



Greater China

**Test Report No.: 68.431.22.1449.01**  
**Dated: 2022-03-21**

**Applicant:** Spector & Co  
**Address:** /  
**Product Name:** CYNTHIA  
**Style No.:** Writing Instrument  
**End Use:** BALLPOINT PEN  
**PO / Order No.:** /  
**Item No.:** HW204  
**Supplier:** USS049  
**Country of Origin:** CHINA  
**Country of Destination:** CANADA & U.S.A.  
**Receipt Date of Sample:** 2022-02-24, Shenzhen  
**Date of Testing:** 2022-03-08 to 2022-03-21, Shenzhen  
**Sample Submitted:** The sample(s) was (were) submitted by applicant and identified.  
**Test Result:** Refer to the data listed in following pages

Test Item	Conclusion
1. US California Proposition 65 - Total Cadmium Content Test - Paint and Similar Surface-Coating Materials	Pass*
2. US California Proposition 65 - Total Cadmium Content Test - Substrate Materials	Pass*
3. US California Proposition 65 - Total Lead Content Test - Paint and Similar Surface-Coating Materials	Pass*
4. US California Proposition 65 - Total Lead Content Test - Substrate Materials	Pass*
5. Phthalates Content (11P)	Pass*
6. Tungsten Content Test	Report As Is
7. Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Mercury Content Test	Pass
8. Total Nickel Content Test	Report As Is
9. US California Proposition 65 - Phthalates Content (6P)	Pass*
10. U.S. CFR Title 16 Part 1307 – Toys and Childcare Articles – Phthalates Content (8P)	Pass
11. Canadian Consumer Products Containing Lead Regulations SOR/2018-83 – Total Lead Content Test	Pass
12. Canadian Surface Coating Materials Regulations SOR/2016-193 – Total Lead Content Test	Pass

Remarks: 1. MDL = Method Detection Limit  
2. ND = Not Detected (<MDL)  
3. <= Less than  
4. 1 mg/kg = 1 ppm = 0.0001%



TÜV SÜD Certification and Testing (China) Co.,Ltd. Shenzhen Branch  
Testing Center

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Note:

- (1) The TÜV SÜD Certification and Testing (China) Co., Ltd. "General Terms & Conditions" applied.  
Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production.  
For further details, please see "Testing and certification regulation", chapter A-3.4  
For full version, please visit: EN : <https://www.tuvsud.cn/zh-cn/resource/terms-and-conditions---en> ; SCN: <https://www.tuvsud.cn/zh-cn/terms-and-conditions> ; TCN: <https://www.tuvsud.com/zh-tw/terms-and-conditions>
- (2) The results relate only to the Items tested.
- (3) The test report shall not be reproduced except in full without the written approval of the laboratory
- (4) If relevant standards do not specify decision rule(s), follow decision rule as below:  
- "Pass" means that the measured result is within the limits, even when extended by expanded uncertainty at a level of confidence of 95%.  
- "Fail" means that the measured result is beyond the limit, even when extended by expanded uncertainty at a level of confidence of 95%.
- (5) The test item and sample were specified by the client.
- (6) "\*" denotes the conclusion was drawn according to the client's specification.

Description of the Tested Subject

Sample	Description	Photo
001	Red plastic (Pen body)	
002	Orange plastic (Pen body)	
003	Blue plastic (Pen body)	
004	Green plastic (Pen body)	
005	Black plastic (Pen body)	
006	White plastic (Pen body)	
007	Silvery metal (Tip of refill)	
008	Silvery metal (Ball of tip)	
009	Black ink (Refill)	

T. No	Sample	Description
T1	001	Red plastic (Pen body)
T2	002	Orange plastic (Pen body)
T3	003	Blue plastic (Pen body)
T4	004	Green plastic (Pen body)
T5	005	Black plastic (Pen body)
T6	006	White plastic (Pen body)
T7	007	Silvery metal (Tip of refill)
T8	008	Silvery metal (Ball of tip)
T9	009	Black ink (Refill)

**Test Results**

**1. US California Proposition 65 - Total Cadmium Content Test - Paint and Similar Surface-Coating Materials**

Test with reference to microwave digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Limit	Result(s)	Conclusion
009	ppm	10	<75	ND	Pass

Remark: 1. Limit was according to client's requirement

**2. US California Proposition 65 - Total Cadmium Content Test - Substrate Materials**

Test with reference to acid digestion or microwave digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Limit	Result(s)	Conclusion
001+002+003	mg/kg	10	<75	ND	Pass
004+005+006	mg/kg	10	<75	ND	Pass
007	mg/kg	10	<75	ND	Pass
008	mg/kg	10	<75	ND	Pass

