上洲	2	24	2	2	5	5					SCL01J000197010	2017.01.06	N/A	

簽署人保證已經獲得公司充分授權，並保證本表格的內容以及所附的測試報告完全準確、真實。
The below undersigned person declares that he/she is duly authorized by their organization to sign on its behalf and that the contents of this sheet and corresponding test reports are completely true and accurate.

被授權聲明人 Authorized Declarer	Allen Shen	公司法定代表人姓名 Legal Representative Name	
被授權聲明人所屬部門 Dept. of Authorized Declarer	Q.A	Nick Leu	
被授權聲明人職位 Title of Authorized Declarer	Engineer		
聲明日期 Date of Declaration	2017-4-27	職位 Title	Sales director

1. SPECIFICATION NO.:

2. PRODUCT TITLE: AUDIO-JACK 3x1

3. PART NO.

4. REVISION:

REV NO.	REVISION NOTE	DATE
A	新版发行	26-07-2011

5. APPROVAL :

APPROVED BY	REVIEWED BY	INITIATED BY	APPROVAL DATE
			26-07-2011

1. SCOPE

This specification covers performance, methods and quality requirements for AUDIO-JACK 3x1 connectors. These connectors are cable mounted or printed circuit board mounted connectors.

2. REQUIREMENTS

2.1 Design and Construction

Product shall be of the design, construction and physical dimensions specified

The in applicable product drawing.

2.2 Materials and Plating

2.2.1 Housing:PBT+30% G/F, (UL94 V-0)

2.2.2 Plastic Bushing:PA66+15% G/F,(UL94 V-0)

2.2.3 Cover:PA66+30% G/F, (UL94 V-0)

2.2.4 SHELL:SUS430,Plating:Kink Matte Tin Plated on Nickel Plated.
STEEL,Over plating:Kink Matte Tin Plated Cover Nickel Plated

2.2.5 Contact:BRASS,plating:Xu″ Au Tin Plated on Nickel Plated

3. TEST CONDITION

Unless otherwise specified elsewhere, the following characteristics be defined under a temperature of 20~30℃, a relative humidity of 60~75% and an atmospheric pressure of 86~106kPa.

4. RATINGS

Voltage: 250 V/AC (rms)

Current: 1A DC

Operating temperature: -25℃ to +70℃

Storage temperature: -40℃ to +70℃

5. TEST REQUIREMENTS AND PROCEDURES SUMMARY

5.1 ELECTRICAL PERFORMANCE

ITEM	TEST CONDITION	SPECIFICATION
Contact resistance	Mated applicable Audio Jack and measured by dry circuit, 1KHZ. 100mA max (JIS C5402 5.3)	Initial: 30mΩ Max After test: 50mΩ Max
Insulation Resistance	Mated applicable Audio Jack and apply 500V DC between adjacent terminal orground. (JISC54025.2/ MIL-STD-1344A Method 3003.1)	1000MΩ Min
Dielectric Withstanding Voltage	Mated applicable Audio Jack and apply 500V AC for 1 minute between adjacent terminal or ground. (JIS C5402 5.1/ MIL-STD-1344A Method 3003.1)	No creeping discharge or flashover shall occur

5.2 MECHANICAL PERFORMANCE

ITEM	TEST CONDITION	SPECIFICATION
Mating force	- Mate applicable Audio Jack and insert and withdraw actuator at the speed rate of 20mm/max	0.4~3.0 Kg Initial 0.3~3.0 Kg final
Unmating force	Mate applicable Audio Jack and insert and withdraw actuator at the speed rate of 20mm/max	0.4~3.0 Kg Initial 0.3~3.0 Kg final
Durability	5000 Cycles at 10~20 Cycles/Min	See Note

Vibration	-Subject mated contacts to open circuit at DC 1 mA -Amplitude: 0.75mm P-P -Sweep time: 10~55~10 Hz in 1 min -Duration: 2 hours in each X.Y.Z. axes (JIS C5402 6.1)	Plug and receptacle shall not be come off during test
Shock	-Subject mated contacts to open circuit at DC 1 mA -490m/s^2(50G) -3 strokes in each X.Y.Z. axes. (JIS C5402 6.1)	After test the contact resistance : 60mΩ Max Discontinuity: 1 microsecond max.

5.3 ENVIRONMENTAL PERFORMANCE

ITEM	TEST CONDITION	SPECIFICATION
Salt spray	-Salt solution : 5% ± 1%(by weight) -Exposed time : 24 Hours -Salt solution temp : 35℃ ± 2℃ -Exposed contacts mated with water. -After water ringed and air drying water ass'y and contact electrical characteristics were measured.	- No damage - To meet contact resistance, insulation resistance and dielectric withstanding voltage criteria
Humidity	-Chamber temp : 40℃ ± 2℃ -Chamber humidity : 90% ~95% RH -Exposed time : 240 Hours -Electrical characteristics were measured and tested	Same as salt spray
Heat resistance	-Chamber temp : +70℃±2℃ -Test time:240 hours under chamber temp. -Electrical characteristics were measured and tested.	Same as salt spray
Cold resistance	-Chamber temp : -25℃±3℃ -Test time:240 hours under chamber temp. -Electrical characteristics were measured and tested.	Same as salt spray

Temperature cycling	- Mated connectors - 5 cycles -25℃ ~ +70℃	Same as salt spray
Solder ability	Temperature : 245±5℃,5±0.5 sec. Length of dip:2±0.5mm	Solder ares shall have a solder Coverage of 90% minimum.
Resistance to soldering heat	Specimen shall be mounted on PCB 260℃±5℃, 10±1 sec.	See Note

6. PRODUCT QUALIFICATION TEST SEQUENCE

Test Examination	TEST GROUP														
	A	B	C	D	E	F	G	H	I	J					
	TEST SEQUENCE														
Appearance	1, 12	1, 5	1, 8	1, 8	1, 8	1, 8	1, 5	1, 3	1, 6						
Contact resistance	2, 9	2, 4	2, 5	2, 5	2, 5	2, 5	2, 4		2, 5						
Insulation resistance	3														
Dielectric Withstanding Voltage	4, 8		4	4	4	4			4						
Mating force	5, 10		6	6	6	6									
Unmating force	6, 11		7	7	7	7									
Durability	7														
Vibration		3													
Shock															
Heat resistance				3											
Cold resistance					3										
Humidity			3												
Temperature cycling						3									
Salt spray							3								
Solderability								2							
Resistance to soldering heat									3						

1. Sample Selection:
Samples shall be prepared in accordance with applicable manufacturers instructions and shall be selected at random form current productions.
2. Test follow the step

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特性测试记录表

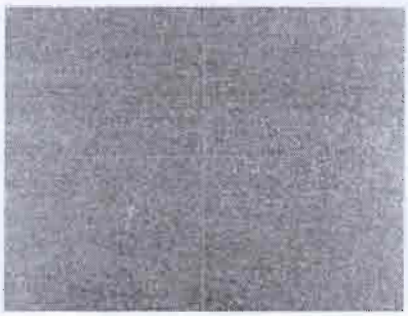
GP	TEST	SPEC.	DATA		
			Mean	Max.	Min.
	Appearance	No Damage	OK	OK	OK
A	Mating Force	3.0 Kg Max.	1.06	1.22	0.9
	Unmating Force	0.3Kg Min.	0.9	1.1	0.7
	Contact Resistance<lnitial>	50 mΩ max.	22.5	27	18
	Durability	10~20 Cycles/min.	OK	OK	OK
	Mating Force	3.0 Kg Max.	0.95	1.1	0.8
	Unmating Force	0.3 Kg Min.	0.75	0.9	0.6
	Contact Resistance	100mΩ max.	35.5	43	28
	Appearance	No Damage	OK	OK	OK
B	Appearance	No Damage	OK	OK	OK
	lnsulation Resistance	100MΩ min	OK	OK	OK
	Dielectric Withstanding Resistance	500V for 1 minute	OK	OK	OK
	Humidity-Cycling	40℃ & 90~95%RH for 96Hrs	OK	OK	OK
	lnsulation Resistance	50MΩ min	OK	OK	OK
	Dielectric Withstanding Resistance	500V for 1 minute	OK	OK	OK
	Appearance	No Damage	OK	OK	OK
C	Appearance	No Damage	OK	OK	OK
	Contact Resistance	50 mΩ max	21.5	29	14
	Salt Spray	5%@24 Hrs	OK	OK	OK
	Appearance	No Damage	OK	OK	OK
D	Appearance	No Damage	OK	OK	OK
	Contact Resistance	50 mΩ max.	23.5	27	20
	coolTemp.Life	－25℃/96Hr	OK	OK	OK
	Contact Resistance	100mΩ max.	26	29	23
	Appearance	No Damage	OK	OK	OK
E	Appearance	No Damage	OK	OK	OK
	Contact Resistance	50 mΩ max.	21	25	17
	Temp.Life	85℃/96Hr	OK	OK	OK
	high Temp.Life	100mΩ max.	20.75	24	17.5
	Appearance	No Damage	OK	OK	OK

审核：　　制表：

HELMUT FISCHER GmbH + Co. KG
Industriestrasse 21
71069 Sindelfingen

Fischerscope XRAY XULM

Product: 59 / Sn/Ni/Fe **Dir.: Fischer** **Block: 5856**
Application: 65 / Sn/Ni/Fe



n=	1	Sn 1 =	125.8 µ"	Ni 2 =	55.9 µ"
n=	2	Sn 1 =	126.4 µ"	Ni 2 =	51.3 µ"
n=	3	Sn 1 =	125.7 µ"	Ni 2 =	54.4 µ"
n=	4	Sn 1 =	126.1 µ"	Ni 2 =	57.5 µ"
n=	5	Sn 1 =	125.9 µ"	Ni 2 =	56.7 µ"

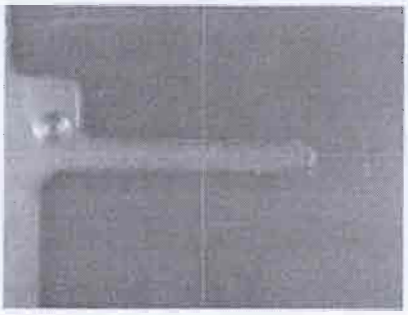
Mean	126.0 µ"	55.17 µ"
Standard deviation	0.274 µ"	2.431 µ"
C.O.V. (%)	0.22	4.41
Range	0.712 µ"	6.16 µ"
Number of readings	5	5
Min. reading	125.7 µ"	51.3 µ"
Max. reading	126.4 µ"	57.5 µ"
Measuring time	10 sec	
Operator: 陈伦韶	三层ODJACK铁壳	

Date: 2017-4-25 Time: 10:02:07

HELMUT FISCHER GmbH + Co. KG
Industriestrasse 21
71069 Sindelfingen

Fischerscope XRAY XULM

Product: 20 / Sn/Ni/CuZn **Dir.: Fischer** **Block: 5800**
Application: 21 / Sn/Ni/CuZn



n=	1	Sn 1 =	107.4 µ"	Ni 2 =	67.4 µ"
n=	2	Sn 1 =	108.4 µ"	Ni 2 =	67.0 µ"
n=	3	Sn 1 =	108.1 µ"	Ni 2 =	66.0 µ"
n=	4	Sn 1 =	105.3 µ"	Ni 2 =	68.6 µ"
n=	5	Sn 1 =	107.8 µ"	Ni 2 =	69.8 µ"

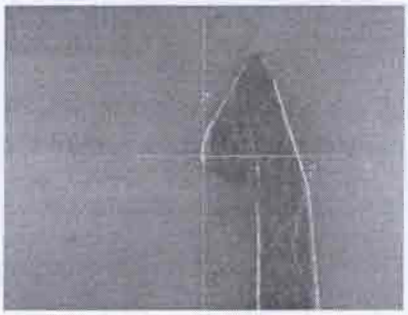
Mean	107.4 µ"	67.75 µ"
Standard deviation	1.206 µ"	1.477 µ"
C.O.V. (%)	1.12	2.18
Range	3.04 µ"	3.82 µ"
Number of readings	5	5
Min. reading	105.3 µ"	66.0 µ"
Max. reading	108.4 µ"	69.8 µ"
Measuring time	10 sec	

Operator: 陈伦韶 三层ODJACK端子-锡
Date: 2017-4-25 Time: 10:22:54

HELMUT FISCHER GmbH + Co. KG
Industriestrasse 21
71069 Sindelfingen

Fischerscope XRAY XULM

Product: 55 / Au/Ni/CuZn薄金 **Dir.: Fischer** **Block: 3319**
Application: 62 / Au/Ni/CuZn薄金



n= 1	Au 1 =	1.39 µ"	Ni 2 =	99.1 µ"
n= 2	Au 1 =	2.32 µ"	Ni 2 =	104.9 µ"
n= 3	Au 1 =	1.26 µ"	Ni 2 =	97.4 µ"
n= 4	Au 1 =	1.41 µ"	Ni 2 =	99.1 µ"
n= 5	Au 1 =	1.45 µ"	Ni 2 =	98.7 µ"

Mean	1.569 µ"	99.84 µ"
Standard deviation	0.429 µ"	2.896 µ"
C.O.V. (%)	27.33	2.90
Range	1.06 µ"	7.44 µ"
Number of readings	5	5
Min. reading	1.26 µ"	97.4 µ"
Max. reading	2.32 µ"	104.9 µ"
Measuring time	15 sec	

Operator: 陈伦韶 三层ODJACK端子-金
Date: 2017-4-25 Time: 10:27:21

INSPECTION CERTIFICATE

Customer : 佛山市顺德区禾泰贸易有限公司

Purchaser :

Referenca No:

Commodity :

Specification :JIS G3141 SPCC-SD

Size :0.300×1000 ×COIL

Head office :

Plant office :

Certificate No:

Page No : 01 of 01

Date : 2016/3/7

Contract No :

Coil No.	Quantity	Mass(Ton)	Chemical Composition(%)								Tensile test				HRB	BEND TEST	BH Mpa				
			C	Si	Mn	P	S	Alt			Y.S.	T.S.	EL								
			×100			×1000					N/sq.mm		(%)								
M10707181	6	54.120	4	1	17	16	7	36			218	362	38		52	OK					
M10707182	6	55.980	4	1	17	15	7	36			218	365	38		52	OK					
M10707183	6	56.450	4	1	17	16	7	36			218	365	38		52	OK					
M10707184	6	55.920	4	1	17	16	7	40			218	362	39		52	OK					
M10707185	6	54.660	4	1	17	16	7	36			223	361	39		52	OK					
M10707186	6	52.200	4	1	17	17	7	36			223	361	39		52	OK					
M10707187	6	54.960	4	1	17	17	7	38			223	362	39		52	OK					
TOTAL=	42	384.290																			

We hereby certify that the material described herein has been tested and inspected with satisfactory results in accordance with the above specification

Ejiet

Manager of Technical and Quality Control Department

东莞捷美五金制品有限公司产品质量证明书

出货日期 Date 2017-4-12

品名 Article	标准 Standard No	规格 Dimension	状态 Temper	
C2680	JISH3100	0.3*19	EH	

元素 Element	Cu	Cd	Pb	Fe	Zn	/	/	杂质	化学成份
规范 Spec	64.0～68.0	≤0.0005	≤0.009	≤0.05		/	/	合格	合格
实测 Actual	64.28	<0.0005	0.0029	0.0085	35.42	/	/	合格	合格

机械性质 Mechanical Properties

项目 Item	结晶粒度 Grain Size Mm	硬度 Hardness Hv	抗拉强度 Tension Strength Kgf/min	伸长率 Elongation %	导电率 Electrical Conduc %IACS	弯曲试验 Bending Test 180°	表面粗度 Surface Roughness Ra(um)	弯曲度 Camber mm/m
规范MAX Spec. MIN	/	150-185	/			/	/	/
实测 Actual	/	179	558	9		/	/	/

东莞捷美五金制品有限公司 质量检验专用章

东莞捷美五金制品有限公司产品质量证明书

出货日期 Date 2017-4-17

品名 Article	标准 Standard No	规格 Dimension	状态 Temper	
C2680	JISH3100	0.2	EH	

元素 Eiement	Cu	Cd	Pb	Fe	Zn	/	/	杂质	化学成份
规范 Spec	64.0~68.0	≤0.0005	≤0.009	≤0.05		/	/	合格	合格
实测 Actual	64.28	<0.0005	0.0029	0.0085	35.42	/	/	合格	合格

机械性质 Mechanical Properties

项目 Item	结晶粒度 Grain Size Mm	硬度 Hardness Hv	抗拉强度 Tension Strength Kgf/min	伸长率 Eiongation %	导电率 Electrical Conduc %IACS	弯曲试验 Bending Test 180°	表面粗度 Surface Roughness Ra(um)	弯曲度 Camber mm/m
规范MAX Spec. MIN	/	150-185	/			/	/	/
实测 Actual	/	172	558	9		/	质量检验专用章	/

材 质 证 明

兹有我司上洲塑胶科技有限公司为贵司所提供的产品原料，由以下物质组成：

产品名称：PBT301G30　环保

组成成份:

PBT环保树脂	54.3%
环保 玻纤	30.0%
环保增韧剂	5.0%
环保阻燃剂	10.0%
环保润滑剂	0.5%
环保抗氧剂	0.2%

成型建议如下：

1. 烘干温度：120° C
2. 烘干时间：4-5小时
3. 成型温度：220-250° C

特此证明!

