

Test Report No.: 68.431.19.03008.01

Dated: 2019-12-13



**Applicant** : Spector & Co  
**Address** : /  
**Sample Description** : Ballpoint pen  
**Product Type / End Use** : WRITING INSTRUMENT  
**Item No.** : G3156  
**Style No.** : NOBLE  
**Supplier** : USX006  
**Country of Origin** : China  
**Exported to** : Canada & U.S.A.  
**Test Sample Receipt Date, Location** : 2019-11-29, 2019-12-06, Shenzhen  
**Test Period, Location** : From 2019-11-29 to 2019-12-12, Shenzhen  
**Test Result(s)** : Refer to Section 3

**Purpose Of Examination / Conclusion:**

No.	Test Item(s)	Conclusion
1.	US California Proposition 65 - Total Cadmium Content Test - Substrate Materials	Pass*
2.	US California Proposition 65 - Total Cadmium Content Test - Paint and Similar Surface-Coating Materials	Pass*
3.	US California Proposition 65 - Total Lead Content Test - Substrate Materials	Pass*
4.	US California Proposition 65 - Total Lead Content Test - Paint and Similar Surface-Coating Materials	Pass*
5.	Canadian Consumer Products Containing Lead Regulations SOR/2018-83 - Total Lead Content Test	Pass
6.	Canadian Surface Coating Materials Regulations SOR/2016-193 – Total Lead Content Test	Pass
7.	Phthalates Content (11P)	Pass*

**Laboratory:**  
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No.	Test Item(s)	Conclusion
8.	US California Proposition 65 - Phthalates Content (6P)	Pass*
9.	U.S. CFR Title 16 Part 1307 - Toys and Childcare Articles - Phthalates Content (8P)	Pass
10.	Tungsten Content Test	Report as is
11.	Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Mercury Content Test	Pass

Remarks:

- (1) The results relate only to the items tested.
- (2) Samples are tested as received.
- (3) "\*" denotes the conclusion was drawn according to the client's specification.
- (4) The test item and samples were specified by the client
- (5) "Pass" means the measured result is within a limit, even when extended by expanded uncertainty. "Fail" means the measured result is beyond a limit, even when extended by expanded uncertainty. "Inconclusive" means the measured result can be within or beyond a limit when extended by expanded uncertainty. The confidence level of the expanded uncertainty for "pass", "Fail" and "Inconclusive" is 95%.

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

Prepared by:

Reviewed by:



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1. Description of the Test Sample:

Sample Description	Ballpoint pen
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2. List of Materials as identified by the Laboratory:

T. No.	Sample No.	Colour and Description	Photograph
T1	001	Black plastic (End of pen)	
T2	002	Grey coating on metal (Body of pen)	
T3	003	Black soft plastic (Body of pen)	
T4	004	Black plastic ((Inner barrel of pen)	
T5	005	Grey plastic (Core inner pen)	
T6	006	Silvery metal plating (Top & end of pen)	
T7	007	Silvery metal (Spring inner pen)	
T8	008	Silvery metal (Tip of core)	
T9	009	Silvery metal (Ball of tip)	
T10	010	Black ink (Pen ink)	
T11	011	Blue coating on metal (Body of pen)	
T12	012	White coating on metal (Body of pen)	
T13	013	Black coating on metal (Body of pen)	
T14	014	Silvery metal (Clip of pen)	



**3. Test Result**

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

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

Test item	Results [mg/kg]			Client's Specification [mg/kg]
	Sample 001+004+005	Sample 003	Sample 006	
Cadmium	N.D.	N.D.	N.D.	<75
<b>Conclusion</b>	Pass	Pass	Pass	-

Test item	Results [mg/kg]			Client's Specification [mg/kg]
	Sample 007	Sample 008	Sample 009	
Cadmium	N.D.	N.D.	N.D.	<75
<b>Conclusion</b>	Pass	Pass	Pass	-

Test item	Results [mg/kg]	Client's Specification [mg/kg]
	Sample 014	
Cadmium	N.D.	<75
<b>Conclusion</b>	Pass	-

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- "N.D." denotes Not Detected with Detection Limit 10.0mg/kg



