





**BUREAU  
VERITAS**

# SPECTOR & CO LTD TEST REPORT

TO : N/A  
5700 KIERAN ROAD MONTREAL QC H4S 2B5/CANADA

ATTN: CHRIS PEARSON  
CC:

LAB NO.: (8517)177-0148  
FORM NO.: F0395090.958035115854  
DATE IN: JUN 27, 2017  
MODIFIED DATE IN: AUG 07, 2017  
DATE OUT: AUG 15, 2017  
NO. OF WORKING DAYS: 7  
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## OVERALL RATING

PASS \_\_\_\_\_ X  
FAIL \_\_\_\_\_  
DATA \_\_\_\_\_

Sample Description:	OPHELIA PEN		
Style No.:	I145 RED, GREEN, BLUE, BLACK, ORANGE	No. of Cartons:	/
Item No.:	/	No. of Samples:	25 PCS
Country of Origin:	CHINA	Country of Destination:	USA/ CANADA
Lot No.:	/	P.O. No.:	/
Previous Report No.:	/		



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TEST PROPERTY	PASS	FAIL	DATA	COMMENTS
Labeling				/
Physical Characteristics				/
Construction Qualities				/
Performance	X			
Colorfastness				/
Flammability				/
Analytical				

**COMMENT(S):**

1. The submitted sample(s) demonstrated **SATISFACTORY** level of total lead content in surface coating as the test results complied with the requirements. The test results are stated as below: **(PASS)**

**TOTAL LEAD CONTENT IN SURFACE COATING**

- Consumer Product Safety Improvement Act (CPSIA) of 2008 "Ban of Lead-containing paint and certain consumer products bearing Lead-containing paint",  
 Canadian Hazardous Products Act (CHPA), R.S., c. H-3, Schedule I, Part 1, Item 2  
 Client's total lead in surface coating

NO COMPOSITE  COMPOSITE

Element:				Lead			
Requirement: Maximum allowable limit:							
<input type="checkbox"/> CHPA limit:				<input type="checkbox"/> 600 mg/kg <input type="checkbox"/> 90 mg/kg			
<input checked="" type="checkbox"/> Client's limit:				<input checked="" type="checkbox"/> 90 mg/kg			
<input type="checkbox"/> CPSIA limit :				<input type="checkbox"/> 90 mg/kg			
Sample Description				Result	Conclusion		
	Color / Component	Location	Style	(mg/kg)	<input type="checkbox"/> CPSIA (90ppm)	<input type="checkbox"/> CHPA (600ppm) <input type="checkbox"/> CHPA (90ppm)	<input checked="" type="checkbox"/> Client's Limit <u>90PPM</u>
1.	Silvery coating	Pen	A-E	<10	<input type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>	<input type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>	<input checked="" type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>

LT = Less Than

mg/kg = milligrams per kilogram (ppm = parts per million)

\* = Average of duplicate analyses

Remark: \_\_\_\_\_

In some cases, the tested component cannot be tested individually due to overlapped coatings.

2. The submitted sample(s) demonstrated **SATISFACTORY** level of total cadmium content in surface coating as the test results complied with the requirements. The test results are stated as below: **(PASS)**



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**Total Cadmium Content In Coating As Client Requirement**

Tested Item	Result	Limit
1	<0.0010% (<10ppm)	0.0075% (75ppm)

**Tested Item 1:**

Silvery coating (pen) (A-E)

Note: “<” = less than  
mg/kg = milligram per kilogram

Method: Sample was digested with acid reference to EPA3051 and then analyzed by Atomic Absorption Spectrophotometer or Inductively Coupled Argon Plasma Spectrometer.

3. The submitted sample(s) demonstrated **SATISFACTORY** level of total lead content in substrate as the test results complied with the requirements. The test results are stated as below: (**PASS**)

**TOTAL LEAD CONTENT IN SUBSTRATE (Consumer Product Safety Improvement Act (CPSIA) of 2008)**

**Client's total lead in substrate**

Sample Description				Result	Conclusion	
	Color / Component	Location	Style	(mg/kg)	<input checked="" type="checkbox"/> (100ppm)	<input type="checkbox"/> Client's Limit _____
1	Translucent plastic	Lid	A-E	<10	<input checked="" type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>	<input type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>
	Black plastic	Button	A-E			
	White plastic	Core	A-E			
2	Off white plastic	Tube	A-E	<10	<input checked="" type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>	<input type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>
	Pale white plastic	Tube	A-E			
	Dark blue plastic	Pen	A			
3	Dull white plastic	Pen	B	<10	<input checked="" type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>	<input type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>
	Dark orange plastic	Pen	C			
4	Dark green plastic	Pen	D	<10	<input checked="" type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>	<input type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>
	Dark red plastic	Pen	E			
5	Black soft plastic	Tip of pen	A-E	<10	<input checked="" type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>	<input type="checkbox"/> <b>PASS</b> <input type="checkbox"/> <b>FAIL</b>
	Blue soft plastic	Handle	A			
	Matt black soft plastic	Handle	B			



