

Test Report No.: 68.431.19.03044.01

Dated: 2019-08-05



Applicant : Spector & Co

Address : /

Sample Description : BALLPOINT PEN

Product Type / End Use : WRITING INSTRUMENT

Item No. : G1201

Style No. : MILO

Supplier : USY007

Country of Origin : China

Exported to : Canada & U.S.A.

Test Sample Receipt Date, Location : 2019-06-11, 2019-07-30, Shenzhen

Test Period, Location : From 2019-06-11 to 2019-08-05, 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 | Pass* |
| 8. | US California Proposition 65 - Phthalates Content | Pass* |
| 9. | U.S. CFR Title 16 Part 1307 - Phthalates Content | Pass |
| 10. | Tungsten Content Test | Report as is |

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:



<Cara Xiang>
<Senior Project Coordinator>

<Ken Chen>
<Project Manager>

Test Report No.: 68.431.19.03044.01

Dated: 2019-08-05



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.



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


Phone : +86 755 8828 6998
Fax: +86 755 8828 5299
E-mail: toys_hardline@tuv-sud.hk
Web : <http://www.tuv-sud.cn>

Regd. Office:
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park,
Nantou Checkpoint Road 2, 518052, P. R. China

1. Description of the Test Sample:

| | |
|--------------------|---------------|
| Sample Description | BALLPOINT PEN |
|--------------------|---------------|

2. List of Materials as identified by the Laboratory:

| T. No. | Sample No. | Colour and Description | Photograph |
|--------|------------|---|---|
| T1 | 001 | Green coating (Pen body) |  |
| T2 | 002 | Silvery metal plating (Top, body & end) | |
| T3 | 003 | Green plastic (Pen body) (Coated) | |
| T4 | 004 | Silvery metal (Clip) | |
| T5 | 005 | Silvery metal (Spring) | |
| T6 | 006 | White plastic (Tube) | |
| T7 | 007 | Silvery metal (Tip) | |
| T8 | 008 | Silvery metal (Ball on tip) | |
| T9 | 009 | Blue ink | |
| T10 | 010 | Blue coating (Pen body) | |
| T11 | 011 | Orange coating (Pen body) | |
| T12 | 012 | Red coating (Pen body) | |



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 002 | Sample 003+006 | Sample 004 | |
| Cadmium | N.D. | N.D. | N.D. | <75 |
| Conclusion | Pass | Pass | Pass | - |

| Test item | Results [mg/kg] | | | Client's Specification [mg/kg] |
|-------------------|-----------------|------------|------------|--------------------------------|
| | Sample 005 | Sample 007 | Sample 008 | |
| Cadmium | N.D. | N.D. | N.D. | <75 |
| Conclusion | 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 001+010+011 | Sample 009 | Sample 012 | |
| Cadmium | N.D. | N.D. | N.D. | <75 |
| Conclusion | Pass | Pass | Pass | - |

Note:

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

3.3 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 002 | Sample 003+006 | Sample 004 | |
| Lead | 14.2 | N.D. | N.D. | <100 |
| Conclusion | Pass | Pass | Pass | - |

| Test Item | Results [mg/kg] | | | Client's Specification [mg/kg] |
|-------------------|-----------------|------------|------------|--------------------------------|
| | Sample 005 | Sample 007 | Sample 008 | |
| Lead | N.D. | 13.4 | 30.5 | <100 |
| Conclusion | 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 001+010+011 | Sample 009 | Sample 012 | |
| Lead | N.D. | N.D. | 20.8 | <90 |
| Conclusion | Pass | Pass | Pass | - |

Note:

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

3.5 Total Lead

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+010+011 | Sample 002 | Sample 003+006 |
| Lead | N.D. | 14.2 | N.D. |
| Limit | <90 | | |
| Conclusion | Pass | Pass | Pass |

| Analyte | Result [mg/kg] | | |
|------------|----------------|---------------|---------------|
| | Sample 004 | Sample 005 | Sample 007 |
| Lead | N.D. | N.D. | 13.4 |
| Limit | <90 | | |
| Conclusion | Pass | Pass | Pass |

| Analyte | Result [mg/kg] | | |
|------------|----------------|---------------|---------------|
| | Sample 008 | Sample 009 | Sample 012 |
| Lead | 30.5 | N.D. | 20.8 |
| 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

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 001+010+011 | Sample 009 | Sample 012 |
| Lead | N.D. | N.D. | 20.8 |
| 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

3.7 Phthalates Content

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+010 +011 | Sample 003+006 | Sample 009 | |
| 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 |
| Conclusion | | 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

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 012 | |
| Di-(2-ethylhexyl)-phthalat (DEHP) | 117-81-7 | N.D. | <0.1 |
| Dibutylbenzylphthalat (DBP) | 84-74-2 | N.D. | <0.1 |
| Diethyl phthalate (DEP) | 84-66-2 | N.D. | <0.1 |
| Butylbenzylphthalat (BBP) | 85-68-7 | N.D. | <0.1 |
| Di-iso-butylphthalat (DIBP) | 84-69-5 | N.D. | <0.1 |
| Di-isononyl phthalate (DINP) | 28553-12-0 , 68515-48-0 | N.D. | <0.1 |
| Di-isodecylphthalat (DIDP) | 26761-40-0 , 68515-49-1 | N.D. | <0.1 |
| Di-n-octylphthalat (DNOP) | 117-84-0 | N.D. | <0.1 |
| Di-n-hexyl phthalate (DnHP) | 84-75-3 | N.D. | <0.1 |
| Dicyclohexyl phthalate (DCHP) | 84-61-7 | N.D. | <0.1 |
| Di-n-pentylphthalat (DNPP) | 131-18-0 | N.D. | <0.1 |
| Conclusion | | 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

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+010 +011 | Sample 003+006 | Sample 009 | |
| 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 |
| Conclusion | | Pass | Pass | Pass | - |

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

CPSC-CH-C1001-09.4 – Standard Operating Procedure for Determination of Phthalates
 [Reporting Limit = 0.005%]

| Phthalates | CAS No. | Results [%] | | | Limit [%] |
|--------------------------------------|----------------------------|---------------------|----------------|------------|-----------|
| | | Sample 001+010 +011 | Sample 003+006 | Sample 009 | |
| 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 |
| Conclusion | | 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 - Phthalates Content

CPSC-CH-C1001-09.4 – Standard Operating Procedure for Determination of Phthalates
 [Reporting Limit = 0.005%]

| Phthalates | CAS No. | Results [%] | Limit [%] |
|--------------------------------------|----------------------------|-------------|-----------|
| | | Sample 012 | |
| Dibutyl phthalate, (DBP) | 84-74-2 | N.D. | <0.1 |
| Benzyl butyl phthalate, (BBP) | 85-68-7 | N.D. | <0.1 |
| Bis (2-ethylhexyl) phthalate, (DEHP) | 117-81-7 | N.D. | <0.1 |
| Diisobutylphthalate, (DIBP) | 84-69-5 | N.D. | <0.1 |
| Di-n-hexyl phthalate (DHEXP) | 84-75-3 | N.D. | <0.1 |
| Dicyclohexyl phthalate (DCHP) | 84-61-7 | N.D. | <0.1 |
| Di-isononyl phthalate, (DINP) | 28553-12-0 , 68515-48-0 | N.D. | <0.1 |
| Di-n-pentyl phthalates (DPENP) | 131-18-0 | N.D. | <0.1 |
| Conclusion | | 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 004 | |
| Tungsten | N.D. | - |
| Conclusion | Report as is | - |

Note:

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

