QIMA
YOUR EYES IN THE SUPPLY CHAIN

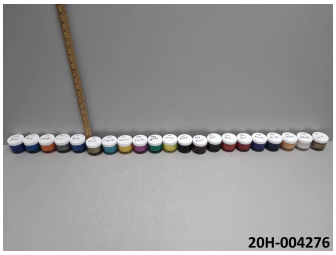
AT-1500

TEST REPORT

Test Report #	20H-004276	Date of Report Issue:	July 9, 2020
Date of Sample Received:	June 30, 2020	Pages:	Page 1 of 36

CLIENT INFORMATION:

Company:	Inkcups Now
Recipient:	Joseph Shairs
Recipient Email:	joes@inkcups.com



SAMPLE INFORMATION:

Description:	MB Series with 1000H Hardener		
Assortment:	-	Purchase Order Number:	-
SKU/style No.:	-	Toy Co./Agency:	-
Factory/Supplier/Vendor:	-	Country of Origin:	United States
Country of Distribution:	-	Labeled Age Grade:	-
Quantity Submitted:	1 lot	Recommended Age Grade:	-
Testing Period:	06/30/2020 – 07/06/2020 07/07/2020 – 07/09/2020	Tested Age Grade:	-

OVERALL RESULT: **PASS**

Refer to page 2 for test result summary and appropriate notes.

QIMA Testing (HK) Limited

Loska Yeung Lok Ka
Assistant Manager, Chemical Laboratory

TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	CPSIA Section 106 & ASTM F963-17 Toy Safety, Clause 4.3.5 Total Elements Screening in Paint and Similar Surface Coatings
PASS	CPSIA Section 106 & ASTM F963-17 Toy Safety, Clause 4.3.5 Soluble Elements in Paints and Similar Surface Coatings
PASS	ASTM F2923-20 Consumer Product Safety for Children's Jewelry, Clause 8 Total Elements Screening in Paint and Surface Coatings
PASS	ASTM F2923-20 Consumer Product Safety for Children's Jewelry, Clause 8 Soluble Elements in Paint and Surface Coatings
PASS	ASTM F2923-20 Consumer Product Safety for Children's Jewelry, Clause 5 Total Lead in Paint and Surface Coatings
PASS	ASTM F2999-19 Adult Jewelry, Clause 5 & 7 Total Elements Screening in Paint and Surface Coatings
PASS	ASTM F2999-19 Adult Jewelry, Clause 7 Soluble Elements in Paint and Surface Coatings
PASS	ASTM F2999-19 Adult Jewelry, Clause 5 Total Lead in Paints & Surface Coatings
PASS	CPSIA Section 101 & 16 CFR 1303, Total Lead in Paints and Surface Coatings
PASS	Washington Revised Code Section 70.240.020, Cadmium in Paints and Surface Coatings of Children's Product[#]
PASS	The Illinois Lead Poisoning Prevention Act (LPPA) (410 ILCS 45/6), Total Lead in Paints and Surface Coatings of Children's Jewelry and Childcare Articles
PASS	Connecticut Public Act 10-113 (Substituted House Bill 5314), Total Cadmium Content in Children's Jewelry
PASS	Maryland Chapter 578 (House Bill 145), Total Cadmium in Children's Jewelry
PASS	Minnesota Chapter 347-S.F. No. 2510, Total Cadmium Screening in Children's Jewelry
PASS	California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)
PASS	16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)
PASS	Washington Revised Code Section 70.240.020, Phthalates in Children's Product
PASS	Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Total Elements Screening in Paints and Surface Coatings
PASS	Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Leachable Elements in Paints and Surface Coatings
PASS	Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Total Lead and Mercury in Paints and Surface Coatings

PASS	Canadian Surface Coating Materials Regulations SOR/2016-193, Total Lead and Mercury in Paints and Surface Coatings
PASS	Mexican Environmental Health NOM-252-SSA1-2011, Total Elements Screening from Toys and School Supplies
PASS	Mexican Environmental Health NOM-252-SSA1-2011, Soluble Elements from Toys and School Supplies

DETAILED RESULTS:

CPSIA Section 106 & ASTM F963-17 Toy Safety, Clause 4.3.5 Total Elements Screening in Paint and Similar Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	4+5+6	7+8+9	10+11+12	13+14+15	16+17+18	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	ND	ND	**60**
Total Arsenic (As)	ND	ND	ND	ND	ND	**25**
Total Barium (Ba)	ND	44	ND	ND	ND	**1000**
Total Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Total Chromium (Cr)	ND	ND	ND	ND	ND	**60**
Total Lead (Pb)	ND	ND	ND	ND	ND	**90**
Total Mercury (Hg)	ND	ND	ND	ND	ND	**60**
Total Selenium (Se)	ND	ND	ND	ND	ND	**500**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Sb, As, Ba, Cd, Cr, Pb, Hg = 20ppm; Se = 50ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
The total heavy metals screening results of Specimen No. 1, 2 and 3 exceeded the soluble heavy metal limits, therefore separate soluble analyses were conducted.

DETAILED RESULTS:

CPSIA Section 106 & ASTM F963-17 Toy Safety, Clause 4.3.5 Total Elements Screening in Paint and Similar Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	19+20+21	---	---	---	---	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	---	---	---	---	**60**
Total Arsenic (As)	ND	---	---	---	---	**25**
Total Barium (Ba)	100	---	---	---	---	**1000**
Total Cadmium (Cd)	ND	---	---	---	---	**75**
Total Chromium (Cr)	ND	---	---	---	---	**60**
Total Lead (Pb)	ND	---	---	---	---	**90**
Total Mercury (Hg)	ND	---	---	---	---	**60**
Total Selenium (Se)	ND	---	---	---	---	**500**
Conclusion	PASS	---	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Sb, As, Ba, Cd, Cr, Pb, Hg = 20ppm; Se = 50ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
The total heavy metals screening results do not exceed the soluble heavy metal limits, therefore, further soluble analyses were not conducted.

DETAILED RESULTS:

CPSIA Section 106 & ASTM F963-17 Toy Safety, Clause 4.3.5 Soluble Elements in Paints and Similar Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.2
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1	2	3	---	---	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Soluble Antimony (Sb)	ND	ND	ND	---	---	**60**
Soluble Arsenic (As)	ND	ND	ND	---	---	**25**
Soluble Barium (Ba)	ND	ND	3	---	---	**1000**
Soluble Cadmium (Cd)	ND	ND	ND	---	---	**75**
Soluble Chromium (Cr)	ND	ND	ND	---	---	**60**
Soluble Lead (Pb)	ND	ND	ND	---	---	**90**
Soluble Mercury (Hg)	ND	ND	ND	---	---	**60**
Soluble Selenium (Se)	ND	ND	ND	---	---	**500**
Conclusion	PASS	PASS	PASS	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 2 ppm)

DETAILED RESULTS:

ASTM F2923-20 Consumer Product Safety for Children's Jewelry, Clause 8 Total Elements Screening in Paint and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	4+5+6	7+8+9	10+11+12	13+14+15	16+17+18	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	ND	ND	**60**
Total Arsenic (As)	ND	ND	ND	ND	ND	**25**
Total Barium (Ba)	ND	44	ND	ND	ND	**1000**
Total Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Total Chromium (Cr)	ND	ND	ND	ND	ND	**60**
Total Mercury (Hg)	ND	ND	ND	ND	ND	**60**
Total Selenium (Se)	ND	ND	ND	ND	ND	**500**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Sb, As, Ba, Cd, Cr, Hg = 20 ppm; Se = 50 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
The total heavy metals screening results of Specimen No. 1, 2 and 3 exceeded the soluble heavy metal limits, therefore separate soluble analyses were conducted.

DETAILED RESULTS:

ASTM F2923-20 Consumer Product Safety for Children's Jewelry, Clause 8 Total Elements Screening in Paint and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	19+20+21	---	---	---	---	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Antimony (Sb)	ND	---	---	---	---	**60**
Total Arsenic (As)	ND	---	---	---	---	**25**
Total Barium (Ba)	100	---	---	---	---	**1000**
Total Cadmium (Cd)	ND	---	---	---	---	**75**
Total Chromium (Cr)	ND	---	---	---	---	**60**
Total Mercury (Hg)	ND	---	---	---	---	**60**
Total Selenium (Se)	ND	---	---	---	---	**500**
Conclusion	PASS	---	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Sb, As, Ba, Cd, Cr, Hg = 20 ppm; Se = 50 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
The total heavy metals screening results do not exceed the soluble heavy metal limits, therefore, further soluble analyses were not conducted.