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

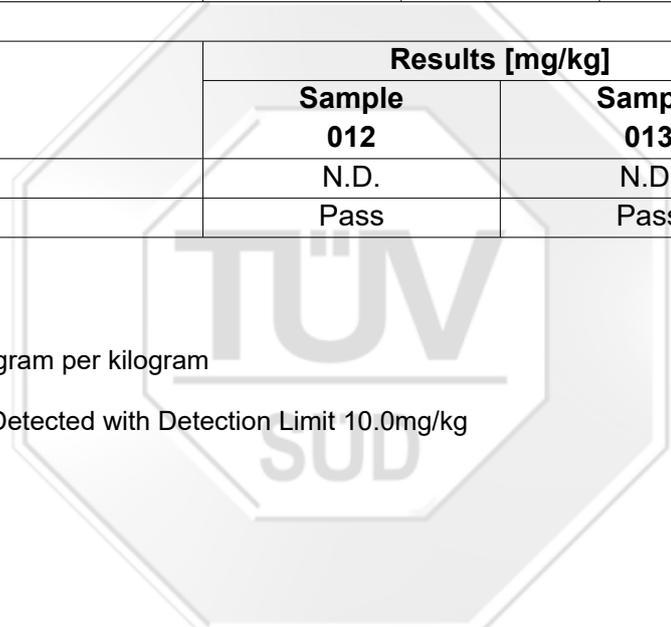
Test method: Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Test Item	Results [mg/kg]			Client's Specification [mg/kg]
	Sample 002	Sample 010	Sample 011	
Cadmium	N.D.	N.D.	N.D.	<75
<b>Conclusion</b>	Pass	Pass	Pass	-

Test Item	Results [mg/kg]		Client's Specification [mg/kg]
	Sample 012	Sample 013	
Cadmium	N.D.	N.D.	<75
<b>Conclusion</b>	Pass	Pass	-

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- "N.D." denotes Not Detected with Detection Limit 10.0mg/kg





**3.3 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]

Test Item	Results [mg/kg]			Client's Specification [mg/kg]
	Sample 001+004+005	Sample 003	Sample 006	
Lead	N.D.	N.D.	N.D.	<100
<b>Conclusion</b>	Pass	Pass	Pass	-

Test Item	Results [mg/kg]			Client's Specification [mg/kg]
	Sample 007	Sample 008	Sample 009	
Lead	N.D.	51.3	N.D.	<100
<b>Conclusion</b>	Pass	Pass	Pass	-

Test Item	Results [mg/kg]	Client's Specification [mg/kg]
	Sample 014	
Lead	N.D.	<100
<b>Conclusion</b>	Pass	-

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- "N.D." denotes Not Detected with Detection Limit 10.0mg/kg



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

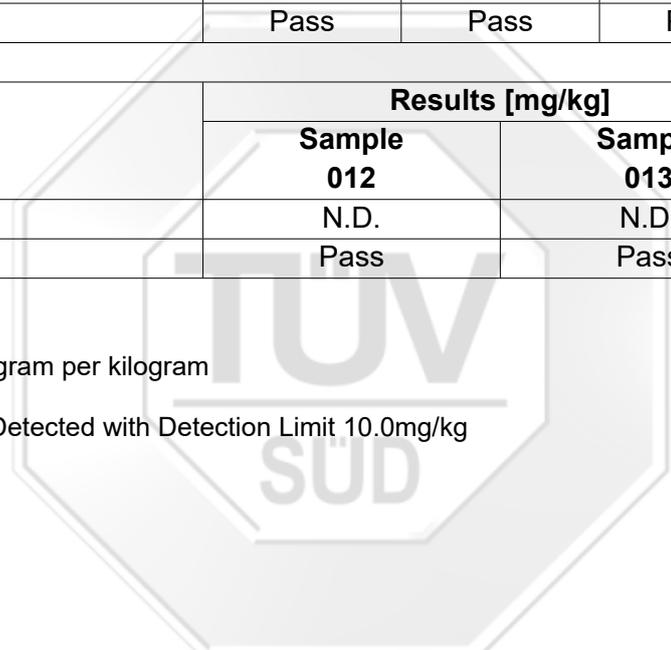
Test method: Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Test Item	Results [mg/kg]			Client's Specification [mg/kg]
	Sample 002	Sample 010	Sample 011	
Lead	N.D.	N.D.	N.D.	<90
<b>Conclusion</b>	Pass	Pass	Pass	-

Test Item	Results [mg/kg]		Client's Specification [mg/kg]
	Sample 012	Sample 013	
Lead	N.D.	N.D.	<90
<b>Conclusion</b>	Pass	Pass	-

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- "N.D." denotes Not Detected with Detection Limit 10.0mg/kg



### 3.5 Total Lead Content Test

Consumer Products Containing Lead Regulations SOR/2018-83

Acid digestion / Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

[Reporting Limit: 10.0mg/kg]

Analyte	Result [mg/kg]		
	Sample 001+004+005	Sample 002	Sample 003
Lead	N.D.	N.D.	N.D.
Limit	<90		
Conclusion	Pass	Pass	Pass

Analyte	Result [mg/kg]		
	Sample 006	Sample 007	Sample 008
Lead	N.D.	N.D.	51.3
Limit	<90		
Conclusion	Pass	Pass	Pass

