

# 深圳市步步精科技有限公司

## 承认书

客户名称: 立腾

品名规格: 轻触开关 3x6x2.5 贴片 白头拉芯 不锈钢弹片  
260G 行程: 0.25 ± 0.05 编带

客户料号: C71857

本公司料号: TS.11.07-11-38-04

制造厂商: 深圳市步步精科技有限公司

送样日期: 2022-07-22

拟制	工程	品质	批准
唐绍平	蓝义霞	梁慧聪	朱荣燕

客户承认

工程	品质	审核	批准

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# 深圳市步步精科技有限公司

## 目录

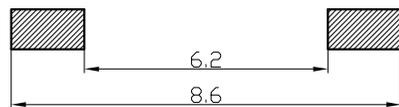
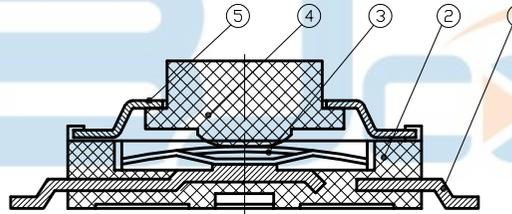
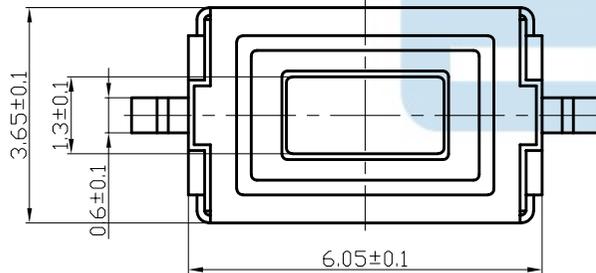
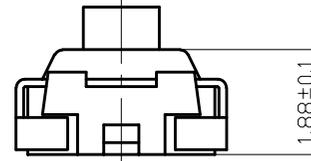
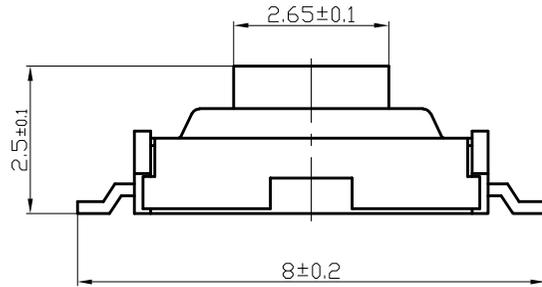
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REV.	DESCRIPTION	NAME	DATE
A	NEWS ISSUE		

技术要求:

1. 零部件表面光洁无划伤, 水花, 变形, 影响外观及性能等缺陷。
2. 额定电流: 50mA. 12V DC, 绝缘电阻100MΩ min, 100V DC, 介电强度250V AC for 1min, 接触电阻100mΩ max。
3. 开关手感明显, 档位清晰可靠, 无卡滞现象, 消除外力后, 应能快速回位。**260 ± 30GF**。

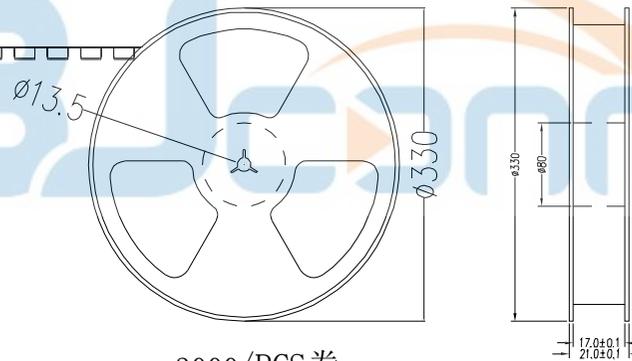
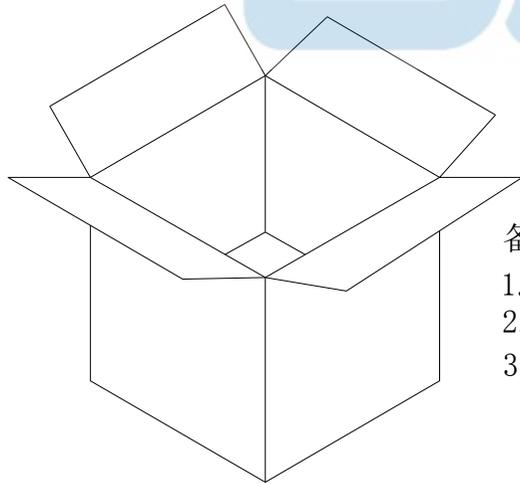
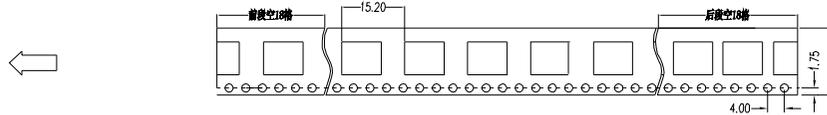
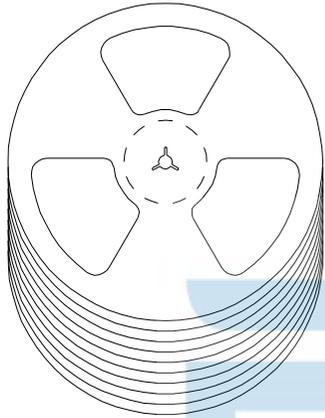


5	盖板	不锈钢0.13	1	酸洗
4	按钮	PPA白	1	
3	簧片	进口不锈钢覆银	1	2万
2	底座	LCP黑	1	
1	卡件	黄铜0.2	1	镀银
序号	名称	材料	数量	备注

角度公差 ±1°	比例 8:1	深圳市步步精科技有限公司 TITLE: 轻触开关 3x6x2.5 贴片 白头拉芯 不锈钢弹片 260G 行程: 0.25±0.05		
标尺公差 ±0.01	单位 mm			
DRAWN/ DATE	设计 TSP	SIZE: A4	UNIT: MM.	PART. NO: TS.11.07-11-38-04
CHECKED/ DATE	审核 LYX	SCALE: 1:1	PROJECTION	REV.: 版本
APPROVED/ DATE	核准 LJP	DWG. PATH	0278-1 SHEET: 页码	



REV.	DESCRIPTION	NAME	DATE
A	NEWS ISSUE		



3000/PCS卷

备注:

1. 包装数量: 3000 /PCS/卷, 10卷/箱或15卷/箱。
2. 包装袋长度: 每卷前后各空10-20个空格, 中间包装。
3. 材质:

载体: 聚丙烯 (PS), 阻抗 $10^{6-9} \Omega$

上带: 聚乙烯 (PET), 阻抗 $10^{6-11} \Omega$

卷盘: 聚苯乙烯。

纸箱规格: 345\*345\*23MM

纸箱规格: 345\*345\*35MM



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TITLE: 轻触开关 3x6x2.5 贴片 白头拉芯 不锈钢弹片 260G 行程:  $0.25 \pm 0.05$

TOLERANCE UNSPECIFIED		DRAWN/ DATE		SIZE: A4		UNIT: MM.		PART. NO: TS.11.07-11-38-04	
.0	±0.35	设计	TSP						
.00	±0.25	审核	LYX	SCALE: 1:1	PROJECTION		REV.: 版本		
.000	±0.15	核准	LJP	DWG. PATH	0278-1		SHEET: 页码		
X.°	±2.00°								
CUSTOMER DRAWING									

1、概述

GENERAL

1.1 适用范围

APPLICATION

此规格书适用于机械式轻触开关的相关要求

This specification is applied to the requirements for TACTILE SWITCH (MECHANICAL CONTACT)

1.2 工作温度范围

Operating Temperature Range

-20℃~70℃ (在标准大气压、标准湿度条件下)

-20℃~70℃ (Normal humidity, normal air pressure)

1.3 贮藏温度范围

Storage Temperature Range

-30℃~80℃ (在标准大气压、标准湿度条件下)

-30℃~80℃ (Normal humidity, normal air pressure)

1.4 测试条件

Test Conditions

在没有其它特定的条件下，应该在以下的条件下进行测试和测量：

Unless otherwise specified, tests and measurement shall be made in the following standard conditions:

常温.....5℃~35℃

Normal temperature.....5℃~35℃

标准湿度.....相对湿度25%~85%

Normal humidity.....relative humidity 25%~85%

标准大气压.....86KPa~106Kpa

Normal air pressure.....86Kpa~106Kpa

在制造过程中，测试和测量应该在以下的条件下进行：

If any doubt arise from the judgment, tests shall be conducted at the following conditions:

温度.....20℃±2℃

Temperature.....20℃±2℃

相对湿度.....65%±5%

Relative humidity.....65%±5%

环境气压.....86KPa~106Kpa

Air pressure.....86KPa~106Kpa

## 2、 详细说明

Detailed specification

### 2.1 外观：应无影响、降低产品性能的缺陷；

Appearance: There should be no defects that affect the serviceability of product.

### 2.2 结构尺寸和安装尺寸：应符合装配图要求

Style and dimension: shall conform to the assemble drawings.

### 2.3 操作形式：有触觉反应的操作

Type of actuating: Tactile feedback.

### 2.4 开关结构：单回路单输出(具体的触点结构在装配图中已绘出)；

Contact arrangement: 1 pole, 1 throw

(Details of contact arrangement are given in the assembly drawings.)

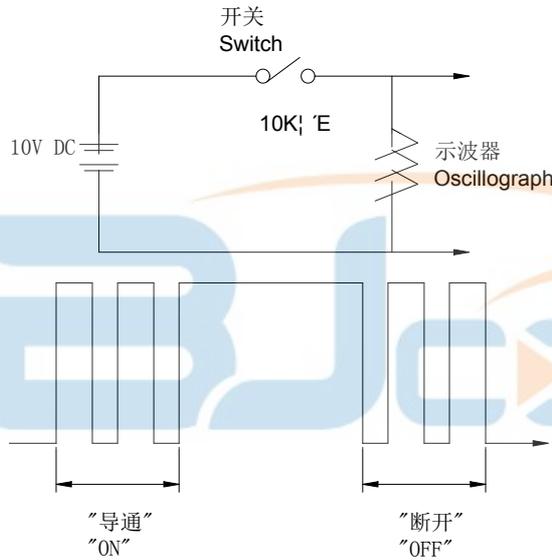
### 2.5 开关工作额定值：DC 12V, 50mA (有效值)

Ratings: 12V DC, 50mA (effective value)

## 3、 电气性能：

ELECTRICAL SPECIFICATION

NO.	项目 ITEM	试验条件 TEST CONDITIONS	要求 REQUIREMENTS
3.1	接触电阻 Contact Resistance	在以 5V 10mA的直流电源或不低于1KHz的交流电源的电路中，以一个等于2倍按力的静负荷施加于手柄中心 Applying a static load of 2 times operating force to the center of the stem, measurements shall be made by 5V DC 10mA or more than 1KHZ AC small-current contact resistance meter.	$\leq 100m\Omega$
3.2	绝缘电阻 Insulation Resistance	在端子之间施加DC 100V /1min的条件下，测量端子之间底座、盖板的电阻值 Measurement shall be made following application of 100V DC potential, across terminals, and across terminals and cover, for one minute.	$\geq 100M\Omega$
3.3	介质耐压 Dielectric voltage proof	在端子之间施加250V AC(50HZ或60HZ)/1min 250V AC (50HZ or 60HZ) shall be applied across terminals, for one minute.	无击穿、无飞弧 There should be no breakdown and flashover

NO.	项目 ITEM	试验条件 TEST CONDITIONS	要求 REQUIREMENTS
3.4	触点抖动Bounce	<p>按照正常使用时的力度轻按手柄中心（每秒3~4次），在导通和断开过程中测试开关抖动</p> <p>Lightly striking the center of the stem at a rate encountered in normal use (3 to 4 times per second), and bounce shall be tested at "ON" and "OFF"</p> 	<p>ON-3msec. max OFF-8msec. max</p>
<p>4、 机械性能： MECHANICAL SPECIFICATION</p>			
4.1	按力 Operating Force	<p>开关垂直于操作方向放置，在开关驱动件顶端中心逐渐施力，测量开关导通所需的最大力度</p> <p>Placing the switch such that the direction of switch operation is vertical and then gradually increasing the load applied to the center of the stem, the maximum load required for the switch to come to a stop shall be measured</p>	<p>按力：260±30gf Operating Force:260±30gf</p>
4.2	最大行程 Full Travel	<p>开关垂直于操作方向放置，以一个等于2倍按力的静负荷施加在开关驱动件顶端中心，测量顶端移动的距离。</p> <p>Placing the switch such that the direction of switch operation is vertical and then applying static load of 2times operating force to the center of the stem; the travel distance for the switch to come to a stop shall be measured.</p>	<p>0.1±0.1mm</p>



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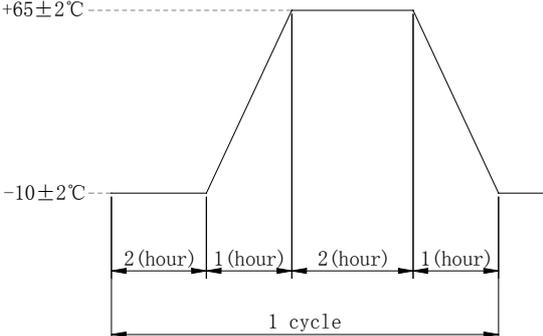
NO.	项目 ITEM	试验条件 TEST CONDITIONS	要求 REQUIREMENTS
4.3	回弹力 Return Force	<p>开关垂直于操作方向放置，在开关驱动件顶端中心下降至全行程后，测量顶端向自由位置转换的力度。</p> <p>The sample switch is installed such that the direction of switch operation is vertical and upon depressing the stem in its center to the whole travel distance, the force of the stem to return to its free position shall be measured.</p>	回弹力 Return Force:50gf min
4.4	停止强度 Stop Strength	<p>开关垂直于操作方向放置，从操作方向向驱动件施加20N的静负荷持续1min。</p> <p>Placing the switch such that the direction of switch operation is vertical, and then a static load of 20N shall be applied in the direction of stem operation for a period of 1 min.</p>	无机械和电气损坏 There shall be no sign of damage mechanically and electrically.
4.5	手柄拔出强度 Stem Strength	<p>开关垂直于操作方向放置，反方向实施最大操作力，并测量手柄的行程范围。</p> <p>Placing the switch such that the direction of switch operation is vertical, and then the maximum force to withstand a pull applied opposite to the direction of stem operation shall be measured.</p>	20N. min.
4.6	可焊性Solderability	<p>在以下设定条件下进行测量： Measurements shall be made following the test set forth below: (1) 焊接温度:245±5℃ Solder temperature : 245±5℃ (2) 浸入时间:2s±0.5s Immersion time: 2s±0.5s 对于其它步骤参考《GB 5095.6—86》试验12a The other steps please refer to 《GB 5095.6—86》 TEST 12a</p>	除边缘外涂层应均匀覆盖90%以上 Except for the edge, the coating should cover a minimum 90%



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## 5、 极限电气性能:

