



Report For: Inkcraft Corporation
110 Cidermill Ave. Bldg. B-1
Concord, Ontario
L4K 4L9
Phone: 905-738-3963
Fax: 905-738-5862
Email: inkcraft@bellnet.ca

Laboratory #: 880281-22
Report Date: February 7, 2022
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Attention: Alexander Appia
Specimen: #1. Display/Inkcraft GVI-White/Black/Yellow/Red/Blue vinyl

TEST REPORT

One specimen was submitted to be analyzed for total heavy metals and phthalate content in order to determine compliance with various regulations as requested by Inkcraft Corporation.

TEST RESULTS SUMMARY:

CONCLUSION	REGULATIONS
PASS	CPSIA Section 106 & ASTM F963-17 Toy Safety, Clause 4.3.5. Total Element 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	The Illinois Lead Poisoning Prevention Act (LPPA) (410 ILCS 45/6), Total Lead in Paints and Surface Coatings on Children's Jewelry and Childcare Articles.
PASS	Washington Revised Code Section 70.240.020, Cadmium in Paints and Surface Coatings of Children's Product.
PASS	Connecticut Public Act 10-133 (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 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 Products.
PASS	Canadian Toys Regulations SOR/2011-17 as Amended, Item 23-Total Elements Screening in Paints and Surface Coatings.
PASS	Canadian Surface Coating Material Regulations SOR/2016-193,
PASS	Canadian Phthalate Regulation SOR/2016-188
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 Element 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	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Antimony (Sb)	ND	60
Total Arsenic (As)	ND	25
Total Barium (Ba)	337	1000
Total Cadmium (Cd)	ND	75
Total Chromium (Cr)	2	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, Hg, Se =1 ppm; Pb=10 ppm)

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 F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	#1	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Antimony (Sb)	ND	60
Total Arsenic (As)	ND	25
Total Barium (Ba)	337	1000
Total Cadmium (Cd)	ND	75
Total Chromium (Cr)	2	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, Se =1 ppm)

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 F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	#1	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Antimony (Sb)	ND	60
Total Arsenic (As)	ND	25
Total Barium (Ba)	337	1000
Total Cadmium (Cd)	ND	75
Total Chromium (Cr)	2	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, Hg, Se =1 ppm; Pb=10 ppm)

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

Note:

ppm (Parts per million)=mg/kg (Milligrams per kilogram)

LT=Less Than

ND= Not detected (Reporting Limit: 10 ppm)



DETAILED RESULTS:

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

Test Method: CPSC-CH-E1003-09-1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	#1	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Lead (Pb)	ND	40
Conclusion	PASS	-

Note:

ppm (Parts per million)=mg/kg (Milligrams per kilogram)

LT=Less Than

ND= Not detected (Reporting Limit: Pb=10 ppm)



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	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Cadmium (Cd)	ND	40
Conclusion	PASS	-

Note:

ppm (Parts per million)=mg/kg (Milligrams per kilogram)

LT=Less Than

ND= Not detected (Reporting Limit: 1 ppm)



DETAILED RESULTS:

Connecticut Public Act10-133 (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	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Cadmium (Cd)	ND	75
Conclusion	PASS	-

Note:

ppm (Parts per million)=mg/kg (Milligrams per kilogram)

LT=Less Than

ND= Not detected (Reporting Limit: 1 ppm)



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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

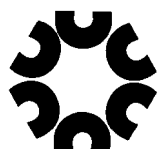
Specimen No.	#1	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Cadmium (Cd)	ND	75
Conclusion	PASS	-

Note:

ppm (Parts per million)=mg/kg (Milligrams per kilogram)

LT=Less Than

ND= Not detected (Reporting Limit: 1 ppm)



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	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Cadmium (Cd)	ND	75
Conclusion	PASS	-

Note:

ppm (Parts per million)=mg/kg (Milligrams per kilogram)

LT=Less Than

ND= Not detected (Reporting Limit: 1 ppm)

Remark:

The total cadmium screening results did not exceed the soluble cadmium limit, therefore, 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	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	1000
Diisononyl phthalate (DINP)	28553-12-0	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0	ND	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	1000
Conclusion		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: DBP, BBP, DEHP, DnHP =150 mg/kg; DINP, DIDP= 600 mg/kg)

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

16 CFR 1307 Prohibition of Children's Toys and Child 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	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	1000
Diisononyl phthalate (DINP)	28553-12-0	ND	1000
Di-n-hexyl phthalate (DHEX/DnHP)	84-75-3	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	1000
Di-iso-butyl phthalate (DIBP)	84-69-5	ND	1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	1000
Conclusion		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: DBP, BBP, DEHP, DHEX/DnHP, DCHP, DIBP, DPENP =150 mg/kg; DINP = 600 mg/kg)



DETAILED RESULTS:

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

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		#1	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	1000
Di-n-octyl phthalate (DnOP)	117-84-0	ND	1000
Diisononyl phthalate (DINP)	28553-12-0	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0	ND	1000
Conclusion		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: DBP, BBP, DEHP, DnOP =150 mg/kg; DINP, DIDP= 600 mg/kg)



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	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Antimony (Sb)	ND	1000
Total Arsenic (As)	ND	1000
Total Barium (Ba)	437	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: Sb, As, Ba, Cd, Hg, Se =1 ppm; Pb=10 ppm)

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 Material 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	Soluble Limit (ppm)
Test Item	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: Hg =1 ppm; Pb=10 ppm)



DETAILED RESULTS:

Canadian Phthalates Regulation SOR/2016-188

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		#1	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	1000
Di-n-octyl phthalate (DnOP)	117-84-0	ND	1000
Diisononyl phthalate (DINP)	28553-12-0	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0	ND	1000
Conclusion		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: DBP, BBP, DEHP, DnOP =150 mg/kg; DINP, DIDP= 600 mg/kg)



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

Specimen No.	#1	Soluble Limit (ppm)
Test Item	Result (ppm)	
Total Antimony (Sb)	ND	60
Total Arsenic (As)	ND	25
Total Barium (Ba)	437	1000
Total Cadmium (Cd)	ND	75
Total Chromium (Cr)	2	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, Hg, Se =1 ppm; Pb=10 ppm)

Remark:

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