Analyte	Result [mg/kg]		
	Sample 009	Sample 010	Sample 011
Lead	N.D.	N.D.	N.D.
Limit	<90		
Conclusion	Pass	Pass	Pass

Analyte	Result [mg/kg]		
	Sample 012	Sample 013	Sample 014
Lead	N.D.	N.D.	N.D.
Limit	<90		
Conclusion	Pass	Pass	Pass

Note 1. "mg/kg" denotes milligram per kilogram

2. "<" denotes less than

3. "N.D." denotes Not Detected with Detection Limit 10.0mg/kg



**3.6 Total Lead Content Test**

Surface Coating Materials Regulations SOR/2016-193

Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

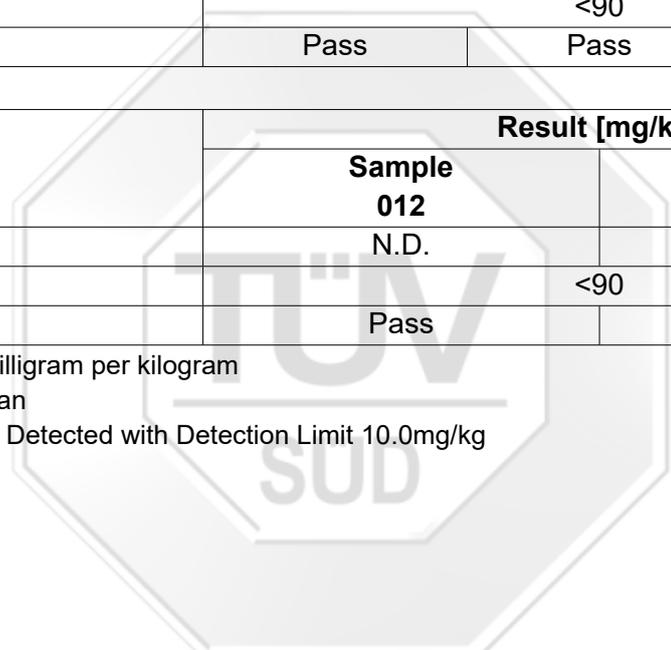
Analyte	Result [mg/kg]		
	Sample 002	Sample 010	Sample 011
Lead	N.D.	N.D.	N.D.
Limit	<90		
Conclusion	Pass	Pass	Pass

Analyte	Result [mg/kg]	
	Sample 012	Sample 013
Lead	N.D.	N.D.
Limit	<90	
Conclusion	Pass	Pass

Note 1. "mg/kg" denotes milligram per kilogram

2. "<" denotes less than

3. "N.D." denotes Not Detected with Detection Limit 10.0mg/kg



### 3.7 Phthalates Content (11P)

Test method: In-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 0.005%]

Test Items	CAS No.	Results [%]			Client's Specification [%]
		Sample 001+004+005	Sample 002+011	Sample 003	
Di-(2-ethylhexyl)-phthalat (DEHP)	117-81-7	N.D.	N.D.	N.D.	<0.1
Dibutylbenzylphthalat (DBP)	84-74-2	N.D.	N.D.	N.D.	<0.1
Diethyl phthalate (DEP)	84-66-2	N.D.	N.D.	N.D.	<0.1
Butylbenzylphthalat (BBP)	85-68-7	N.D.	N.D.	N.D.	<0.1
Di-iso-butylphthalat (DIBP)	84-69-5	N.D.	N.D.	N.D.	<0.1
Di-isononyl phthalate (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
Di-isodecylphthalat (DIDP)	26761-40-0 , 68515-49-1	N.D.	N.D.	N.D.	<0.1
Di-n-octylphthalat (DNOP)	117-84-0	N.D.	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DnHP)	84-75-3	N.D.	N.D.	N.D.	<0.1
Dicyclohexyl phthalate (DCHP)	84-61-7	N.D.	N.D.	N.D.	<0.1
Di-n-pentylphthalat (DNPP)	131-18-0	N.D.	N.D.	N.D.	<0.1
<b>Conclusion</b>		Pass	Pass	Pass	-

Note 1. “%” denotes percentage by weight

2. “<” denotes less than

3. “N.D.” denotes Not Detected with Detection Limit 0.005%

### 3.7 Phthalates Content (11P)

Test method: In-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 0.005%]

