QIMA

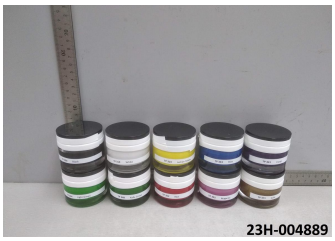
AT-1500

TEST REPORT

Test Report #	23H-004889	Date of Report Issue:	July 10, 2023
Date of Sample Received:	June 21, 2023	Pages:	Page 1 of 23

CLIENT INFORMATION:

Company:	Boston Industrial Solutions, Inc.
Recipient:	Ephraim Wahiga
Recipient Email:	info@bostonindustrialsolutions.com



SAMPLE INFORMATION:

Description:	Natron® TP Series inks		
Assortment:	-	Purchase Order Number:	-
SKU/style No.:	-	Toy Co./Agency:	-
Factory/Supplier/Vendor:	Boston Industrial Solutions, Inc.	Country of Origin:	United States
Country of Distribution:	-	Labeled Age Grade:	-
Quantity Submitted:	1 lot	Recommended Age Grade:	-
Testing Period:	06/29/2023 – 07/05/2023 07/06/2023 – 07/10/2023	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	CPSIA Section 101 & 16 CFR 1303, Total Lead in Paints and Surface Coatings
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 Heavy Metal Screening in Stickers, Films and Surface Coating Materials
PASS	Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Leachable Elements in Stickers, Films and Surface Coating Materials
PASS	Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Total Lead and Mercury in Stickers, Films and Surface Coating Materials
PASS	Canadian Surface Coating Materials Regulations SOR/2016-193, Total Lead in Stickers, Films and Surface Coating Materials
PASS	Canadian Surface Coating Materials Regulations SOR/2016-193, Total 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.	1+2+3	9+10	---	---	---	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Antimony (Sb)	ND	ND	---	---	---	**60**
Total Arsenic (As)	ND	ND	---	---	---	**25**
Total Barium (Ba)	130	21	---	---	---	**1000**
Total Cadmium (Cd)	ND	ND	---	---	---	**75**
Total Chromium (Cr)	ND	ND	---	---	---	**60**
Total Lead (Pb)	ND	ND	---	---	---	**90**
Total Mercury (Hg)	ND	ND	---	---	---	**60**
Total Selenium (Se)	ND	ND	---	---	---	**500**
Conclusion	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. 4, 5, 6, 7 and 8 exceeded the soluble heavy metal limits, therefore a separate soluble analysis was 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 and/or Inductively Coupled Plasma-Mass Spectrometry

Specimen No.	4	5	6	7	8	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Soluble Antimony (Sb)	ND	ND	ND	ND	ND	**60**
Soluble Arsenic (As)	ND	ND	ND	ND	ND	**25**
Soluble Barium (Ba)	ND	ND	160	8	ND	**1000**
Soluble Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Soluble Chromium (Cr)	ND	ND	ND	ND	ND	**60**
Soluble Lead (Pb)	ND	ND	ND	ND	ND	**90**
Soluble Mercury (Hg)	ND	ND	ND	ND	ND	**60**
Soluble 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
NA = Not applicable
ND = Not detected (Reporting Limit = 5 ppm)
Results are adjusted according to ASTM F963-17 Toy Safety, Clause 8.3.4.3. Materials are deemed to conform with the requirements if the adjusted analytical result for the migrated element is less than or equal to the permissible limit.
The decision rule for stating conformity is based on ASTM F963-17 Toy Safety.

Analytical correction								
Soluble Element(s)	Sb	As	Ba	Cd	Cr	Pb	Hg	Se
Analytical Correction (%)	60	60	30	30	30	30	50	60

Remark*:*
Test portion of Specimen No. 6 found on single sample was 99.2 mg.
Test portion of Specimen No. 7 found on single sample was 93.6 mg.