东莞市上洲塑胶科技有限公司(原治德塑胶原料公司)

材质证明

兹有我司**上洲塑胶科技有限公司**为贵司所提供的产品原料防火 PA66 本色，由以下物质组成：

物品名称：PA66 本色 环保

组成物质：PA66 环保树脂		58.7%
	环保玻纤	30%
	环保润滑剂	0.1%
	环保抗氧剂	0.2%
	环保防火剂	10%

成型建议如下：

1. 烘干温度：120^{0}C
2. 烘干时间：4-5 小时
3. 成型温度：230^{0}C—260^{0}C

ONLINE CERTIFICATIONS DIRECTORY

QMFZ2.E237064
Plastics - Component

Additional information regarding this certification can be found in UL's iQ Family of Databases (iq.ul.com).
For additional information concerning the individual material, click on the material designation.

Page Bottom

Plastics - Component

See General Information for Plastics - Component

DONGGUAN SHANGZHOU PLASTICS TECHNOLOGY CO LTD E237064
CHENWUBEI INDUSTRIAL PARK
CHANGPING TOWN
DONGGUAN, GUANGDONG 523582 CHINA

									H	D	
		Min.		H	H	R T I			V	4	C
		Thk	Flame	W	A	Elec	Mech		T	9	T
Material Dsg	Color	mm	Class	I	I		Imp	Str	R	5	I
Polyamide 66 (PA66), furnished as pellets.											
PA66-301GF30%	NC	3.0	V-0	-	-	65	65	65	-	-	-
Polybutylene Terephthalate (PBT), furnished as pellets.											
PBT-301GF30%	NC	3.0	V-0	-	-	75	75	75	-	-	-

Marking: Company name and material designation on container, wrapper or finished part.
Last Updated on 2013-01-11

Questions? Print this page Terms of Use Page Top

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Pony Testing International Group

Report No.：2016025-025~3

MSDS Report

Samples	SPCC
Client Unit	FOSHAN SHUNDE HETAI STEEL TRADE CO., LTD
Client Address	Foshan Shunde Luzhou Lecong Develop

Report in electronic version is only for client's preview and reference. For confirmative content, formal test report shall prevail.

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name: SPCC

Client Unit: FOSHAN SHUNDE HETAI STEEL TRADE CO., LTD
Address: Foshan Shunde Luzhou Lecong Develop
Post Code: 528315
Tel: 0757-28854088
Emergency Telephone: 0757-28854088
Fax: 0757-28834077
E-Mail: hetaimfl@qq.com

Section 2 – Composition/Information on Ingredient

Chemical Name	CAS No.	Formula	Weight（%）
Iron	7439-89-6	Fe	97.10
Carbon	7440-44-0	C	0.60
Silicon	7440-21-3	Si	0.50
Manganese	7439-96-5	Mn	1.80

Section 3 - Hazards Identification

No harm under normal use. At long industrial condition, reference as follow.

Eye

Dust or welding fumes may cause irritation of eyes.

Skin

Dust or welding fumes may cause irritation.

Inhalation

Dust or welding fumes may cause irritation of respiratory tract and result in discomfort such as dizziness, nausea, or dryness or irritation of nose and throat.

Ingestion

May be harmful if swallowed.

Section 4 - First Aid Measures

Eye

Flush with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Skin

Remove contaminated clothing/shoes. Flush skin with large amounts of water for at least 15 minutes, follow by washing with soap and water. Get medical attention if irritation persists. Do not reuse clothing/shoes until cleaned.

Inhalation

Remove victim to fresh air. If symptoms develop, seek medical advice.

Ingestion

Do not induce vomiting. Get medical attention.

Section 5 - Fire Fighting Measures

Flash Point: N/A.

Flammability: Non-flammable.

Extinguishing Media

Use water spray, carbon dioxide, or dry chemical.

Firefighting

Wear self contained breathing apparatus and protective clothing.

Hazardous Combustible Products

Carbon monoxide, carbon dioxide, sulfur oxides, oxides of phosphorus, metallic oxides, other irritating and toxic fumes.

Section 6 - Accidental Release Measures

Steps to be taken in case material is spilled or released

Fine turnings should be swept or vacuumed. Small materials can be reclaimed for re-use.

Waste Disposal Method

Used or unused product should be disposed of in accordance with Federal, State, or Local Rules and Regulations.

Section 7 - Handling and Storage

Handling

Keep away from fire. Avoid mechanical or electrical abuse.

Storage

Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperature should be avoided. Keep away from acid, bases, strong oxidizers.

Section 8 - Exposure Controls, Personal Protection

No need under normal use. If at long industrial condition, handle as follows

Engineering Controls

In a cool, well-ventilated area. Use an approved particulate respirator in dusty or misty atmospheres. Use explosion-proof equipment if needed.

Personal Protection

Safety glasses, protective gloves, lab coat, eye washer and safety shower if needed.

Exposure limit

Iron

OSHA TWA 10.0mg/m^3 as oxide dust and fume.

ACGIH TLV 5.0mg/m^3 as oxide fume.

Carbon

OSHA PEL 5.0mg/m^3 as respirable fraction.

ACGIH TLV 10mg/m^3 Total.

Silicon
OSHA TWA 10.0mg/m^3 as total dust; 5.0mg/m^3 as respirable fraction.
ACGIH TLV 10.0mg/m^3 as total dust.

Manganese
OSHA TWA 1.0mg/m^3 as fume.
ACGIH TLV 1.0mg/m^3 as fume; 3.0mg/m^3 STEL as fume; 5.0mg/m^3 as dust.

Phosphorus
OSHA PEL 0.1mg/m^3 / 8 hours (TWA).
ACGIH TLV 0.1mg/m^3 / 8 hours (TWA).

Section 9 - Physical and Chemical Properties

Flash Point: N/A.
Flammability: Non-flammable.

Appearance and odor: Metallic gray, odorless, metal solid.
Chemical Uses: Widely used in electron, decorative lighting, and furniture.

Section 10 - Stability and Reactivity

Stability
Stable under normal conditions.
Conditions to Avoid
Heating, mechanical abuse and electrical abuse.
Hazardous Combustible Products
Carbon monoxide, carbon dioxide, sulfur oxides, oxides of phosphorus, metallic oxides, other irritating and toxic fumes.
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Iron

Oral LD50 for Rats: 30gm/kg

Silicon
Oral LD50 for Rats: 3160mg/kg

Manganese
Oral LD50 for Rats: 9gm/kg

Phosphorus
Oral LD50 for Male Rats: 3.76mg/kg
Oral LD50 for Female Rats: 3.03mg/kg
Oral LD50 for Male Mice: 4.85mg/kg
Oral LD50 for Female Mice: 4.82mg/kg

Sulfur
Oral LD50 for Rabbits: 175mg/kg

Section 12 - Ecological Information

Report spills as required to appropriate authorities. U.S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks.

Section 13 - Disposal Considerations

Recycle the products if possible. All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded, may be a regulated waste. Refer to state and local regulations. If regulated solvents are used to clean up spilled material, the resulting waste mixture may be regulated. Department of Transportation (DOT) regulations may apply for transporting this material when spilled.

Section 14 - Transport Information

This product is not a hazardous material or dangerous goods for

transportation.

Transport Fashion: By sea, by railway, by highway.

Section 15 - Regulatory Information

Law Information

《Dangerous Goods Regulation》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《International Maritime Dangerous Goods》

《Classification and code of dangerous goods》

OSHA Hazard Communication Standard Status

Toxic Substances Control Act (TSCA) Status

SARA Title III

RCRA

In accordance with all Federal, State and Local laws.

Section 16 - Additional Information

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information maybe applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

MSDS Creation Date: February 25, 2016

1．Product and manufacturer’s information

Product name: Brass Strip

Manufacturer’s and supplier’s name address and telephone number

Company name: NINGBO XINGYE SHENGTAI GROUP CO., LTD。

ADD: NO.2-9, Jinxi Road, Hangzhou Bay New Zone, Cixi City, Zhejiang, China /315336

Tel: +86-574-63073293

Department: Quality and Technical Service Department

2．Composition/information on ingredients

Chemical composition of brass strip, %							
Alloy No	Cu	Fe	Pb	A1	Ni	Zn	Other
CAS No	7440-50-8	7439-89-6	7439-92-1	7429-90-5	7440-02-0	7440-66-6	
H70 [C2600]	68.5~71.5	0.10	0.03	—	0.5	Remainder	0.3
H68 [C2620]	67.0~70.0	0.10	0.03	—	0.5	Remainder	0.3
H65 [C2680]	63.5~68.0	0.10	0.03	—	0.5	Remainder	0.3
H63 [C2720]	62.0~65.0	0.15	0.08	—	0.5	Remainder	0.5
H62 [C2801]	60.5~63.5	0.15	0.08	—	0.5	Remainder	0.5

3. Hazardous Identity Information

Description of identifying Hazard: metallic solid, it is easy to make body bruise
Special Hazard to body and environment: it is easy to make body bruise
Hazardous effect and performance: it is easy to make body bruise

4. first-aid measures

Some first aid method Inhalation : Remove to fresh air, if vomits seriously, consult doctor immediately Adhere to skins: Wash out with soap and water then rinse with many Water. Enter the eyes: Wash out with clean running water over 15minute.if feel pain, consult eye doctor immediately Ingestion :If vomits seriously, consult doctor immediately
To notify the doctor: none

5. Fire-fighting measures

Applicable Extinguishing agent : uneasy to fire
Suffer from special hazard when extinguishing the fire: none
Fireman’s Special protection:

6. Accidental release measures

Personal notes: N/A
environmental notes: N/A
disposal approach: N/A other notes: N/A

7. Handling and storage

Handling Some information for safe handling way: keep safe Some information for Protection of Fire and leakage: no leakage
Storage Stay alone ; forbid storing with strong oxidizers, acid,…,and so on Don’t store on the surrounding of moist and water Far off hot and easy catching-fire place; all the copper strips that coming into basement for the first time should be checked , mark clearly and keep no damage urgent disposal facilities that apply in a fire should be ready

8. Explosion precaution and individual protection measure

Project control:-
Respiratory prevention: supplied air respirators
Hand protection: abrasion resistance protective gloves and clothing

9. Physical and chemical properties

Chemical property: it has good chemical stability, and has good anti-corrosion suffer from dilute H2SO4, it’s easy to erode in the large flow of moisture vapor , It is easy to make a reaction with C l, Br, F, hydride and dry carbon dioxide under high temperature, then change into volatile compound.
Physical property: High flexibility, abrasion resistance and anti-magnetic, pressure processing can be easily welded and cut under the hot and cold. it has good plasticity, ductility, castability, besides, it has a strong thermal conductivity and electrical conductivity

10. Stability and reactivity

Condition of substance: solid	shape: strip
Decomposition temperature: 996	smell: none
Density:8.8g/m3	solubility: it can’t dissolve in the water
Situation to avoid: avoid stay in the large flow of vapor Materials to avoid: strong oxidizers, steam	
Decomposition Hazardous: N/A	

11. Toxicological information

acute toxicity: N/A

others

12. Ecological information

Hazardous class for water: N/A
General Comments

13. Disposal

1Refer relevant laws and regulations and in compliance with relevant environmental protection regulations
2regard as industrial waste that can be recollected and reused

14. Transport information

Summarize: keep safe of protection when carrying, forbid falling and mutual colliding and injuring Don’t touch copper strips with your dirty hand Others should be accorded with fire-fighting law, highway safe transport law and so on

15. Regulatory information

EC order of relevant regulation identifying: ROSH standard Others:GB/T5231-2001 copper processing ,copper alloy of chemical composition and product shape 《MANAGEMENT REGULATIONS FOR THE ENVIRONMENT-RELATED SUBSTANCES TO BE CONTROLLED WHICH ARE INCLUDED IN PARTS AND MATERIALS》（SONY SS-00259-02005） Local regulation: environmental protection law; law of the Prevention and Control of Environmental Pollution by Solid Waste，fire-fighting law Highway traffic safety rules : Technological order about Content of Hazardous substance in the air at working environment: Atmospheric pollution prevention act Pollution class for water: N/A Do no harm to water/no pollution

16. Other information

This information sheet describes current knowledge of product that come out from warehouse concern of environmental protection and labor safety. However, this sheet is no warranty on some product quality and isn’t nature of any regulations restricted

深圳市骅丰泰成表面处理有限责任公司

SHENGZHEN HUAFENG(TAICHENG) METAL PRODUCTS CO,LTD

MSDS 物质安全资料表

一、物质名称与公司资料

特制名称：铜材镀金

公司名称：深圳市骅丰泰成表面处理有限责任公司

公司地址：深圳市宝安区沙井镇湾夏工业园七栋六楼

公司电话：0755-82599658　　公司传真：0755-82596122

二、成分辨别资料：

化学名称	含量（%）	CAS.NO
金盐	98	13967-50-5
钴	0.9	7440-48-4
光泽剂	1.1	1310-73-2

三、危害性描述

1、危险性/对健康的危害性:过长时间或重复接触此化学剂可能会伤害眼睛、皮肤和呼吸系统。如果人体摄入大量此化学剂，对人体有害。过量吸入可能伤害嘴和喉，研究可能导致轻微腹部疼痛。此化学剂的毒性尚未完全确定。 有关 LD50 和对视力和皮肤伤害的指数尚未确定。