Test Items	CAS No.	Results [%]		Client's Specification [%]
		Sample 010	Sample 012+013	
Di-(2-ethylhexyl)-phthalat (DEHP)	117-81-7	N.D.	N.D.	<0.1
Dibutylbenzylphthalat (DBP)	84-74-2	N.D.	N.D.	<0.1
Diethyl phthalate (DEP)	84-66-2	N.D.	N.D.	<0.1
Butylbenzylphthalat (BBP)	85-68-7	N.D.	N.D.	<0.1
Di-iso-butylphthalat (DIBP)	84-69-5	N.D.	N.D.	<0.1
Di-isononyl phthalate (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	<0.1
Di-isodecylphthalat (DIDP)	26761-40-0 , 68515-49-1	N.D.	N.D.	<0.1
Di-n-octylphthalat (DNOP)	117-84-0	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DnHP)	84-75-3	N.D.	N.D.	<0.1
Dicyclohexyl phthalate (DCHP)	84-61-7	N.D.	N.D.	<0.1
Di-n-pentylphthalat (DNPP)	131-18-0	N.D.	N.D.	<0.1
<b>Conclusion</b>		Pass	Pass	-

Note 1. "%" denotes percentage by weight

2. "<" denotes less than

3. "N.D." denotes Not Detected with Detection Limit 0.005%

**3.8 US California Proposition 65 - Phthalates Content (6P)**

Test method: In-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 0.005%]

Test Items	CAS No.	Results [%]			Client's Specification [%]
		Sample 001+004+005	Sample 002+011	Sample 003	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	N.D.	<0.1
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	N.D.	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DNHP)	84-75-3	N.D.	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
<b>Conclusion</b>		Pass	Pass	Pass	-

Test Items	CAS No.	Results [%]		Client's Specification [%]
		Sample 010	Sample 012+013	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	<0.1
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DNHP)	84-75-3	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	<0.1
<b>Conclusion</b>		Pass	Pass	-

- Note 1. “%” denotes percentage by weight  
 2. “<” denotes less than  
 3. “N.D.” denotes Not Detected with Detection Limit 0.005%

**3.9 U.S. CFR Title 16 Part 1307 - Toys and Childcare Articles - Phthalates Content (8P)**  
 CPSC-CH-C1001-09.4 – Standard Operating Procedure for Determination of Phthalates  
 [Reporting Limit = 0.005%]

Phthalates	CAS No.	Results [%]			Limit [%]
		Sample 001+004+005	Sample 002+011	Sample 003	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	N.D.	<0.1
Diisobutylphthalate, (DIBP)	84-69-5	N.D.	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DHEXP)	84-75-3	N.D.	N.D.	N.D.	<0.1
Dicyclohexyl phthalate (DCHP)	84-61-7	N.D.	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
Di-n-pentyl phthalates (DPENP)	131-18-0	N.D.	N.D.	N.D.	<0.1
<b>Conclusion</b>		Pass	Pass	Pass	-

- Note 1. “%” denotes percentage by weight  
 2. “<” denotes less than  
 3. “N.D.” denotes Not Detected with Detection Limit 0.005%

**3.9 U.S. CFR Title 16 Part 1307 - Toys and Childcare Articles - Phthalates Content (8P)**  
 CPSC-CH-C1001-09.4 – Standard Operating Procedure for Determination of Phthalates  
 [Reporting Limit = 0.005%]

Phthalates	CAS No.	Results [%]		Limit [%]
		Sample 010	Sample 012+013	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	<0.1
Diisobutylphthalate, (DIBP)	84-69-5	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DHEXP)	84-75-3	N.D.	N.D.	<0.1
Dicyclohexyl phthalate (DCHP)	84-61-7	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	<0.1
Di-n-pentyl phthalates (DPENP)	131-18-0	N.D.	N.D.	<0.1
<b>Conclusion</b>		Pass	Pass	-

- Note 1. “%” denotes percentage by weight  
 2. “<” denotes less than  
 3. “N.D.” denotes Not Detected with Detection Limit 0.005%

### 3.10 Tungsten Content Test

Test method: EPA 3050B:1996, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Test Item	Results [mg/kg]	Client's Specification [mg/kg]
	Sample 014	
Tungsten	N.D.	-
<b>Conclusion</b>	Report as is	-

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- "N.D." denotes Not Detected with Detection Limit 10.0mg/kg

### 3.11 Total Mercury Content Test

Surface Coating Materials Regulations SOR/2016-193  
Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10mg/kg]

Test Item	Results [mg/kg]			Limit [mg/kg]
	Sample 002	Sample 010	Sample 011	
Mercury	N.D.	N.D.	N.D.	<10
<b>Conclusion</b>	Pass	Pass	Pass	-

Test Item	Results [mg/kg]		Limit [mg/kg]
	Sample 012	Sample 013	
Mercury	N.D.	N.D.	<10
<b>Conclusion</b>	Pass	Pass	-

- Note 1. "mg/kg" denotes milligram per kilogram  
 2. "<" denotes less than  
 3. "N.D." denotes Not Detected with Detection Limit 10.0mg/kg

-- END OF TEST REPORT--