### ENVIRONMENTAL SPECIFICATION

NO.	项目 ITEM	试验条件 TEST CONDITIONS	要求 REQUIREMENTS
5.1	低温测试 Resistance to low temperature	样品应按照以下实验条件进行测试，实验后样品应放在常温及标准湿度的环境中1小时后做性能测试： Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made: (1) 温度: $-30\pm 2^{\circ}\text{C}$ Temperature : $-30\pm 2^{\circ}\text{C}$ (2) 时间: 96h Time: 96h	
5.2	高温测试 Heat resistance	样品应按照以下实验条件进行测试，实验后样品应放在常温及标准湿度的环境中1小时后做性能测试：Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made: (1) 温度: $80\pm 2^{\circ}\text{C}$ temperature: $80\pm 2^{\circ}\text{C}$ (2) 时间: 96h time: 96h	接触电阻: $\leq 100\text{m}\Omega$ Contact resistance: $\leq 100\text{m}\Omega$ 项目3, 4.1, 4.2, 4.3 Item 3, 4.1, 4.2, 4.3
5.3	温度周期性测试 Change of temperature	根据下面的测试要求进行5次循环的温度周期性测试，实验后样品应放在常温及标准湿度的环境中1小时后做性能测试。测试期间样品应保持干燥。 After 5 cycles of following conditions, the sample shall be allowed to stand under normal temperature and humidity conditions for 1 h. and measurements shall be made. During the test water drops shall be removed. +65±2℃  -10±2℃ 2 (hour) 1 (hour) 2 (hour) 1 (hour) 1 cycle	



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NO.	项目 ITEM	试验条件 TEST CONDITIONS	要求 REQUIREMENTS
5.4	湿温测试 Moisture resistance	<p>样品应按照以下实验条件进行测试，实验后样品应放在常温及标准湿度的环境中1小时后做性能测试：Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made:</p> <p>(1) 温度：60±2℃ temperature: 60±2℃</p> <p>(2) 相对湿度：90%~95% relative humidity:90% to 95%</p> <p>(3) 时间：96h time: 96h</p>	<p>接触电阻：≤100mΩ Contact resistance: ≤100mΩ</p> <p>项目3, 4. 1, 4. 2, 4. 3 Item 3, 4. 1, 4. 2, 4. 3</p>
5.5	硫化试验 Sulfuration resistance	<p>样品应按照以下实验条件进行测试，实验后样品应放在常温及标准湿度的环境中1小时后做性能测试：Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made:</p> <p>(1) H2S气体浓度：3ppm±1ppm H2S gas concentration: 3ppm±1ppm</p> <p>(2) 时间：72h Time: 72h</p> <p>(3) 温度：40±2℃ (90~95%RH) temperature: 40±2℃ (90~95%RH)</p>	
5.6	盐雾试验 Salt Mist	<p>在以下设定条件下进行测量： The switch shall be checked after following test:</p> <p>(1) 温度：35℃±2℃ temperature: 35℃±2℃</p> <p>(2) 盐溶液浓度：5±1% (质量百分比) salt solution : 5±1%(solids by mass)</p> <p>(3) 时间：8h±1h Time: 8h±1 hour</p> <p>实验后的盐沉积物后水冲掉 After test, salt deposit shall be removed by running water.</p>	<p>金属件上没有腐蚀斑点 No remarkable corrosion shall be recognized in metal part.</p>



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## 6、 极限机械性能:

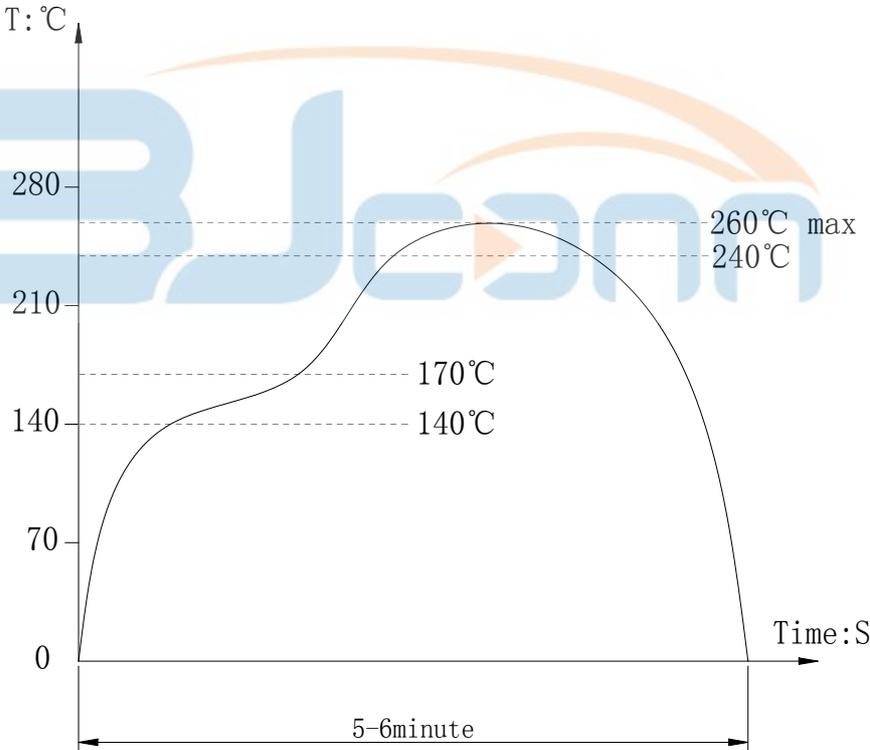
### ENDURANCE SPECIFICATION

NO.	项目 ITEM	试验条件 TEST CONDITIONS	要求 REQUIREMENTS
6.1	工作寿命 Operation life	根据下面的测试要求进行测试: Measurement shall be made following the test set forth below: (1) DC 12V, 50mA带负载 DC 12V, 50 mA resistive load (2) 按动速率: 2次/秒 Rate of operation: 2 times/s (3) 按力: 260g Operating Force: 260g (4) 平均无故障寿命/Average fault-free life:80000 次	接触电阻 $\leq 100m\Omega$ Contact resistance $\leq 100m\Omega$ 触点弹力 $\leq 10ms$ Contact bounce $\leq 10ms$ 按力: 初值的 $\pm 30\%$ Operating Force: initial value $\pm 30\%$ 项目3, 4.1, 4.2, 4.3 Item 3, 4.1, 4.2, 4.3
6.2	振动Vibration	根据以下给定条件进行测试: Measurement shall be made following the test set forth below: (1) 振动频率范围: 10~55~10Hz Vibration frequency range: 10 to 55 to 10Hz (2) 振幅(峰-峰): 1.5mm Amplitude: 1.5mm (3) 振动方向: 包括手柄行程方向在内的三个相互垂直的方向 Direction of vibration: Three mutually perpendicular direction including the direction of stem travel (4) 测试时间: 每次2hours . Duration: Each 2hours.	项目3, 4.1, 4.2, 4.3 Item 3, 4.1, 4.2, 4.3

## 7、 焊接条件:

### SOLDERING CONDITIONS:

7.1	手工焊接 Hand soldering	请按以下条件进行焊接: (1) 焊锡温度: $\leq 350^{\circ}C$ (2) 连续焊接时间: $\leq 3 s$ Please practice according to below conditions: (1) Soldering temperature: $350^{\circ}C$ Max. (2) Continuous soldering time: 3 s Max.
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NO.	项目 ITEM	条件 CONDITIONS
7.2	自动焊接 Automatic soldering	<p>在使用的情况下自动焊接 In case the automatic flow soldering is to be used</p> <p>(1) 预热 ----- 150°C ~ 175°C, 40 ~ 80 sec Preheat ----- 150°C ~ 175°C, 40 ~ 80 sec</p> <p>(2) 峰值温度----- 260°C (max) Peak temperature ----- 260°C (max)</p> <p>(3) 焊接区温度----- 260°C, 1 ~ 4 sec, 2 times (max) Soldering area temperature ----- 260°C, 1 ~ 4 sec, 2 times (max)</p> <p>(4) 高温后性能衰变值±20% After high temperature, the decay data about performance will be±20%</p>  <p style="text-align: center;">&lt; Temperature profile &gt;</p>

- 8、 Other precautions其他注意事项
- 8.1 印刷基板的安装孔尺寸参见产品图。  
Follow recommended P.W.B. piercing plan in outside drawing page.
- 8.2 注意不要施加超负荷的压力或晃动开关。  
Please be cautions not to give excessive static load or shock to swiches.
- 8.3 进行焊接过程中，不可以用溶剂或类似品清洗开关  
Following the soldering process, do not try to clean the switch with a solvent or the like.
- 8.4 防止助焊剂从开关的顶端渗入  
Safeguard the switch assembly against flux penetration from its topside.
- 8.5 保管时尤其应注意避开高湿高温和有腐蚀性气体的环境。如需要长时间保存，请不要打开包装箱。  
Preservation under high temperature and high high humidity or corrosive gas should be avoided Especially . When you need to preserve for a long period ,do not open the carton.

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## 盐雾测试报告



报告编号: 202207210001

(A) 测试项目：	盐雾测试	仪器照片： 
(B) 测试日期：	2022-07-21	
(C) 测试规格：	客户规格	
(D) 测试仪器说明：		
1. 仪器型号	2. 仪器厂商	
SJ-8669	深圳市三杰仪器设备有限公司	
3. 仪器名称	精密型盐水喷雾试验机	

(E) 测试样品说明：

1. 样品	料号	TS.11.07-11-38-04	2. 取样方法	样本	5 个	3. 制造
	产品名称	轻触开关 3x6x2.5 贴片 白头拉芯 不锈钢弹片 260G 行程：0.25 ± 0.05		取样	5 个	

(F) 测试：

项目	方法和规格	测试数据		判定	备注
盐雾测试	对嵌合状态测试环境：温度：35±2℃，盐水浓度：重量比5±1%，时间：8 小时。测试后常温水洗,干燥.	条件 样品	外观	PASS	/
			1#		
		2#	无损伤		
	外观：无损伤；	3#	无损伤		
		4#	无损伤		
		5#	无损伤		

校准：唐绍平

审核：蓝义霞

制作：胡明阳

# 深圳市步步精科技有限公司

## 产品寿命测试检测报告单

产品名称	轻触开关	型号规格	轻触开关 3x6x2.5 贴片 白头拉芯 不锈钢弹片 260G 行程：0.25±0.05
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### 产品寿命测试检验报告单

数量：3PS

#### 测试条件及方法

操作者以每分钟120次的频率 作80000回无负荷测试

#### 标准要求

外观及其功能均无异常

#### 测试图片



#### 实验结果

PASS

校准：唐绍平

审核：蓝义霞

制作：胡明阳

SHENZHEN QUAN XIN PRECISION METAL MATERIALS CO., LTD

NO. 104, WORKSHOPS THREE IN BUILDING 21, HENGZHAO INDUSTRIAL ZONE, HONGQIAOTOU COMMUNITY, YANLUO STREET, BAOAN DISTRICT, SHENZHEN CITY

The following sample(s) was/were submitted and identified on behalf of the clients as : 301 stainless steel

SGS Job No. : SZIN2112015495PC - SZ  
Date of Sample Received : 03 Dec 2021  
Testing Period : 03 Dec 2021 - 09 Dec 2021  
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. Shenzhen Branch

Tina

Tina Fan  
Approved Signatory

scan to see the report



SZXML2103728303

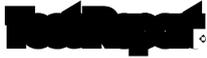


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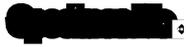
SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch

SGS Bldg, No.4, Jiaqiao Industrial Park, No.430, Jilua Road, Banlan, Longgang District, Shenzhen, China 518129 t (86-755) 25328888 f (86-755) 83106190 www.sgs.com.cn  
中国·深圳·龙岗区坂田吉华路430号江澜工业园4栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com



## Test Results :

## Test Part Description :



SN1



SZX21-037283.002



Silvery metal

## Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL )
- (4) "-" = Not Regulated



Test Method : With reference to IEC 62321-4:2013+AMD1:2017, IEC62321-5:2013, IEC 62321-7-1:2015, analyzed by ICP-OES and UV-Vis.

Test Item(s)	Limit	Unit	MDL	002
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/cm <sup>2</sup>	0.10	ND

## Notes :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series  
[https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:1258637,25](https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25)
- (3) ▼= a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 µg/cm<sup>2</sup>. 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/cm<sup>2</sup>). The coating is considered a non-CrVI based coating  
c. The result between 0.10 µg/cm<sup>2</sup> and 0.13 µg/cm<sup>2</sup> is considered to be inconclusive - unavoidable coating variations may influence the determination.

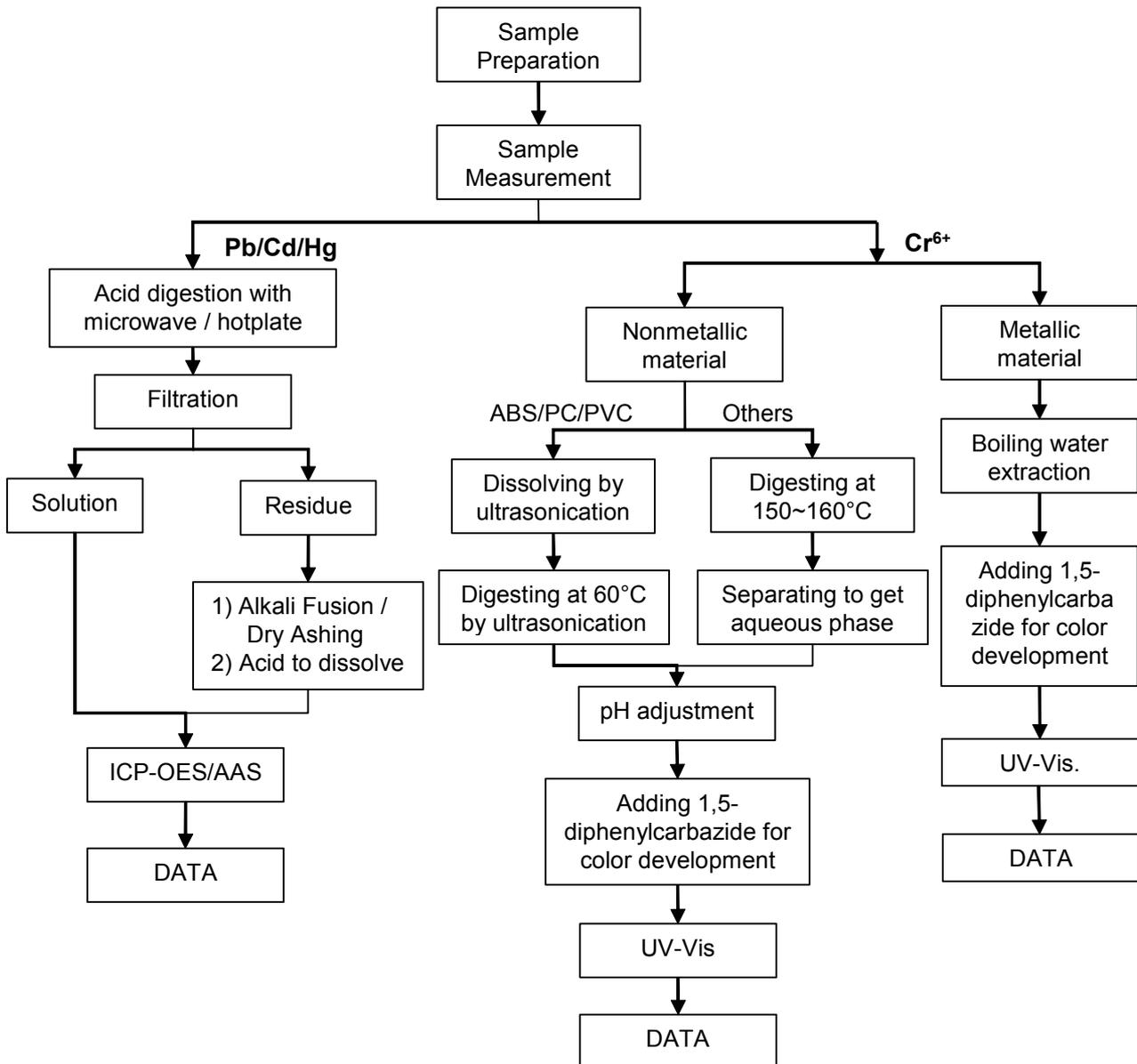
Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.