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.	1+2+3	9+10	---	---	---	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Antimony (Sb)	ND	ND	---	---	---	**60**
Total Arsenic (As)	ND	ND	---	---	---	**25**
Total Barium (Ba)	130	21	---	---	---	**1000**
Total Cadmium (Cd)	ND	ND	---	---	---	**75**
Total Chromium (Cr)	ND	ND	---	---	---	**60**
Total Mercury (Hg)	ND	ND	---	---	---	**60**
Total Selenium (Se)	ND	ND	---	---	---	**500**
Conclusion	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. 4, 5, 6, 7 and 8 exceeded the soluble heavy metal limits, therefore a separate soluble analysis was 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 and/or Inductively Coupled Plasma-Mass Spectrometry

Specimen No.	4	5	6	7	8	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Soluble Antimony (Sb)	ND	ND	ND	ND	ND	**60**
Soluble Arsenic (As)	ND	ND	ND	ND	ND	**25**
Soluble Barium (Ba)	ND	ND	160	8	ND	**1000**
Soluble Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Soluble Chromium (Cr)	ND	ND	ND	ND	ND	**60**
Soluble Mercury (Hg)	ND	ND	ND	ND	ND	**60**
Soluble 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 = 5 ppm)

Remark*:*
Test portion of Specimen No. 6 found on single sample was 99.2 mg.
Test portion of Specimen No. 7 found on single sample was 93.6 mg.

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	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	ND	ND	ND	---	**90**
Conclusion	PASS	PASS	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	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	ND	ND	ND	---	**40**
Conclusion	PASS	PASS	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 F963-11 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8	9+10	---	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Cadmium (Cd)	ND	ND	ND	ND	---	**75**
Conclusion	PASS	PASS	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 F963-11 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8	9+10	---	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Cadmium (Cd)	ND	ND	ND	ND	---	**75**
Conclusion	PASS	PASS	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 F963-11 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8	9+10	---	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Cadmium (Cd)	ND	ND	ND	ND	---	**75**
Conclusion	PASS	PASS	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
Test Instrument: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2+3	4+5+6	7+8	9+10	**Limit (% w/w)**
Test Item	CAS No.	Result (% w/w)	Result (% w/w)	Result (% w/w)	Result (% w/w)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	**0.1**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	**0.1**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	**0.1**
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	**0.1**
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	**0.1**
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	**0.1**
	Conclusion	PASS	PASS	PASS	PASS	

Note:
% w/w = Percent by weight
LT = Less than
ND = Not detected (Reporting Limit = 0.015 % w/w)
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
Test Instrument: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2+3	4+5+6	7+8	9+10	**Limit (% w/w)**
Test Item	CAS No.	Result (% w/w)	Result (% w/w)	Result (% w/w)	Result (% w/w)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	**0.1**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	**0.1**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	**0.1**
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	**0.1**
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	**0.1**
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	**0.1**
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	**0.1**
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	ND	ND	**0.1**
	Conclusion	PASS	PASS	PASS	PASS	

Note:
% w/w = Percent by weight
LT = Less than
ND = Not detected (Reporting Limit = 0.015 % w/w)
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
Test Instrument: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2+3	4+5+6	7+8	9+10	**Limit (% w/w)**
Test Item	CAS No.	Result (% w/w)	Result (% w/w)	Result (% w/w)	Result (% w/w)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	**0.1**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	**0.1**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	**0.1**
Di-n-octyl phthalate (DnOP)	117-84-0	ND	ND	ND	ND	**0.1**
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	**0.1**
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	**0.1**
	Sum	ND	ND	ND	ND	**0.1**
	Conclusion	PASS	PASS	PASS	PASS	

Note:
% w/w = Percent by weight
LT = Less than
ND = Not detected (Reporting Limit = 0.015 % w/w)
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 Heavy Metal Screening in Stickers, Films and Surface Coating Materials

