QIMA
YOUR EYES IN THE SUPPLY CHAIN

ilac-MRA

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
AT-1500

TEST REPORT

Test Report #	19H-005583	Date of Report Issue:	July 29, 2019
Date of Sample Received:	July 22, 2019	Pages:	Page 1 of 19

CLIENT INFORMATION:

Company:

Recipient:

Recipient Email:

SAMPLE INFORMATION:

Description:	J3 Series - 160 white, 165 black, 110 lemon yellow, 115 orange, 122 carmine red, 132 ultra blue, 133 dark blue, 136 violet, 140 bright green		
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:	07/23/2019 – 07/29/2019	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	ASTM F2923-14 Consumer Product Safety for Children's Jewelry, Clause 8 Total Elements Screening in Paint and Surface Coatings
PASS	ASTM F2999-14 Adult Jewelry, Clause 5 & 7 Total Elements Screening in Paint and 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 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

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	4+5+6	7+8+9	---	---	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	---	---	**60**
Total Arsenic (As)	ND	ND	ND	---	---	**25**
Total Barium (Ba)	ND	ND	380	---	---	**1000**
Total Cadmium (Cd)	ND	ND	ND	---	---	**75**
Total Chromium (Cr)	ND	ND	ND	---	---	**60**
Total Lead (Pb)	ND	ND	ND	---	---	**90**
Total Mercury (Hg)	ND	ND	ND	---	---	**60**
Total 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: 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:

ASTM F2923-14 Consumer Product Safety for Children's Jewelry, Clause 8 Total Elements Screening in Paint and Surface Coatings

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	---	---	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	---	---	**60**
Total Arsenic (As)	ND	ND	ND	---	---	**25**
Total Barium (Ba)	ND	ND	380	---	---	**1000**
Total Cadmium (Cd)	ND	ND	ND	---	---	**75**
Total Chromium (Cr)	ND	ND	ND	---	---	**60**
Total Mercury (Hg)	ND	ND	ND	---	---	**60**
Total 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: 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 F2999-14 Adult Jewelry, Clause 5 & 7 Total Elements Screening in Paint and Surface Coatings

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	---	---	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	---	---	**60**
Total Arsenic (As)	ND	ND	ND	---	---	**25**
Total Barium (Ba)	ND	ND	380	---	---	**1000**
Total Cadmium (Cd)	ND	ND	ND	---	---	**75**
Total Chromium (Cr)	ND	ND	ND	---	---	**60**
Total Lead (Pb)	ND	ND	ND	---	---	**600***
Total Mercury (Hg)	ND	ND	ND	---	---	**60**
Total 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: 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:

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

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	---	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Cadmium (Cd)	ND	ND	ND	---	---	**40**
Conclusion	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-E1003-09.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	---	---	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Lead (Pb)	ND	ND	ND	---	---	**40**
Conclusion	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 F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	---	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Cadmium (Cd)	ND	ND	ND	---	---	**75**
Conclusion	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 F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+3	4+5+6	7+8+9	---	---	**Total Limit (ppm)**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	
Total Cadmium (Cd)	ND	ND	ND	---	---	**75**
Conclusion	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 F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

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

Specimen No.		1+2+3	4+5+6	7+8+9	---	
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	---	
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	---	
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.	1+2+3	4+5+6	7+8+9	---	---	**Leachable**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	---	---	**1000**
Total Arsenic (As)	ND	ND	ND	---	---	**1000**
Total Barium (Ba)	ND	ND	380	---	---	**1000**
Total Cadmium (Cd)	ND	ND	ND	---	---	**1000**
Total Lead (Pb)	ND	ND	ND	---	---	**90***
Total Mercury (Hg)	ND	ND	ND	---	---	**10***
Total 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: 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 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	---	---	**Total**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Lead (Pb)	ND	ND	ND	---	---	**90**
Total Mercury (Hg)	ND	ND	ND	---	---	**10**
Conclusion	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	4+5+6	7+8+9	---	---	**Soluble**
Test Item	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	Result (ppm)	**Limit (ppm)**
Total Antimony (Sb)	ND	ND	ND	---	---	**60**
Total Arsenic (As)	ND	ND	ND	---	---	**25**
Total Barium (Ba)	ND	ND	380	---	---	**1000**
Total Cadmium (Cd)	ND	ND	ND	---	---	**75**
Total Chromium (Cr)	ND	ND	ND	---	---	**60**
Total Lead (Pb)	ND	ND	ND	---	---	**90**
Total Mercury (Hg)	ND	ND	ND	---	---	**60**
Total 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: 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.

SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Black ink	Raw material (J3 SERIES-165)
2	Blue ink	Raw material (J3 SERIES-133)
3	Dull blue ink	Raw material (J3 SERIES-136)
4	Light blue ink	Raw material (J3 SERIES-132)
5	Red ink	Raw material (J3 SERIES-122)
6	Green ink	Raw material (J3 SERIES-140)
7	Orange ink	Raw material (J3 SERIES-115)
8	Yellow ink	Raw material (J3 SERIES-110)
9	White ink	Raw material (J3 SERIES-160)

SAMPLE PHOTO:

-End Report-