

TEST REPORT

Test Report # 21B-000487 Date of Report Issue: April 27, 2021
Date of Sample Received: April 16, 2021 Pages: Page 1 of 13

CLIENT INFORMATION:

Company: Marabu North America
Recipient: Marsha McDowell
Recipient Email: mmcdowell@marabu.com



SAMPLE INFORMATION:

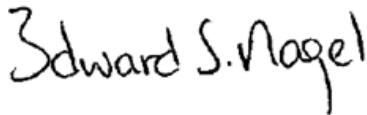
Description:	FX Series Inks	Purchase Order Number:	10410
Assortment:	-	Toy Co./Agency:	-
SKU/style No.:	-	Country of Origin:	Germany
Factory/Supplier/Vendor:	-	Labeled Age Grade:	-
Country of Distribution:	USA	Recommended Age Grade:	-
Quantity Submitted:	18	Tested Age Grade:	-
Testing Period:	4/19/21 – 4/27/21		

OVERALL RESULT:

 **PASS**

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

QIMA (US), LLC



Edward Nagel
Manager, Laboratory Operations

TEST RESULT SUMMARY:

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

CONCLUSION	TEST(S) CONDUCTED
PASS	CPSIA Section 101 & 16 CFR 1303, Total Lead Content in Paints & Surface Coatings
PASS	CPSIA Section 106 & ASTM F963-17 Section 4.3.5.1(2), Soluble Heavy Metals Content in Paints & Surface Coatings
PASS	ASTM F2923-20 Clause 5 & 8, Total Lead and Soluble Elements in Paint and Surface Coatings
PASS	The Illinois Lead Poisoning Prevention Act (LPPA) (410 ILCS 45/6), Total Lead Content in 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	Minnesota Chapter 347-S.F. No. 2510, Cadmium in Children's Jewelry
PASS	Maryland Chapter 578 (House Bill 145), Total Cadmium in Children’s Jewelry
PASS	Washington Children's Safe Products Act RCW 70.240.020, Cadmium Content
PASS	Canadian Surface Coating Materials Regulations SOR/2016-193, Total Lead and Mercury in Surface Coatings
PASS	Canadian Toys Regulations SOR/2011-17 amended by SOR/2016-195 & SOR/2016-302, Section 23, Total Lead, Total Mercury and Leachable Metals in Surface Coatings
PASS	Mexican Environmental Health NOM-252-SSA1-2011, Soluble Elements from Toys and School Supplies
PASS	16 CFR 1307 Prohibition of Children’s Toys and Child Care Articles Containing Specified Phthalates (8)
PASS	ASTM F2923-20 Clause 11, Phthalates in Plasticized Components of Children’s Jewelry
PASS	Client Requirement, California Proposition 65, Phthalate Content (6)
PASS	Revised Code of Washington Section 70.240.020, Phthalates in Children’s Product

DETAILED RESULTS:

CPSIA Section 101 & 16 CFR 1303, Total Lead Content in Paints & Surface Coatings
CPSIA Section 106 & ASTM F963-17 Section 4.3.5.1(2), Soluble Heavy Metals Content in Paints & Surface Coatings
ASTM F2923-20 Clause 5 & 8, Total Lead and Soluble Elements in Paint and Surface Coatings
Connecticut Public Act 10-113 (Substituted House Bill 5314), Total Cadmium Content in Children’s Jewelry
The Illinois Lead Poisoning Prevention Act (LPPA) (410 ILCS 45/6), Total Lead Content in Surface Coatings of Children’s Jewelry and Childcare Articles
Minnesota Chapter 347-S.F. No. 2510, Cadmium in Children’s Jewelry
Maryland Chapter 578 (House Bill 145), Total Cadmium in Children’s Jewelry
Washington Children’s Safe Products Act RCW 70.240.020, Cadmium Content

Analytical determination by ICP-OES (Method: CPSC-CH-E1003-09.1)