## ATTACHMENTS

### Pb/Cd/Hg/Cr<sup>6+</sup> Testing Flow Chart

1) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> test method excluded)

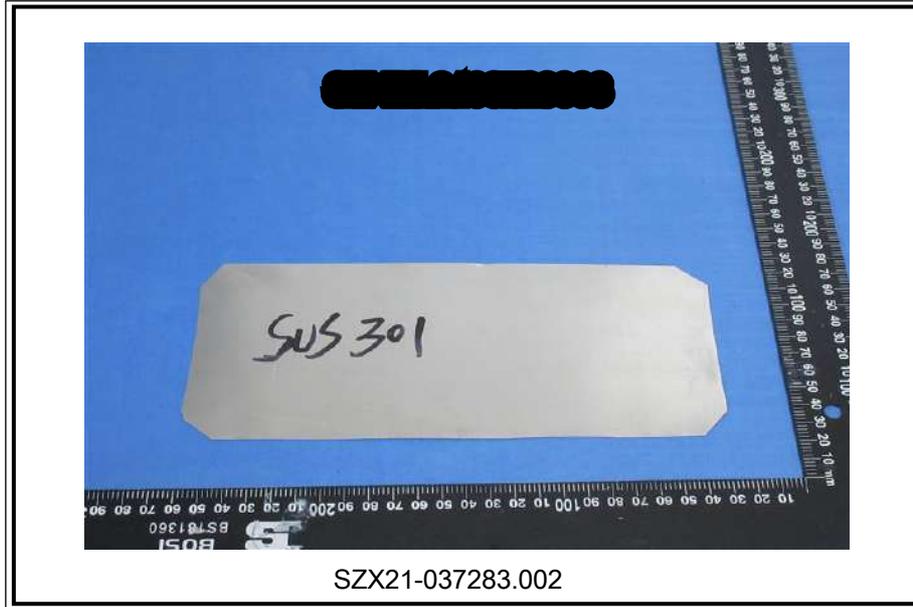


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中国·深圳·龙岗区坂田吉华路430号江灏工业园4栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com

Sample photo:



SGS authenticate the photo on original report only

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ZHEJIANG ZHONGHUAN COPPER CO.,LTD

BAIYANG INDUSTRIAL PARK ANCHANG STREET KEQIAO DISTRICT SHAOXING ZHEJIANG PROVINCE  
CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : C2680 (H65)

SGS Job No. : SP21-027980 - SH  
Date of Sample Received : 01 Sep 2021  
Testing Period : 01 Sep 2021 - 03 Sep 2021  
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) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) 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 (Shanghai) Co., Ltd.

Tom Ni

Tom Ni  
Approved Signatory

scan to see the report



SHAEC2119041001



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SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
Testing Center - China Headquarters

3<sup>rd</sup> Building, No. 889 Yishan Road Xuhui District, Shanghai China 200233  
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233

t E&E (86-21) 61402553 f E&E (86-21) 64953679  
t HL (86-21) 61402594 f HL (86-21) 61156899

[www.sgs.com](http://www.sgs.com)  
[www.sgs.china](http://www.sgs.china)

Test Results :

Test Part Description :

**Sample No.:** SN1      **Order No.:** SHA21-190410.001      **Material:** Yellow metal

Remarks :

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL )
- (4) "-" = Not Regulated

**Inspection & Testing Services**

Test Method : With reference to IEC 62321-4:2013+AMD1:2017, IEC62321-5:2013, IEC62321-7-1:2015, IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit	MDL	001
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	12
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▼	-	µg/cm <sup>2</sup>	0.10	ND
Sum of PBBs	1000	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	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND



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<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
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
Di-butyl Phthalate (DBP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate (BBP)	1000	mg/kg	50	ND
Di-2-Ethyl Hexyl Phthalate (DEHP)	1000	mg/kg	50	ND
Diisobutyl Phthalates (DIBP)	1000	mg/kg	50	ND

Notes :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863. IEC 62321 series is equivalent to EN 62321 series  
[https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:1258637,25](https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25)
- (2) ▽ = a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 µg/cm<sup>2</sup>. 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/cm<sup>2</sup>). The coating is considered a non-CrVI based coating  
 c. The result between 0.10 µg/cm<sup>2</sup> and 0.13 µg/cm<sup>2</sup> 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.

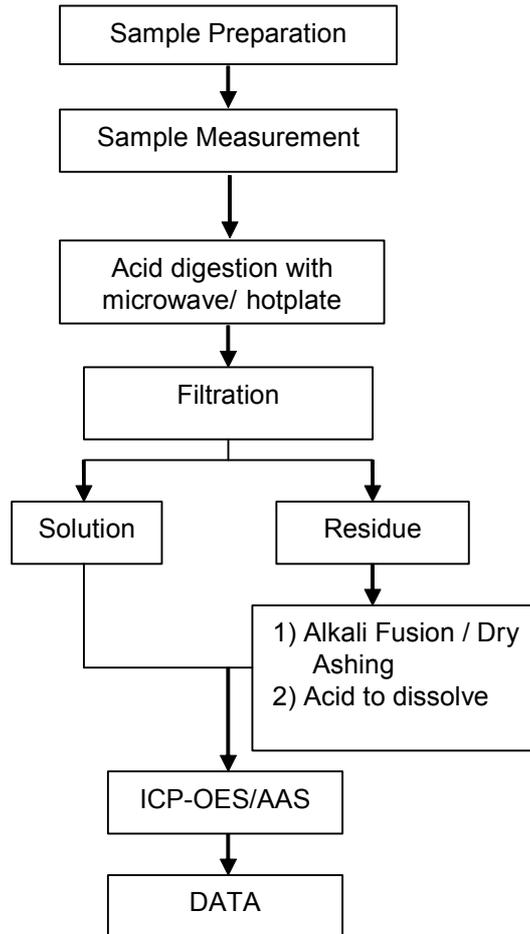


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## ATTACHMENTS

### Elements (IEC62321) Testing Flow Chart

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

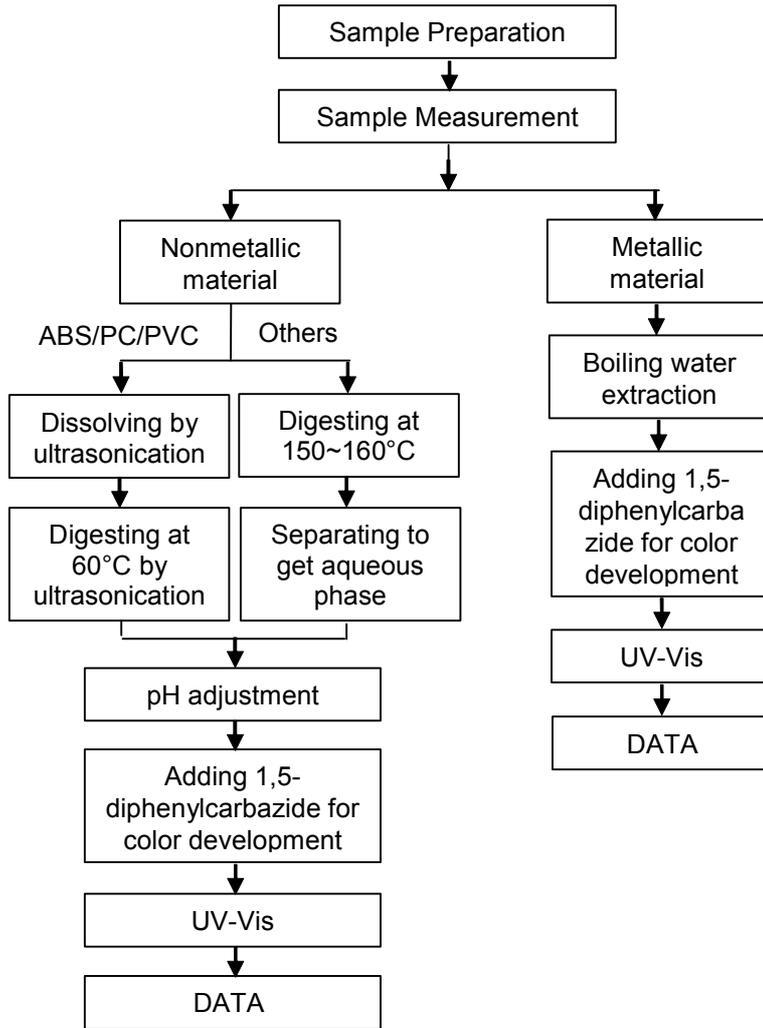


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## ATTACHMENTS

### Hexavalent Chromium (Cr(VI)) Testing Flow Chart

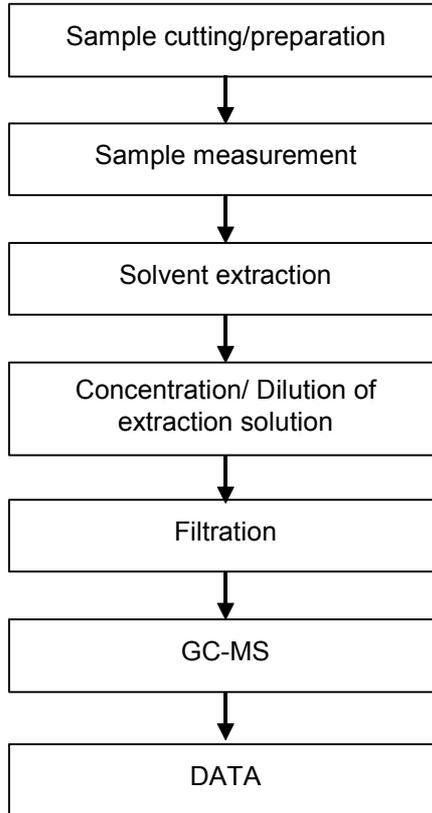


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## ATTACHMENTS

### PBBs/PBDEs Testing Flow Chart

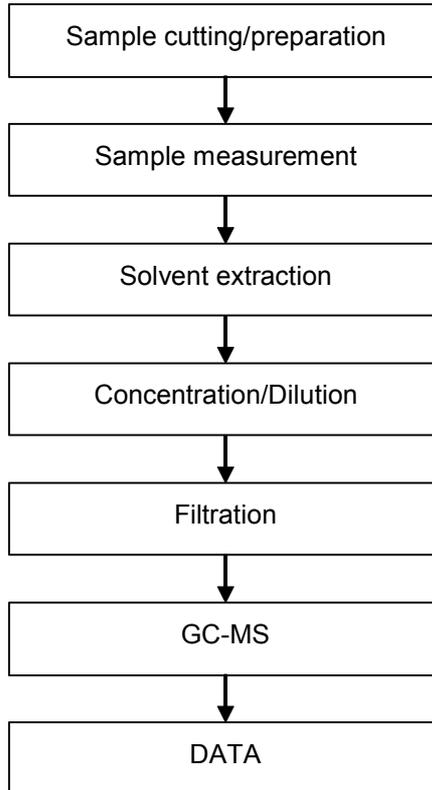


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### Phthalates Testing Flow Chart



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DONGGUAN CITY SHANGZHOU PLASTIC TECHNOLOGICAL CO.,LTD.

CHEN WU BEI INDUSTRIAL DISTRICT,CHANGPING,DONGGUAN,GUANGDONG PROVINCE CHINA

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

SGS Job No. : CP22-000162 - SZ

Model No. : E130I

Client Ref. Info. : E6808L MG350 6130L E471I E6807L E473I S475 3400

E130G 6030G E463I

Date of Sample Received : 05 Jan 2022

Testing Period : 05 Jan 2022 - 11 Jan 2022

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, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) , and Diisobutyl phthalate (DIBP) 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

Jessie Li

Jessie Li  
Approved Signatory

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**Test Report**

No. CANEC2200123401

Date: 11 Jan 2022

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Test Results :

Test Part Description :

**Quantity**

SN1

**Order Number**

CAN22-001234.001

**Description**

Black plastic grains

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL )
- (4) "-" = Not Regulated

Test Method : With reference to IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 , IEC 62321-6:2015 and IEC 62321-8:2017, analyzed by ICP-OES , UV-Vis and GC-MS .

Test Item(s)	Limit	Unit	MDL	001
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	8
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1,000	mg/kg	8	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
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND



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<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
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
Dibutyl phthalate (DBP)	1,000	mg/kg	50	ND
Butyl benzyl phthalate (BBP)	1,000	mg/kg	50	ND
Bis (2-ethylhexyl) phthalate (DEHP)	1,000	mg/kg	50	ND
Diisobutyl Phthalates (DIBP)	1,000	mg/kg	50	ND

Notes :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series  
[https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:1258637,25](https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25)
- (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.