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6	Orange soft plastic	Handle	C	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Green soft plastic	Handle	D			
	Red soft plastic	Handle	E			
7	Silvery plated white plastic	Tip of pen, cone	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
8	Bright silvery plated metal	Clip	A-E	24	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
9	Silvery metal	Spring	A-E	60	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
10	Bright silvery metal	Tip of core	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
11	Black ink	Ink	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL

LT = Less Than

mg/kg = milligrams per kilogram (ppm = parts per million)

\* = Average of duplicate analyses

4. The submitted sample(s) demonstrated **SATISFACTORY** level of total cadmium content in substrate as the test results complied with the requirements. The test results are stated as below: **(PASS)**

**Total Cadmium Content in substrate As Client's Requirement**

Sample Description				Result	Conclusion
	Color / Component	Location	Style	(mg/kg)	Limit 75 ppm
1	Translucent plastic	Lid	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Black plastic	Button	A-E		
	White plastic	Core	A-E		
2	Off white plastic	Tube	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Pale white plastic	Tube	A-E		
	Dark blue plastic	Pen	A		
3	Dull white plastic	Pen	B	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Dark orange plastic	Pen	C		
4	Dark green plastic	Pen	D	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Dark red plastic	Pen	E		
5	Black soft plastic	Tip of pen	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Blue soft plastic	Handle	A		
	Matt black soft plastic	Handle	B		
6	Orange soft plastic	Handle	C	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Green soft plastic	Handle	D		
	Red soft plastic	Handle	E		



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7	Silvery plated white plastic	Tip of pen, cone	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
8	Bright silvery plated metal	Clip	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
9	Silvery metal	Spring	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
10	Bright silvery metal	Tip of core	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
11	Black ink	Ink	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

Note: " < " = less than  
mg/kg = milligram per kilogram

Method: Sample was digested with acid reference to EPA3051 and then analyzed by Atomic Absorption Spectrophotometer or Inductively Coupled Argon Plasma Spectrometer.

5. The submitted sample(s) MEET the phthalate content. The test results are stated as below: **(PASS)**

Phthalates Content –As Client's Requirement for 8P Content

Parameter	CAS no.	Unit	Result				Maximum Allowable Limit
			1	2	3	4	
Dibutyl phthalate (DBP)	84-74-2	%	<0.005	<0.005	<0.005	<0.005	0.1
Butyl benzyl phthalate (BBP)	85-68-7	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-n-octyl phthalate (DNOP)	117-84-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-iso-nonyl phthalate (DINP)	28553-12-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-iso-decyl phthalate (DIDP)	26761-40-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-n-hexyl (DnHP)	84-75-3	%	<0.005	<0.005	<0.005	<0.005	0.1
Diethyl phthalate (DEP)	84-66-2	%	<0.005	<0.005	<0.005	<0.005	0.1
<i>Conclusion</i>	-	-	PASS	PASS	PASS	PASS	-

Parameter	CAS no.	Unit	Result				Maximum Allowable Limit
			5	6	7	8	
Dibutyl phthalate (DBP)	84-74-2	%	<0.005	<0.005	<0.005	<0.005	0.1
Butyl benzyl phthalate (BBP)	85-68-7	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	%	<0.005	<0.005	<0.005	<0.005	0.1



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Di-n-octyl phthalate (DNOP)	117-84-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-iso-nonyl phthalate (DINP)	28553-12-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-iso-decyl phthalate (DIDP)	26761-40-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-n-hexyl (DnHP)	84-75-3	%	<0.005	<0.005	<0.005	<0.005	0.1
Diethyl phthalate (DEP)	84-66-2	%	<0.005	<0.005	<0.005	<0.005	0.1
<i>Conclusion</i>	-	-	PASS	PASS	PASS	PASS	-

Test Item 1:	Silvery coating (pen) (A~E)
Test Item 2:	Translucent plastic (lid) (A~E)/ black plastic (button) (A~E)/ white plastic (core) (A~E)
Test Item 3:	Off white plastic (tube) (A~E)/ pale white plastic (tube) (A~E)/ dark blue plastic (pen) (A)
Test Item 4:	Dull white plastic (pen) (B)/ dark orange plastic (pen) (C)
Test Item 5:	Dark green plastic (pen) (D)/ dark red plastic (pen) (E)
Test Item 6:	Black soft plastic (tip of pen) (A~E)/ blue soft plastic (handle) (A)/ matt black soft plastic (handle) (B)
Test Item 7:	Orange soft plastic (handle) (C)/ green soft plastic (handle) (D)/ red soft plastic (handle) (E)
Test Item 8:	Black ink (ink) (A~E)

Note: “<” = less than

Method: Sample was extracted with organic solvent and then analyzed by Liquid Chromatograph Mass Spectrometer / Gas Chromatograph Mass Spectrometer.