2、剧毒：此产品的有关 LD50 和毒性的指数尚未确定。

3、呼吸吸入此化学剂：会伤害呼吸器官。

4、皮肤接触此化学剂：可能伤害皮肤。

5、眼睛接触此化学剂：严重伤害眼睛。

四、急救措施

1、吸入：人转移到空气新鲜处。如果人呼吸困难，吸氧并求医治疗。

2、皮肤接触到此化学剂：脱掉污染的衣服和鞋，用水冲洗。然后再用皂水冲洗。衣服和鞋要洗干净后才能穿着。如人体受伤害时间长，须求医医治。遵医嘱，不要乱涂油药膏或软膏。

五、灭火措施

1、特殊的消防措施：用水冷却火中的化学剂罐。在安全处，进行火中打捞工作。

2、灭火剂：用喷水、二氧化碳、泡沫和干粉等灭火剂。

六、泄漏处理方法：

1、此化学剂的防溅和防漏的措施：用惰性吸附剂吸附化学剂溅出液，把泄漏的化学剂舀入污液罐。如果有必要，使用防毒面具。化学剂溅漏处，严禁吸烟。查询当地有关排污的法规，进行适宜的排污。如果化学剂溅漏液进入地漏或下水道，或者流入植物种植地，请报警。

2、清洁方法：用大量的水和清洁剂冲洗，冲洗后排污，避免废液进入下水管道。污液收集到污液罐中。

七、安全处置及储存方法

1、储存温度：恒温

2、运输温度：恒温

3、装运注意事项：避免眼睛和皮肤接触此化学剂。此化学剂不要吸入人体。在工作区，不要饮食或吸烟。

4、储存条件：要储存在良好通风处和凉处。此化学剂不使用时，要密封好化学剂罐。

八、暴露预防措施

1、防爆事宜：在使用此化学剂时，工作区的空气污染不能超过污染极限（TLVS）。

2、通风：现场按需求排气通风。

3、人体防护设备：凡有可能接触此化学剂的场所，需带上安全防护眼睛、口罩和手套，穿上防护衣服。如果工人在操作和装运时，没有采取其他适宜的防护人体接触化学剂的措施，必须配置呼吸防护器具。

九、物理及化学性质

1、外观与性状：红色液体

2、相 对 密 度：未确定

3、比重（20℃）：大约 1.1 克/立方厘米

4、溶 解 性：可溶于水

5、闪 点：未确定

6、防燃 极限：未确定

7、熔 点：无 意 义

8、始沸点（77 毫米水银柱）：未确定

9、引 燃 温 度：无 意 义

10、PH 值：3.8~4.2

十、安定性及反应性

1、具有危险性的聚合反应：预计不发生聚合反应。

2、稳定性：一般认为，此化学剂稳定。

3、此化学剂需避免接触的物质： 避免接触氧化剂和活性剂。

4、具有危险性的分解反应或副产品：此化学剂受热会分解成有毒气体

十一、毒性资料

1、请参阅第 3 章节的此化学剂的危险性和对人体的危害性。

十二、生态资料：

十三、废弃物处理方法：

1、排入重金属废水系统处理。

十四、运输信息

1、国际运送规定：比照办理的类别和编号：2810

2、包装标志及类别：腐蚀品，III 类包装

3、包装方式：螺丝口玻璃、塑料瓶外普通木箱，螺纹口玻璃瓶、塑料桶

十五、法规资料

十六、其它信息

制表单位：深圳市骅丰泰成表面处理有限责任公司

联系电话：0755-82599658 传真：0755-82596122

深圳市骅丰泰成表面处理有限责任公司

SHENGZHEN HUAFENG(TAICHENG) METAL PRODUCTS CO,LTD

MSDS 物质安全资料表

一、物质名称与公司资料

特制名称：铜/铁材镀镍层

公司名称：深圳市骅丰泰成表面处理有限责任公司

公司地址：深圳市宝安区沙井镇湾夏工业园七栋六楼

公司电话：0755-82599658　　公司传真：0755-82596122

二、成分辨别资料：

化学名称	含量（%）	CAS.NO
氨基磺酸镍	75%	13770-89-3
氯化镍	15%	7718-54-9
硼酸	10%	11113-50-1

三、危害性描述

1、危险性类别：普通化学品（非危险品）

2、危害途径：吸入、吞食、皮肤接触。

3、健康危害：吸入或吞食造成呼吸道和食道过敏及重金属中毒。皮肤接触会产生过敏。眼睛接触会造成刺激性发炎。

4、环境影响： PH 值影响动植物

5、物理性及化学性危害： 无

四、急救措施

1、吸入：将患者移至空气流通场所，维持安静，必要时使用人工呼吸器，严重者送医院治疗。

2、吞食：饮用大量水催吐就医。

3、眼睛接触：立即用大量水冲洗 15 分钟以上，立即就医。

4、皮肤接触：用大量清水冲洗，有发炎立即就医。

五、灭火措施

1、可用水、二氧化碳、干粉灭火器灭火。

六、泄漏处理方法：

1、使用木屑、砂土吸附，然后用水冲洗入重金属废水系统。

2、将吸附残液倒入废水系统处理。

七、安全处置及储存方法

1、操作注意事项：操作人员必须经过专门培训，严格遵守操作流程。建议操作人员佩戴面罩，戴化学安全防护眼镜，穿一般防护服，戴橡胶安全手套。

2、储存方法：储桶紧邻集中放置，储存在通风阴凉处

八、暴露预防措施

1、工程控制：生产过程密闭，加强通风避免超出 TWA 规定界限

2、控制参数：

TWA TLV:0.1mg/m^3 (as Ni)

STEL TLV:0.3mg/m^3

九、物理及化学性质

1、外观与性状：墨绿色液体
2、相对密度：20—30Be°
3、酸碱度：PH3—6
4、溶解性：完全溶解
5、闪点：无
6、燃烧性：不可燃
7、熔点：无意义
8、沸点：>200℉
9、引燃温度：无意义

十、安定性及反应性

1、安定性：不稳定
2、特殊状况下可能之危害反应：不会发生
3、应避免状况：高温将会产生硫酸铵镍分解物
4、应避免之物质：无
5、危害分解物：无

十一、毒性资料

1、急毒性：无
2、局部效应：食入不知后果
3、致敏感性：对喉咙、眼睛稍有刺激性，皮肤接触可引起皮炎
4、慢毒性或长期毒性：不溶的镍化合物已被发现在老鼠体内引起癌症。无决定性的证明对人类有致癌作用
5、特殊效应：无
6、特殊效应：无

十二、生态资料：

1、可能之环境影响：生理毒性类别：估计 LC50（96 小时）为 2-50ppm
2、避免直接流入主下水道、河流及排水沟。在排放含镍废水前检测镍含量小于 1ppm 即可排放污水处理系统

十三、废弃物处理方法：

1、排入重金属废水系统处理。

十四、运输信息

1、国际运送规定：比照办理的类别和编号：可按普通化工品条件
2、包装要求：衬塑铁桶或塑料桶
3、国内运送规定：参照国际运送规定

十五、法规资料

1、适用法规：NA

十六、其它信息

制表单位：深圳市骅丰泰成表面处理有限责任公司
联系电话：0755-82599658 传真：0755-82596122

深圳市骅丰泰成表面处理有限责任公司

SHENGZHEN HUAFENG(TAICHENG) METAL PRODUCTS CO,LTD

MSDS 物质安全资料表

一、物质名称与公司资料

特制名称：铜/铁材镀锡层

公司名称：深圳市骅丰泰成表面处理有限责任公司

公司地址：深圳市沙井镇共和同富裕工业区致盈科技产业园七栋六楼

公司电话：0755-82599658　　公司传真：0755-82596122

二、成分辨别资料：

化学名称	含量（%）	CAS.NO
锡阳极	49%	7440-31-5
甲基磺酸锡药水	50%	53408-94-9
锡光泽剂	**1%**	**67-63-0**

三、危害性描述

1、危险性类别：酸性腐蚀品

2、危害途径：吸入、吞食、皮肤接触。

3、健康危害：吸入或吞食造成呼吸道和食道过敏及重金属中毒。皮肤接触会产生过敏。眼睛接触会造成刺激性发炎。

4、环境影响： PH 值影响动植物

5、物理性及化学性危害： 与咸反应放热

6、物质危害分类： 酸性物、微毒物

四、急救措施

1、吸入：将患者移至空气流通场所，操持呼吸道顺畅。如呼吸困难，给输氧，如停止呼吸使用人工呼吸，严重者送医院治疗。

2、吞食：用水漱口，给饮蛋清。就医。

3、眼睛接触：立即用大量水冲洗 15 分钟以上，立即就医。

4、皮肤接触：立即脱去污染衣着，用大量清水冲洗至少 15 分钟。就医。

五、灭火措施

1、雾状水、二氧化碳、干粉灭火器、二氧化碳、砂土灭火。

六、泄漏处理方法：

1、使用木屑、砂土吸附，然后用水冲洗入重金属废水系统。

2、将吸附残液倒入废水系统处理。

七、泄漏应急处理

1、应急处理：迅速撤离污染区人员至安全区，并进行隔离，严格限制出入。切断电源。建议应急处理人员带自给正压式呼吸器，穿防酸咸工作服。尽可能切断泄漏源。若是液体，防止流入下水道、排洪沟等限制性空间

八、预防措施

1、戴防护眼镜、防护手套、防护口罩

深圳市骅丰泰成表面处理有限责任公司

SHENGZHEN HUAFENG(TAICHENG) METAL PRODUCTS CO,LTD

MSDS 物质安全资料表

九、物理及化学性质

1、外观与性状：无色透明液体　　5、引燃温度：无意义

2、主要成份：50%甲基磺酸锡水溶液　　6、酸咸度：酸性

3、相对密度（水=1）：1.53　　7、燃烧性：不可燃

4、蒸气比重（空气=1）：>200 ℉　　8、溶　点：无意义

十、稳定性及反应活性

1、稳定性：常温常压下稳定

2、禁配物：碱类、胺类、强还原剂

3、应避免状况：和禁忌物质相接触，受潮、遇湿加热

4、危害分解物：一氧化碳、氧化硫、二氧化碳

5、聚合危险：不会发生

十一、毒性资料

1、急毒性：天竺鼠口服：LD50＝>2gm/kg　　大老鼠口服：LD50=200mg/kg

2、亚急性或慢性毒性：无资料　　3、致癌性：无资料

4、特殊效应：无资料

十二、生态资料：

1、生态毒性：无资料

2、生物降解性：无资料

3、非生物降解性：无资料

4、生物富集或生物积累性：无资料

5、可能之环境影响：该物质对环境有害，对水体或大气可造成污染。有机酸易在大气化学和大气物理变化中形成酸雨。酸化后严重会导致湖泊、河流中鱼类减少或死亡

十三、废弃物处理方法：

1、排入重金属废水系统处理。

十四、运输信息

1、国际运送规定：比照办理的类别和编号：81626

2、包装标志及类别：腐蚀品，III 类包装

3、包装方式：螺丝口玻璃、塑料瓶外普通木箱，螺纹口玻璃瓶、塑料桶

十五、法规资料

1、化学危险物品安全管理条例（1987 年 2 月 17 日国务院发布）化学危险物品安全管理条例实施细则（化劳发（1992）677），工作场所安全使用化学品规定（1996 劳部发 423 号）等法规。

十六、其它信息

制表单位：深圳市骅丰表面处理有限责任公司

联系电话：0755-82599658　　传真：0755-82596122

东莞市上洲塑胶科技有限公司

PBT 物质安全数据表(MSDS)

第一部分:厂商资料

供 应 商：东莞市上洲塑胶科技有限公司
地　　址：东莞市常平镇陈屋贝第一工业区
电　　话：0769-86290268　　86291333　　传　　真：0769-86290269

第二部分:化学品名称

物品中文名称:聚对苯二甲酸一丁二醇脂
物品英文名称:PBT (polybutylene puthalate)
产品型号:PBT301G30%黄色

第三部分:危险性概述

危险性类别:侵人途径:呼吸,接触，吞如
健康危害:当温度过高时所蒸发气体对眼.鼻子.皮肤有一定的刺激作用
环境危害:无信息
燃爆危险:本品不可燃,无刺激性

第四部分:急救措施

皮肤接触:脱去污染的衣服,用流动清水冲洗
眼睛接触:提起眼睑,少流动清水或生理盐水冲洗或就医
吸人:脱离现场至空气新鲜处,如呼吸困难.给输氧,就医.
食人:饮足量温水./就医

第五部分:消防措施

危险特性:粉体与空气可形成爆炸性混合物,当达到一定浓度时,遇火星会发生爆炸.
有害燃烧产物:一氧化碳,二氧化碳.氮氧化物.
灭火方法:消防人员须佩戴防毒面具,穿全身消防服,在上风向灭火.灭火剂:雾状水,泡沫干粉,二氧化碳,砂土

第六部分:泄漏应急处理

应急处理:隔离泄漏污染区,限制出人.切断火源.建议应急处理人员有防尘面具.穿防毒服.用洁净的铲子收集干干燥,洁净,有盖的容器中，转移至安全场所.若大量泄漏,收集回收或运至废物处理场所处置.

第七部分:操作处置与储存

操作注意事项:密闭操作,局部排风.操作人员必须经过专门培训,严格遵守操作规程.建议操作人员佩带自吸过滤式防尘口罩,戴化学安全防护眼镜,穿防毒物渗透工作服,戴橡胶手套.远离火种、热源,工作场地严禁吸烟.使用防爆型的通风系统和设备.避免生产粉尘.避免与氧化剂接触.搬运时要清装清卸,防止包装及容器损坏.配备相应种数和数量的消防器材及泻漏应急处理设备.倒空的容器可能残留有害物质.

储存注意事项:储存于阴凉的库房.远离火种、热源.应与氧化剂分开存放,切记混储.配备相应品种和数量的消防器材.储区应备有合适的材料收容泄露物.

第八部分:接触控制/个体防护

职业接触限值
中国 MAC(mg/m3):未定制标准
前苏联 MAC(mg/m3) :未定制标准
TLVTN : 未定制标准
TLVWN: 未定制标准
工程控制: 密闭操作,局部排风
吸入系统防护: 空气中粉尘浓度超标时,必须佩戴过滤式防尘口罩.紧急事态抢救或撤离时,应该佩戴空气呼吸器.
眼睛防护: 戴化学安全防护眼睛.
身体防护: 穿防毒物渗透工作服
手防护: 戴橡胶手套.
其他防护: 工作完毕,沐浴更衣.注意个人清洁卫生.