DETAILED RESULTS:

ASTM F2923-20 Consumer Product Safety for Children's Jewelry, Clause 8 Soluble Elements in Paint and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.2
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1	2	3	---	---	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Soluble Antimony (Sb)	ND	ND	ND	---	---	**60**
Soluble Arsenic (As)	ND	ND	ND	---	---	**25**
Soluble Barium (Ba)	ND	ND	3	---	---	**1000**
Soluble Cadmium (Cd)	ND	ND	ND	---	---	**75**
Soluble Chromium (Cr)	ND	ND	ND	---	---	**60**
Soluble Mercury (Hg)	ND	ND	ND	---	---	**60**
Soluble Selenium (Se)	ND	ND	ND	---	---	**500**
Conclusion	PASS	PASS	PASS	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 2 ppm)

DETAILED RESULTS:

ASTM F2923-20 Consumer Product Safety for Children's Jewelry, Clause 5 Total Lead in Paint and Surface Coatings

Test Method: CPSC-CH-E-1003-09.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	10+11+12	13+14+15	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	ND	ND	ND	ND	**90**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	16+17+18	19+20+21	---	---	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	ND	---	---	---	**90**
Conclusion	PASS	PASS	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 20 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

ASTM F2999-19 Adult Jewelry, Clause 5 & 7 Total Elements Screening in Paint and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	4+5+6	7+8+9	10+11+12	13+14+15	16+17+18	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	ND	ND	**60**
Total Arsenic (As)	ND	ND	ND	ND	ND	**25**
Total Barium (Ba)	ND	44	ND	ND	ND	**1000**
Total Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Total Chromium (Cr)	ND	ND	ND	ND	ND	**60**
Total Lead (Pb)	ND	ND	ND	ND	ND	**600***
Total Mercury (Hg)	ND	ND	ND	ND	ND	**60**
Total Selenium (Se)	ND	ND	ND	ND	ND	**500**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Sb, As, Ba, Cd, Cr, Pb, Hg = 20 ppm; Se = 50 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
*Total limit

The total heavy metals screening results of Specimen No. 1, 2 and 3 exceeded the soluble heavy metal limits, therefore separate soluble analyses were conducted.

DETAILED RESULTS:

ASTM F2999-19 Adult Jewelry, Clause 5 & 7 Total Elements Screening in Paint and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	19+20+21	---	---	---	---	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	---	---	---	---	**60**
Total Arsenic (As)	ND	---	---	---	---	**25**
Total Barium (Ba)	100	---	---	---	---	**1000**
Total Cadmium (Cd)	ND	---	---	---	---	**75**
Total Chromium (Cr)	ND	---	---	---	---	**60**
Total Lead (Pb)	ND	---	---	---	---	**600***
Total Mercury (Hg)	ND	---	---	---	---	**60**
Total Selenium (Se)	ND	---	---	---	---	**500**
Conclusion	PASS	---	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Sb, As, Ba, Cd, Cr, Pb, Hg = 20 ppm; Se = 50 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
*Total limit

The total heavy metals screening results do not exceed the soluble heavy metal limits, therefore, further soluble analyses were not conducted.

DETAILED RESULTS:

ASTM F2999-19 Adult Jewelry, Clause 7 Soluble Elements in Paint and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.2
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1	2	3	---	---	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Soluble Antimony (Sb)	ND	ND	ND	---	---	**60**
Soluble Arsenic (As)	ND	ND	ND	---	---	**25**
Soluble Barium (Ba)	ND	ND	3	---	---	**1000**
Soluble Cadmium (Cd)	ND	ND	ND	---	---	**75**
Soluble Chromium (Cr)	ND	ND	ND	---	---	**60**
Soluble Mercury (Hg)	ND	ND	ND	---	---	**60**
Soluble Selenium (Se)	ND	ND	ND	---	---	**500**
Conclusion	PASS	PASS	PASS	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 2 ppm)

DETAILED RESULTS:

ASTM F2999-19 Adult Jewelry, Clause 5 Total Lead in Paints & Surface Coatings

Test Method: CPSC-CH-E-1003-09.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	---	---	---	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	---	---	---	---	**600**
Conclusion	PASS	---	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 20 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