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

Specimen No.	1+2+3	9+10	---	---	---	**Leachable Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Antimony (Sb)	ND	ND	---	---	---	**1000**
Total Arsenic (As)	ND	ND	---	---	---	**1000**
Total Barium (Ba)	130	21	---	---	---	**1000**
Total Cadmium (Cd)	ND	ND	---	---	---	**1000**
Total Lead (Pb)	ND	ND	---	---	---	**90***
Total Mercury (Hg)	ND	ND	---	---	---	**10***
Total Selenium (Se)	ND	ND	---	---	---	**1000**
Conclusion	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 total heavy metals screening results of Specimen No. 4, 5, 6, 7 and 8 exceeded the soluble heavy metal limits, therefore a separate soluble analysis was conducted.

DETAILED RESULTS:

Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Leachable Elements in Stickers, Films and Surface Coating Materials

Test Method: ASTM F963-17
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry and/or Inductively Coupled Plasma-Mass Spectrometry

Specimen No.	4	5	6	7	8	**Leachable Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Leachable Antimony (Sb)	ND	ND	ND	ND	ND	**1000**
Leachable Arsenic (As)	ND	ND	ND	ND	ND	**1000**
Leachable Barium (Ba)	ND	ND	160	ND	ND	**1000**
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	**1000**
Leachable 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 = 50 ppm)

Results are adjusted according to ASTM F963-17 Toy Safety, Section 8.3.4.3. Materials are deemed to conform with the requirements if the adjusted analytical result for the migrated element is less than or equal to the permissible limit.
The decision rule for stating conformity is based on ASTM F963-17 Toy Safety.

Analytical correction					
Soluble Element(s)	Sb	As	Ba	Cd	Se
Analytical Correction (%)	60	60	30	30	60

Remark:
Test portion of Specimen No. 6 found on single sample was 99.2 mg.
Test portion of Specimen No. 7 found on single sample was 93.6 mg.

DETAILED RESULTS:

Canadian Toys Regulations SOR/2011-17 as Amended, Item 23 – Total Lead and Mercury in Stickers, Films and Surface Coating Materials

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

Specimen No.	4+5+6	7+8	---	---	---	**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:

Canadian Surface Coating Materials Regulations SOR/2016-193, Total Lead in Stickers, Films and Surface Coating Materials

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	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Lead (Pb)	ND	ND	ND	ND	---	**90**
Conclusion	PASS	PASS	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:

Canadian Surface Coating Materials Regulations SOR/2016-193, Total 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	---	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Mercury (Hg)	ND	ND	ND	ND	---	**10**
Conclusion	PASS	PASS	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.	1+2+3	9+10	---	---	---	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Antimony (Sb)	ND	ND	---	---	---	**60**
Total Arsenic (As)	ND	ND	---	---	---	**25**
Total Barium (Ba)	130	ND	---	---	---	**1000**
Total Cadmium (Cd)	ND	ND	---	---	---	**75**
Total Chromium (Cr)	ND	ND	---	---	---	**60**
Total Lead (Pb)	ND	ND	---	---	---	**90**
Total Mercury (Hg)	ND	ND	---	---	---	**60**
Total Selenium (Se)	ND	ND	---	---	---	**500**
Conclusion	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. 4, 5, 6, 7 and 8 exceeded the soluble heavy metal limits, therefore a separate soluble analysis was 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 and/or Inductively Coupled Plasma-Mass Spectrometry