第九部分:理化特性

主要成分: 纯品
外观与性状: 白色结晶体.
熔点(℃): >230C °
沸点(℃): >350℃
相对密度(水=1):1.58～1.65
相对蒸汽密度(空气=1): 无资料
饱和蒸汽压(kPa): 无资料
燃烧热(kJ/mol): 无资料
临界温度(℃): >300℃
临界压力压力(Mpa): 无资料
辛醇/水分配系数的对数值: 无资料
闪点(℃): 无资料
引燃温度(℃): 450(粉云)
爆炸上限%(V/V): 无资料
爆炸下限%(V/V): 30(g/m3)
溶解性: 不溶于多数有机溶剂,溶等.
主要用途: 用于工程塑料,如各种齿轮 轴承 支架等,还可以用于电缆护套和医疗器械
其他理化性质: 无资料

第十部分:稳定性和反应活性

稳定性: 无资料
禁配物: 强氧化剂
避免接触的条件: 无资料
聚合危害: 无资料
分解产物:CO CO2

第十一部分:毒理学资料

急性毒性:LD50：无资料

LC50：无资料

亚急性和慢性毒性：无资料

刺激性：无资料

致敏性：无资料

致突变性：无资料

致畸性：无资料

致癌性：无资料

第十二部分:生态学资料

生态毒理毒性：无资料

生态降解性：无资料

非生态降解性：无资料

生物富集或生物积累性：无资料

其他有害作用：无资料

第十三部分:废弃处理

废弃物性质:必需客观存在安全

废弃处置方法:处置前应参阅国家和其他地方法规.建议用焚烧法处置.焚烧炉排除的氧化物通过洗净器除去.

废弃注意事项:需要控制及做好的再次回收.

第十四部分:运输信息

危险货物编号:无资料

UN 编号:无资料

包装标志:无资料

包装类别:Z01

包装方法:无资料

运输注意事项:起运时包装要完整,装载应稳妥 不倒塌 不坠落 不损坏.严禁和氧化剂 食用化学品等混装混运.运输途中应防爆晒、雨淋 防高温.

第十五部分:法规信息

法规信息:化学危险物品安全管理条例(1987 年 2 月 17 日国务院发布),化学危险物品安全管理条例实施细则(化劳发{1992}677 号),工作场合安全使用化学品规定({1996}劳部发 423 号)法规.针对化学危险品的安全使用 生产 储存 运输 装卸等方面均做了相应法规.

第十六部分:其他信息

其他信息:美国国家防火协会,危险品警告语标识,主要说明该产品的公司对使用者所要提供的安全方面的信息,保护使用者不应出现的危害.

东莞市上洲塑胶科技有限公司

DONGGUAN CITY SHANGZHOU PLASTIC TECHNOLOGICAL CO.,LTD

物质安全资料表

1. 物品及厂商资料

产品名称：PA66 301GF 白色塑胶粒

制造商：东莞市上洲塑胶科技有限公司(东莞市常平治德五金塑胶制品厂)

地址：东莞市常平镇陈屋贝工业区

电话：0769-86291333

传真电话：0769-89112599　　联系人：王金涛　　职位：品管主管

2. 成品辨认资料

化学名称	聚己二酰己二胺	二氧化硅	三溴苯氧基	三氧化二锑
化学式	[-NH(CH2)6－NHCO(CH2)4CO]n－	SiO_2	C21H6Br9N303	Sb_2O_3
含量	60%	30%	7%	3%
CAS NO	32131-17-2	7631-86-9	25173-60-4	1309-64-4

3. 危害性分

健康危害效应　　无

环境影响　　无

物理影性及化学性危害　　无

特殊危害　　无

4. 急救措施

吸入　　若吸入熔融树脂逸出之气体，将患者移至通风处，立即送医。
若接触倒塑胶粒或塑胶粉末，以清水冲洗。
若接触到熔胶，以大量（肥皂）水冲洗患部及衣物，立即送医。

眼睛接触　　若接触倒塑胶粒或塑胶粉末以大量清水至少冲洗 15 分钟。
若有不适，立即送医。

吞食　　催吐，以清水漱口，若有不适，立即送医。

5. 消防措施

使用灭火剂　　水，泡沫，干粉

灭火时可能遭遇之特殊危害　　无

特殊灭火程序　　移除可燃物

消防人员之特殊防护装备　　使用供氧式呼吸防护具

6. 泄露处理方法

个人应注意事项　若塑胶粒或塑胶粉末残留于地面上，可能会导致人员滑到

环境注意事项　为防止鸟类或鱼类由排水系统中觅食，须彻底回收

清理方法　回收或废弃

7. **安全处理与储存方法**

处置　　操作处所须严禁烟火，做好整理整顿以避免粉尘累积，为防止尘爆，空气输送管路，袋滤器及储槽须加装静电消除装置，并确实接地。袋滤器之滤材采导电性材质。

储存　　存放于阴凉处所，避免直射阳光、雨淋及急逐之温差，储存处严禁烟火。

8. **暴露预防措施**

容许浓度（TLV）	未定	
通风设备	排除粉尘封、烟及气体时使用	
个人防护备	呼吸防护	清洗成型时使用防毒面具
	手部防护	接触熔胶时使用皮手套
	眼睛防护	平时使用安全眼镜，清洗定型机时使用护目镜

9. **物理及化学性质**

物质状态	胶粒
形状	粒状
颜色	BK
气味	无
闪火点	400℃
自然温度	460℃
爆炸界限	40g/m^3
最小着火能量	3.5mj
最大爆炸压力	7 X 10^5Pa/s
最大压力上升速度	3.2 X 10^7Pa/s
比重	1.59
溶解度	无

10. **安定性及反应性**

安定性　　依一般操作及储存程式时，安定性佳

危害性分解

燃烧能量

11. **毒性资料**

毒性　　**LD50**（口服、鼠） **>5000MG/KG**

LD50（皮肤、兔） **>2000MG/KG**

暴露的影响　　急性：眼睛及皮肤有轻微刺激

慢性：octabromodiphenyl oxide& Decadromodiphenyl oxide 已被证实会对鼠类有所影响，长期处在其中会对肝、肾及甲状腺有影响（实验室试验）

12. **生态资料**

为防止被海洋生物或鸟类觅食，严禁丢弃至海洋或水域

13. **废弃物处理**

适当之焚化炉燃烧或掩埋法，不适当之焚化炉可能会产生有毒气体如：CO,NO 等

14. **运送资料**

未分类

15. **法规资料**

无

16. **其他资料**

无

FOSHAN SHUNDE HETAI STEEL TRADE CO., LTD.

LECONG TOWN LUZHOU DEVELOP DISTRICT SHUNDE FOSHAN
CHINA

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

SGS Job No. :	CP16-055888 - GZ
Date of Sample Received :	30 Aug 2016
Testing Period :	30 Aug 2016 - 02 Sep 2016
Test Requested :	Selected test(s) as requested by client.
Test Method :	Please refer to next page(s).
Test Results :	Please refer to next page(s).
Conclusion :	Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Merry

Merry Lv
Approved Signatory

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

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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075113 e sgs.china@sgs.com

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN16-171716.001	Grey metal sheet

Remarks :

(1) 1 mg/kg = 0.0001%

(2) MDL = Method Detection Limit

(3) ND = Not Detected (< MDL)

(4) "-" = Not Regulated

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method : (1)With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
(2)With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
(3)With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
(4)With reference to IEC 62321-7-1:2015 , determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.

Test Item(s)	Limit	Unit	MDL	*001*
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	ND
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▾	-	µg/cm²	0.10	ND

Notes :

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

(2) ▾= a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 µg/cm2. The sample coating is considered to contain CrVI

b. The sample is negative for CrVI if CrVI is ND (concentration less than 0.10 µg/cm2). The coating is considered a non-CrVI based coating

c. The result between 0.10 µg/cm2 and 0.13 µg/cm2 is considered to be inconclusive - unavoidable coating variations may influence the determination

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

IEC 62321 series is equivalent to EN 62321 series

http://www.cenelec.eu/dyn/www/f? p=104:30:1742232870351101::::FSP_ORG_ID, FSP_LANG_ID:1258637,25

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

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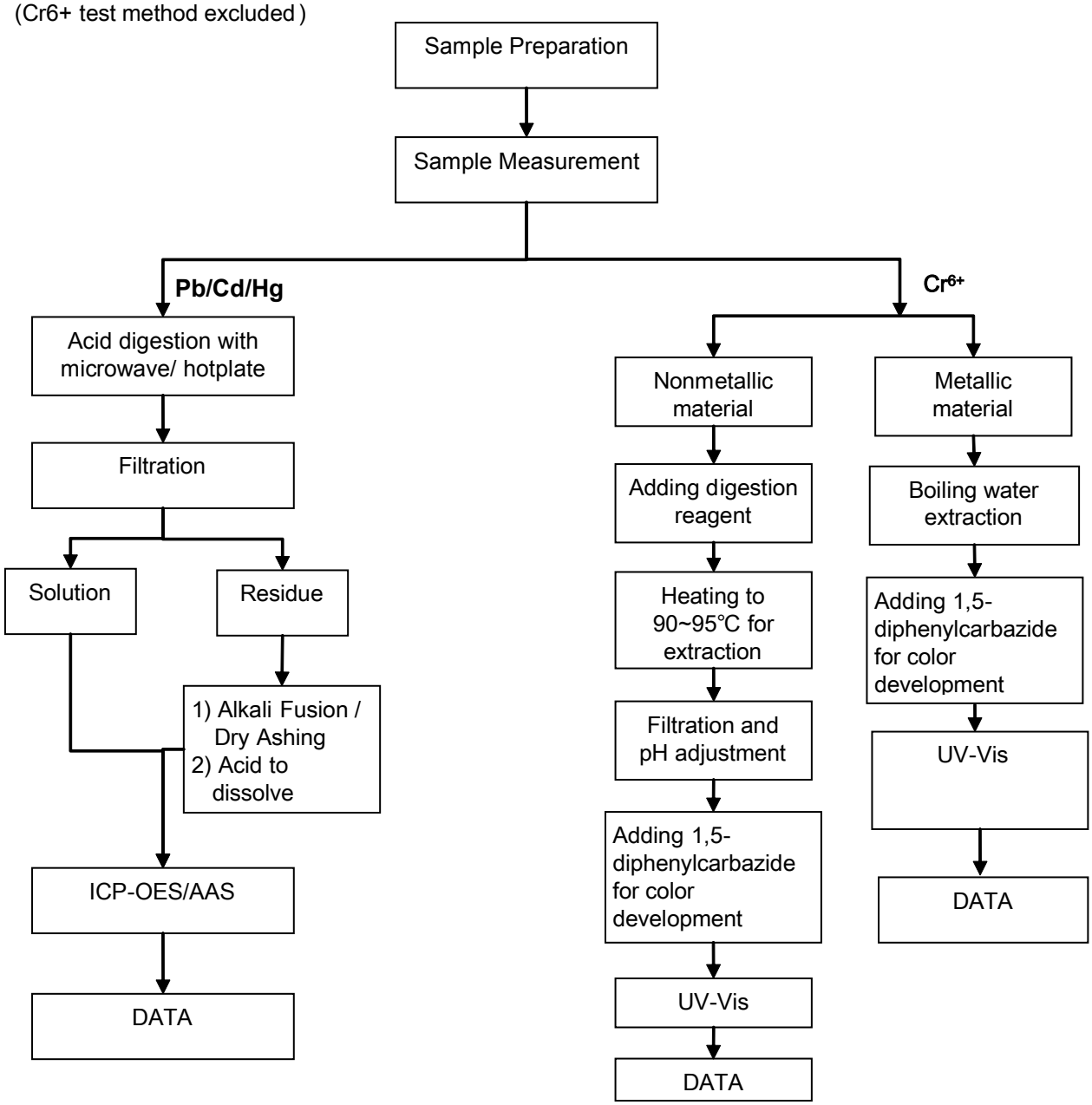
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ATTACHMENTS

Pb/Cd/Hg/Cr^{6+} Testing Flow Chart

1) Name of the person who made testing: Edith Zhang
2) Name of the person in charge of testing: Bella Wang
3) These samples were dissolved totally by pre -conditioning method according to belo w flow chart. (Cr6+ test method excluded)



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Sample photo:



CAN16-171716.001

SGS authenticate the photo on original report only

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Test Report

Report No. SCL01I033355002

Applicant SHENGZHEN HUAFENG(TAICHENG) METAL PRODUCTS CO,LTD
Address SHENZHEN BAOAN DISTRICT SHAJING TOWN GONGHE VILLAGE BAY MANSION SEVEN INDUSTRIAL PARK OF THE SIXTH FLOOR

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

Sample Name 镀镍层
Sample Received Date Apr. 26, 2016
Testing Period Apr. 26, 2016 to Apr. 29, 2016

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium(Cr(VI)), Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA) in the submitted sample(s).

Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	Refer to IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
Perfluorooctane Sulfonates(PFOS)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Perfluorooctanoic Acid(PFOA)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS

Test Result(s) Please refer to the following page(s).

Tested by Sky Tang
Reviewed by Emma Xiao
Approved by
Date Apr. 29, 2016

Danny Liu
Technical Manager

No. R221582737

Hotline: 400-6788-333 www.cti-cert.com E-mail: info@cti-cert.com Complaint call: 0755-33681700 Complaint E-mail: complaint@cti-cert.com

Test Report

Report No. SCL01I033355002

Test Result(s)

Tested Item(s)	Result	MDL
Lead (Pb)	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium(Cr(VI))	N.D. ▼	0.10 μg/cm²(LOQ)

Tested Item(s)	Result	MDL
Perfluorooctane Sulfonates(PFOS)	N.D.	0.5 μg/m²
Perfluorooctanoic Acid(PFOA)	N.D.	0.5 μg/m²

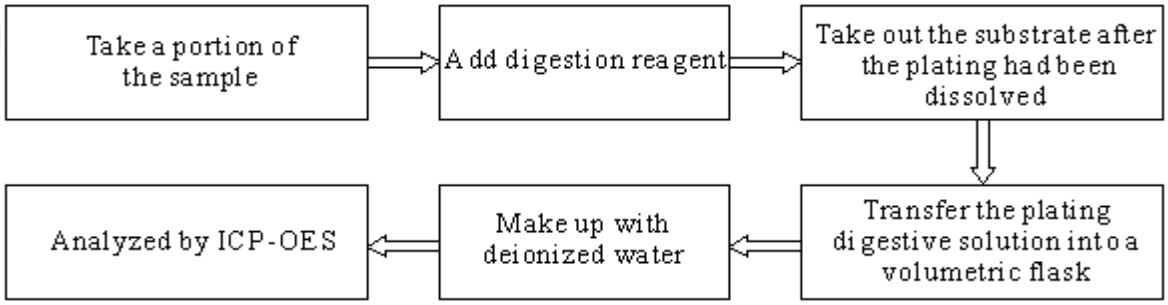
Tested Sample/Part Description Silver-gray plating

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL or LOQ)
-mg/kg = ppm = parts per million
-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 μg/cm²
-▼The sample is negative for Cr(VI) − The Cr(VI) concentration is below 0.10 μg/cm².
The coating is considered a non-Cr(VI) based coating.