CPSIA Section 101 & 16 CFR 1303, Total Lead in Paints and Surface Coatings

Test Method: CPSC-CH-E-1003-09.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	10+11+12	13+14+15	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	ND	ND	ND	ND	**90**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	16+17+18	19+20+21	---	---	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	ND	---	---	---	**90**
Conclusion	PASS	PASS	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 20 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Washington Revised Code Section 70.240.020, Cadmium in Paints and Surface Coatings of Children's Product

Test Method: CPSC-CH-E-1003-09.1 (Modified)#
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	10+11+12	13+14+15	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Cadmium (Cd)	ND	ND	ND	ND	ND	**40**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	16+17+18	19+20+21	---	---	---	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Cadmium (Cd)	ND	ND	---	---	---	**40**
Conclusion	PASS	PASS	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 20 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

The Illinois Lead Poisoning Prevention Act (LPPA) (410 ILCS 45/6), Total Lead in Paints and Surface Coatings of Children's Jewelry and Childcare Articles

Test Method: CPSC-CH-E-1003-09.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	10+11+12	13+14+15	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Lead (Pb)	ND	ND	ND	ND	ND	**40**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	16+17+18	19+20+21	---	---	---	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Lead (Pb)	ND	ND	---	---	---	**40**
Conclusion	PASS	PASS	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 20 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Connecticut Public Act 10-113 (Substituted House Bill 5314), Total Cadmium Content in Children's Jewelry

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	10+11+12	13+14+15	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	16+17+18	19+20+21	---	---	---	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Cadmium (Cd)	ND	ND	---	---	---	**75**
Conclusion	PASS	PASS	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 20 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Maryland Chapter 578 (House Bill 145), Total Cadmium in Children's Jewelry

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	10+11+12	13+14+15	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	16+17+18	19+20+21	---	---	---	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Cadmium (Cd)	ND	ND	---	---	---	**75**
Conclusion	PASS	PASS	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 20 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Minnesota Chapter 347-S.F. No. 2510, Total Cadmium Screening in Children's Jewelry

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	10+11+12	13+14+15	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	16+17+18	19+20+21	---	---	---	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Cadmium (Cd)	ND	ND	---	---	---	**75**
Conclusion	PASS	PASS	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 20 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
The total cadmium screening results did not exceed the soluble cadmium limit, therefore, further soluble analyses were not conducted.

DETAILED RESULTS:

California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)

Test Method: CPSC-CH-C1001-09.4
Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2+3	4+5+6	7+8+9	10+11+12	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	**Limit (mg/kg)**
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	**1000**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	**1000**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	**1000**
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	**1000**
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	**1000**
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	**1000**
	Conclusion	PASS	PASS	PASS	PASS	

Note:
mg/kg (Milligrams per kilogram) = ppm (Parts per million) = 0.0001 % m/m (Percent by mass)
LT = Less than
ND = Not detected (Reporting Limit = 300 mg/kg)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
The specification is quoted from client's requirement.

DETAILED RESULTS:

California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)

Test Method: CPSC-CH-C1001-09.4
Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		13+14+15	16+17+18	19+20+21	---	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	**Limit (mg/kg)**
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	---	**1000**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	---	**1000**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	---	**1000**
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	---	**1000**
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	---	**1000**
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	---	**1000**
	Conclusion	PASS	PASS	PASS	---	

Note:
mg/kg (Milligrams per kilogram) = ppm (Parts per million) = 0.0001 % m/m (Percent by mass)
LT = Less than
ND = Not detected (Reporting Limit = 300 mg/kg)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
The specification is quoted from client's requirement.