**REMARK:**

- As per client's request, only the following tests were conducted:
  - Total lead content in surface coating test
  - Total lead content in substrate test
  - Total cadmium content in surface coating test
  - Total cadmium content in substrate test
  - Phthalate content
  - Performance test under protocol CPSD 05011(US+CN)
- See enclosed protocol(s) for the test results.



NOTE: If there are questions or concerns regarding above report, please contact the appropriate lab persons.

Technical questions & concerns: Alex Lam / Henry Hu  
(+86)755-86135515 / 32980214  
Alex-jw.lam@cn.bureauveritas.com  
Henry.hu@cn.bureauveritas.com

General Enquiries: Coco Li / Eve Lu  
(+86)755-86135548 / 32980215  
Viva.chen@cn.bureauveritas.com  
Eve.lu@cn.bureauveritas.com

BUREAU VERITAS SHENZHEN CO., LTD

BRIAN TAM  
MANAGER – HARDLINES DIVISION





BV Lab Number: (8517)177-0148  
 Technician Name: PETER  
 Test Date: AUG 15, 2017  
 Reviewed By/Date: PETER/AUG 15, 2017  
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**BUREAU VERITAS TEST PROTOCOL FOR**

**CPSD - 05011 - CN  
 BALLPOINT PEN (V16)**

Evaluation	Citation / Method	No. of Samples	Criteria	Results	Rating
<b>SUPPLEMENTAL PROTOCOLS</b>					
* Upholstered and stuffed articles label	Applicable section from CPSD-GB-PTCL-01990-CN	1	All applicable samples shall be reviewed against the requirements of the applicable Provincial Regulation (Ontario, Quebec or Manitoba) for Upholstered and Stuffed Articles labelling. This also applies to items with Filling Materials that include solid cores with non-textile outer coverings including finishes such as lacquers, acrylics and sugar beaded finishes.	NR	/
* Packaging and labeling requirements	CPSD-HL-PTCL-09067-CN-MX-US	-	The sample shall meet applicable packaging and labeling requirements in the supplemental protocol.	NR	/
<b>LABELING</b>					
Use or safety or warning or cautionary - labeling - instructions	CPSD-HL-01057-MTHD / Visual	1	Use/care instructions that are clear and understandable shall be provided in language appropriate to destination countries, if applicable.	NR	/
** ACMI Approval Seal	CPSD-HL-01057-MTHD / Visual	1	Record if the art & creative materials institute, inc. Seal is on label.	NR	/



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 Technician Name: PETER  
 Test Date: AUG 15, 2017  
 Reviewed By/Date: PETER/AUG 15, 2017  
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**CPSD - 05011 - CN  
 BALLPOINT PEN (V16)**

Evaluation	Citation / Method	No. of Samples	Criteria	Results	Rating
Claim verification - level 2	CPSD-GB-08612-MTHD	All	<p>Examine the retail packaging (or submitted artwork).</p> <p>Record each objective (factual) claim which can be substantiated by the testing within the protocols and rate accordingly.</p> <p>Record testing that extend beyond existing net quantity / dimensional testing on this protocol.</p> <p>Record all other objective (factual) and subjective (opinion) claims as "NT" and rate as "DATA".</p> <p>Record information evaluated between the graphic imagery and the product.</p> <p>Record disclaimers on datasheet.</p>	NR	/
<b>HAZARDS</b>					
Sharp point and sharp edge	SOR/2011-17 (Mod)	All	<p>Shall have no sharp points / edges, other than those required for function.</p> <p>Modification: Expanded scope to other products.</p>	NR	/
<b>PHYSICAL CHARACTERISTICS</b>					
Dimensions - overall - length - with cap	CPSD-HL-01056-MTHD / Standard measure	-	Report overall length; shall meet label claims (If applicable).	NR	/
Dimensions - overall - length - without cap	CPSD-HL-01056-MTHD / Standard measure	1	Report overall length; shall meet label claims (If applicable).	NR	/
Dimensions - diameter	CPSD-HL-01056-MTHD / Standard measure	1	Report overall diameter / width; shall meet label claims (if applicable).	NR	/
Weight	CPSD-HL-01056-MTHD / Standard measure	1	Report overall weight; shall meet label claims (if applicable).	NR	/



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**CPSD - 05011 - CN  
 BALLPOINT PEN (V16)**