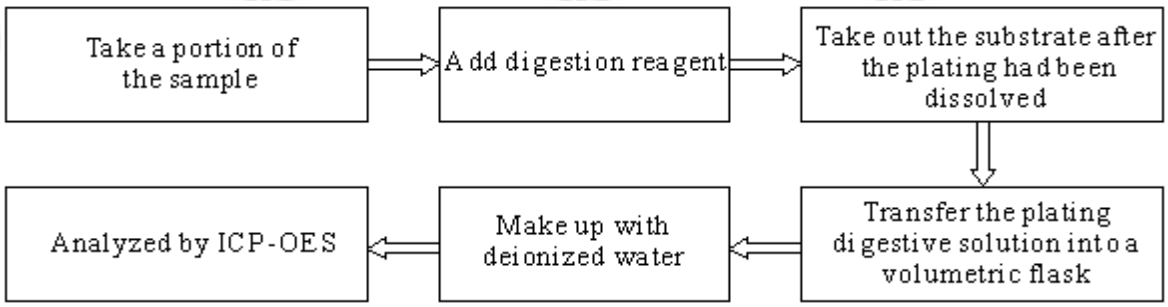
Test Report

Test Process

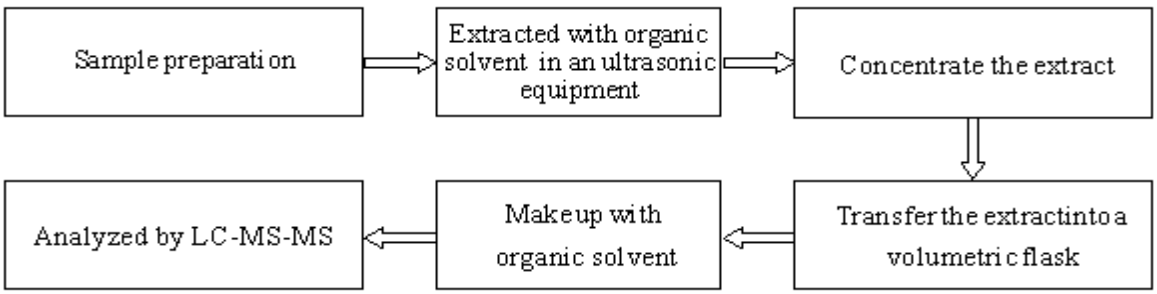
1. Lead (Pb), Cadmium (Cd)



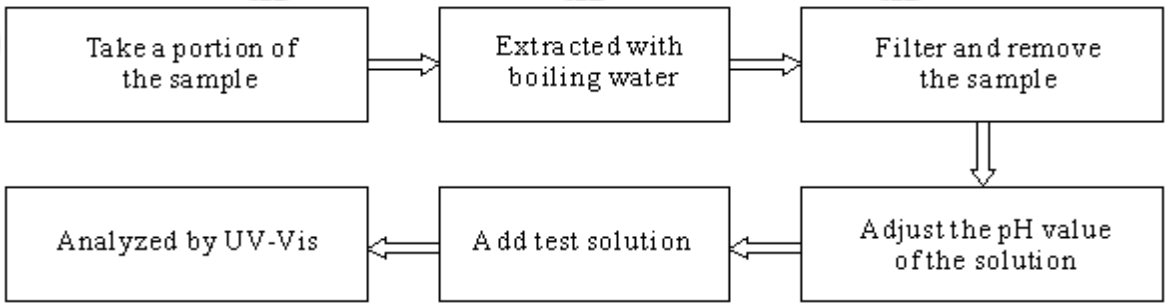
2. Mercury (Hg)



3. Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA)

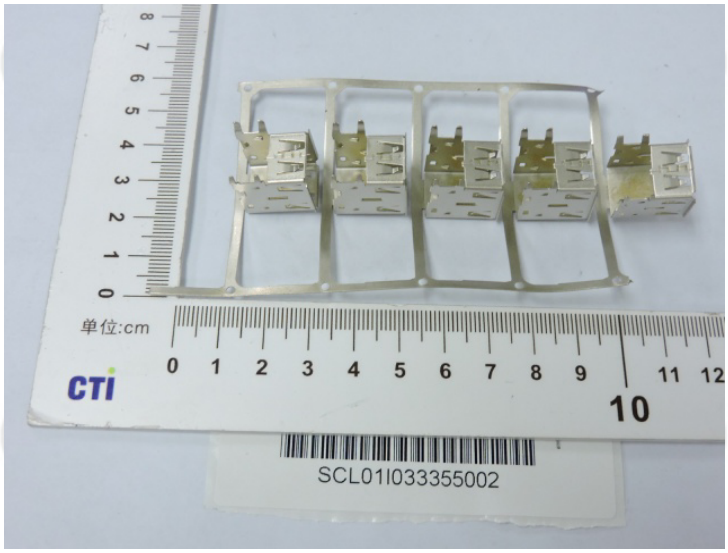


4. Hexavalent Chromium(Cr(VI))



Test Report

Photo(s) of the sample(s)



*** End of report ***

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Test Report

Report No. SCL01I033355003

Applicant SHENGZHEN HUAFENG(TAICHENG) METAL PRODUCTS CO,LTD
Address SHENZHEN BAOAN DISTRICT SHAJING TOWN GONGHE VILLAGE BAY MANSION SEVEN INDUSTRIAL PARK OF THE SIXTH FLOOR

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

Sample Name 镀锡层
Sample Received Date Apr. 26, 2016
Testing Period Apr. 26, 2016 to Apr. 29, 2016

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium(Cr(VI)), Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA) in the submitted sample(s).

Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	Refer to IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
Perfluorooctane Sulfonates(PFOS)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Perfluorooctanoic Acid(PFOA)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS

Test Result(s) Please refer to the following page(s).

Tested by Sky Tang
Reviewed by Emma Xiao
Approved by
Date Apr. 29, 2016

Danny Liu
Technical Manager

No. R221582737

Hotline: 400-6788-333 www.cti-cert.com E-mail: info@cti-cert.com Complaint call: 0755-33681700 Complaint E-mail: complaint@cti-cert.com

Test Report

Test Result(s)

Tested Item(s)	Result	MDL
Lead (Pb)	72 mg/kg	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium(Cr(VI))	N.D. ▼	0.10 μg/cm²(LOQ)

Tested Item(s)	Result	MDL
Perfluorooctane Sulfonates(PFOS)	N.D.	0.5 μg/m²
Perfluorooctanoic Acid(PFOA)	N.D.	0.5 μg/m²

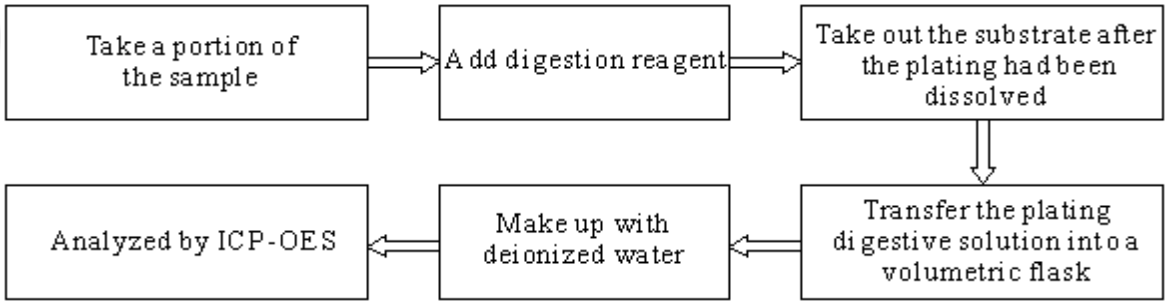
Tested Sample/Part Description Silvery plating

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL or LOQ)
-mg/kg = ppm = parts per million
-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 μg/cm²
-▼The sample is negative for Cr(VI) − The Cr(VI) concentration is below 0.10 μg/cm².
The coating is considered a non-Cr(VI) based coating.

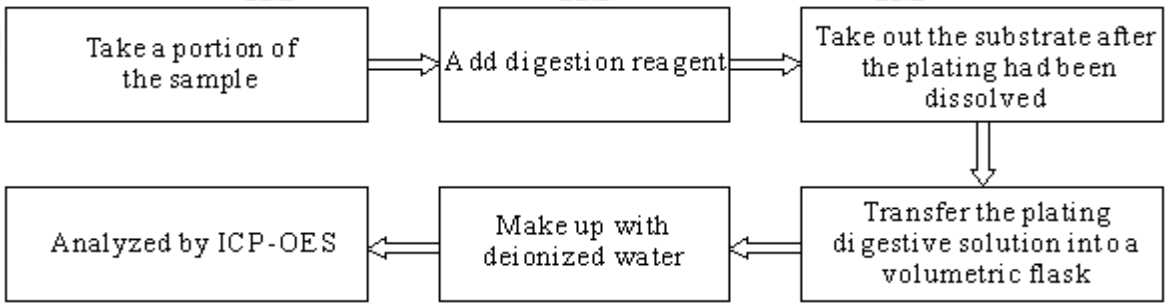
Test Report

Test Process

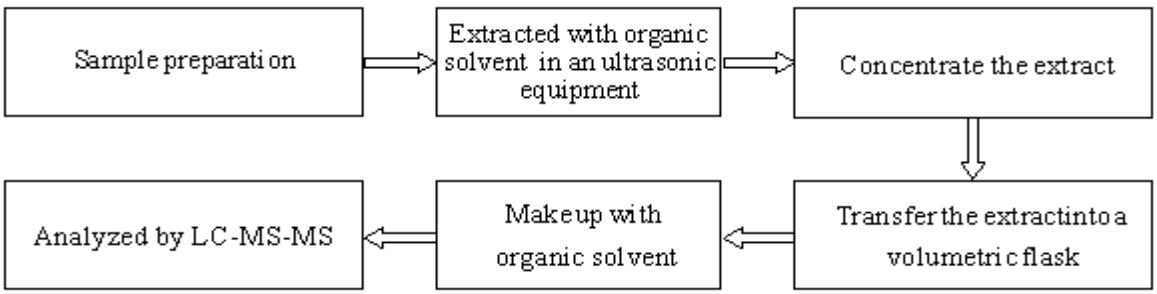
1. Lead (Pb), Cadmium (Cd)



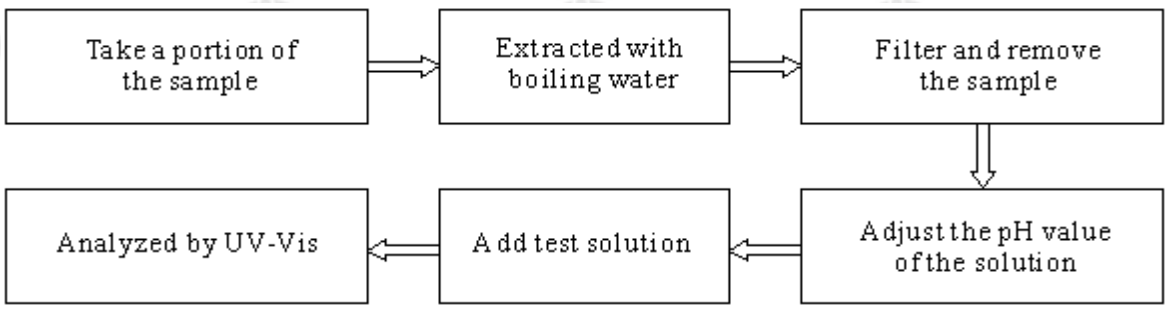
2. Mercury (Hg)



3. Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA)

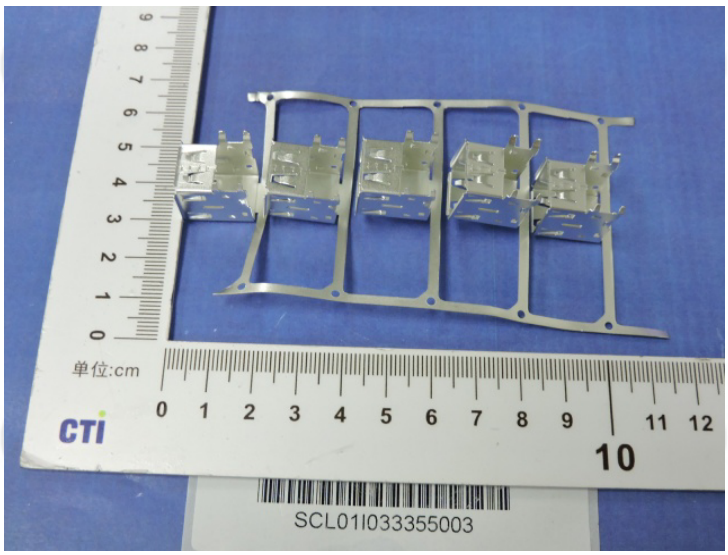


4. Hexavalent Chromium(Cr(VI))



Test Report

Photo(s) of the sample(s)



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Test Report

Report No. SCL01I037570002

Applicant KWONG LEE (SHENZHEN) METAL CO., LTD.
Address NO.1,GROUND FLOOR,BLOCK 1,NO.14 XIN ER ZHUANG CUN ER LU,SHA JING JIE DAO,BAO AN DISTRICT ,SHEN ZHEN CITY

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

Sample Name C2680
Sample Received Date May. 9, 2016
Testing Period May. 9, 2016 to May. 12, 2016

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium(Cr(VI)), Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA) in the submitted sample(s).

Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
Perfluorooctane Sulfonates(PFOS)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Perfluorooctanoic Acid(PFOA)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS

Test Result(s) Please refer to the following page(s).

Tested by Tony Gong
Reviewed by Danna Yan
Approved by
Date May. 12, 2016

Danny Liu
Technical Manager

No. R169564773

Test Report

Report No. SCL01I037570002

Test Result(s)

Tested Item(s)	Result	MDL
Lead (Pb)	41 mg/kg	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium(Cr(VI))	N.D.▼	0.10 μg/cm²(LOQ)

Tested Item(s)	Result	MDL
Perfluorooctane Sulfonates(PFOS)	N.D.	5 mg/kg
Perfluorooctanoic Acid(PFOA)	N.D.	5 mg/kg

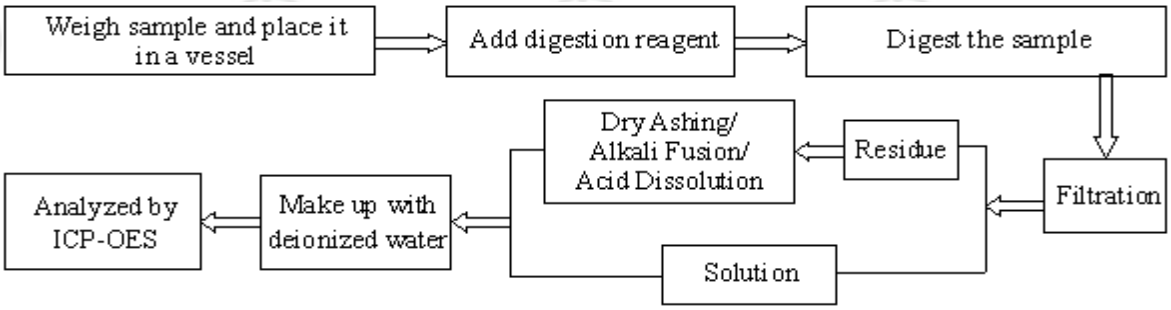
Tested Sample/Part Description Golden metal

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL or LOQ)
-mg/kg = ppm = parts per million
-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 μg/cm²
-▼The sample is negative for Cr(VI) − The Cr(VI) concentration is below 0.10 μg/cm². The coating is considered a non-Cr(VI) based coating.