DETAILED RESULTS:

16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)

Test Method: CPSC-CH-C1001-09.4
Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2+3	4+5+6	7+8+9	10+11+12	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	**Limit (mg/kg)**
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	**1000**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	**1000**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	**1000**
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	**1000**
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	**1000**
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	**1000**
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	**1000**
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	ND	ND	**1000**
	Conclusion	PASS	PASS	PASS	PASS	

Note:
mg/kg (Milligrams per kilogram) = ppm (Parts per million) = 0.0001 % m/m (Percent by mass)
LT = Less than
ND = Not detected (Reporting Limit = 300 mg/kg)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)

Test Method: CPSC-CH-C1001-09.4
Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		13+14+15	16+17+18	19+20+21	---	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	**Limit (mg/kg)**
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	---	**1000**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	---	**1000**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	---	**1000**
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	---	**1000**
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	---	**1000**
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	---	**1000**
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	---	**1000**
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	ND	---	**1000**
	Conclusion	PASS	PASS	PASS	---	

Note:
mg/kg (Milligrams per kilogram) = ppm (Parts per million) = 0.0001 % m/m (Percent by mass)
LT = Less than
ND = Not detected (Reporting Limit = 300 mg/kg)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Washington Revised Code Section 70.240.020, Phthalates in Children's Product

Test Method: CPSC-CH-C1001-09.4
Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2+3	4+5+6	7+8+9	10+11+12	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	**Limit (mg/kg)**
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	**1000**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	**1000**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	**1000**
Di-n-octyl phthalate (DnOP)	117-84-0	ND	ND	ND	ND	**1000**
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	**1000**
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	**1000**
	Sum	ND	ND	ND	ND	**1000**
	Conclusion	PASS	PASS	PASS	PASS	

Note:
mg/kg (Milligrams per kilogram) = ppm (Parts per million) = 0.0001 % m/m (Percent by mass)
LT = Less than
ND = Not detected (Reporting Limit = 300 mg/kg)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Washington Revised Code Section 70.240.020, Phthalates in Children's Product

Test Method: CPSC-CH-C1001-09.4
Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		13+14+15	16+17+18	19+20+21	---	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	**Limit (mg/kg)**
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	---	**1000**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	---	**1000**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	---	**1000**
Di-n-octyl phthalate (DnOP)	117-84-0	ND	ND	ND	---	**1000**
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	---	**1000**
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	---	**1000**
	Sum	ND	ND	ND	---	**1000**
	Conclusion	PASS	PASS	PASS	---	

Note:
mg/kg (Milligrams per kilogram) = ppm (Parts per million) = 0.0001 % m/m (Percent by mass)
LT = Less than
ND = Not detected (Reporting Limit = 300 mg/kg)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Total Elements Screening in Paints and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	4+5+6	7+8+9	10+11+12	13+14+15	16+17+18	**Leachable**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	ND	ND	**1000**
Total Arsenic (As)	ND	ND	ND	ND	ND	**1000**
Total Barium (Ba)	ND	ND	ND	ND	ND	**1000**
Total Cadmium (Cd)	ND	ND	ND	ND	ND	**1000**
Total Lead (Pb)	ND	ND	ND	ND	ND	**90***
Total Mercury (Hg)	ND	ND	ND	ND	ND	**10***
Total Selenium (Se)	ND	ND	ND	ND	ND	**1000**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Pb, Hg = 10 ppm; Sb, As, Ba, Cd, Se = 50 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
*Total limit

The results of total elements screening of Specimen No. 1, 2 and 3 exceeded the limits of leachable elements, therefore separate analyses of leachable elements were conducted.

DETAILED RESULTS:

Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Total Elements Screening in Paints and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	19+20+21	---	---	---	---	**Leachable**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	---	---	---	---	**1000**
Total Arsenic (As)	ND	---	---	---	---	**1000**
Total Barium (Ba)	100	---	---	---	---	**1000**
Total Cadmium (Cd)	ND	---	---	---	---	**1000**
Total Lead (Pb)	ND	---	---	---	---	**90***
Total Mercury (Hg)	ND	---	---	---	---	**10***
Total Selenium (Se)	ND	---	---	---	---	**1000**
Conclusion	PASS	---	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Pb, Hg = 10 ppm; Sb, As, Ba, Cd, Se = 50 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:
*Total limit

The results of total elements screening did not exceed the limits of leachable elements, therefore further analysis of leachable elements was not conducted.