Evaluation	Citation / Method	No. of Samples	Criteria	Results	Rating
Barrel shape	Visual / CPSD-HL-01057-MTHD	1	Per production specifications	NR	/
Count - actual	CPSD-HL-01056-MTHD / Standard measure	1	Shall meet label claims	NR	/
Starting characteristics	CPSD-HL-01058-MTHD / Actual Use	1	Shall start out cleanly with no blotching.	NR	/
<b>WORKMANSHIP</b>					
Defects	CPSD-HL-01057-MTHD/ Visual	-	Shall have no discernible surface degradation, including crazing, shivering, denting, bubbles, cracks, stains, deformations, chips, fractures, heavy lines, waves, shear marks, scratches, scuff marks, indentations, or blisters.	NR	/
Workmanship	CPSD-HL-01057-MTHD / Visual	All	Shall have no components missing, malformed, and/or fractured.	NR	/
Finish quality	CPSD-HL-01057-MTHD/Visual	All	No major defects	NR	/
<b>PERFORMANCE</b>					
Actual use - functionality	CPSD-HL-01058-MTHD / Actual use	1	Shall function as intended as received. Report details of evaluation (Materials used / Features tested/ Consumables/ Method / etc.)	M	PASS
Dry out time - upright	CPSD-HL-01058-MTHD / Actual use	1	Shall not dry out after 10 minutes upright uncapped and exposed to room humidity and temperature.	M	PASS
Transfer resistance	CPSD-HL-01058-MTHD / Actual use	1	Shall not transfer excessively to paper after 30 s @ 5 lb/in2.	M	PASS
Line continuity	CPSD-HL-01058-MTHD / Actual use	1	Pen shall write smooth without discontinuity.	M	PASS
Color Intensity	CPSD-HL-01058-MTHD / Actual use	1	Suitable for use / as claimed	M	PASS
Water resistance	CPSD-HL-01058-MTHD / Actual use	1	Shall not disperse in water contact.	M	PASS



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**CPSD - 05011 - CN  
 BALLPOINT PEN (V16)**

Evaluation	Citation / Method	No. of Samples	Criteria	Results	Rating
Tip Durability	CPSD-HL-01058-MTHD / Actual use	1	Shall withstand 500 back and forth strokes of approximately 6 in long	M	PASS
Humidity exposure	CPSD-HL-01007-MTHD	1	Shall have no visual changes, functionality failure, structural failure and /or permanent deformation after 4 hours @ 95% R.H. and 100 deg. F	M	PASS
Effects of extreme temperature change	CPSD-HL-01012-MTHD	1	Shall have no visual changes, functionality failure, structural failure and /or permanent deformation after 4 hours @ 0 deg. F and 120 deg. F.	M	PASS
Pen Cap Top Fit	CPSD-HL-01058-MTHD / Actual use	1	Secure, suitable for use	NA	/
Pen Cap Bottom Fit	CPSD-HL-01058-MTHD / Actual use	1	Secure, suitable for use	NA	/
* Specification for safety caps	BS 7272-1: 2008 Clause 3.1 Modified	1	Caps shall conform to at least one of the following: 3.2 Cap Size or 3.3 Ventilated Caps Air flow  Modification = expand scope to other region	NA	/
Cap size	BS 7272-1: 2008 Clause 3.2 Modified	1	When a cap is introduced with its main axis perpendicular to a ring gauge, and part of the cap enters the gauge, at least 5 mm of the length of the cap shall not enter under its own weight. Note: If the cap is unable to enter the ring gauge or at least 5 mm of the length of the cap does not enter proceed to specification for end closures.  Modification = expand scope to other region	NA	/
Ventilated caps air flow	BS 7272-1: 2008 Clause 3.3 Modified	1	Caps shall permit a minimum air flow of 8 l/min, measured at room temperature, with a maximum pressure drop of 1.33 kPa  Modification = expand scope to other region	NA	/
* Writing and marking instrumen - End closures - physical and mechanical	BS 7272-2:2008+A1:2014 modified	1	Shall meet physical and mechanical requirements as specified in standard.  Modification = expand scope to other region.	NA	/



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**CPSD - 05011 - CN  
 BALLPOINT PEN (V16)**

Evaluation	Citation / Method	No. of Samples	Criteria	Results	Rating
* Writing performance - write-out test - by request only	ISO 12757-1: 2016 Sec. 4.3.1	10	[Ball point pen and refill] Writing angle: 70°-80° Writing speed: 4.5 m/min (±0.5 m/min) Point load: 1.5 N  A continuous line generated by the write test machine under the specified conditions shall start within 20 cm and continue for at least 300 m without obvious starving or fluctuation of line intensity.	NR	/
Resistance to corrosion	ASTM B117-16 modified / CPSD-HL-01010-MTHD	--	[Applicable to samples / sample components constructed of metal or samples with metallic coatings that can be exposed to the environment]  Shall withstand 24 hours in 1% salt spray (fog) with no noticeable oxidation / corrosion / visual changes.  Modification = 1% salt spray (fog).	M	PASS
<b>COLORFASTNESS</b>					
Colorfastness to light	AATCC 16.3	1	Minimum AATCC Class 3 after 20 hours fade-o-meter exposure.	NR	/
* Colorfastness to crocking	AATCC 8-16	-	[One color included]  Dry: Grade 4.0 Minimum Wet: Grade 3.0 Minimum	NR	/
* Colorfastness to rotary crocking	AATCC 116-10	-	[One color included]  Dry: Grade 4.0 Minimum Wet: Grade 3.0 Minimum	NR	/