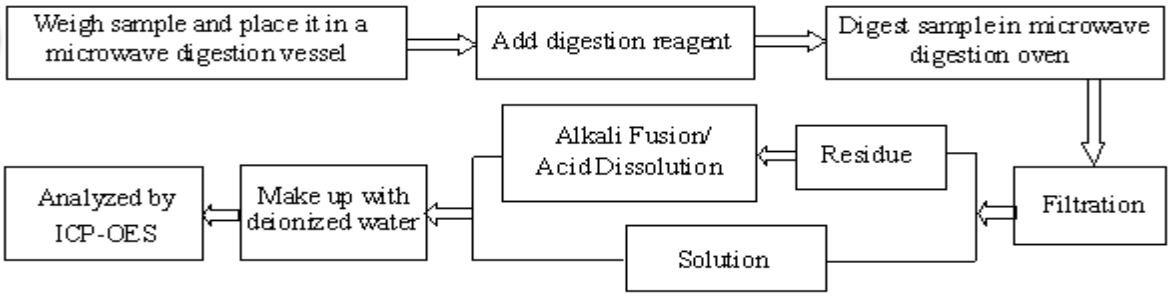
Test Report

Test Process

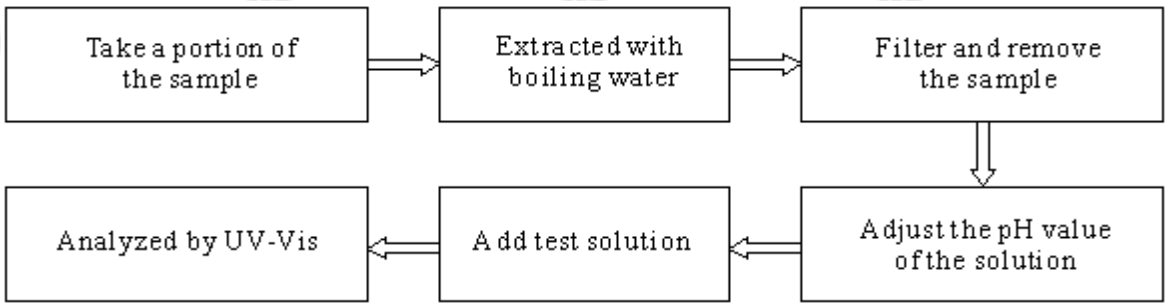
1. Lead (Pb), Cadmium (Cd)



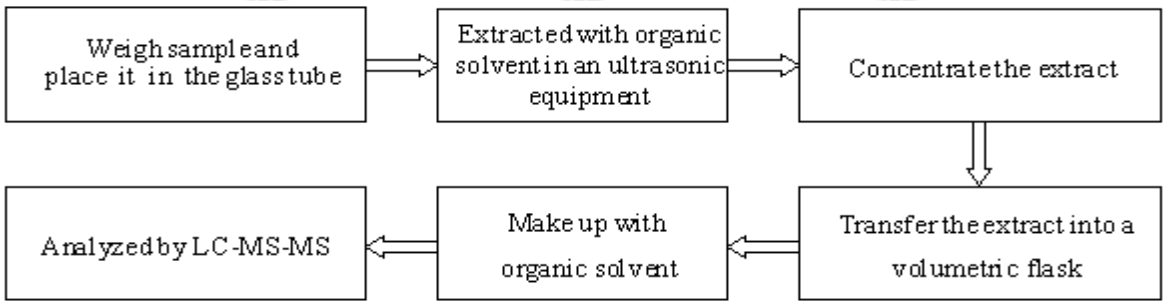
2. Mercury (Hg)



3. Hexavalent Chromium(Cr(VI))

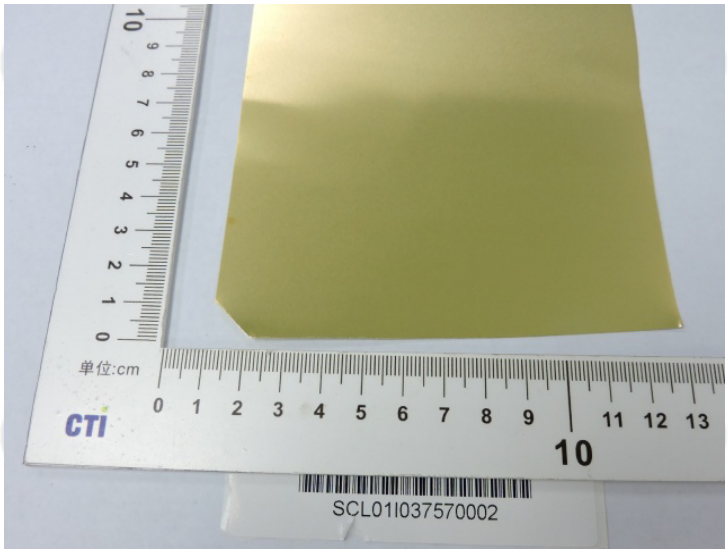


4. Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA)



Test Report

Photo(s) of the sample(s)



*** End of report ***

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

Test Report

Report No. SCL01I033355001

Applicant SHENGZHEN HUAFENG(TAICHENG) METAL PRODUCTS CO,LTD
Address SHENZHEN BAOAN DISTRICT SHAJING TOWN GONGHE VILLAGE BAY MANSION SEVEN INDUSTRIAL PARK OF THE SIXTH FLOOR

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

Sample Name 镀金层
Sample Received Date Apr. 26, 2016
Testing Period Apr. 26, 2016 to Apr. 29, 2016

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium(Cr(VI)), Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA) in the submitted sample(s).

Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	Refer to IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
Perfluorooctane Sulfonates(PFOS)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Perfluorooctanoic Acid(PFOA)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS

Test Result(s) Please refer to the following page(s).

Tested by Sky Tang
Reviewed by Emma Xiao
Approved by
Date Apr. 29, 2016

Danny Liu
Technical Manager

No. R221582737

Hotline: 400-6788-333 www.cti-cert.com E-mail: info@cti-cert.com Complaint call: 0755-33681700 Complaint E-mail: complaint@cti-cert.com

Test Report

Report No. SCL01I033355001

Test Result(s)

Tested Item(s)	Result	MDL
Lead (Pb)	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium(Cr(VI))	N.D. ▼	0.10 μg/cm²(LOQ)

Tested Item(s)	Result	MDL
Perfluorooctane Sulfonates(PFOS)	N.D.	0.5 μg/m²
Perfluorooctanoic Acid(PFOA)	N.D.	0.5 μg/m²

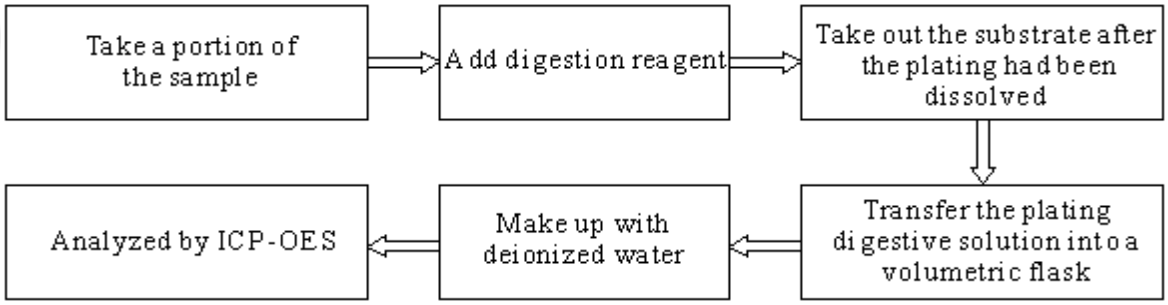
Tested Sample/Part Description Golden plating

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL or LOQ)
-mg/kg = ppm = parts per million
-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 μg/cm²
-▼The sample is negative for Cr(VI) − The Cr(VI) concentration is below 0.10 μg/cm².
The coating is considered a non-Cr(VI) based coating.

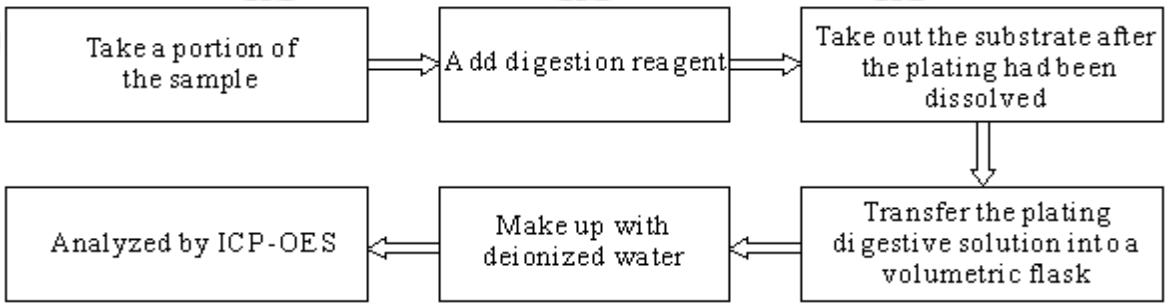
Test Report

Test Process

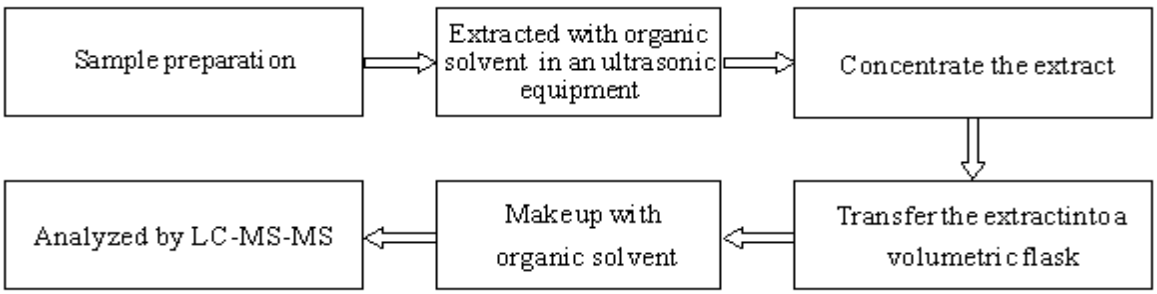
1. Lead (Pb), Cadmium (Cd)



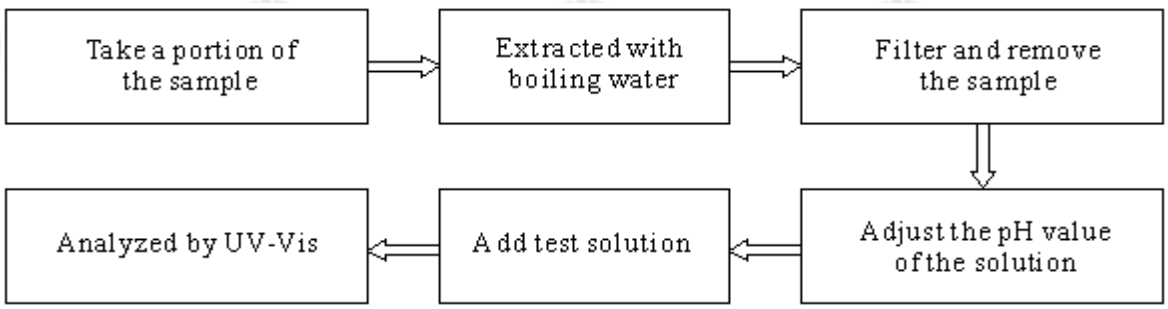
2. Mercury (Hg)



3. Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA)

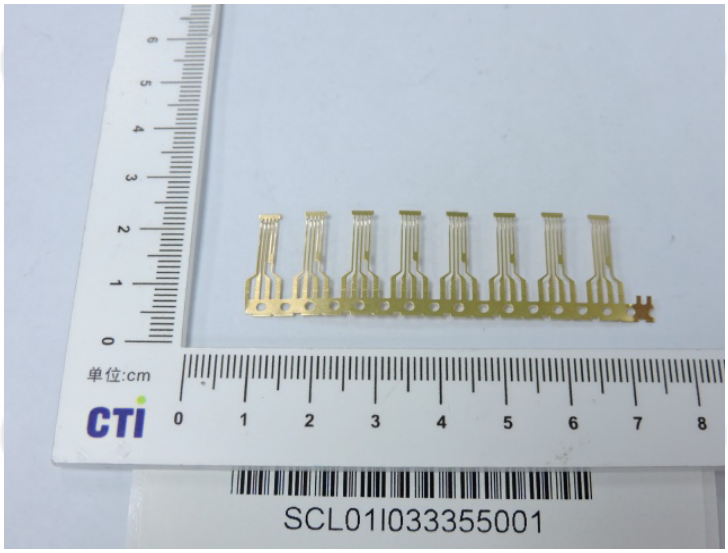


4. Hexavalent Chromium(Cr(VI))



Test Report

Photo(s) of the sample(s)



*** End of report ***

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Test Report

Report No. SCL01I033355002

Applicant SHENGZHEN HUAFENG(TAICHENG) METAL PRODUCTS CO,LTD
Address SHENZHEN BAOAN DISTRICT SHAJING TOWN GONGHE VILLAGE BAY MANSION SEVEN INDUSTRIAL PARK OF THE SIXTH FLOOR

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

Sample Name 镀镍层
Sample Received Date Apr. 26, 2016
Testing Period Apr. 26, 2016 to Apr. 29, 2016

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium(Cr(VI)), Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA) in the submitted sample(s).

Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	Refer to IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
Perfluorooctane Sulfonates(PFOS)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Perfluorooctanoic Acid(PFOA)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS

Test Result(s) Please refer to the following page(s).

Tested by Sky Tang
Reviewed by Emma Xiao
Approved by
Date Apr. 29, 2016

Danny Liu
Technical Manager

No. R221582737

Hotline: 400-6788-333 www.cti-cert.com E-mail: info@cti-cert.com Complaint call: 0755-33681700 Complaint E-mail: complaint@cti-cert.com

Test Report

Report No. SCL01I033355002

Test Result(s)

Tested Item(s)	Result	MDL
Lead (Pb)	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium(Cr(VI))	N.D. ▼	0.10 μg/cm²(LOQ)

Tested Item(s)	Result	MDL
Perfluorooctane Sulfonates(PFOS)	N.D.	0.5 μg/m²
Perfluorooctanoic Acid(PFOA)	N.D.	0.5 μg/m²

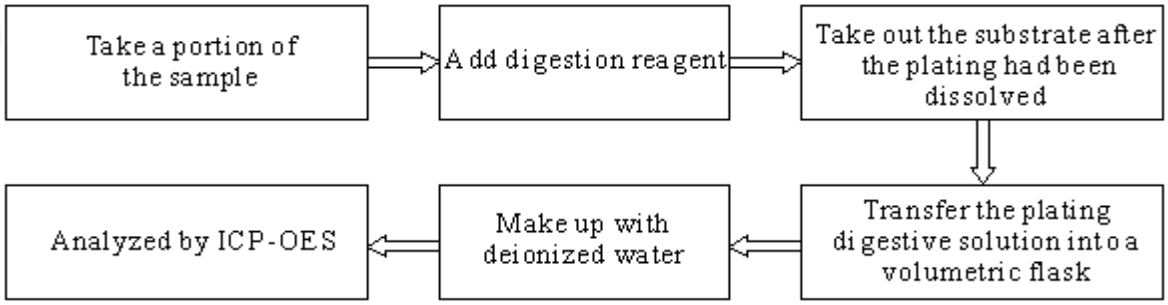
Tested Sample/Part Description Silver-gray plating

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL or LOQ)
-mg/kg = ppm = parts per million
-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 μg/cm²
-▼The sample is negative for Cr(VI) − The Cr(VI) concentration is below 0.10 μg/cm².
The coating is considered a non-Cr(VI) based coating.