Toy Material except Modelling Clay

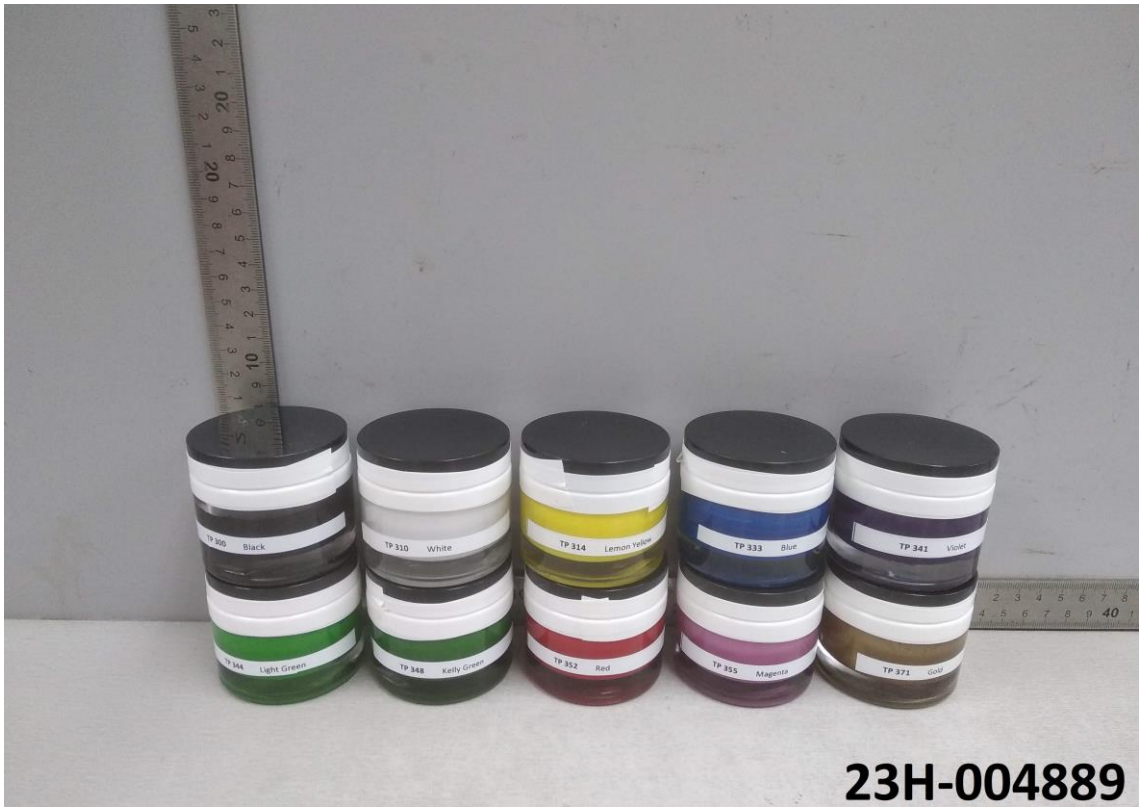
Specimen No.	4	5	6	7	8	**Soluble Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Soluble Antimony (Sb)	ND	ND	ND	ND	ND	**60**
Soluble Arsenic (As)	ND	ND	ND	ND	ND	**25**
Soluble Barium (Ba)	ND	ND	160	8	ND	**1000**
Soluble Cadmium (Cd)	ND	ND	ND	ND	ND	**75**
Soluble Chromium (Cr)	ND	ND	ND	ND	ND	**60**
Soluble Lead (Pb)	ND	ND	ND	ND	ND	**90**
Soluble Mercury (Hg)	ND	ND	ND	ND	ND	**60**
Soluble Selenium (Se)	ND	ND	ND	ND	ND	**500**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:
mg/kg = Milligrams per kilogram
LT = Less than
ND = Not detected (Reporting Limit = 5 mg/kg)

SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Black ink	Raw material (TP 300 Black)
2	White ink	Raw material (TP 310 White)
3	Yellow ink	Raw material (TP 314 Lemon Yellow)
4	Blue ink	Raw material (TP 333 Blue)
5	Purple ink	Raw material (TP 341 Violet)
6	Green ink	Raw material (TP 344 Light Green)
7	Deep green ink	Raw material (TP 348 Kelly Green)
8	Red ink	Raw material (TP 352 Red)
9	Pink ink	Raw material (TP 355 Magenta)
10	Golden ink	Raw material (TP 371 Gold)

SAMPLE PHOTO:



-End Report-