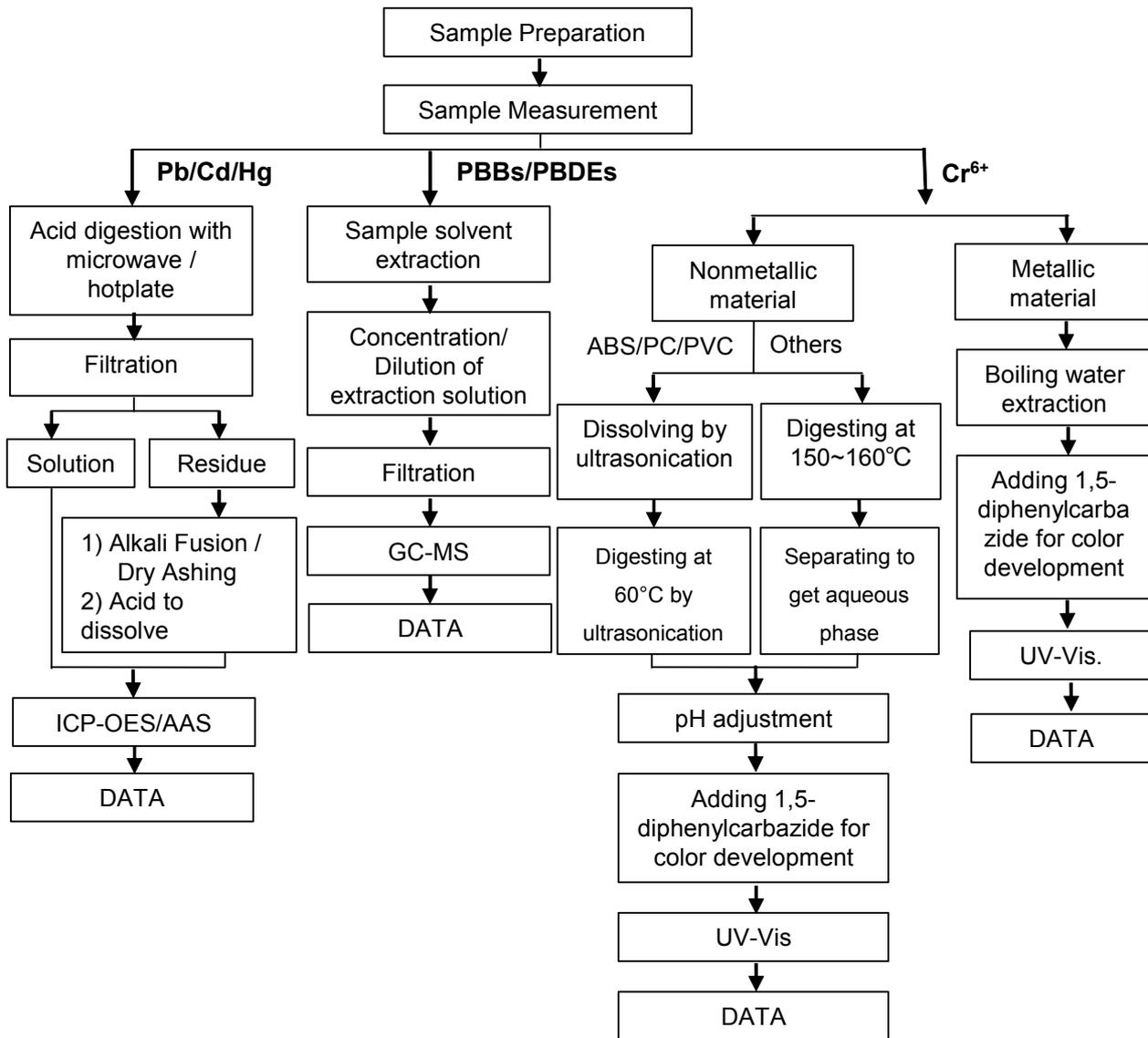
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## ATTACHMENTS

### Pb/Cd/Hg/Cr<sup>6+</sup>/PBBs/PBDEs Testing Flow Chart

1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> and PBBs/PBDEs test method excluded).

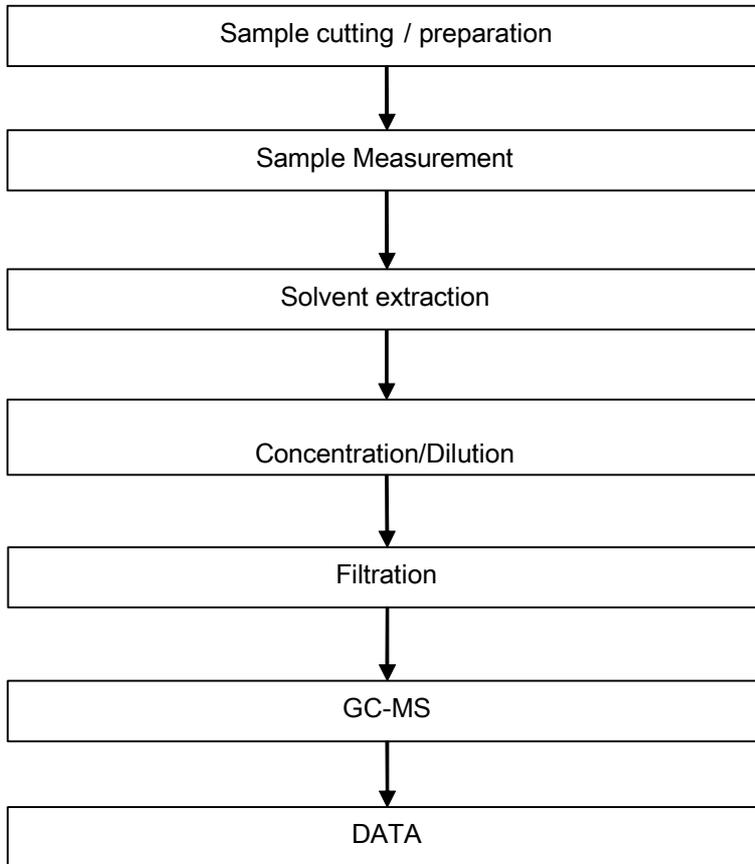


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## ATTACHMENTS

### Phthalates Testing Flow Chart



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Sample photo:



SGS authenticate the photo on original report only

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





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报告抬头公司名称 温州锦优塑料有限公司  
**Company Name** WENZHOU JINYOU PLASTIC LTD, CO;  
**shown on Report**  
地 址 浙江省乐清市石帆镇街道朴湖一村  
**Address** PUHU VILLAGE SHIFAN TOWN YUEQING CITY ZHEJIANG

以下测试之样品及样品信息由申请者提供并确认

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

样品名称	高温尼龙
Sample Name	High-temperature nylon
样品颜色	白色
Color	white
样品接收日期	2022.03.03
Sample Received Date	Mar. 3, 2022
样品检测日期	2022.03.03-2022.03.10
Testing Period	Mar. 3, 2022 to Mar. 10, 2022

### 测试内容 Test Conducted:

根据客户的申请要求，具体要求详见下一页。

As requested by the applicant. For details refer to next page(s).

主 检  
Tested by

钱佳丽

审 核  
Reviewed by

陈 汀

批 准  
Approved by

张琳

日 期  
Date

2022.03.10



张琳  
技术经理 Technical Manager

No. R465021412

宁波市华测检测技术有限公司

宁波高新区菁华路 76 号厂区东首第一、二层

Centre Testing International (Ningbo) Co.,Ltd.

1-2F, Eastern Factory, No.76, Jinghua Road, High-Tech Zone, Ningbo, Zhejiang, China

# 检测报告 Test Report

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## 测试摘要 Executive Summary:

### 测试要求 TEST REQUEST

### 测试结果 CONCLUSION

1. 根据客户要求, 对所提交样品中的铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI)), 多溴联苯(PBBs), 多溴二苯醚(PBDEs), 邻苯二甲酸酯(DBP, BBP, DEHP, DIBP), 氟(F), 氯(Cl), 溴(Br), 碘(I), 多环芳烃(PAHs)进行测试。  
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), Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I), Polycyclic Aromatic Hydrocarbons (PAHs) in the submitted sample(s).
2. 美国环保署有毒物质控制法(TSCA)第 6(h)部分关于持久性、生物累积性和毒性(PBT)化学物质的管控  
Persistent, Bioaccumulative, and Toxic (PBT) Chemicals under US EPA Toxic Substances Control Act (TSCA) Section 6(h)
  - 十溴二苯醚  
Decabromodiphenyl Ether (DecaBDE)
  - 异丙基化磷酸三苯酯(PIP  
Phenol, Isopropylated Phosphate (PIP (3:1))
  - 2,4,6-三叔丁基苯酚  
2,4,6-tris(tert-butyl) phenol (2,4,6-TTBP)
  - 六氯丁二烯  
Hexachlorobutadiene (HCBd)
  - 五氯苯硫酚  
Pentachlorothiophenol (PCTP)
3. 1.根据客户要求, 参照法规(EC) No 1907/2006(REACH), 对所提交样品中 223 种高关注物质(SVHC)进行筛选测试。  
2.根据客户要求, 对由欧盟成员国向欧盟化学管理局(ECHA)所提交的 1 种于 2021 年 6 月 1 日公布意向成为法规(EC) No 1907/2006(REACH)中高关注度物质(SVHC)的候选物质进行筛选测试。  
1.As specified by client, to screen the 223 substances of very high concern (SVHC) under Regulation(EC) No 1907/2006 of REACH in the submitted sample(s).  
2.As specified by client, to screen the 1 substance published on June 1<sup>st</sup> 2021 submitted by EU Member States to ECHA for intention for identification of substance of very high concern (SVHC) under Regulation(EC) No1907/2006 of REACH in the submitted sample(s).

见第 3 页  
See page of 3

符合  
PASS  
符合  
PASS  
符合  
PASS  
符合  
PASS  
符合  
PASS

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\*\*\*\*\*详细结果, 请见下页\*\*\*\*\*

\*\*\*\*\* For further details, please refer to the following page(s) \*\*\*\*\*

# 检测报告 Test Report

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\*\*\*\*\*

## 1.结论 Conclusion

测试样品 Tested Sample	依据标准/指令 According to standard/directive	结果 Result
提交样品 Submitted Sample	欧盟 RoHS 指令 2011/65/EU 及其修订指令 (EU) 2015/863 RoHS Directive 2011/65/EU with amendment (EU) 2015/863	符合 PASS

\*\*\*\*\*

符合表示检测结果满足欧盟RoHS指令2011/65/EU及其修订指令(EU) 2015/863要求的限值。

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.

## 3.摘要

- 1.根据分析结果, 所提交样品中 223 种 SVHC 物质的浓度均小于 0.1% (w/w)。
- 2.根据分析结果, 所提交样品中 1 种意向 SVHC 物质的浓度小于 0.1% (w/w)。

## 3.Summary

- 1.According to the analytical results, concentrations of 223 SVHC substances are all less than 0.1% (w/w) in the submitted sample(s).
- 2.According to the analytical results, concentration of 1 substance for intention for identification of SVHC is less than 0.1%(w/w) in the submitted sample(s).

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## Test Report

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### 1.1 检测依据 Test Method

测试项目 Tested Item(s)	测试方法 Test Method	测试仪器 Measured Equipment(s)
铅 Lead (Pb)	IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017 和/或 IEC 62321-5:2013 测试总 铬含量 IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
多溴联苯 Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS
氟 Fluorine (F)	参考 EN 14582:2016 Refer to EN 14582:2016	IC
氯 Chlorine (Cl)	参考 EN 14582:2016 Refer to EN 14582:2016	IC
溴 Bromine (Br)	参考 EN 14582:2016 Refer to EN 14582:2016	IC
碘 Iodine (I)	参考 EN 14582:2016 Refer to EN 14582:2016	IC
多环芳烃 Polycyclic Aromatic Hydrocarbons (PAHs)	AfPS GS 2019:01 PAK	GC-MS

### 1.2 检测结果 Test Result(s)

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	001		
铅 Lead (Pb)	8 mg/kg	2 mg/kg	1000 mg/kg
镉 Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
汞 Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D.	8 mg/kg	1000 mg/kg

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测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	001		
<b>多溴联苯 Polybrominated Biphenyls (PBBs)</b>			
一溴联苯 Monobromobiphenyl	N.D.	5 mg/kg	1000 mg/kg
二溴联苯 Dibromobiphenyl	N.D.	5 mg/kg	
三溴联苯 Tribromobiphenyl	N.D.	5 mg/kg	
四溴联苯 Tetrabromobiphenyl	N.D.	5 mg/kg	
五溴联苯 Pentabromobiphenyl	N.D.	5 mg/kg	
六溴联苯 Hexabromobiphenyl	N.D.	5 mg/kg	
七溴联苯 Heptabromobiphenyl	N.D.	5 mg/kg	
八溴联苯 Octabromobiphenyl	N.D.	5 mg/kg	
九溴联苯 Nonabromobiphenyl	N.D.	5 mg/kg	
十溴联苯 Decabromobiphenyl	N.D.	5 mg/kg	

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	001		
<b>多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)</b>			
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg	1000 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.	5 mg/kg	
三溴二苯醚 Tribromodiphenyl ether	N.D.	5 mg/kg	
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	5 mg/kg	
五溴二苯醚 Pentabromodiphenyl ether	N.D.	5 mg/kg	
六溴二苯醚 Hexabromodiphenyl ether	N.D.	5 mg/kg	
七溴二苯醚 Heptabromodiphenyl ether	N.D.	5 mg/kg	
八溴二苯醚 Octabromodiphenyl ether	N.D.	5 mg/kg	
九溴二苯醚 Nonabromodiphenyl ether	N.D.	5 mg/kg	
十溴二苯醚 Decabromodiphenyl ether	N.D.	5 mg/kg	

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测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	001		
<b>邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)</b>			
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg	1000 mg/kg
邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg	1000 mg/kg
邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg	1000 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
氟 Fluorine (F)	78 mg/kg	10 mg/kg
氯 Chlorine (Cl)	N.D.	10 mg/kg
溴 Bromine (Br)	N.D.	10 mg/kg
碘 Iodine (I)	N.D.	10 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
<b>多环芳烃(PAHs)Polycyclic Aromatic Hydrocarbons (PAHs)</b>		
萘 Naphthalene	N.D.	0.2 mg/kg
菲 Phenanthrene	N.D.	0.2 mg/kg
蒽 Anthracene	N.D.	0.2 mg/kg
荧蒽 Fluoranthene	N.D.	0.2 mg/kg
芘 Pyrene	N.D.	0.2 mg/kg
蒎 Chrysene	N.D.	0.2 mg/kg
苯并(a)芘 Benzo(a)pyrene	N.D.	0.2 mg/kg
苯并(b)荧蒽 Benzo(b)fluoranthene	N.D.	0.2 mg/kg
苯并(k)荧蒽 Benzo(k)fluoranthene	N.D.	0.2 mg/kg
苯并(j)荧蒽 Benzo(j)fluoranthene	N.D.	0.2 mg/kg
苯并(a)蒽 Benzo(a)anthracene	N.D.	0.2 mg/kg
苯并(e)芘 Benzo(e)pyrene	N.D.	0.2 mg/kg

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测试项目	结果 Result	方法检出限 MDL
二苯并(a,h)蒽 Dibenzo(a,h)anthracene	N.D.	0.2 mg/kg
苯并(g,h,i)花 Benzo(g,h,i)perylene	N.D.	0.2 mg/kg
茚并(1,2,3-cd)芘 Indenol(1,2,3-cd)pyrene	N.D.	0.2 mg/kg
菲, 蒽, 荧蒽, 芘总量 Sum (Phenanthrene, Anthracene, Fluoranthene, Pyrene)	N.D.	/
15 PAHs 总量 Sum 15 PAHs	N.D.	/

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可接触的表面材料中 PAHs 含量限值(mg/kg)(按风险评估的结果分类)  
Maximum PAHs limits (mg/kg) for the materials with relevant contact/grip and operating surfaces that are to be categorised based on the results of the risk assessment