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Key:

\* Additional Charge For This Test  
\*\* Mandatory Requirement  
# By Request Only

Result Key:

C Claimed  
R Recorded  
M Meets  
NM Does Not Meet  
NA Not Applicable  
NT Not Tested

Rating Key:

PASS Pass  
FAIL Fail  
NR Not Requested

No. Of Samples Required for Complete Testing	15
No. Of (Fully Packed) Cartons For Transit Testing:	2
No. Of Working Days For Complete Testing:	7

Client Approval: /  
Creation Date: MAY 04, 2011  
Last Revision Date: JUNE 29, 2017  
Pricing Review Date:  
Technical Review Date:



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**BUREAU VERITAS TEST PROTOCOL FOR**  
**CPSD-05011-US**  
**BALLPOINT PEN (V31)**

<b>Evaluation</b>	<b>Citation/Method</b>	<b>No. Samples</b>	<b>Criteria</b>	<b>Results</b>	<b>Rating</b>
<b>SUPPLEMENTAL PROTOCOLS</b>					
*.** California Proposition 65	CPSD-AN-PTCL-06572-USA	All	The sample should be reviewed against the requirements of California Proposition 65 to determine if additional testing or labeling is required.  For samples that fall under the scope of CA Prop 65 requirements with testing limit(s) but does not contain appropriate labeling (refer to image appendix for detail), actual testing will be conducted. Otherwise, actual testing is not required and report as "Pass" if the sample contains appropriate labeling.	NR	/
*Non-CPSIA Requirements	CPSD-GB-PTCL-08443-US		All samples shall be reviewed against the requirements of Non-CPSIA Requirements supplemental protocol to determine if additional testing or labeling is required.	NR	/
*Packaging and labeling requirements	CPSD-HL-PTCL-09067-CN-MX-US	-	The sample shall meet applicable packaging and labeling requirements in the supplemental protocol.	NR	/
Note: Additional cost, sample size & TAT may be required if testing to 1 or more supplemental protocols is necessary. Please refer to the above referenced supplemental protocol(s) for additional information.					
<b>LABELING</b>					
Use or safety or warning or cautionary - labeling - instructions	CPSD-GB-01057-MTHD	1	Use/care instructions that are clear and understandable shall be provided in language appropriate to destination countries.	NR	/
LHAMA evaluation in art materials - Labeling	16 CFR 1500.14(b)(8)/ASTM D4236-94 (R2016)	-	Shall conform to the labeling requirements as defined by 16 CFR 1500.14 (LHAMA) / ASTM D4236. Warnings are not allowed on products intended for children under 12 years of age.	NR	/
** ACMI approval seal	CPSD-GB-01057-MTHD	1	Record if the Art & Creative Materials Institute, Inc. seal is on label.	NR	/



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**CPSD-05011-US  
 BALLPOINT PEN (V31)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Claim verification - level 2	CPSD-GB-08612-MTHD	All	<p>Examine the retail packaging (or submitted artwork).</p> <p>Record each objective (factual) claim which can be substantiated by the testing within the protocols and rate accordingly.</p> <p>Record testing that extend beyond existing net quantity / dimensional testing on this protocol.</p> <p>Record all other objective (factual) and subjective (opinion) claims as "NT" and rate as "DATA".</p> <p>Record information evaluated between the graphic imagery and the product.</p> <p>Record disclaimers on datasheet.</p>	NR	/
<b>ANALYTICAL</b>					
*LHAMA evaluation in art materials - Doc	16 CFR 1500.14 (b) (8) / ASTM D4236-94 (R2016)/ CPSD-GB-00001-MTHD		<p>Art material product formulation(s) shall be evaluated for the potential for producing chronic adverse health effect(s).</p> <p>The evaluation shall be done by a toxicologist, who is certified by a nationally recognized certification board.</p> <p>In lieu of testing, test report or ACMI certificate can be submitted if dated within five years.</p> <p>Note: Validity of documentation would also base on the result of labeling section, thus if chronic health effect(s) is/are present, refer to labeling section for details.</p>	NR	/





