

**Test Report No.: 68.431.20.01526.01**

**Dated: 2020-03-23**



**Applicant** : Spector & Co

**Address** : /

**Sample Description** : Ink Cartridge

**Product Type / End Use** : Writing instrument

**Item No.** : G1249

**Style No.** : S1003 Sure write

**Supplier** : USS049

**Country of Origin** : China

**Exported to** : Canada & U.S.A.

**Test Sample Receipt Date, Location** : 2020-03-11, Shenzhen

**Test Period, Location** : From 2020-03-12 to 2020-03-20, 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*
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
12.	Nickel Content Test	Report As Is

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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  
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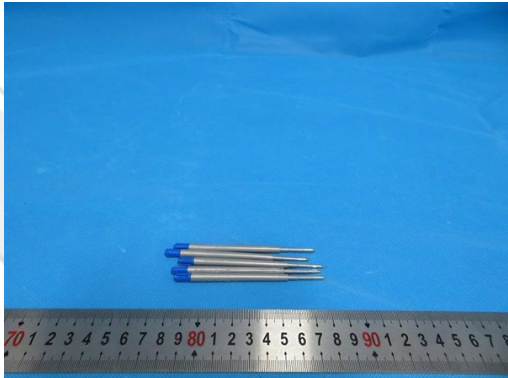


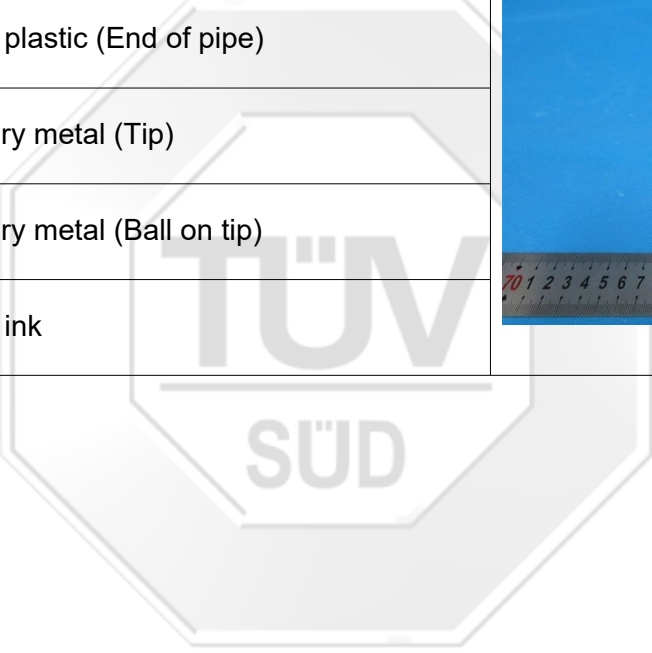
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1. Description of the Test Sample:

<b>Sample Description</b>	Ink Cartridge
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2. List of Materials as identified by the Laboratory:

T. No.	Sample No.	Colour and Description	Photograph
T1	001	Grey plastic (Pipe)	
T2	002	Blue plastic (End of pipe)	
T3	003	Silvery metal (Tip)	
T4	004	Silvery metal (Ball on tip)	
T5	005	Blue ink	



**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+002	Sample 003	Sample 004	
Cadmium	N.D.	N.D.	N.D.	<75
<b>Conclusion</b>	Pass	Pass	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 005	
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



**3.3 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+002	Sample 003	Sample 004	
Lead	N.D.	65.3	N.D.	<100
<b>Conclusion</b>	Pass	Pass	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 005	
Lead	N.D.	<90
<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

**3.5 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+002	Sample 003	Sample 004
Lead	N.D.	65.3	N.D.
Limit	<90		
Conclusion	Pass	Pass	Pass

Analyte	Result [mg/kg]
	Sample 005
Lead	N.D.
Limit	<90
Conclusion	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 005
Lead	N.D.
Limit	<90
Conclusion	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+002	Sample 005	
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+002	Sample 005	
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+002	Sample 005	
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 003	
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: 10.0mg/kg]

Test Item	Results [mg/kg]	Limit [mg/kg]
	Sample 005	
Mercury	N.D.	<10
<b>Conclusion</b>	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



**3.12 Nickel Content Test**

Test method: Acid digestion and analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 15.0mg/kg]

Test Item	Results [mg/kg]		Client's Specification [mg/kg]
	Sample 003	Sample 004	
Nickel	180	80000	-
<b>Conclusion</b>	Report As Is	Report As Is	-

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- "N.D." denotes Not Detected with Detection Limit 15.0mg/kg