参数 Parameters	一类 Category 1	二类 Category 2		三类 Category 3	
	可放入口中的材料，或预期和皮肤接触时间超过 30 秒（长时间接触）2009/48/EC 定义的玩具材料或供 3 岁以下儿童使用的产品 Materials intended to be placed in the mouth, or materials in toys according to Directive 2009/48/EC or materials for the use by children up to 3 years of age coming into long-term contact with skin (more than 30s) during the intended use	未包含在第一类材料中，预期和皮肤接触时间超过 30 秒（长时接触），或者和皮肤短时间频繁接触**的材料 Materials not covered by category 1, coming into long-term contact (more than 30s) or short-term repetitive contact** with skin during the intended or foreseeable use	供儿童（< 14 岁）使用的产品（包括主动和被动直接接触） Use by children (< 14 years) (include both active and passive direct contact)	其他类产品 Other consumer products	供儿童（< 14 岁）使用的产品（包括主动和被动直接接触） Use by children (< 14 years) (include both active and passive direct contact)
苯并(a)芘 Benzo(a)pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(e)芘 Benzo(e)pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(a)蒽 Benzo(a)anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(b)荧蒽 Benzo(b)fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(j)荧蒽 Benzo(j)fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(k)荧蒽 Benzo(k)fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
蒽Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
二苯并(a,h)蒽 Dibenz(a,h)anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(g,h,i)苝 Benzo(g,h,i)perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
茚并(1,2,3-cd)芘 Indenol(1,2,3-cd)pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1

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菲,葱,荧葱,芘 Phenanthrene, Anthracene, Fluoranthene, Pyrene	总量 < 1 < 1 Sum	总量 < 5 < 5 Sum	总量 < 10 < 10 Sum	总量 < 20 < 20 Sum	总量 < 50 < 50 Sum
萘 Naphthalene	< 1	< 2		< 10	
15 PAHs 总量 Sum 15 PAHs	< 1	< 5	< 10	< 20	< 50

\*\* “短时间频繁接触” 来自REACH法规附录XVII第50项的修订案(法规 (EU) No. 1272/2013)  
Definition “short-term repetitive contact” taken from REACH Annex XVII entry 50 amendment (REGULATION (EU) No.1272/2013)

**样品/部位描述 Sample/Part Description**

001 白色塑料颗粒 White plastic grains

**备注:** 对于检测铅, 镉, 汞之样品已消解完全。

- N.D. = 未检出 (小于方法检出限)
- mg/kg = ppm = 百万分之一
- 1000 mg/kg = 0.1%

**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
- 1000 mg/kg = 0.1%
- LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10  $\mu\text{g}/\text{cm}^2$
- $\nabla$ The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10  $\mu\text{g}/\text{cm}^2$ . The coating is considered a non-Cr(VI) based coating.

**注释:** 本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。

**Note:** The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

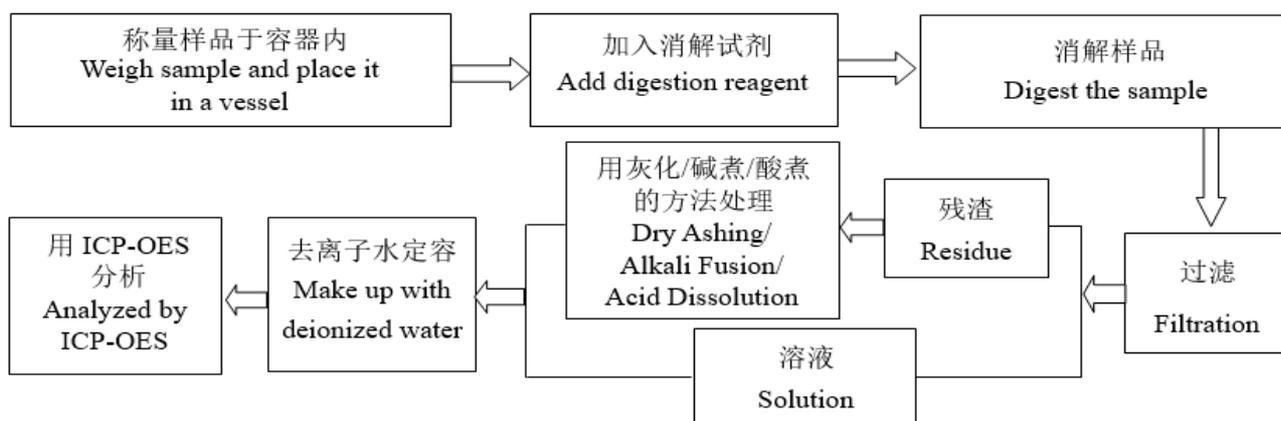
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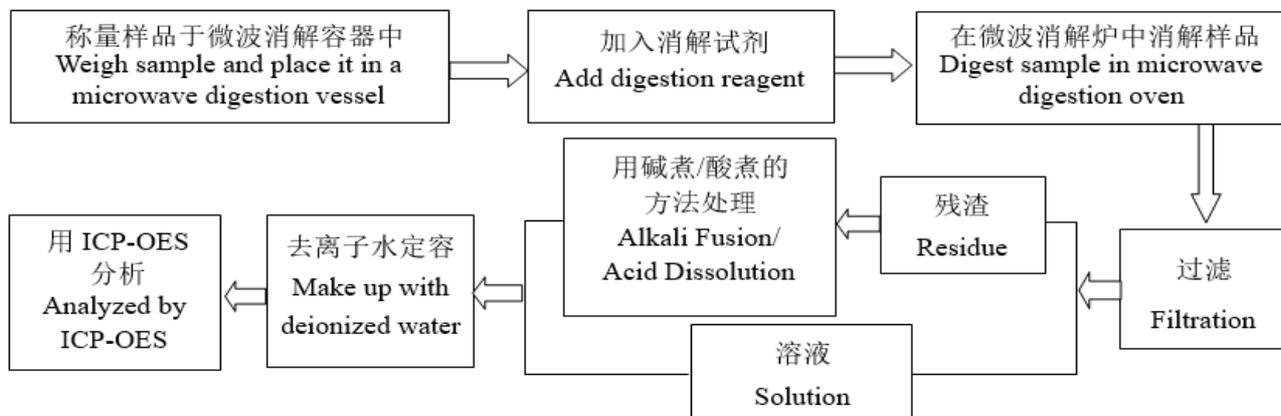
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## 1.3 检测流程 Test Process

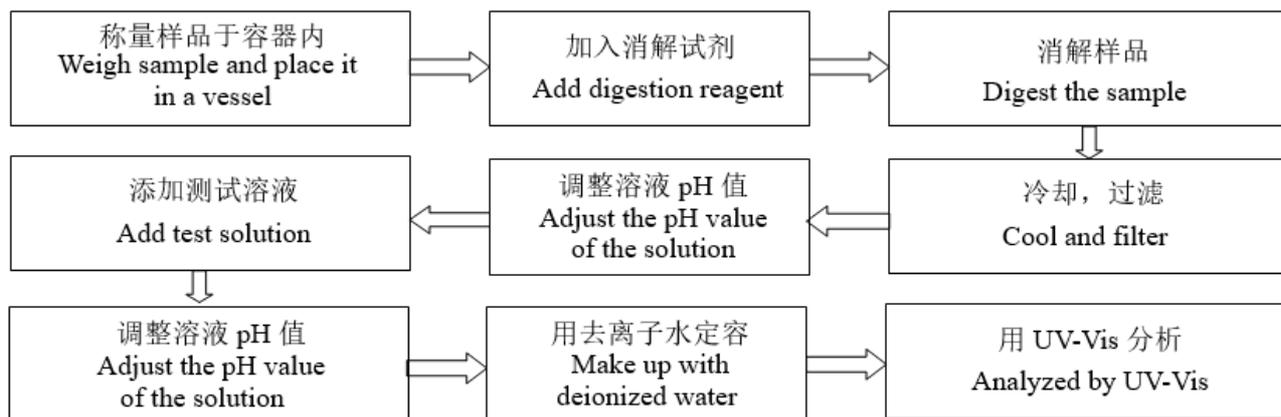
### 1.3.1. 铅 Lead (Pb), 镉 Cadmium (Cd), 铬 Chromium(Cr)



### 1.3.2. 汞 Mercury (Hg)



### 1.3.3. 六价铬 Hexavalent Chromium (Cr(VI))

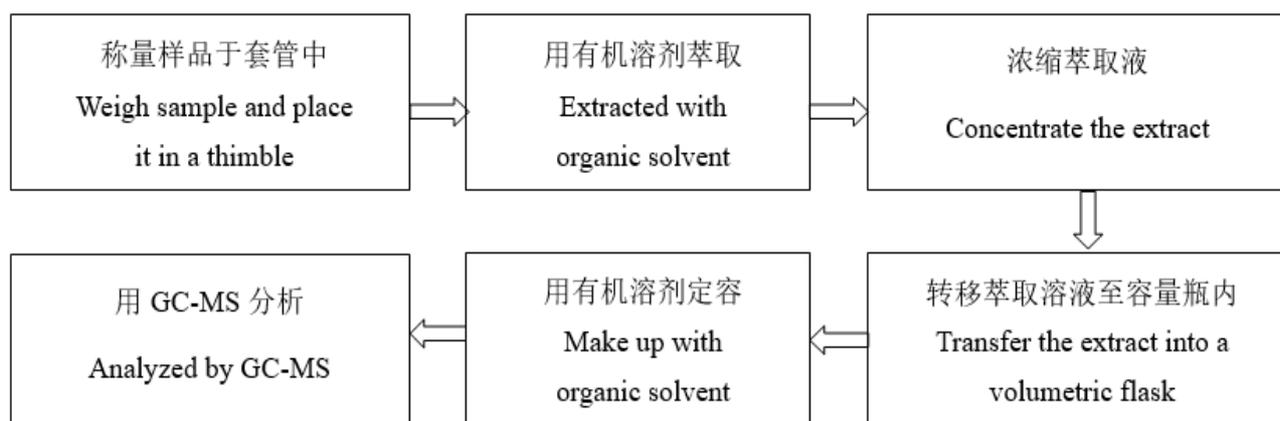


# 检测报告 Test Report

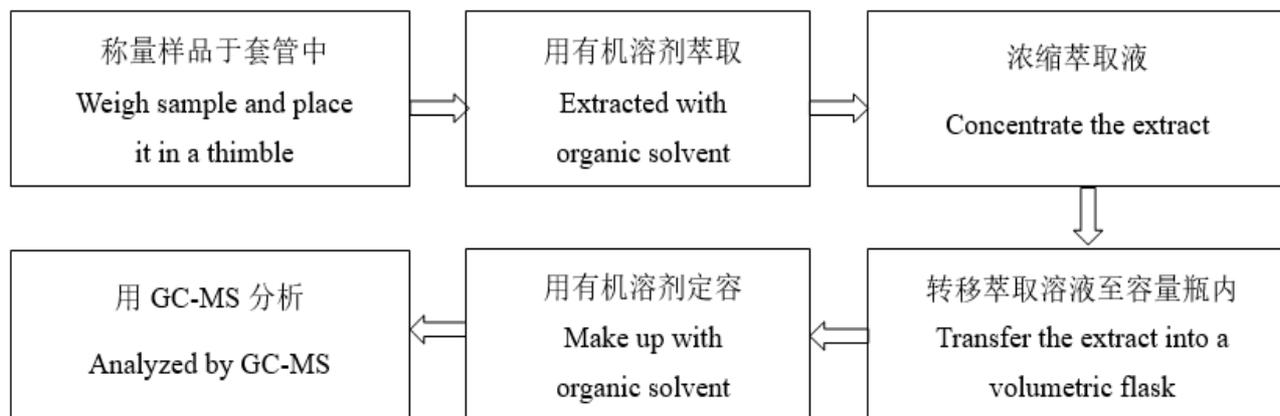
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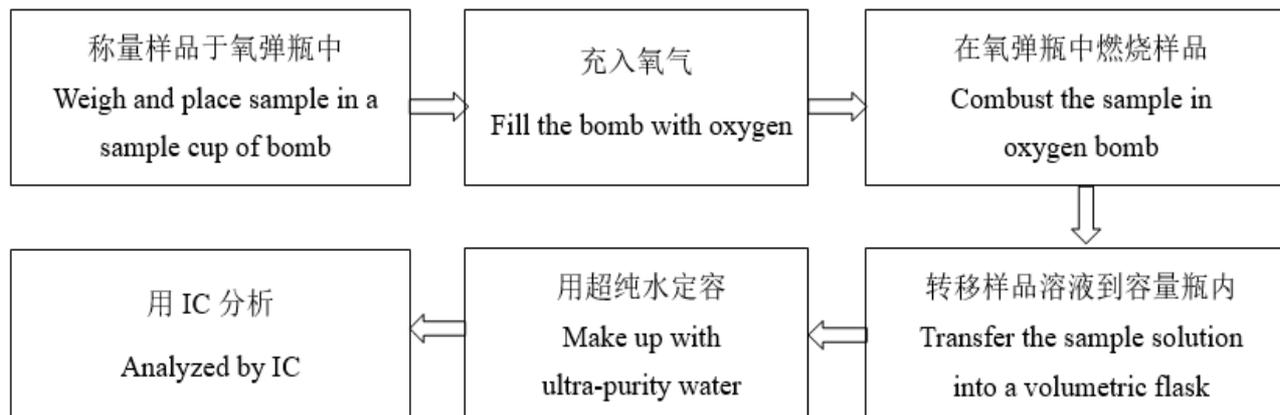
### 1.3.4. 多溴联苯 Polybrominated Biphenyls (PBBs), 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)



### 1.3.5. 邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)



### 1.3.6. 氟 Fluorine (F), 氯 Chlorine (Cl), 溴 Bromine (Br), 碘 Iodine (I)

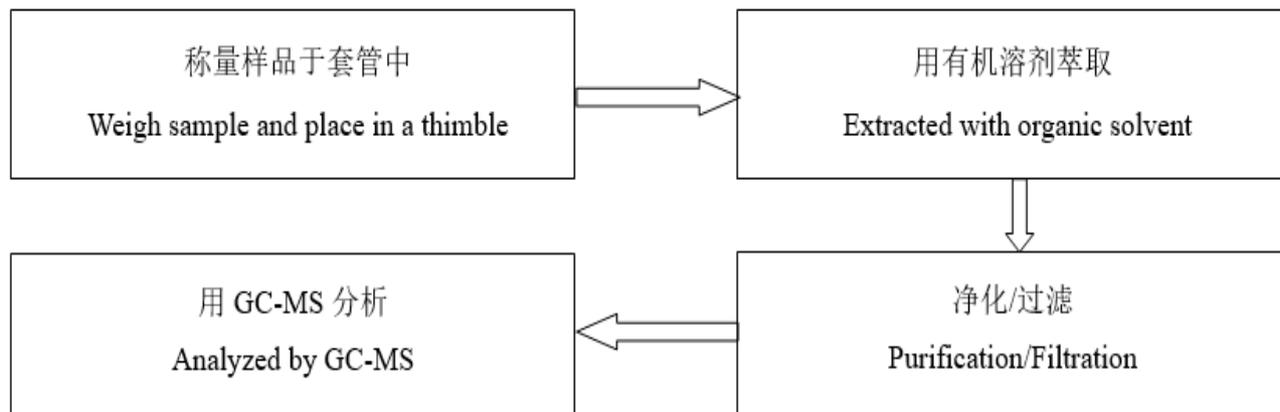


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## 1.3.7. 多环芳烃 Polycyclic Aromatic Hydrocarbons (PAHs)



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**2.美国环保署有毒物质控制法(TSCA)第 6(h)部分关于持久性、生物累积性和毒性(PBT)化学物质的管控**  
**Persistent, Bioaccumulative, and Toxic (PBT) Chemicals under US EPA Toxic Substances Control Act**  
**(TSCA) Section 6(h)**

▼ **十溴二苯醚 Decabromodiphenyl Ether (DecaBDE)**

参考方法 US EPA 3550C:2007&US EPA 8270E:2018, 通过 GC-MS 分析。

Refer to method(s)US EPA 3550C:2007&US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	报告检出限 Report Limit(mg/kg)	限值 Limit (mg/kg)
	001		
十溴二苯醚 Decabromodiphenyl Ether (DecaBDE)	N.D.	5	N.D.