	Specimen No.						
	1+2+3*	4+5+6*	7+8+9*	10+11+12*	13+14+15*		
	Total Result	Total Result	Total Result	Total Result	Total Result		
Lead (Pb)	LT 5	LT 5	LT 5	LT 12	LT 5	CPSIA Total Limit	
						90 ppm	
Lead (Pb)	LT 5	LT 5	LT 5	LT 12	LT 5	ASTM F2923-20 Limit	
						90 ppm	
Lead (Pb)	LT 5	LT 5	LT 5	LT 12	LT 5	Illinois Total Limit	
						40 ppm	
Cadmium (Cd)	LT 5	LT 5	LT 5	LT 5	LT 5	Connecticut Total Limit	
						75 ppm	
Cadmium (Cd)	LT 5	LT 5	LT 5	LT 5	LT 5	Minnesota Total Limit	
						75 ppm	
Cadmium (Cd)	LT 5	LT 5	LT 5	LT 5	LT 5	Maryland Total Limit	
						75 ppm	
Cadmium (Cd)	LT 5	LT 5	LT 5	LT 5	LT 5	Washington Total Limit	
						40 ppm	
	Total Result	Total Result	Total Result	Total Result	Total Result	ASTM F963 Soluble Limits	ASTM F2923 Soluble Limits
Antimony (Sb)	LT 5	LT 5	LT 5	LT 5	LT 5	60 ppm	60 ppm
Arsenic (As)	LT 5	LT 5	LT 5	LT 5	LT 5	25 ppm	25 ppm
Barium (Ba)	LT 5	13	LT 5	6	5	1000 ppm	1000 ppm
Cadmium (Cd)	LT 5	LT 5	LT 5	LT 5	LT 5	75 ppm	75 ppm
Chromium (Cr)	13	LT 5	LT 5	39	LT 5	60 ppm	60 ppm
Lead (Pb)	LT 5	LT 5	LT 5	LT 12	LT 5	90 ppm	-
Mercury (Hg)	LT 5	LT 5	LT 5	LT 5	LT 5	60 ppm	60 ppm
Selenium (Se)	LT 7	LT 7	LT 6	LT 5	LT 7	500 ppm	500 ppm
Conclusion	PASS	PASS	PASS	PASS	PASS		

LT = Less Than

Results are reported in parts per million (ppm)

Notes: The total heavy metals results do not exceed the soluble heavy metals limits; therefore, further soluble analyses were not conducted.

*Composited results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

CPSIA Section 101 & 16 CFR 1303, Total Lead Content in Paints & Surface Coatings
CPSIA Section 106 & ASTM F963-17 Section 4.3.5.1(2), Soluble Heavy Metals Content in Paints & Surface Coatings
ASTM F2923-20 Clause 5 & 8, Total Lead and Soluble Elements in Paint and Surface Coatings
Connecticut Public Act 10-113 (Substituted House Bill 5314), Total Cadmium Content in Children’s Jewelry
The Illinois Lead Poisoning Prevention Act (LPPA) (410 ILCS 45/6), Total Lead Content in Surface Coatings of Children’s Jewelry and Childcare Articles
Minnesota Chapter 347-S.F. No. 2510, Cadmium in Children’s Jewelry
Maryland Chapter 578 (House Bill 145), Total Cadmium in Children’s Jewelry
Washington Children’s Safe Products Act RCW 70.240.020, Cadmium Content

Analytical determination by ICP-OES (Method: CPSC-CH-E1003-09.1)

	Specimen No.						
	16+17+18*	-	-	-	-		
	Total Result	Total Result	Total Result	Total Result	Total Result		
Lead (Pb)	LT 5	-	-	-	-	CPSIA Total Limit	
						90 ppm	
Lead (Pb)	LT 5	-	-	-	-	ASTM F2923-20 Limit	
						90 ppm	
Lead (Pb)	LT 5	-	-	-	-	Illinois Total Limit	
						40 ppm	
Cadmium (Cd)	LT 5	-	-	-	-	Connecticut Total Limit	
						75 ppm	
Cadmium (Cd)	LT 5	-	-	-	-	Minnesota Total Limit	
						75 ppm	
Cadmium (Cd)	LT 5	-	-	-	-	Maryland Total Limit	
						75 ppm	
Cadmium (Cd)	LT 5	-	-	-	-	Washington Total Limit	
						40 ppm	
	Total Result	Total Result	Total Result	Total Result	Total Result	ASTM F963 Soluble Limits	ASTM F2923 Soluble Limits
Antimony (Sb)	LT 5	-	-	-	-	60 ppm	60 ppm
Arsenic (As)	LT 5	-	-	-	-	25 ppm	25 ppm
Barium (Ba)	160	-	-	-	-	1000 ppm	1000 ppm
Cadmium (Cd)	LT 5	-	-	-	-	75 ppm	75 ppm
Chromium (Cr)	LT 5	-	-	-	-	60 ppm	60 ppm
Lead (Pb)	LT 5	-	-	-	-	90 ppm	-
Mercury (Hg)	LT 5	-	-	-	-	60 ppm	60 ppm
Selenium (Se)	LT 5	-	-	-	-	500 ppm	500 ppm
Conclusion	PASS	-	-	-	-		

LT = Less Than

Results are reported in parts per million (ppm)

Notes: The total heavy metals results do not exceed the soluble heavy metals limits; therefore, further soluble analyses were not conducted.