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**CPSD-05011-US  
 BALLPOINT PEN (V31)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
*Toxicological risk assessment - document review	16 CFR 1500.3(b)(5) and 1500.3(b)(7)-(9) / CPSD-GB-00001-MTHD	-	Product shall be evaluated for the potential to be a toxic, a skin irritant, eye irritant, corrosive or strong sensitizer. If toxicological hazard(s) is/are present, the product shall be labeled appropriately (refer to labeling section for details).  Toxicity Risk Assessment shall be conducted for the following components: - All liquids, pastes, putties, gels and powders regardless of claim - Other materials bearing a "NON-TOXIC" claim on samples and/or its packaging  In lieu of testing, test report can be submitted if dated within five years.	NR	/
<b>FLAMMABILITY</b>					
Flammability of solids	16 CFR 1500.3 (c) (6) (vi) / 16 CFR 1500.44	1	Shall not exceed the maximum allowable limit of no greater than 0.1 inches per second	NR	/
<b>PHYSICAL CHARACTERISTICS</b>					
Dimensions - overall - length - with cap	CPSD-GB-01056-MTHD	1	Report overall length; shall meet label claims (-0% / +5%) (if applicable).	NR	/
Dimensions - overall - length - without cap	CPSD-GB-01056-MTHD	1	Report overall length; shall meet label claims (-0% / +5%) (if applicable).	NR	/
Dimensions - overall - diameter or width	CPSD-GB-01056-MTHD	1	Report overall diameter / width; shall meet label claims (-0% / +5%) (if applicable).	NR	/
Weight - pen	CPSD-GB-01056-MTHD	1	Report overall weight; shall meet label claims (-0% / +5%) (if applicable).	NR	/
Barrel shape	CPSD-GB-01057-MTHD	1	Per production specifications	NR	/
Count - actual	CPSD-GB-01057-MTHD	All	Shall meet label claims.	NR	/
<b>CONSTRUCTION &amp; WORKMANSHIP</b>					
Sharp points and sharp edges	16 CFR 1500.48 / 1500.49 modified	All	Shall have no sharp points/edges, other than those required for function. Modification=expanded scope to other products	NR	/



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 Technician Name: PETER  
 Test Date: AUG 15, 2017  
 Reviewed By/Date: PETER/AUG 15, 2017  
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**CPSD-05011-US  
 BALLPOINT PEN (V31)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Defects	CPSD-GB-01057-MTHD	All	Shall have no discernible surface degradation, including crazing, shivering, denting, bubbles, cracks, stains, deformations, chips, fractures, heavy lines, waves, shear marks, scratches, scuff marks, indentations, or blisters.	NR	/
Workmanship	CPSD-GB-01057-MTHD	All	Shall have no components missing, malformed, and/or fractured.	NR	/
Finish quality	CPSD-GB-01057-MTHD	All	No major defects	NR	/
<b>PERFORMANCE</b>					
Actual use - functionality - not covered by other tests	CPSD-GB-01058-MTHD	All	Shall function as intended as received. Report details of evaluation (materials used / features tested / consumables / method / etc.)	M	PASS
Starting characteristics	CPSD-GB-01058-MTHD	1	Shall start out cleanly with no blotching.	M	PASS
Dry out time - upright	CPSD-GB-01058-MTHD	1	Shall not dry out after 10 minutes upright uncapped and exposed to room humidity and temperature.	M	PASS
Transfer resistance	CPSD-GB-01058-MTHD	1	Shall not transfer excessively to paper after 30 s @ 5 lb/in <sup>2</sup> .	M	PASS
Color intensity	CPSD-GB-01058-MTHD	1	Suitable for use / as claimed	M	PASS
Line continuity	CPSD-GB-01058-MTHD	1	Pen shall write smooth without discontinuity.	M	PASS
Water resistance	CPSD-GB-01058-MTHD	1	Shall not disperse in water contact.	M	PASS
Fading resistance	AATCC 16.3	1	Minimum AATCC Class 3 after 20 hours fade-o-meter exposure.	NA	/
Packing	ASTM F963-16, Annex A2.1 modified	1	No hazards when opened Modification: expanded the scope to other products	NA	/
Shipping	ASTM F963-16, Annex A2.2 modified	1	No damage Modification: expanded the scope to other products	NA	/
Tension test for removal of components - clip attachment	ASTM F963-16 section 8.9 modified	1	Modification: Shall withstand 10 lb tension for 10 seconds	M	PASS
Torque tests for removal of components - clip attachment	ASTM F963-16 section 8.8 modified	1	Modification: Shall withstand 3 in•lb torque for 10 seconds	M	PASS
Tip durability	CPSD-GB-01058-MTHD	1	Shall withstand 500 back and forth strokes of approximately 6 in long	M	PASS



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 BALLPOINT PEN (V31)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Humidity exposure	CPSD-HL-01007-MTHD	1	Shall have no visual changes, functionality failure, structural failure and /or permanent deformation after 4 hours @ 95% R.H. and 100 deg. F	M	PASS
Effects of extreme temperature change	CPSD-HL-01012-MTHD	1	Shall have no visual changes, functionality failure, structural failure and /or permanent deformation after 4 hours @ 0 deg. F and 120 deg. F.	M	PASS
Resistance to corrosion	ASTM B117-16 modified / CPSD-HL-01010-MTHD	1	[Applicable to samples / sample components constructed of metal or samples with metallic coatings that can be exposed to the environment]  Shall withstand 24 hours in 1% salt spray (fog) with no noticeable oxidation / corrosion changes.  Modification = 1% salt spray (fog).	M	PASS
Pen cap top fit	CPSD-GB-01058-MTHD	1	Secure, suitable for use	NA	/
Pen cap bottom fit	CPSD-GB-01058-MTHD	1	Secure, suitable for use	NA	/
*Specification for safety caps - only applicable for products designed or clearly intended for use by children up to 14 years of age	BS 7272-1: 2008	1	Caps shall conform to at least one of the following: clause 3.2 Cap size or clause 3.3 Ventilated cap air flow	NA	/
Cap size	BS 7272-1: 2008 clause 3.2	1	When a cap is introduced with its main axis perpendicular to a 16 mm diameter ring gauge of at least 19 mm thickness, and part of the cap enters the gauge, at least 5 mm of the length shall not enter under its own weight.	NA	/
Ventilated caps air flow	BS 7272-1: 2008 clause 3.3	1	Caps shall permit a minimum air flow of 8 L/min, measured at room temperature, with a maximum pressure drop of 1.33 kPa.	NA	/