备注 Remark:

- N.D. = 未检出 Not Detected (小于报告检出限<Report Limit)
- mg/kg = ppm = 百万分之一 parts per million

▼ **异丙基化磷酸三苯酯 Phenol, Isopropylated Phosphate (PIP (3:1))**

参考方法 US EPA 3550C:2007&US EPA 8270E:2018, 通过 GC-MS 分析。

Refer to method(s)US EPA 3550C:2007&US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	报告检出限 Report Limit(mg/kg)	限值 Limit (mg/kg)
	001		
异丙基化磷酸三苯酯 Phenol, Isopropylated Phosphate (PIP (3:1))	N.D.	5	N.D.

备注 Remark:

- N.D. = 未检出 Not Detected (小于报告检出限<Report Limit)
- mg/kg = ppm = 百万分之一 parts per million

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▼ **2,4,6-三叔丁基苯酚 2,4,6-tris(tert-butyl) phenol (2,4,6-TTBP)**

参考方法 US EPA 3550C:2007&US EPA 8270E:2018, 通过 GC-MS 分析。

Refer to method(s)US EPA 3550C:2007&US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	报告检出限 Report Limit(mg/kg)	限值 Limit (mg/kg)
	001		
2,4,6-三叔丁基苯酚 2,4,6-tris(tert-butyl) phenol (2,4,6-TTBP)	N.D.	5	3000

备注 Remark:

- N.D. = 未检出 Not Detected (小于报告检出限<Report Limit)
- mg/kg = ppm = 百万分之一 parts per million

▼ **六氯丁二烯 Hexachlorobutadiene (HCBd)**

参考方法 US EPA 3550C:2007&US EPA 8270E:2018, 通过 GC-MS 分析。

Refer to method(s)US EPA 3550C:2007&US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	报告检出限 Report Limit(mg/kg)	限值 Limit (mg/kg)
	001		
六氯丁二烯 Hexachlorobutadiene (HCBd)	N.D.	5	N.D.

备注 Remark:

- N.D. = 未检出 Not Detected (小于报告检出限<Report Limit)
- mg/kg = ppm = 百万分之一 parts per million

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### ▼ 五氯苯硫酚 Pentachlorothiophenol (PCTP)

参考方法 US EPA 3550C:2007&US EPA 8270E:2018, 通过 GC-MS 分析。

Refer to method(s)US EPA 3550C:2007&US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	报告检出限 ReportLimit(mg/kg)	限值 Limit (mg/kg)
	001		
五氯苯硫酚 Pentachlorothiophenol (PCTP)	N.D.	5	10000

#### 备注 Remark:

- N.D. = 未检出 Not Detected (小于报告检出限<Report Limit)
- mg/kg = ppm = 百万分之一 parts per million

#### 样品/部位描述 Sample/Part Description

001 白色塑料颗粒 White plastic grains

#### 注释 Note:

- 本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。  
The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

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### 3.1 检测结果1 Test Result(s) 1

批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	浓度 Concentration (%)	报告 检出限 Report Limit (%)
					001	
-	-	所有 SVHC 物质 (见候选清单) All tested SVHC (See the candidate list)	-	-	N.D.	-

### 3.2 检测结果 2 Test Result(s) 2

批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	浓度 Concentration (%)	报告 检出限 Report Limit (%)
					001	
-	-	所有意向 SVHC 物质 (见意向 SVHC 物质清单 (2021 年 6 月 1 日公布)) All tested intention for identification of SVHC (See the list of intention for identification of SVHC(Published on June 1 <sup>st</sup> 2021))	-	-	N.D.	-

### 3.3 检测依据 Test Method:

参考 US EPA 3052:1996, US EPA 3050B:1996, US EPA 3060A:1996, US EPA 3550C:2007, US EPA 3540C:1996, ISO 17353:2004(E), EN 14582:2016 进行样品预处理。

Refer to US EPA3052:1996, US EPA 3050B:1996, US EPA3060A:1996, US EPA 3550C:2007, US EPA 3540C:1996, ISO 17353:2004(E), EN 14582:2016 for sample pretreatment.

采用 ICP-OES, UV-Vis, PLM, SEM, IC, HPLC, GC-MS, GC-MS(NCI), GC-FID 及 LC-MS-MS 分析。

Analyzed by ICP-OES, UV-Vis, PLM, SEM, IC, HPLC, GC-MS, GC-MS(NCI), GC-FID and LC-MS-MS.

### 样品/部位描述 Sample/Part Description

001 白色塑料颗粒 White plastic grains

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### 备注 Remark:

1. 结果仅显示检出的 SVHC 物质/意向 SVHC 物质, 低于报告检出限的 SVHC 物质/意向 SVHC 物质没有列出。所有测试的 SVHC 物质/意向 SVHC 物质见下页的 SVHC/意向 SVHC 候选清单。  
The table of tested result(s) only shows detected SVHC/intention for identification of SVHC, and SVHC/intention for identification of SVHC that below Report Limit are not reported. Please refer to the Candidate List of SVHC/ intention for identification of SVHC on next pages.
2. w/w % = 重量百分比 weight by weight; 0.1% = 1000mg/kg = 1000ppm
3. N.D. = 未检出 Not Detected (小于报告检出限<report limit)
4. \*:该物质的浓度值是由物质中的特征元素测试结果换算而来。Concentration value of the substance by the conversion from the test results of certain elements.  
三丁基氧化锡(TBTO)、二丁基二氯化锡(DBTC)、二正辛基-双(巯乙酸 2-乙基己酯)锡(DOTE)、二正辛基-双(巯乙酸 2-乙基己酯)锡(DOTE) 和三(2-乙基己基巯基乙酸)辛锡(MOTE)的反应物料、双(乙酰丙酮酸)二丁基锡、[二月桂酸二辛基锡, 锡烷, 二辛基-, 双(椰油酰氧基)衍生物, 以及任何其他锡烷, 二辛基-, 双(脂肪酰氧基)衍生物。其中 C12 为脂肪酰氧基部分的主要碳原子数]的浓度值是由其特定化合物(三丁基锡(TBT)、二丁基锡(DBT)、二辛基锡(DOT)、单辛基锡(MOT))的结果换算而来。  
Concentration value of Bis(tributyltin)oxide(TBTO), Dibutyltin dichloride (DBTC), 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE), Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE), Dibutylbis(pentane-2,4-dionato-O,O')tin, [Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety] by the conversion from the test results of certain compounds(Tributyl Tins(TBT), Dibutyl Tins(DBT), Dioctyl Tins(DOT), Monoctyl Tins(MOT)).
5. \*\*:在化学物质及其混合物的分类, 标记与包装法规, 即 CLP 法规(法规(EC)No 1272/2008)的附录 VI 中, 索引号 650-017-00-8 适用于所有的耐火陶瓷纤维材料。All refractory ceramic fibres are covered by index number 650-017-00-8 in Annex VI of the Regulation on Classification, Labeling and Packaging of chemical substances and mixtures, the so called CLP Regulation(Regulation (EC) No 1272/2008).
6. \*\*\*: C.I.:颜料索引号 Colour Index
7. \*\*\*\*: 蒸馏所分离出来的轻油部分 Light fractions from distillation
8. \*\*\*\*\*: 四硼酸钠, 无水和四硼酸钠, 水合物的浓度均由四硼酸钠浓度表示, 没有考虑结晶水。过硼酸钠, 水合物; 过硼酸钠盐和过硼酸钠, 无水的浓度均由过硼酸钠浓度表示, 没有考虑结晶水。  
Concentration value of Disodium tetraborate, anhydrous and Tetraboron disodium heptaoxide, hydrate is evaluated by Disodium tetraborate, with no consider of the hydrate. Concentration value of Sodium perborate; perboric acid, sodium salt; Sodium peroxometaborate is evaluated by Sodium perborate, with no consider of the hydrate.

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9. <sup>▲</sup>: 甲醛与苯胺的低聚物的浓度值是由其特定化合物(2,4-二氨基二苯甲烷、4,4'-二氨基二苯基甲烷、2,2-二氨基二苯甲烷)的结果换算而来。Concentration value of Formaldehyde, oligomeric reaction products with aniline by the conversion from the test results of certain compounds (2,4-Diaminodiphenylmethane, 4,4'- Diaminodiphenylmethane, 2,2-Diaminodiphenylmethane).
10. <sup>①</sup>: 由于这些物质是 UVCB 物质(未知成分或可变成成分的, 复杂反应物或生物材料的物质), 由各种不同的成分组成, 所以这些物质的测试结果是由选定的具有代表性的物质的主要组成成分的测试结果换算而来的。当其测试结果 $\geq 0.1\%$  w/w 时, 对于该物质是否存在于样品中需核查相应物料的 MSDS 或向供应商进行确认。In view of the substances are established as UVCB substances(substances of unknown or variable composition, complex reaction products or biological materials) consisting of different and variable constituents, the test results are calculated based on the main constituents of the representative compounds for substances. When the content of the representative substances is equal to or higher than 0.1% (w/w), the presence of the substance in the sample need to be further confirmed by checking MSDS or requesting from suppliers.
11. <sup>②</sup>: 由于此物质含有多种物质, 测试结果是基于此物质中最具有代表性的主要组成化合物的含量, 其主要组成化合物的测试结果是基于特征元素的浓度换算而来。In view of the substance contain variable substances, the test results are calculated based on main constituents of the representative compounds for the substances, and the test results of the representative compounds are calculated based on the result of specified heavy metal elements.

### 注释 Note:

本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。

The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

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### SVHC 候选清单 Candidate List of SVHC

批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	报告检出限 Report Limit (%)
I	1	蒽 Anthracene	120-12-7	204-371-1	0.005
I	2	4,4'-二氨基二苯基甲烷 4,4'- Diaminodiphenylmethane	101-77-9	202-974-4	0.005
I	3	邻苯二甲酸二丁酯 Dibutyl phthalate(DBP)	84-74-2	201-557-4	0.005
I	4	二氯化钴 Cobalt dichloride*	7646-79-9	231-589-4	0.01
I	5	五氧化二砷 Diarsenic pentaoxide*	1303-28-2	215-116-9	0.01
I	6	三氧化二砷 Diarsenic trioxide*	1327-53-3	215-481-4	0.01
I	7	重铬酸钠 Sodium dichromate*	7789-12-0 10588-01-9	234-190-3	0.01
I	8	二甲苯麝香 5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	81-15-2	201-329-4	0.005
I	9	邻苯二甲酸二(2-乙基己基)酯 Bis(2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	204-211-0	0.005
I	10	六溴环十二烷 Hexabromocyclododecane (HBCDD)	25637-99-4 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	247-148-4 221-695-9	0.005
I	11	短链氯化石蜡 Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCPs)	85535-84-8	287-476-5	0.01
I	12	三丁基氧化锡 Bis(tributyltin) oxide (TBTO)*	56-35-9	200-268-0	0.005
I	13	砷酸氢铅 Lead hydrogen arsenate*	7784-40-9	232-064-2	0.01
I	14	邻苯二甲酸丁基苄酯 Benzyl butyl phthalate(BBP)	85-68-7	201-622-7	0.005
I	15	三乙基砷酸酯 Triethyl arsenate*	15606-95-8	427-700-2	0.01
II	16	①蒽油 Anthracene oil	90640-80-5	292-602-7	0.05

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批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	报告检出限 Report Limit (%)
II	17	<sup>①</sup> 蒽油,蒽糊,轻油 Anthracene oil, anthracene paste, distn. lights ****	91995-17-4	295-278-5	0.05
II	18	<sup>①</sup> 蒽油,蒽糊,蒽馏分 Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	0.05
II	19	<sup>①</sup> 蒽油,含蒽量少 Anthracene oil, anthracene-low	90640-82-7	292-604-8	0.05
II	20	<sup>①</sup> 蒽油,蒽糊 Anthracene oil, anthracene paste	90640-81-6	292-603-2	0.05
II	21	<sup>①</sup> 煤焦油沥青,高温 Pitch, coal tar, high-temp.	65996-93-2	266-028-2	0.05
II	22	丙烯酰胺 Acrylamide	79-06-1	201-173-7	0.01
II	23	2,4-二硝基甲苯 2,4-dinitrotoluene	121-14-2	204-450-0	0.01
II	24	邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP)	84-69-5	201-553-2	0.005
II	25	<sup>②</sup> 铬酸铅 Lead chromate	7758-97-6	231-846-0	0.05
II	26	<sup>②</sup> 钼铬红(C.I.颜料红 104) Lead chromate molybdate sulphate red (C.I. Pigment Red 104)***	12656-85-8	235-759-9	0.05
II	27	<sup>②</sup> 铅铬黄(C.I.颜料黄 34) Lead sulphochromate yellow (C.I. Pigment Yellow 34)***	1344-37-2	215-693-7	0.05
II	28	磷酸三(2-氯乙基)酯 Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	204-118-5	0.01
III	29	三氯乙烯 Trichloroethylene	79-01-6	201-167-4	0.005
III	30	硼酸 Boric acid*	10043-35-3 11113-50-1	233-139-2 234-343-4	0.01
III	31	<sup>②</sup> 四硼酸钠, 无水 Disodium tetraborate, anhydrous*****	1330-43-4 12179-04-3 1303-96-4	215-540-4	0.01
III	32	<sup>②</sup> 四硼酸钠, 水合物 Tetraboron disodium heptaoxide, hydrate*****	12267-73-1	235-541-3	0.01