*Composited 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 Surface Coatings

Analytical determination by ICP-OES (Method: CPSC-CH-E1003-09.1)

	Specimen No.				Total Limits
	1+2+3*	4+5+6*	7+8+9*	10+11+12*	
	Total Result	Total Result	Total Result	Total Result	
Lead (Pb)	LT 5	LT 5	LT 5	LT 12	90 ppm
Mercury (Hg)	LT 5	LT 5	LT 5	LT 5	10 ppm
Conclusion	PASS	PASS	PASS	PASS	

	Specimen No.				Total Limits
	13+14+15*	16+17+18*	-	-	
	Total Result	Total Result	Total Result	Total Result	
Lead (Pb)	LT 5	LT 5	-	-	90 ppm
Mercury (Hg)	LT 5	LT 5	-	-	10 ppm
Conclusion	PASS	PASS	-	-	

LT = Less Than

Results are reported in parts per million (ppm)

***Note:** Compositd results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Canadian Toys Regulations SOR/2011-17 as amended, Section 23, Total Lead, Total Mercury and Leachable Metals in Surface Coatings

Analytical determination by ICP-OES (Method: CPSC-CH-E1003-09.1)

	Specimen No.						Total Limits
	1+2+3*	4+5+6*	7+8+9*	10+11+12*	13+14+15*	16+17+18*	
	Total Result	Total Result	Total Result	Total Result	Total Result	Total Result	
Lead (Pb)	LT 5	LT 5	LT 5	LT 12	LT 5	LT 5	90 ppm
Mercury (Hg)	LT 5	LT 5	LT 5	LT 5	LT 5	LT 5	10 ppm
	Total Result	Total Result	Total Result	Total Result	Total Result	Total Result	Leachable Limits
Antimony (Sb)	LT 5	LT 5	LT 5	LT 5	LT 5	LT 5	1000 ppm
Arsenic (As)	LT 5	LT 5	LT 5	LT 5	LT 5	LT 5	1000 ppm
Barium (Ba)	LT 5	13	LT 5	6	5	160	1000 ppm
Cadmium (Cd)	LT 5	LT 5	LT 5	LT 5	LT 5	LT 5	1000 ppm
Selenium (Se)	LT 7	LT 7	LT 6	LT 5	LT 7	LT 5	1000 ppm
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	

LT = Less Than

Results are reported in parts per million (ppm)

Notes: The total metal results do not exceed the leachable limits; therefore, leachable analyses were not conducted.

*Composited results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

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

Analytical determination by ICP-OES (Method: CPSC-CH-E1003-09.1)

	Specimen No.						Soluble Limits
	1+2+3*	4+5+6*	7+8+9*	10+11+12*	13+14+15*	16+17+18*	
	Total Result	Total Result	Total Result	Total Result	Total Result	Total Result	
Antimony (Sb)	LT 5	LT 5	LT 5	LT 5	LT 5	LT 5	60 ppm
Arsenic (As)	LT 5	LT 5	LT 5	LT 5	LT 5	LT 5	25 ppm
Barium (Ba)	LT 5	13	LT 5	6	5	160	1000 ppm
Cadmium (Cd)	LT 5	LT 5	LT 5	LT 5	LT 5	LT 5	75 ppm
Chromium (Cr)	13	LT 5	LT 5	39	LT 5	LT 5	60 ppm
Lead (Pb)	LT 5	LT 5	LT 5	LT 12	LT 5	LT 5	90 ppm
Mercury (Hg)	LT 5	LT 5	LT 5	LT 5	LT 5	LT 5	60 ppm
Selenium (Se)	LT 7	LT 7	LT 6	LT 5	LT 7	LT 5	500 ppm
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	

LT = Less Than

Results are reported in parts per million (ppm)

Notes: The total heavy metals results do not exceed the soluble heavy metals limits; therefore, further soluble analyses were not conducted.

*Composited 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 (8)
ASTM F2923-20 Clause 11, Phthalates in Plasticized Components of Children’s Jewelry
Client Requirement, California Proposition 65, Phthalate Content (6)**

Analytical determination by GC/MS (Method: CPSC-CH-C1001-09.4)

Phthalate	Specimen No.				16 CFR 1307 & ASTM F2923 Limits (%)	Client Limits, Cal Prop (%)
	1+2+3*	4+5+6*	7+8+9*	10+11+12*		
dibutyl phthalate (DBP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1	0.1
benzyl butyl phthalate (BBP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1	0.1
di-(2-ethylhexyl) phthalate (DEHP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1	0.1
diisononyl phthalate (DINP)	LT 0.02	LT 0.02	LT 0.02	LT 0.02	0.1	0.1
diisodecyl phthalate (DIDP)	LT 0.02	LT 0.02	LT 0.02	LT 0.02	-	0.1
di-n-hexyl phthalate (DnHP/DHEXP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1	0.1
diisobutyl phthalate (DiBP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1	-
di-n-pentyl phthalate (DnPP/DPENP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1	-
dicyclohexyl phthalate (DCHP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1	-
Conclusion	PASS	PASS	PASS	PASS		