DETAILED RESULTS:

Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Leachable Elements in Paints and Surface Coatings

Test Method: Health Canada Method C-03 (Effective 2014-02-20)
Analytical Method: Inductively Coupled Plasma-Mass Spectrometry

Specimen No.	1	2	3	---	---	**Leachable**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Leachable Antimony (Sb)	ND	ND	ND	---	---	**1000**
Leachable Arsenic (As)	ND	ND	ND	---	---	**1000**
Leachable Barium (Ba)	ND	ND	ND	---	---	**1000**
Leachable Cadmium (Cd)	ND	ND	ND	---	---	**1000**
Leachable Selenium (Se)	ND	ND	ND	---	---	**1000**
Conclusion	PASS	PASS	PASS	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 50 ppm)

DETAILED RESULTS:

Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Total Lead and Mercury in Paints and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	---	---	---	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	---	---	---	---	**90**
Total Mercury (Hg)	ND	---	---	---	---	**10**
Conclusion	PASS	---	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 10 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Canadian Surface Coating Materials Regulations SOR/2016-193, Total Lead and Mercury in Paints and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	10+11+12	13+14+15	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	ND	ND	ND	ND	**90**
Total Mercury (Hg)	ND	ND	ND	ND	ND	**10**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	16+17+18	19+20+21	---	---	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	ND	---	---	---	**90**
Total Mercury (Hg)	ND	ND	---	---	---	**10**
Conclusion	PASS	PASS	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit = 10 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Mexican Environmental Health NOM-252-SSA1-2011, Total Elements Screening from Toys and School Supplies

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Toy Material except Modelling Clay

Specimen No.	4+5+6	7+8+9	10+11+12	13+14+15	16+17+18	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	ND	ND	**60**
Total Arsenic (As)	ND	ND	ND	ND	ND	**25**
Total Barium (Ba)	ND	44	ND	ND	ND	**1000**
Total Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Total Chromium (Cr)	ND	ND	ND	ND	ND	**60**
Total Lead (Pb)	ND	ND	ND	ND	ND	**90**
Total Mercury (Hg)	ND	ND	ND	ND	ND	**60**
Total Selenium (Se)	ND	ND	ND	ND	ND	**500**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Sb, As, Ba, Cd, Cr, Pb, Hg = 20 ppm; Se = 50 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration

Remark:
The total heavy metals screening results of Specimen No. 1, 2 and 3 exceeded the soluble heavy metal limits, therefore separate soluble analyses were conducted.

DETAILED RESULTS:

Mexican Environmental Health NOM-252-SSA1-2011, Total Elements Screening from Toys and School Supplies

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Toy Material except Modelling Clay

Specimen No.	19+20+21	---	---	---	---	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	---	---	---	---	**60**
Total Arsenic (As)	ND	---	---	---	---	**25**
Total Barium (Ba)	100	---	---	---	---	**1000**
Total Cadmium (Cd)	ND	---	---	---	---	**75**
Total Chromium (Cr)	ND	---	---	---	---	**60**
Total Lead (Pb)	ND	---	---	---	---	**90**
Total Mercury (Hg)	ND	---	---	---	---	**60**
Total Selenium (Se)	ND	---	---	---	---	**500**
Conclusion	PASS	---	---	---	---	

Note:
ppm (Parts per million) = mg/kg (Milligrams per kilogram)
LT = Less than
ND = Not detected (Reporting Limit: Sb, As, Ba, Cd, Cr, Pb, Hg = 20 ppm; Se = 50 ppm)
Composite results are based on specimen of least mass resulting in highest potential concentration

Remark:
The total heavy metals screening results do not exceed the soluble heavy metal limits, therefore, further soluble analyses were not conducted.

DETAILED RESULTS:

Mexican Environmental Health NOM-252-SSA1-2011, Soluble Elements from Toys and School Supplies

Test Method: NOM-252-SSA1-2011 Appendix A
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Toy Material except Modelling Clay