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III	33	铬酸钠 Sodium chromate*	7775-11-3	231-889-5	0.01
III	34	铬酸钾 Potassium chromate*	7789-00-6	232-140-5	0.01
III	35	重铬酸铵 Ammonium dichromate*	7789-09-5	232-143-1	0.01
III	36	重铬酸钾 Potassium dichromate*	7778-50-9	231-906-6	0.01
IV	37	硫酸钴 Cobalt(II) sulphate*	10124-43-3	233-334-2	0.01
IV	38	硝酸钴 Cobalt(II) dinitrate*	10141-05-6	233-402-1	0.01
IV	39	碳酸钴 Cobalt(II) carbonate*	513-79-1	208-169-4	0.01
IV	40	醋酸钴 Cobalt(II) diacetate*	71-48-7	200-755-8	0.01
IV	41	乙二醇单甲醚 2-methoxyethanol	109-86-4	203-713-7	0.005
IV	42	乙二醇单乙醚 2-ethoxyethanol	110-80-5	203-804-1	0.005
IV	43	三氧化铬 Chromium trioxide*	1333-82-0	215-607-8	0.01
IV	44	<sup>①</sup> 铬酸及其低聚物、重铬酸及其低聚物 Acids generated from chromium trioxide and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid*	7738-94-5 13530-68-2	231-801-5 236-881-5	0.01
V	45	乙二醇乙醚乙酸酯 2-ethoxyethyl acetate	111-15-9	203-839-2	0.01
V	46	铬酸锶 Strontium chromate*	7789-06-2	232-142-6	0.01
V	47	<sup>①</sup> 1,2-苯二酸-二(C7-11 支链与直链)烷基 (醇)酯 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	271-084-6	0.01
V	48	肼 Hydrazine	7803-57-8 302-01-2	206-114-9	0.01
V	49	N-甲基吡咯烷酮 1-methyl-2-pyrrolidone (NMP)	872-50-4	212-828-1	0.01
V	50	1, 2, 3-三氯丙烷 1,2,3-trichloropropane	96-18-4	202-486-1	0.01
V	51	<sup>①</sup> 邻苯二甲酸二C6-8支链烷基酯 (C7富 集) 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	276-158-1	0.01
VI	52	铬酸铬 Dichromium tris(chromate)*	24613-89-6	246-356-2	0.01

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VI	53	氢氧化铬酸锌钾 Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	234-329-8	0.01
VI	54	氢氧化铬酸锌 Pentazinc chromate octahydroxide*	49663-84-5	256-418-0	0.01
VI	55	<sup>②</sup> 硅酸铝耐火陶瓷纤维 Aluminosilicate Refractory Ceramic Fibres (RCF) **	-	-	0.05
VI	56	<sup>②</sup> 氧化锆硅酸铝耐火陶瓷纤维 Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) **	-	-	0.05
VI	57	<sup>①</sup> 甲醛与苯胺的低聚物 Formaldehyde, oligomeric reaction products with aniline <sup>▲</sup>	25214-70-4	500-036-1	0.01
VI	58	邻苯二甲酸二甲氧基乙酯 Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	0.005
VI	59	2-甲氧基苯胺(邻甲氧基苯胺) 2-Methoxyaniline (o-Anisidine)	90-04-0	201-963-1	0.005
VI	60	4-(1,1,3,3-四甲基丁基)苯酚 (别名: 对特辛基苯酚) 4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	205-426-2	0.005
VI	61	1,2-二氯乙烷 1,2-dichloroethane	107-06-2	203-458-1	0.005
VI	62	双(2-甲氧基乙基)醚 (别名: 二乙二醇二甲醚) Bis(2-methoxyethyl) ether	111-96-6	203-924-4	0.005
VI	63	砷酸 Arsenic acid*	7778-39-4	231-901-9	0.01
VI	64	砷酸钙 Calcium arsenate*	7778-44-1	231-904-5	0.01
VI	65	砷酸铅 Trilead diarsenate*	3687-31-8	222-979-5	0.01
VI	66	N,N-二甲基乙酰胺 N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4	0.005
VI	67	4,4'-亚甲基双(2-氯苯胺) 2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	0.005
VI	68	酚酞 Phenolphthalein	77-09-8	201-004-7	0.005
VI	69	叠氮化铅 Lead diazide, Lead azide*	13424-46-9	236-542-1	0.01

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VI	70	2,4,6-三硝基间苯二酚铅 (别名: 收敛酸铅) Lead styphnate*	15245-44-0	239-290-0	0.01
VI	71	苦味酸铅 Lead dipicrate*	6477-64-1	229-335-2	0.01
VII	72	1,2-二(2-甲氧基乙氧基)乙烷 1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2	203-977-3	0.01
VII	73	乙二醇二甲醚 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	0.01
VII	74	三氧化二硼 Diboron trioxide*	1303-86-2	215-125-8	0.01
VII	75	甲酰胺 Formamide	75-12-7	200-842-0	0.01
VII	76	甲基磺酸铅 Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	0.01
VII	77	异氰尿酸三缩水甘油酯 1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	219-514-3	0.01
VII	78	异氰脲酸 β-三缩水甘油酯 1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6	423-400-0	0.01
VII	79	4,4'-二(N,N-二甲氨基)二苯甲酮(米氏酮) 4,4'-bis(dimethylamino) benzophenone (Michler's ketone)	90-94-8	202-027-5	0.01
VII	80	4,4'-(对二甲氨基)二苯基甲烷(米氏碱) N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	0.01
VII	81	C.I.碱性紫 3 [4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride(C.I. Basic Violet 3)***	548-62-9	208-953-6	0.01

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VII	82	C.I.碱性蓝 26 [4-[[4-anilino-1-naphthyl] [4-(dimethylamino)phenyl] methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride(C.I. Basic Blue 26)***	2580-56-5	219-943-6	0.01
VII	83	C.I.溶剂蓝 4 $\alpha,\alpha$ -Bis[4-(dimethylamino) phenyl]-4(phenylamino) naphthalene-1-methanol (C.I. Solvent Blue 4)***	6786-83-0	229-851-8	0.01
VII	84	$\alpha, \alpha$ -二[(二甲氨基)苯基]-4-甲氨基苯甲 醇 4,4'-bis(dimethylamino)- 4''-(methylamino)trityl alcohol	561-41-1	209-218-2	0.01
VIII	85	十溴二苯醚 Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	214-604-9	0.05
VIII	86	<sup>①</sup> 4-壬基酚, 分支或线性的壬基酚, 包 括含有 9 个碳烷基链的所有独立的同 分异构体和所有含有线性或分支 9 个 碳烷基链的 UVCB 物质 4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	-	0.05
VIII	87	偶氮二甲酰胺 Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))(ADCA)	123-77-3	204-650-8	0.05

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VIII	88	对特辛基苯酚乙氧基醚 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	0.05
VIII	89	全氟十一烷酸 Henicosaflluoroundecanoic acid	2058-94-8	218-165-4	0.05
VIII	90	全氟十三酸 Pentacosaflluorotridecanoic acid	72629-94-8	276-745-2	0.05
VIII	91	六氢邻苯二甲酸酐, 顺式-六氢邻苯二甲酸酐, 反式-六氢邻苯二甲酸酐 Cyclohexane-1,2-dicarboxylic anhydride, cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride	85-42-7 13149-00-3 14166-21-3	201-604-9 236-086-3 238-009-9	0.05
VIII	92	甲基六氢苯酐, 4-甲基六氢苯酐, 1-甲基六氢化邻苯二甲酸酐, 3-甲基六氢苯二甲酯酐 Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	25550-51-0 19438-60-9 48122-14-1 57110-29-9	247-094-1 243-072-0 256-356-4 260-566-1	0.05
VIII	93	全氟十四酸 Heptacosaflluorotetradecanoic acid	376-06-7	206-803-4	0.05
VIII	94	邻苯二甲酸二异戊酯 Diisopentyl phthalate (DIPP)	605-50-5	210-088-4	0.05
VIII	95	<sup>①</sup> 支链和直链 1,2-苯二羧二戊酯 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	0.05

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VIII	96	邻苯二甲酸正戊基异戊基酯 n-pentyl-isopentylphthalate	776297-69-9	933-378-9	0.05
VIII	97	甲氧基乙酸 Methoxyacetic acid	625-45-6	210-894-6	0.05
VIII	98	全氟十二烷酸 Tricosafluorododecanoic acid	307-55-1	206-203-2	0.05
VIII	99	乙二醇二乙醚 1,2-diethoxyethane	629-14-1	211-076-1	0.05
VIII	100	3-乙基-2-甲基-2-(3-甲基丁基)-1,3-恶唑烷 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	0.05
VIII	101	2,4-二氨基甲苯 4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	202-453-1	0.05
VIII	102	N-甲基乙酰胺 N-methylacetamide	79-16-3	201-182-6	0.05
VIII	103	氧化铅与硫酸铅的复合物 Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	0.01
VIII	104	4-氨基联苯 Biphenyl-4-ylamine	92-67-1	202-177-1	0.05
VIII	105	地乐酚 Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	201-861-7	0.05
VIII	106	双(十八酸基)二氧化三铅 Dioxobis(stearato)trilead*	12578-12-0	235-702-8	0.01
VIII	107	硝酸铅 Lead dinitrate*	10099-74-8	233-245-9	0.01
VIII	108	三碱式硫酸铅 Tetralead trioxide sulphate*	12202-17-4	235-380-9	0.01
VIII	109	氧化铅 Lead monoxide (lead oxide)*	1317-36-8	215-267-0	0.01
VIII	110	钛酸铅 Lead titanium trioxide*	12060-00-3	235-038-9	0.01
VIII	111	4,4'-二氨基-3,3'-二甲基二苯甲烷 4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	0.05
VIII	112	碱式乙酸铅 Acetic acid, lead salt, basic*	51404-69-4	257-175-3	0.01
VIII	113	硫酸二甲酯 Dimethyl sulphate	77-78-1	201-058-1	0.05
VIII	114	呋喃 Furan	110-00-9	203-727-3	0.05

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VIII	115	颜料黄 41 Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	0.01
VIII	116	四乙基铅 Tetraethyllead*	78-00-2	201-075-4	0.01
VIII	117	二盐基邻苯二甲酸铅 [Phthalato(2-)]dioxotrilead*	69011-06-9	273-688-5	0.01
VIII	118	硫酸二乙酯 Diethyl sulphate	64-67-5	200-589-6	0.05
VIII	119	氨基氰铅盐 Lead cyanamidate*	20837-86-9	244-073-9	0.01
VIII	120	掺杂铅的硅酸钡 Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped*	68784-75-8	272-271-5	0.01
VIII	121	磷酸氧化铅 Trilead dioxide phosphonate*	12141-20-7	235-252-2	0.01
VIII	122	邻甲基苯胺 <i>o</i> -Toluidine	95-53-4	202-429-0	0.05
VIII	123	邻氨基偶氮甲苯 <i>o</i> -aminoazotoluene	97-56-3	202-591-2	0.05
VIII	124	4-对氨基偶氮苯 4-aminoazobenzene	60-09-3	200-453-6	0.05
VIII	125	6-甲氧基-间甲苯胺 6-methoxy- <i>m</i> -toluidine ( <i>p</i> -cresidine)	120-71-8	204-419-1	0.05
VIII	126	二丁基二氯化锡 Dibutyltin dichloride (DBTC)*	683-18-1	211-670-0	0.05
VIII	127	钛酸铅锆 Lead titanium zirconium oxide*	12626-81-2	235-727-4	0.01
VIII	128	环氧丙烷 Methyloxirane (Propylene oxide)	75-56-9	200-879-2	0.05
VIII	129	1-溴代正丙烷 1-bromopropane (n-propyl bromide)	106-94-5	203-445-0	0.05
VIII	130	碱式碳酸铅 Trilead bis(carbonate) dihydroxide*	1319-46-6	215-290-6	0.01
VIII	131	C16-18-脂肪酸铅盐 Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	0.01
VIII	132	四氧化三铅 Orange lead (lead tetroxide)*	1314-41-6	215-235-6	0.01
VIII	133	二碱式亚硫酸铅(II) Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	0.01

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VIII	134	4,4'-二氨基二苯醚及其盐 4,4'-oxydianiline and its salts	101-80-4	202-977-0	0.05
VIII	135	碱式硫酸铅 Lead oxide sulfate*	12036-76-9	234-853-7	0.01
VIII	136	四氟硼酸铅 Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	0.01
VIII	137	硅酸铅 Silicic acid, lead salt*	11120-22-2	234-363-3	0.01
VIII	138	N,N-二甲基甲酰胺 N,N-dimethylformamide	68-12-2	200-679-5	0.05
IX	139	镉 Cadmium	7440-43-9	231-152-8	0.01
IX	140	氧化镉 Cadmium oxide*	1306-19-0	215-146-2	0.01
IX	141	邻苯二甲酸二戊酯 Dipentyl phthalate (DPP)	131-18-0	205-017-9	0.01
IX	142	<sup>①</sup> 乙氧基化的支链和直链的 4-壬基酚 (直链和/或支链的具有 9 个碳原子的 烷基链共价键合在 4 位的乙氧基酚, 囊 括了 UVCB 和定义明确的物质, 聚合 物及同系物, 其中包括任何单独的异构 体和/或它们的组合) 4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	-	-	0.05
IX	143	全氟辛酸铵 Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	0.01
IX	144	全氟辛酸 Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	0.01
X	145	<sup>①</sup> 磷酸三(二甲苯)酯 Trixylyl phosphate	25155-23-1	246-677-8	0.01

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批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	报告检出限 Report Limit (%)
X	146	C.I.直接黑 38 Disodium 4-amino-3- [[4'-[(2,4-diaminophenyl)azo] [1,1'-biphenyl]-4-yl]azo]-5- hydroxy-6-(phenylazo) naphthalene-2,7-disulphonate (C.I. Direct Black 38)***	1937-37-7	217-710-3	0.01
X	147	邻苯二甲酸二己酯 Dihexyl phthalate	84-75-3	201-559-5	0.01
X	148	硫化镉 Cadmium sulphide*	1306-23-6	215-147-8	0.01
X	149	C.I.直接红 28 Disodium 3,3'-[[1,1'-biphenyl]- 4,4'-diylbis(azo)]bis(4- aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)***	573-58-0	209-358-4	0.01
X	150	醋酸铅(II) Lead di(acetate)*	301-04-2	206-104-4	0.01
X	151	1,2-亚乙基硫脲 Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	202-506-9	0.01
XI	152	<sup>①</sup> 邻苯二甲酸二己酯, 直链和支链 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	0.01
XI	153	氯化镉 Cadmium chloride *	10108-64-2	233-296-7	0.01
XI	154	<sup>②</sup> 过硼酸钠, 水合物; 过硼酸钠盐 Sodium perborate; perboric acid, sodium salt *****	15120-21-5 11138-47-9	239-172-9 234-390-0	0.01
XI	155	<sup>②</sup> 过硼酸钠, 无水 Sodium peroxometaborate *****	7632-04-4	231-556-4	0.01
XII	156	2-(2H-苯并三唑-2-基)-4,6-二叔戊基苯 酚 2-(2H-Benzotriazol-2-yl)- 4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	0.01
XII	157	2-(2'-羟基-3',5'-二叔丁基苯基)-苯并三 唑 2-Benzotriazol-2-yl-4,6- di-tert-butylphenol (UV-320)	3846-71-7	223-346-6	0.01