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Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
*Writing and marking instrumen - End closures - physical and mechanical	BS 7272-2:2008+A1:2014 modified	1	Shall meet physical and mechanical requirements as specified in standard.  Modification = expand scope to other region.	NA	/
*Writing performance - write-out test – by request only	ISO 12757-1: 2016 Sec. 4.3.1	10	[Ball point pen and refill] Writing angle: 70°-80° Writing speed: 4.5 m/min (±0.5 m/min) Point load: 1.5 N  A continuous line generated by the write test machine under the specified conditions shall start within 20 cm and continue for at least 300 m without obvious starving or fluctuation of line intensity.	NR	/
<b>COLORFASTNESS (Exposed Housing &amp; Logo Screening)</b>					
*Colorfastness to crocking	AATCC 8-16 / AATCC 116-10	1	[One color included]  Dry: Grade 4.0 Minimum Wet: Grade 3.0 Minimum	NR	/



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Key:

\* Additional Charge For This Test  
\*\* Mandatory Requirement  
# By Request Only

Result Key:

C Claimed  
R Recorded  
M Meets  
NM Does Not Meet  
NA Not Applicable  
NT Not Tested

Rating Key:

PASS Pass  
FAIL Fail  
NR Not Requested

No. Of Samples Required For Complete Testing:	15
No. Of (Fully Packed) Cartons For Transit Testing:	2
No. Of Working Days For Complete Testing:	7

Creation Date: JANUARY 15, 1997  
Editorial Revision Date: JUNE 29, 2017  
Pricing Review Date: JULY 9, 2007  
Technical Review Date:

<b>TEST RESULT:</b>	<b>PASS</b>
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**Total Cadmium Content In Coating As Client Requirement**

Tested Item	Result	Limit
1	<0.0010% (<10ppm)	0.0075% (75ppm)

Tested Item 1: Silvery coating (pen) (A-E)

Note: “<” = less than  
mg/kg = milligram per kilogram

Method: Sample was digested with acid reference to EPA3051 and then analyzed by Atomic Absorption Spectrophotometer or Inductively Coupled Argon Plasma Spectrometer.

**TOTAL LEAD CONTENT IN SURFACE COATING**

- Consumer Product Safety Improvement Act (CPSIA) of 2008 "Ban of Lead-containing paint and certain consumer products bearing Lead-containing paint",**
- Canadian Hazardous Products Act (CHPA), R.S., c. H-3, Schedule I, Part 1, Item 2**
- Client's total lead in surface coating**

NO COMPOSITE  COMPOSITE

Element:			Lead			
Requirement: Maximum allowable limit:						
<input type="checkbox"/> CHPA limit:			<input type="checkbox"/> 600 mg/kg <input type="checkbox"/> 90 mg/kg			
<input checked="" type="checkbox"/> Client's limit:			<input checked="" type="checkbox"/> 90 mg/kg			
<input type="checkbox"/> CPSIA limit :			<input type="checkbox"/> 90 mg/kg			
Sample Description			Result	Conclusion		
Color / Component	Location	Style	(mg/kg)	<input type="checkbox"/> CPSIA (90ppm)	<input type="checkbox"/> CHPA (600ppm) <input type="checkbox"/> CHPA (90ppm)	<input checked="" type="checkbox"/> Client's Limit <u>90PPM</u>
1. Silvery coating	Pen	A-E	<10	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

*LT = Less Than* *mg/kg = milligrams per kilogram (ppm = parts per million)*  
*\* = Average of duplicate analyses*

Remark: \_\_\_\_\_

In some cases, the tested component cannot be tested individually due to overlapped coatings.

CPSIA Third Party Report ( COULD/  COULDN'T/ NO COMMENT) be issued.