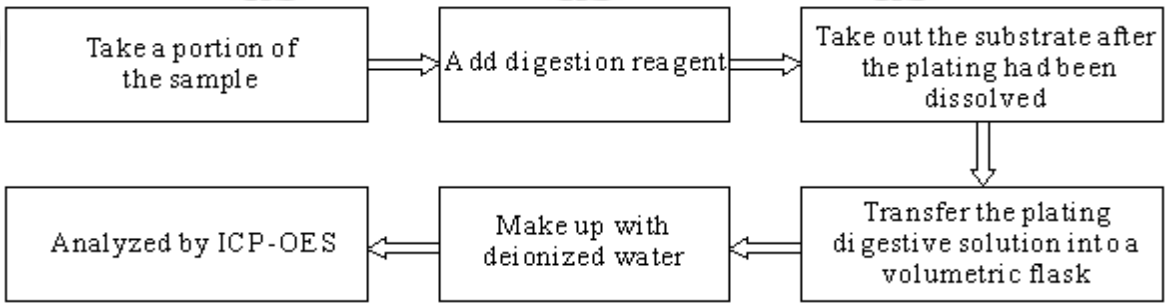
Test Report

Test Process

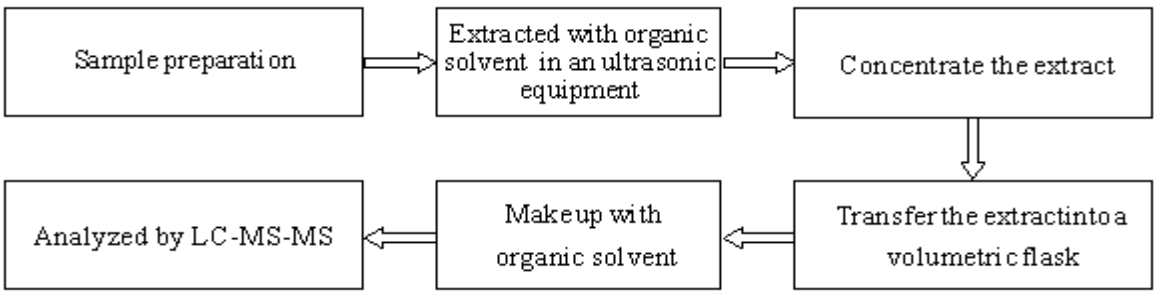
1. Lead (Pb), Cadmium (Cd)



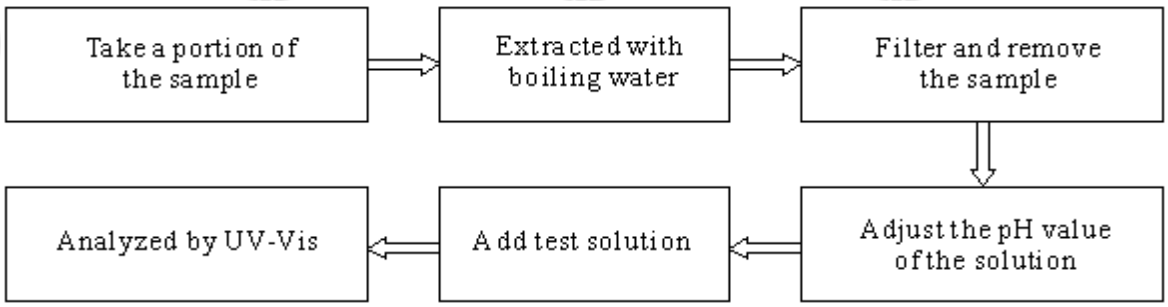
2. Mercury (Hg)



3. Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA)

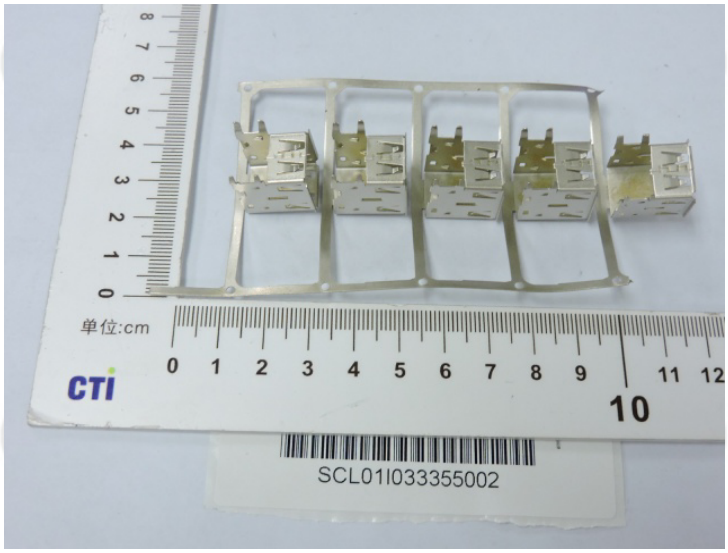


4. Hexavalent Chromium(Cr(VI))



Test Report

Photo(s) of the sample(s)



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Test Report

Report No. SCL01I033355003

Applicant SHENGZHEN HUAFENG(TAICHENG) METAL PRODUCTS CO,LTD
Address SHENZHEN BAOAN DISTRICT SHAJING TOWN GONGHE VILLAGE BAY MANSION SEVEN INDUSTRIAL PARK OF THE SIXTH FLOOR

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

Sample Name 镀锡层
Sample Received Date Apr. 26, 2016
Testing Period Apr. 26, 2016 to Apr. 29, 2016

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium(Cr(VI)), Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA) in the submitted sample(s).

Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	Refer to IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	Refer to IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
Perfluorooctane Sulfonates(PFOS)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Perfluorooctanoic Acid(PFOA)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS

Test Result(s) Please refer to the following page(s).

Tested by Sky Tang
Reviewed by Emma Xiao
Approved by
Date Apr. 29, 2016

Danny Liu
Technical Manager

No. R221582737

Hotline: 400-6788-333 www.cti-cert.com E-mail: info@cti-cert.com Complaint call: 0755-33681700 Complaint E-mail: complaint@cti-cert.com

Test Report

Test Result(s)

Tested Item(s)	Result	MDL
Lead (Pb)	72 mg/kg	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium(Cr(VI))	N.D. ▼	0.10 μg/cm²(LOQ)

Tested Item(s)	Result	MDL
Perfluorooctane Sulfonates(PFOS)	N.D.	0.5 μg/m²
Perfluorooctanoic Acid(PFOA)	N.D.	0.5 μg/m²

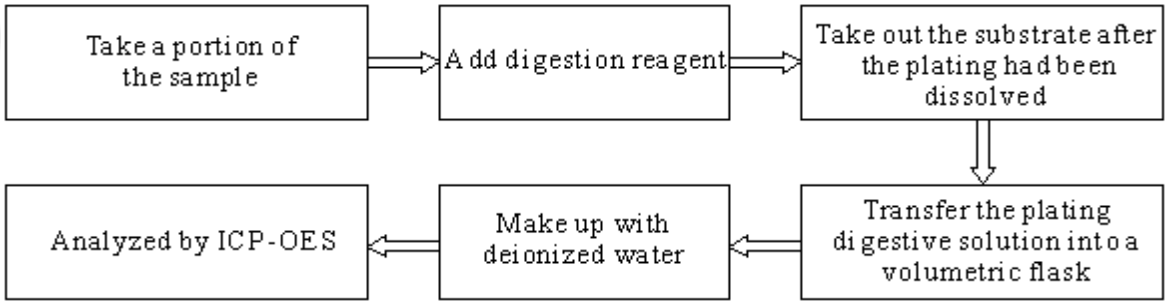
Tested Sample/Part Description Silvery plating

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL or LOQ)
-mg/kg = ppm = parts per million
-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 μg/cm²
-▼The sample is negative for Cr(VI) − The Cr(VI) concentration is below 0.10 μg/cm².
The coating is considered a non-Cr(VI) based coating.

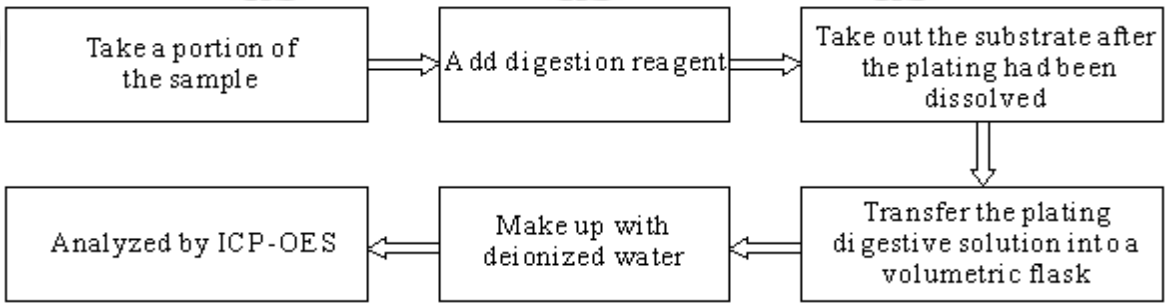
Test Report

Test Process

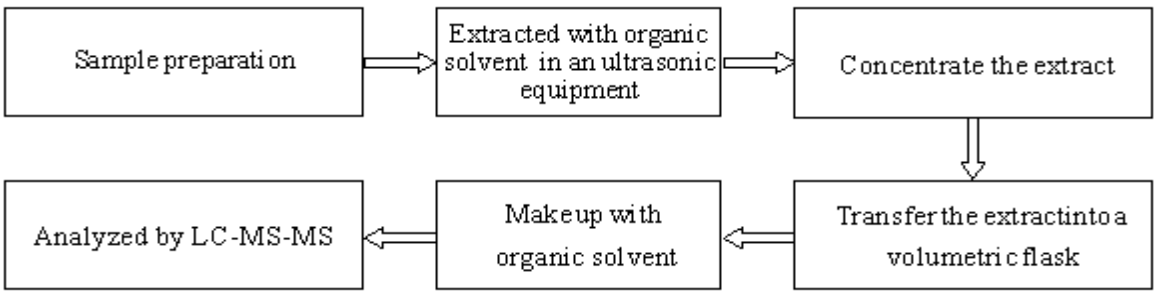
1. Lead (Pb), Cadmium (Cd)



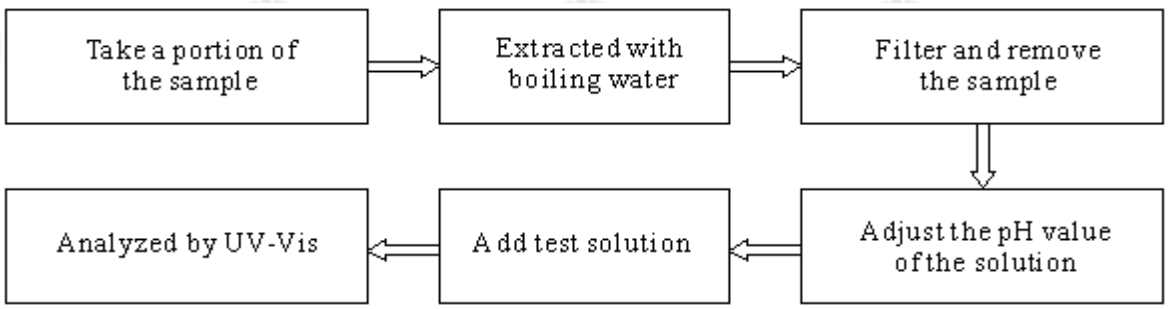
2. Mercury (Hg)



3. Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA)

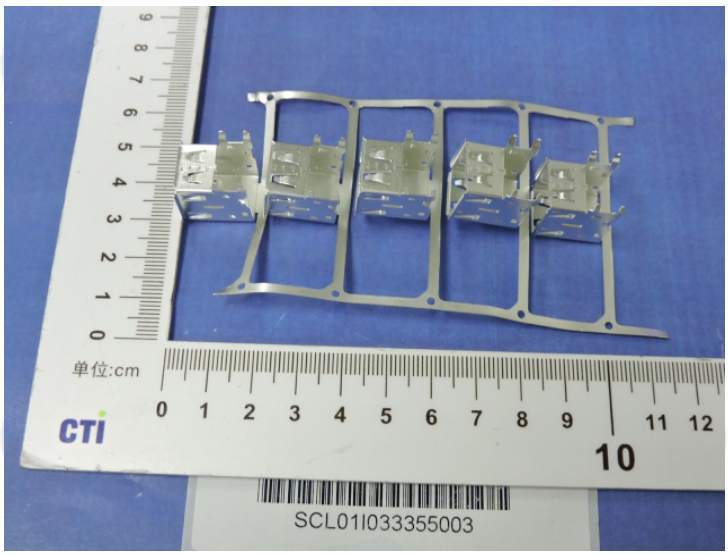


4. Hexavalent Chromium(Cr(VI))



Test Report

Photo(s) of the sample(s)



*** End of report ***

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Test Report

Report No. SCL01J000197005

Applicant DONGGUAN CITY SHANGZHOU PLASTIC TECHNOLOGICAL CO.,LTD
Address CHEN WU BEI INDUSTRIAL DISTRICT ,CHANGPING, DONGGUAN,GUANGDONG PROVINCE CHINA

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

Sample Name	PBT301GFBK
Item/Lot No.	ZD17105
Sample Received Date	Jan. 3, 2017
Testing Period	Jan. 3, 2017 to Jan. 6, 2017

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs), Phthalates(DBP, BBP, DEHP, DIBP) in the submitted sample(s).

Test Method Please refer to the following page(s).

Test Result(s) Please refer to the following page(s).