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批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	报告检出限 Report Limit (%)
XII	158	二正辛基-双(巯乙酸2-乙基己酯)锡 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)*	15571-58-1	239-622-4	0.05
XII	159	氟化镉 Cadmium fluoride*	7790-79-6	232-222-0	0.01
XII	160	硫酸镉 Cadmium sulphate*	10124-36-4 31119-53-6	233-331-6	0.01
XII	161	<sup>①</sup> 二正辛基-双(巯乙酸2-乙基己酯)锡 (DOTE)和三(2-乙基己基巯基乙酸)辛锡(MOTE)的反应物料 Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl] thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)*	-	-	0.05
XIII	162	<sup>①</sup> 1,2-苯二羧酸, 二-C6-10-烷基酯; (葵基, 己基, 辛基) 酯与1,2-苯二甲酸的复合物, 其邻苯二甲酸二己酯含量 ≥0.3% (EC No. 201-559-5) 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201- 559-5)	68515-51-5 68648-93-1	271-094-0 272-013-1	0.05

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批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	报告检出限 Report Limit (%)
XIII	163	①5-仲丁基-2-(2,4-二甲基环己-3-烯-1-基)-5-甲基-1,3-二恶烷[1], 5-二级丁基-2-(4,6-二甲基环己-3-烯-1-基)-5-甲基-1,3-二恶烷[2] [任何[1]和[2]或者其任意组合的单独异构体或其任何组合] (卡拉花醛及其异构体以及它们的混合物) 5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]	-	-	0.05
XIV	164	硝基苯 Nitrobenzene	98-95-3	202-716-0	0.01
XIV	165	2,4-二-叔丁基-6-(5-氯-2H-苯并三唑-2-基)苯酚 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	0.01
XIV	166	2-(2'-羟基-3'-异丁基-5'-叔丁基苯基)苯并三唑 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	0.01
XIV	167	1,3-丙烷磺内酯 1,3-propanesultone	1120-71-4	214-317-9	0.01
XIV	168	全氟壬酸及其钠和铵盐 Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3 - -	0.01
XV	169	苯并(a)芘 Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5	0.01
XVI	170	双酚 A 4,4'-isopropylidenediphenol (bisphenol A) (BPA)	80-05-7	201-245-8	0.01
XVI	171	全氟癸酸(PFDA)及其钠盐和铵盐 Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	221-470-5 206-400-3 -	0.01

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批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	报告检出限 Report Limit (%)
XVI	172	4-(1,1-二甲基丙基)苯酚 (别名: 对叔戊基苯酚) <i>p</i> -(1,1-dimethylpropyl)phenol	80-46-6	201-280-9	0.01
XVI	173	<sup>①</sup> 支链与直链的 4-庚基酚(直链和/或支链的具有 7 个碳原子的烷基链共价键在 4 位的苯酚, 囊括了 UVCB 和定义明确的物质, 其中包括任何单独异构体和/或它们的组合) 4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	-	0.05
XVII	174	全氟己基磺酸及其盐 Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	-	-	0.0005
XVIII	175	得克隆(包括其所有反式和顺式异构体及其组合) Dechlorane plus (including any of its individual anti- and syn-isomers or any combination thereof)	-	-	0.01
XVIII	176	苯并[a]蒽 Benzo[a]anthracene	56-55-3	200-280-6	0.01
XVIII	177	硝酸镉 Cadmium nitrate*	10325-94-7	233-710-6	0.01
XVIII	178	碳酸镉 Cadmium carbonate*	513-78-0	208-168-9	0.01
XVIII	179	氢氧化镉 Cadmium hydroxide*	21041-95-2	244-168-5	0.01
XVIII	180	蒽 Chrysene	218-01-9	205-923-4	0.01

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XVIII	181	<sup>①</sup> 1,3,4-噻二唑烷-2,5-二硫酮, 甲醛和4-庚基苯酚的支链和直链(RP-HP)的反应产物[4-庚基苯酚, 支链和直链含量 ≥0.1% w/w] Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)[with ≥0.1% w/w 4-heptylphenol, branched and linear (4-HPbl)]	-	-	0.05
XIX	182	八甲基环四硅氧烷 Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7	0.01
XIX	183	十甲基环五硅氧烷 Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9	0.01
XIX	184	十二甲基环六硅氧烷 Dodecamethylcyclohexasiloxane (D6)	540-97-6	208-762-8	0.01
XIX	185	铅 Lead	7439-92-1	231-100-4	0.01
XIX	186	八硼酸二钠 Disodium octaborate*	12008-41-2	234-541-0	0.01
XIX	187	苯并(g,h,i)芘 Benzo[ghi]perylene	191-24-2	205-883-8	0.01
XIX	188	<sup>①</sup> 氢化三联苯 Terphenyl, hydrogenated	61788-32-7	262-967-7	0.01
XIX	189	乙二胺 Ethylenediamine (EDA)	107-15-3	203-468-6	0.01
XIX	190	偏苯三酸酐 Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7	209-008-0	0.01
XIX	191	邻苯二甲酸二环己酯 Dicyclohexyl phthalate (DCHP)	84-61-7	201-545-9	0.01
XX	192	4,4'-(1,3-二甲基丁基)二苯酚 2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	0.01
XX	193	苯并[k]荧蒹 Benzo[k]fluoranthene	207-08-9	205-916-6	0.01
XX	194	荧蒹 Fluoranthene	206-44-0	205-912-4	0.01
XX	195	菲 Phenanthrene	85-01-8	201-581-5	0.01
XX	196	芘 Pyrene	129-00-0	204-927-3	0.01

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批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	报告检出限 Report Limit (%)
XX	197	1,7,7-三甲基-3-(苯亚甲基)双环[2,2,1]庚-2-酮 1,7,7-trimethyl-3-(phenylmethylene) bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor) (3-BC)	15087-24-8	239-139-9	0.01
XXI	198	2,3,3,3-四氟-2-(七氟丙氧基)丙酸及其盐和酰基卤化物(HFPO-DA) 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	-	0.01
XXI	199	乙二醇乙醚乙酸酯 2-methoxyethyl acetate	110-49-6	203-772-9	0.01
XXI	200	4-叔丁基苯酚 4-tert-butylphenol	98-54-4	202-679-0	0.01
XXI	201	①三(壬基苯基)亚磷酸酯(TNPP)其中4-壬基苯酚(支链和直链) (4-NP)含量大于等于0.1 % Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	-	-	0.01
XXII	202	2-苄基-2-二甲基氨基-1-(4-吗啉苯基)丁酮 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	0.01
XXII	203	2-甲基-1-(4-甲硫基苯基)-2-吗啉基-1-丙酮 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	0.01
XXII	204	邻苯二甲酸二异己酯 Diisohexyl phthalate	71850-09-4	276-090-2	0.01
XXII	205	全氟丁烷磺酸(PFBS)及其盐 Perfluorobutane sulfonic acid (PFBS) and its salts	-	-	0.01

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批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	报告检出限 Report Limit (%)
XXIII	206	1-乙烯基咪唑 1-vinylimidazole	1072-63-5	214-012-0	0.01
XXIII	207	2-甲基咪唑 2-methylimidazole	693-98-1	211-765-7	0.01
XXIII	208	对羟基苯甲酸丁酯 Butyl 4-hydroxybenzoate	94-26-8	202-318-7	0.01
XXIII	209	双(乙酰丙酮酸)二丁基锡 Dibutylbis(pentane-2,4-dionato-O,O')tin *	22673-19-4	245-152-0	0.05
XXIV	210	四乙二醇二甲醚 bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	205-594-7	0.01
XXIV	211	二月桂酸二辛基锡, 锡烷, 二辛基-, 双(椰油酰氧基)衍生物, 以及任何其他锡烷, 二辛基-, 双(脂肪酰氧基)衍生物。其中 C12 为脂肪酰氧基部分的主要碳原子数 Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety *	-	-	0.05
XXV	212	1,4-二恶烷 1,4-dioxane	123-91-1	204-661-8	0.01
XXV	213	2,2-双(溴甲基)-1,3-丙二醇 三溴新戊醇/3-溴-2,2-二溴乙基丙醇 2,3-二溴丙醇 2,2-bis(bromomethyl) propane-1,3-diol (BMP) 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) 2,3-dibromo-1-propanol (2,3-DBPA)	3296-90-0 36483-57-5 1522-92-5 96-13-9	221-967-7 253-057-0 202-480-9	0.01

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XXV	214	2-(4-叔丁基苄基)丙醛及其立体异构体 2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	-	-	0.01
XXV	215	2,2-二(4-羟基苯基)丁烷(双酚 B) 4,4'-(1-methylpropylidene)bisphenol (bisphenol B)	77-40-7	201-025-1	0.01
XXV	216	戊二醛 Glutaral	111-30-8	203-856-5	0.01
XXV	217	<sup>①</sup> 中链氯化石蜡 (UVCB 物质, 由≥80%的直链氯代烷烃 组成, 碳链长度在 C14 到 C17 之间) Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	-	-	0.01
XXV	218	硼酸钠盐 Orthoboric acid, sodium salt *	13840-56-7	237-560-2	0.01
XXV	219	<sup>①</sup> 烷基酚, 碳链(C12 为主, 直链或支链) 主要在对位, 包括其任何单个异构体或 组合 Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	-	-	0.01
XXVI	220	(±)-1,7,7-三甲基-3-[(4-甲基苯基)亚甲 基]双环[2.2.1]庚-2-酮, 包括任何单独的 异构体和/或其组合 (±)-1,7,7-trimethyl-3-[(4-methylphenyl) methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	-	-	0.01
XXVI	221	2,2'-亚甲基双-(4-甲基-6-叔丁基苯酚) 6,6'-di-tert-butyl-2,2'-methylenedi- p-cresol	119-47-1	204-327-1	0.01

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XXVI	222	S-(三环[5.2.1.0 <sup>2,6</sup> ]癸-3-烯-8(或 9)-基)O-(异丙基或异丁基或 2-乙基己基)O-(异丙基或异丁基或 2-乙基己基)二硫代磷酸酯 S-(tricyclo[5.2.1.0 <sup>2,6</sup> ]deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	255881-94-8	401-850-9	0.01
XXVI	223	乙烯基-三(2-甲氧基乙氧基)硅烷 tris(2-methoxyethoxy)vinylsilane	1067-53-4	213-934-0	0.01

意向 SVHC 物质清单 (2021 年 6 月 1 日公布)

List of intention for identification of SVHC (Published on June 1<sup>st</sup> 2021)

批次 Batch	序号 No.	物质名称 Substance Name(s)	CAS 号 CAS No.	EC 号 EC No.	报告检出限 Report Limit (%)
-	1	间苯二酚 Resorcinol	108-46-3	203-585-2	0.01

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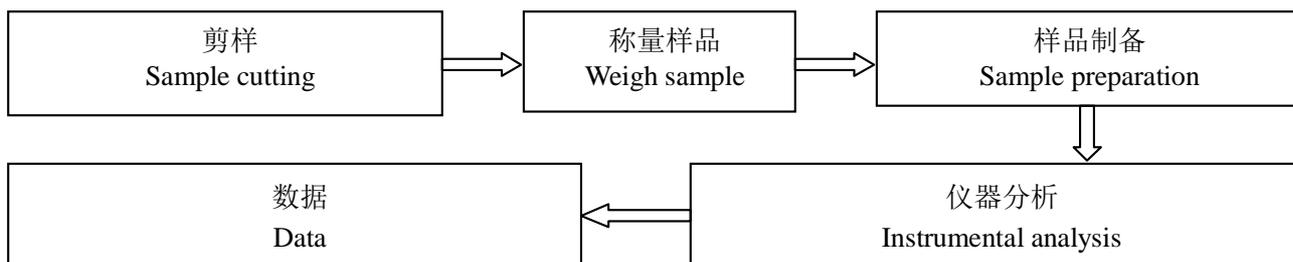
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### 附加信息 Appendix:

1. 根据欧盟 REACH 法规（编号 1907/2006）第 33 条款之规定，物品类产品如果含有候选列表上的高度关注物质且在物品中的质量百分比超过 0.1% 时，物品供应方需履行相关信息传递义务：  
Any supplier of an article containing a substance that is included in the Candidate List in a concentration above 0.1 % weight by weight (w/w) has the duty to communicate information in accordance with Article 33 of European Union regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
  - 1) 物品供应方应提供给接收方关于产品的足够信息以确保物品的安全使用，至少需提供所含高度关注物质的名称。Any supplier shall provide the recipient of the article with sufficient information to allow safe use of the article including, as a minimum, the name of that substance.
  - 2) 应消费者请求，物品供应方应在 45 天内免费提供关于产品的足够信息以确保物品的安全使用，至少需提供所含高度关注物质的名称。On request by a consumer any supplier shall provide the consumer with sufficient information to allow safe use of the article including, as a minimum, the name of that substance within 45 days of receipt of the request, free of charge.
2. 根据欧盟 REACH 法规（编号 1907/2006）第 31 条款及附件 2 之规定，提供高度关注物质的物质类产品供应方，应免费提供接收方该物质的安全数据表。The supplier of a substance that is included in the Candidate List on their own shall provide the recipient of the substance with a safety data sheet for free compiled in accordance with Article 3 and Annex II of REACH.
3. 根据欧盟 REACH 法规（编号 1907/2006）第 31、32 条款及附件 2 之规定，提供含有高度关注物质的混合物产品供应方需传递相关信息：  
The supplier of a mixture that containing a substance that is included in the Candidate List shall exchange information in accordance with Article 31, Article 32, and Annex II of REACH.
  - 1) 如果混合物产品按照 1999/45/EC 被判定为危险品时，供应方应免费提供产品的安全数据表。Any supplier shall provide the recipient of the mixture with a safety data sheet for free where a preparation meets the criteria for classification as dangerous in accordance with Directives 1999/45/EC.
  - 2) 如果混合物产品按照 1999/45/EC 判定并非危险品，但是任一高度关注物质在非气体混合物中质量分数超过 0.1% 或在气体混合物中体积分数超过 0.2%，供应方也应免费提供产品的安全数据表。Any supplier shall provide the recipient of the mixture with a safety data sheet for free where a preparation does not meet the criteria for classification as dangerous in accordance with Directive 1999/45/EC, but contains any substance that is included in the Candidate List in an individual concentration of  $\geq 0.1$  % by weight for non-gaseous mixtures or  $\geq 0.2$  % by volume for gaseous mixtures.

### 3.4 检测流程 Test Process



# 检测报告 Test Report

报告编号 A2220075200101E  
Report No. A2220075200101E

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## 样品图片

### Photo(s) of the sample(s)



#### 声明 Statement:

1.检测报告无批准人签字、“专用章”及报告骑缝章无效;

This report is considered invalid without approved signature, special seal and the seal on the perforation;

2.报告抬头公司名称及地址、样品及样品信息由申请者提供,申请者应对其真实性负责,CTI 未核实其真实性;

The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;

3.本报告检测结果仅对受测样品负责;

The result(s) shown in this report refer(s) only to the sample(s) tested;

4.未经 CTI 书面同意,不得部分复制本报告;

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5.如检测报告中的英文内容与中文内容有差异,以中文为准。

In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

\*\*\* 报告结束 \*\*\*

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

## 附录 Appendix

### 客户参考信息 Client Reference Information

AH-4120、AH-4130、AH-4135、AH-4140、AH-4150

### 声明 Statement:

1. 附录内容由申请者提供，申请者应对其真实性负责，CTI 未核实其真实性。  
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2. 附录内容为 A2220075200101E 报告的补充。  
The Appendix Information is/are the supplement(s) for the Report A2220075200101E.