LT = Less Than

Results reported as percent by weight

***Note:** Composited 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 (8)
ASTM F2923-20 Clause 11, Phthalates in Plasticized Components of Children’s Jewelry
Client Requirement, California Proposition 65, Phthalate Content (6)**

Analytical determination by GC/MS (Method: CPSC-CH-C1001-09.4)

Phthalate	Specimen No.				16 CFR 1307 & ASTM F2923 Limits (%)	Client Limits, Cal Prop (%)
	13+14+15*	16+17+18*	-	-		
dibutyl phthalate (DBP)	LT 0.01	LT 0.01	-	-	0.1	0.1
benzyl butyl phthalate (BBP)	LT 0.01	LT 0.01	-	-	0.1	0.1
di-(2-ethylhexyl) phthalate (DEHP)	LT 0.01	LT 0.01	-	-	0.1	0.1
diisononyl phthalate (DINP)	LT 0.02	LT 0.02	-	-	0.1	0.1
diisodecyl phthalate (DIDP)	LT 0.02	LT 0.02	-	-	-	0.1
di-n-hexyl phthalate (DnHP/DHEXP)	LT 0.01	LT 0.01	-	-	0.1	0.1
diisobutyl phthalate (DiBP)	LT 0.01	LT 0.01	-	-	0.1	-
di-n-pentyl phthalate (DnPP/DPENP)	LT 0.01	LT 0.01	-	-	0.1	-
dicyclohexyl phthalate (DCHP)	LT 0.01	LT 0.01	-	-	0.1	-
Conclusion	PASS	PASS	-	-		

LT = Less Than

Results reported as percent by weight

***Note:** Composited results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Revised Code of Washington Section 70.240.020, Phthalates in Children’s Product

Analytical determination by GC/MS (Method: CPSC-CH-C1001-09.4)

Phthalate	Specimen No.					Limits (%)
	1+2+3*	4+5+6*	7+8+9*	10+11+12*	13+14+15*	
Dibutyl Phthalate (DBP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1
Benzyl Butyl Phthalate (BBP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1
Di-(2-ethylhexyl) Phthalate (DEHP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1
Di-n-octyl Phthalate (DnOP)	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	0.1
Diisononyl Phthalate (DINP)	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	0.1
Diisodecyl Phthalate (DIDP)	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	0.1
Sum of Above (6)	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	0.1
Conclusion	PASS	PASS	PASS	PASS	PASS	

LT = Less Than

Results reported as percent by weight

***Note:** Composited results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Revised Code of Washington Section 70.240.020, Phthalates in Children’s Product

Analytical determination by GC/MS (Method: CPSC-CH-C1001-09.4)

Phthalate	Specimen No.				Limits (%)
	16+17+18*	-	-	-	
Dibutyl Phthalate (DBP)	LT 0.01	-	-	-	0.1
Benzyl Butyl Phthalate (BBP)	LT 0.01	-	-	-	0.1
Di-(2-ethylhexyl) Phthalate (DEHP)	LT 0.01	-	-	-	0.1
Di-n-octyl Phthalate (DnOP)	LT 0.01	-	-	-	0.1
Diisononyl Phthalate (DINP)	LT 0.02	-	-	-	0.1
Diisodecyl Phthalate (DIDP)	LT 0.02	-	-	-	0.1
Sum of Above (6)	LT 0.02	-	-	-	0.1
Conclusion	PASS	-	-	-	

LT = Less Than

Results reported as percent by weight

***Note:** Composited results are based on specimen of least mass resulting in highest potential concentration.

SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description (Color)	Location
1	Wet Ink – Silver	FX - 191
2	Wet Ink – Yellow	FX - 920
3	Wet Ink – Yellow	FX - 922
4	Wet Ink – Dark Yellow	FX - 924
5	Wet Ink – Orange	FX - 926
6	Wet Ink – Red / Orange	FX - 930
7	Wet Ink – Red	FX - 932
8	Wet Ink – Maroon	FX - 934
9	Wet Ink – Dark Maroon	FX - 936
10	Wet Ink – Brown	FX - 940
11	Wet Ink – Purple	FX - 950
12	Wet Ink – Dark Blue	FX - 952
13	Wet Ink – Blue	FX - 954
14	Wet Ink – Blue	FX - 956
15	Wet Ink – Green	FX - 960
16	Wet Ink – Dark Green	FX - 962
17	Wet Ink – White	FX - 970
18	Wet Ink - Black	FX - 980

SAMPLE PHOTO:



-End Report-