**TOTAL LEAD CONTENT IN SUBSTRATE (Consumer Product Safety Improvement Act (CPSIA) of 2008)**

**Client's total lead in substrate**

Sample Description				Result	Conclusion	
	Color / Component	Location	Style	(mg/kg)	<input checked="" type="checkbox"/> (100ppm)	<input type="checkbox"/> Client's Limit _____
1	Translucent plastic	Lid	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Black plastic	Button	A-E			
	White plastic	Core	A-E			
2	Off white plastic	Tube	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Pale white plastic	Tube	A-E			
	Dark blue plastic	Pen	A			
3	Dull white plastic	Pen	B	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Dark orange plastic	Pen	C			
4	Dark green plastic	Pen	D	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Dark red plastic	Pen	E			
5	Black soft plastic	Tip of pen	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Blue soft plastic	Handle	A			
	Matt black soft plastic	Handle	B			
6	Orange soft plastic	Handle	C	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Green soft plastic	Handle	D			
	Red soft plastic	Handle	E			
7	Silvery plated white plastic	Tip of pen, cone	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
8	Bright silvery plated metal	Clip	A-E	24	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
9	Silvery metal	Spring	A-E	60	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
10	Bright silvery metal	Tip of core	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL
11	Black ink	Ink	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL

LT = Less Than

\* = Average of duplicate analyses

mg/kg = milligrams per kilogram (ppm = parts per million)



**Phthalates Content –As Client’s Requirement for 8P Content**

Parameter	CAS no.	Unit	Result				Maximum Allowable Limit
			1	2	3	4	
Dibutyl phthalate (DBP)	84-74-2	%	<0.005	<0.005	<0.005	<0.005	0.1
Butyl benzyl phthalate (BBP)	85-68-7	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-n-octyl phthalate (DNOP)	117-84-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-iso-nonyl phthalate (DINP)	28553-12-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-iso-decyl phthalate (DIDP)	26761-40-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-n-hexyl (DnHP)	84-75-3	%	<0.005	<0.005	<0.005	<0.005	0.1
Diethyl phthalate (DEP)	84-66-2	%	<0.005	<0.005	<0.005	<0.005	0.1
Conclusion	-	-	PASS	PASS	PASS	PASS	-

Parameter	CAS no.	Unit	Result				Maximum Allowable Limit
			5	6	7	8	
Dibutyl phthalate (DBP)	84-74-2	%	<0.005	<0.005	<0.005	<0.005	0.1
Butyl benzyl phthalate (BBP)	85-68-7	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-n-octyl phthalate (DNOP)	117-84-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-iso-nonyl phthalate (DINP)	28553-12-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-iso-decyl phthalate (DIDP)	26761-40-0	%	<0.005	<0.005	<0.005	<0.005	0.1
Di-n-hexyl (DnHP)	84-75-3	%	<0.005	<0.005	<0.005	<0.005	0.1
Diethyl phthalate (DEP)	84-66-2	%	<0.005	<0.005	<0.005	<0.005	0.1
Conclusion	-	-	PASS	PASS	PASS	PASS	-

Test Item 1:	Silvery coating (pen) (A~E)
Test Item 2:	Translucent plastic (lid) (A~E)/ black plastic (button) (A~E)/ white plastic (core) (A~E)
Test Item 3:	Off white plastic (tube) (A~E)/ pale white plastic (tube) (A~E)/ dark blue plastic (pen) (A)
Test Item 4:	Dull white plastic (pen) (B)/ dark orange plastic (pen) (C)
Test Item 5:	Dark green plastic (pen) (D)/ dark red plastic (pen) (E)
Test Item 6:	Black soft plastic (tip of pen) (A~E)/ blue soft plastic (handle) (A)/ matt black soft plastic (handle) (B)
Test Item 7:	Orange soft plastic (handle) (C)/ green soft plastic (handle) (D)/ red soft plastic (handle) (E)
Test Item 8:	Black ink (ink) (A~E)

Note: “<” = less than

Method: Sample was extracted with organic solvent and then analyzed by Liquid Chromatograph Mass Spectrometer / Gas Chromatograph Mass Spectrometer.

END

**Total Cadmium Content in substrate As Client's Requirement**

Sample Description				Result	Conclusion
	Color / Component	Location	Style	(mg/kg)	Limit 75 ppm
1	Translucent plastic	Lid	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Black plastic	Button	A-E		
	White plastic	Core	A-E		
2	Off white plastic	Tube	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Pale white plastic	Tube	A-E		
	Dark blue plastic	Pen	A		
3	Dull white plastic	Pen	B	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Dark orange plastic	Pen	C		
4	Dark green plastic	Pen	D	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Dark red plastic	Pen	E		
5	Black soft plastic	Tip of pen	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Blue soft plastic	Handle	A		
	Matt black soft plastic	Handle	B		
6	Orange soft plastic	Handle	C	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
	Green soft plastic	Handle	D		
	Red soft plastic	Handle	E		
7	Silvery plated white plastic	Tip of pen, cone	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
8	Bright silvery plated metal	Clip	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
9	Silvery metal	Spring	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
10	Bright silvery metal	Tip of core	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
11	Black ink	Ink	A-E	<10	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

Note: “<” = less than  
mg/kg = milligram per kilogram

Method: Sample was digested with acid reference to EPA3051 and then analyzed by Atomic Absorption Spectrophotometer or Inductively Coupled Argon Plasma Spectrometer.