Tested by: Jerry Guo

Approved by: Danny Liu
Technical Manager

Reviewed by:

Date: Jan. 6, 2017

No. R228410657

Hotline: 400-6788-333 www.cti-cert.com E-mail: info@cti-cert.com Complaint call: 0755-33681700 Complaint E-mail: complaint@cti-cert.com

Test Report

Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321:2008 Ed.1 Annex C	UV-Vis
Polybrominated Biphenyls(PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers(PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates(DBP, BBP, DEHP, DIBP)	Refer to IEC 62321-8 CDV	GC-MS

Test Result(s)

Tested Item(s)	**Result**	**MDL**
Lead (Pb)	6 mg/kg	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	2 mg/kg

Tested Item(s)	**Result**	**MDL**
Polybrominated Biphenyls(PBBs)		
Monobromobiphenyl	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	5 mg/kg

Test Report

Tested Item(s)	Result	MDL
Polybrominated Diphenyl Ethers(PBDEs)		
Monobromodiphenyl ether	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	5 mg/kg

Tested Item(s)	Result	MDL
Phthalates		
Dibutyl phthalate(DBP) CAS#:84-74-2	N.D.	50 mg/kg
Butylbenzyl phthalate(BBP) CAS#:85-68-7	N.D.	50 mg/kg
Di-2-ethylhexyl phthalate(DEHP) CAS#:117-81-7	N.D.	50 mg/kg
Diisobutyl phthalate(DIBP) CAS#:84-69-5	N.D.	50 mg/kg

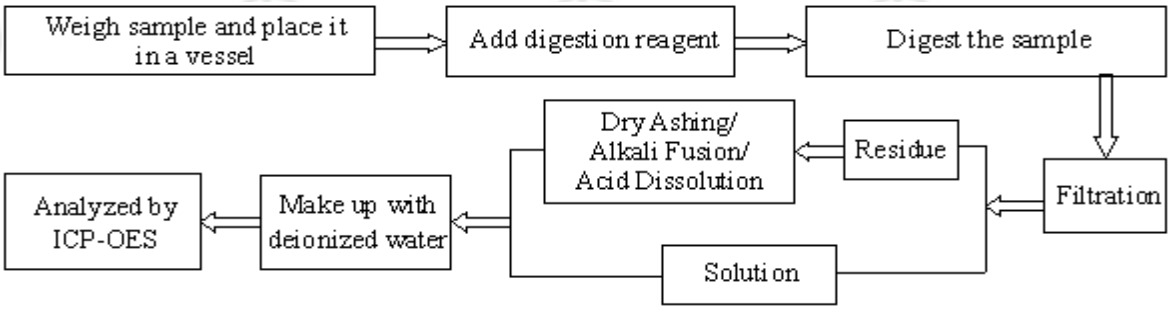
Tested Sample/Part Description Black plastic grains

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million

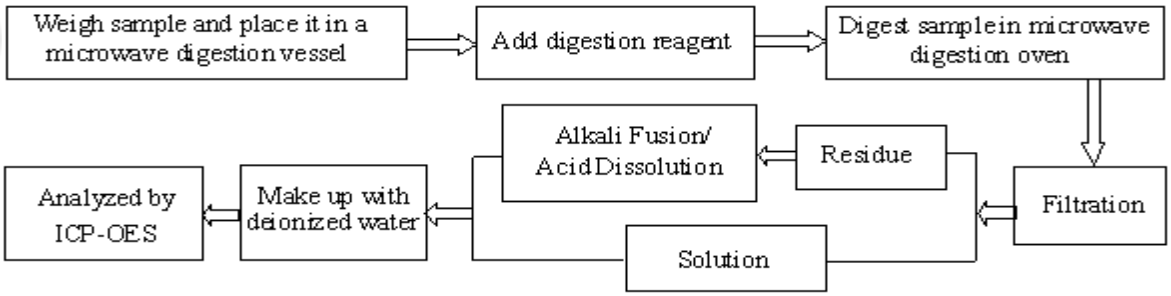
Test Report

Test Process

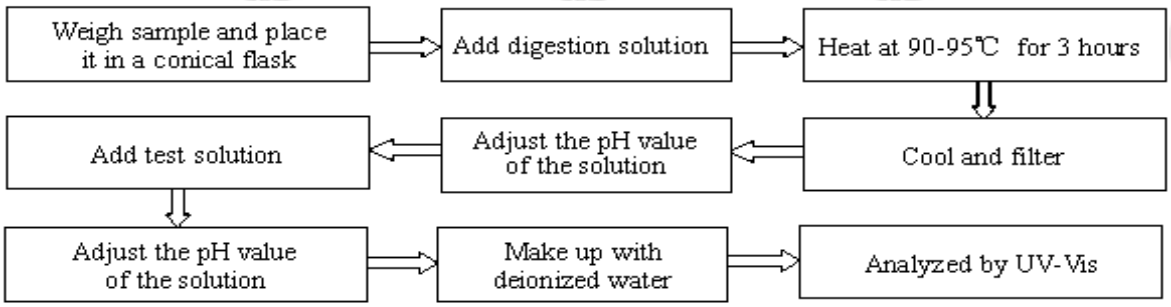
1. Lead (Pb), Cadmium (Cd)



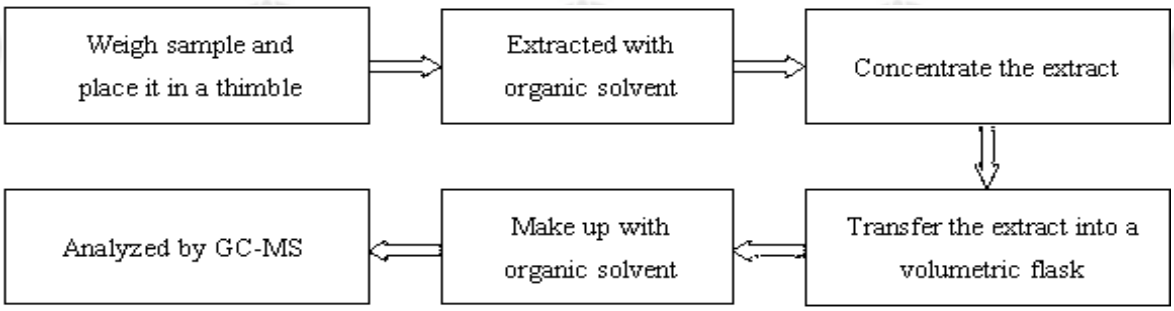
2. Mercury (Hg)



3. Hexavalent Chromium(Cr(VI))

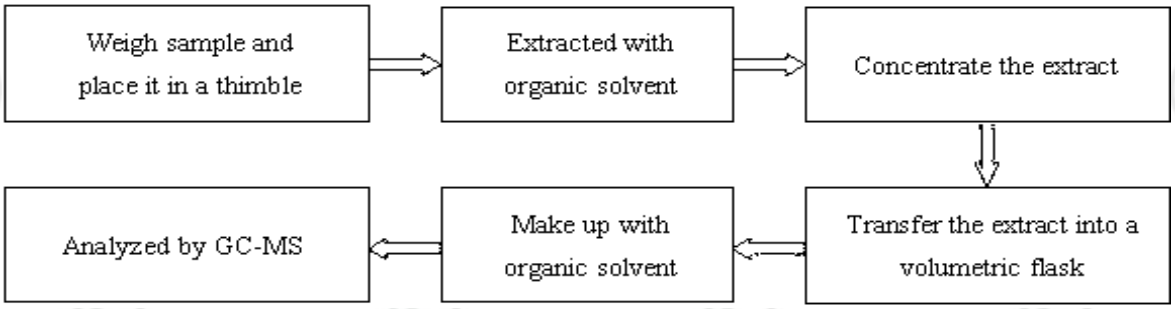


4. Polybrominated Biphenyls(PBBs) , Polybrominated Diphenyl Ethers(PBDEs)



Test Report

5. Phthalates(DBP, BBP, DEHP, DIBP)



Test Report

Photo(s) of the sample(s)



*** End of report ***

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Test Report

GUANGDONG RAINBOW DE PLASTIC PIGMENT LIMITED BY SHARE LTD

FUMIN INDUSTRIAL ZONE FENG GANG TOWN DONGGUAN CITY CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : Please see remark

SGS Job No. :	CP17-014079 - SZ
Date of Sample Received :	08 Mar 2017
Testing Period :	08 Mar 2017 - 14 Mar 2017
Test Requested :	Selected test(s) as requested by client.
Test Method :	Please refer to next page(s).
Test Results :	Please refer to next page(s).
Conclusion :	Based on the performed tests on submitted sample(s), the results of Cadmium, Lead, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) do not exceed the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Alkene Liang
Approved Signatory

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

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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road,Scientech Park Guangzhou Economic & Technology Development District,Guangzhou,China 510663 t (86-20) 82155555 f (86-20) 82075113 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075113 e sgs.china@sgs.com

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN17-044844.001	Light purple powder

Remarks :

(1) 1 mg/kg = 1 ppm = 0.0001%

(2) MDL = Method Detection Limit

(3) ND = Not Detected (< MDL)

(4) "-" = Not Regulated

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method : (1)With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
(2)With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
(3)With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
(4)With reference to IEC 62321:2008, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.
(5)With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.

Test Item(s)	Limit	Unit	MDL	*001*
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	ND
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1,000	mg/kg	2	ND
Sum of PBBs	1,000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1,000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND

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Test Item(s)	Limit	Unit	MDL	*001*
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND

Notes :

(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
(2) On 4 June 2015, Commission Directive (EU) 2015/863 was published in the Official Journal of the European Union (OJEU) to include the phthalates BBP, DBP, DEHP and DIBP into ANNEX II of the Rohs Recast Directive. The new law restricts each phthalate to no more than 0.1% in each homogeneous material of an electrical product.
(3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.
(4) The restriction of DEHP, BBP, DBP and DIBP shall not apply to cables or spare parts for the repair, the reuse, the updating of functionalities or upgrading of capacity of EEE placed on the market before 22 July 2019, and of medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, placed on the market before 22 July 2021.
(5) The restriction of DEHP, BBP and DBP shall not apply to toys which are already subject to the restriction of DEHP, BBP and DBP through entry 51 of Annex XVII to Regulation (EC) No 1907/2006.'

Remark: Results and photo(s) of this report refer to test report CANEC1703403502.

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REMARK

1001D	1001F	1002A	1003	1004	1005	1005A	1006	1007
1008	136	136A	136B	2001A	2001	2002	2003	2004
2005	3001	3002	3003	3004	3005	3006	3007	3008
3009	3009A	3010	3012	3013	3053	3054	3055	4001
4002	4003	4006	FBLA	HBL	36#	8001	8002A	5001
5002	5003	5005	5006	5006A	5007	5009	6001	OB
127	OB-1	OB-1A	OB1A	KSN	KS-N	KCB	1101	1102
1103	1104	1110	1120	1220	2270	1301	1302	1391
1139	180	1304	1310	1525	1160A	1526	103	104
109	203	204	147#	150	151	1400	24	402
2102	2202	2302	2303	2303A	2304	2307	2301	3101E
COC	3103	3104	36S	6B268	4BP	313	315	311
311E	311A	311B	403H	2BP	2BSP	3202	3301	3301A
3330	3330A	3330B	3111	3580	4102	4103	5102	5102R
5103	5104	5104A	5301	5302	5306	5102Y	5101A	5101
5380	6002	6003	6003A	6003B	K9360	06	08	09
F06	F08	S-12	HS-12	13	61	66	225	S-5
160	130M	9103	9103A	S105	9104	9104A	9104B	9106
9109	1010	168	101	100#	1000#	100#D	50L	800#
675	660R	531	531FC	531P	770	327	130	131
325	335	Silver sand	Silver piece	3101C	3101D	3102	69	TC30
FC5	R95	T68	AQ11-AQ21		HZ11-HZ21		AX11-AX18	
Z11-Z21		Pearl Powder		Black sand		Essence		
Good slippery powder			Slippery powder		Calcium carbonate		Antistatic agent	
Transparent powder			Foaming agent		Brightener		Matte powder	
Antibacterial agent			2271	403B	1339	9107	9108	
5001B	8001A	5102R	4350	MIXTURE				

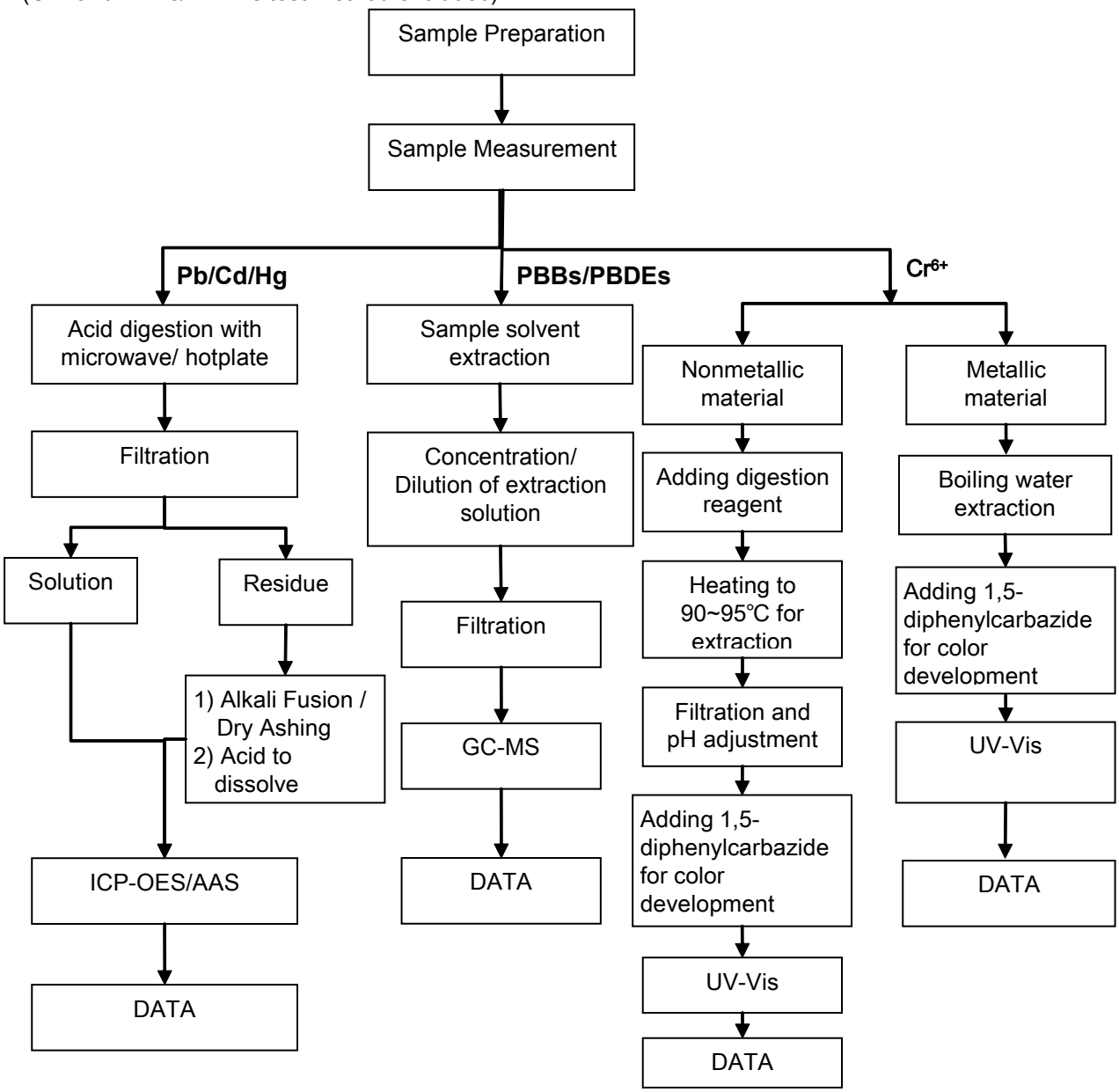
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ATTACHMENTS

Pb/Cd/Hg/Cr^{6+}/PBBs/PBDEs Testing Flow Chart

1) Name of the person who made testing: Edith Zhang / Sunny Hu
2) Name of the person in charge of testing: Bella Wang / Qiong Liu
3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr^{6+} and PBBs/PBDEs test method excluded).



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Sample photo:



CAN17-044844.001

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*** End of Report ***

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