Remark: 1. Limit was according to client's requirement

**3. US California Proposition 65 - Total Lead Content Test - Paint and Similar Surface-Coating Materials**

Test method: Acid digestion or microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample	Unit	MDL	Limit	Result(s)	Conclusion
009	mg/kg	10.0	90	ND	Pass

Remark: 1. Limit was according to client's requirement

**4. US California Proposition 65 - Total Lead Content Test - Substrate Materials**

Test method: Acid digestion or microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample	Unit	MDL	Limit	Result(s)	Conclusion
001+002+003	mg/kg	10.0	100	ND	Pass
004+005+006	mg/kg	10.0	100	ND	Pass
007	mg/kg	10.0	100	39.3	Pass
008	mg/kg	10.0	100	ND	Pass

Remark: 1. Limit was according to client's requirement



5. Phthalates Content (11P)

Test with reference to in-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					001+002+003	004+005+006
Diethyl phthalate(DEP)	84-66-2	%	0.005	<0.1	ND	ND
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	<0.1	ND	ND
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	<0.1	ND	ND
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	<0.1	ND	ND
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	<0.1	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	<0.1	ND	ND
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	<0.1	ND	ND
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	<0.1	ND	ND
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	<0.1	ND	ND
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	<0.1	ND	ND
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	<0.1	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>

Parameter	CAS No.	Unit	MDL	Limit	Result(s)
					009
Diethyl phthalate(DEP)	84-66-2	%	0.005	<0.1	ND
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	<0.1	ND
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	<0.1	ND
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	<0.1	ND
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	<0.1	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	<0.1	ND
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	<0.1	ND
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	<0.1	ND
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	<0.1	ND
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	<0.1	ND

Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	<0.1	ND
<b>Conclusion</b>					<b>Pass</b>

Remark: 1. Limit was according to client's requirement

**6. Tungsten Content Test**

Test with reference to acid digestion and determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES)

Test items	Maximum Permissible Limit [mg/kg]	Result [mg/kg]	Conclusion
		007	
Tungsten(W)		ND	Report As Is

Remark: 1. Titanium dioxide (TiO<sub>2</sub>): Calculate from Titanium content.

**7. Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Mercury Content Test**

Test with reference to microwave digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Limit	Result(s)	Conclusion
009	mg/kg	10.0	10.0	ND	Pass

**8. Total Nickel Content Test**

Test method: Acid digestion and analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Compounds	Results [mg/kg]	
	Sample 007	Sample 008
Ni	48.027	36887.097
<b>Conclusion</b>	Report As Is	Report As Is



9. US California Proposition 65 - Phthalates Content (6P)

Test with reference to in-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					001+002+003	004+005+006
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	<0.1	ND	ND
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	<0.1	ND	ND
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	<0.1	ND	ND
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	<0.1	ND	ND
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	<0.1	ND	ND
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	<0.1	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>

Parameter	CAS No.	Unit	MDL	Limit	Result(s)
					009
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	<0.1	ND
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	<0.1	ND
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	<0.1	ND
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	<0.1	ND
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	<0.1	ND
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	<0.1	ND
<b>Conclusion</b>					<b>Pass</b>

Remark: 1. Limit was according to client's requirement



**10. U.S. CFR Title 16 Part 1307 - Toys and Childcare Articles - Phthalates Content (8P)**

Test with reference to in-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					001+002+003	004+005+006
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	<0.1	ND	ND
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	<0.1	ND	ND
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	<0.1	ND	ND
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	<0.1	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	<0.1	ND	ND
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	<0.1	ND	ND
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	<0.1	ND	ND
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	<0.1	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>

Parameter	CAS No.	Unit	MDL	Limit	Result(s)
					009
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	<0.1	ND
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	<0.1	ND
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	<0.1	ND
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	<0.1	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	<0.1	ND
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	<0.1	ND
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	<0.1	ND
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	<0.1	ND
<b>Conclusion</b>					<b>Pass</b>

**11. Canadian Consumer Products Containing Lead Regulations SOR/2018-83 - Total Lead Content Test**

Test method: Acid digestion or microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample	Unit	MDL	Limit	Result(s)	Conclusion
001+002+003	mg/kg	10.0	90	ND	Pass
004+005+006	mg/kg	10.0	90	ND	Pass
007	mg/kg	10.0	90	39.3	Pass
008	mg/kg	10.0	90	ND	Pass
009	mg/kg	10.0	90	ND	Pass

**12. Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Lead Content Test**

Test method: Acid digestion or microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample	Unit	MDL	Limit	Result(s)	Conclusion
009	mg/kg	10.0	90	ND	Pass

- End of Test Report -