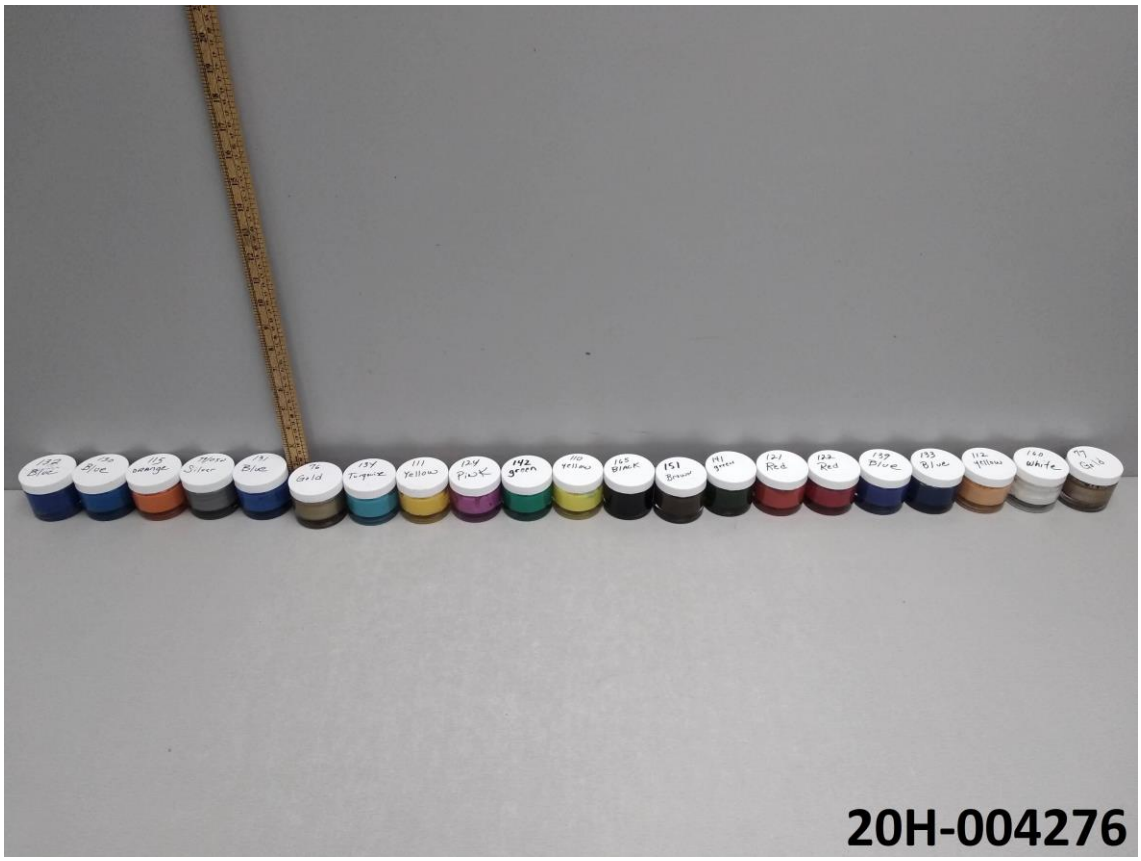
Specimen No.	1	2	3	---	---	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Soluble Antimony (Sb)	ND	ND	ND	---	---	**60**
Soluble Arsenic (As)	ND	ND	ND	---	---	**25**
Soluble Barium (Ba)	ND	ND	3	---	---	**1000**
Soluble Cadmium (Cd)	ND	ND	ND	---	---	**75**
Soluble Chromium (Cr)	ND	ND	ND	---	---	**60**
Soluble Lead (Pb)	ND	ND	ND	---	---	**90**
Soluble Mercury (Hg)	ND	ND	ND	---	---	**60**
Soluble Selenium (Se)	ND	ND	ND	---	---	**500**
Conclusion	PASS	PASS	PASS	---	---	

Note:
mg/kg = Milligrams per kilogram
LT = Less than
ND = Not detected (Reporting Limit = 2 mg/kg)

SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Yellow ink	Raw material (110)
2	Silvery ink	Raw material (79/050)
3	Dark brown ink	Raw material (151)
4	Dark green ink	Raw material (141)
5	Green ink	Raw material (142)
6	Turquoise ink	Raw material (134)
7	Blue ink	Raw material (130)
8	Dull blue ink	Raw material (131)
9	Matt blue ink	Raw material (132)
10	Deep blue ink	Raw material (133)
11	Dark blue ink	Raw material (139)
12	Black ink	Raw material (165)
13	White ink	Raw material (160)
14	Orange ink	Raw material (115)
15	Pink ink	Raw material (124)
16	Red ink	Raw material (121)
17	Dark red ink	Raw material (122)
18	Deep yellow ink	Raw material (111)
19	Dark yellow ink	Raw material (112)
20	Golden ink	Raw material (76)
21	Dull golden ink	Raw material (77)

SAMPLE PHOTO:



-End Report-