



Technical Report: (9617) 259-0076
 Date Received: SEPTEMBER 16, 2017

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NGUYEN HUU TRAM KHA
 CONG TY TNHH LUCERO | THE LUCERO COMPANY
 TANG 1, TOA NHA PACKSIMEX, SO 52 ĐONG DU, P. BEN NGHE, Q.1, TP. HCM | PACKSIMEX BUILDING, FLOOR
 1, 52 DONG DU STREET, WARD BEN NGHE, DISTRICT 1, HCMC, VIETNAM

Sample Description:	SEE TABLE BELOW	Sample Size:	/
Vendor:	CONG TY TNHH LUCERO / THE LUCERO COMPANY	VPN:	/
Manufacturer:	THE LUCERO COMPANY	SKN/SKU No.:	/
Buyer:	/	PO No.:	/
Agent:	/	Ref #:	/
Labeled Age Grade:	/	Country of Origin:	VIETNAM
Appropriate Age Grade:	/	Assortment No.:	/
Client Specified Age Grade:	/	Department No.:	/
Tested Age Grade:	/	ITEM#:	/
UPC Code:	SEE TABLE BELOW	Date of Production:	/
Phase of Production:	PRODUCTION	Model/Style#:	/
Color:	/	Country of Destination:	/
Program:	/		
Previous No:	N/A		

Sample Description:	UPC Code:
L.CO EXTERIOR OIL TREATMENT	8938514199557, 8938514199564, 8938514199571, 8938514199588, 8938514199595, 8938514199601
L.CO EXTERIOR VARNISH HIGH GLOSS	8938514199373, 8938514199380, 8938514199403, 8938514199410, 8938514199427
L.CO EXTERIOR VARNISH MATTE	8938514199496, 8938514199502, 8938514199526, 8938514199533, 8938514199540
L.CO EXTERIOR VARNISH SEMI GLOSS	8938514199434, 8938514199441, 8938514199465, 8938514199472, 8938514199489
L.CO TOPCOAT HIGH GLOSS	8938514199199, 8938514199205, 8938514199229, 8938514199236, 8938514199243
L.CO TOPCOAT MATTE	8938514199311, 8938514199328, 8938514199342, 8938514199359, 8938514199366
L.CO TOPCOAT SEMI GLOSS	8938514199250, 8938514199267, 8938514199281, 8938514199298, 8938514199304
L.CO TUNG OIL FINISH HIGH GLOSS	8938514199014, 8938514199021, 8938514199045, 8938514199052, 8938514199069
L.CO TUNG OIL FINISH MATTE	8938514199137, 8938514199144, 8938514199168, 8938514199175, 8938514199182
L.CO TUNG OIL FINISH SEMI GLOSS	8938514199076, 8938514199083, 8938514199106, 8938514199113, 8938514199120
L.CO COLOR OIL JET BLACK	8938514199618, 8938514199625, 8938514199637, 8938514199649, 8938514199656, 8938514199663
L.CO COLOR OIL ESPRESSO	8938514199670, 8938514199687, 8938514199694, 8938514199700, 8938514199717, 8938514199724
L.CO COLOR OIL RUSSET	8938514199731, 8938514199748, 8938514199755, 8938514199762, 8938514199779, 8938514199786
L.CO COLOR OIL BRIGHT GOLD	8938514199794, 8938514199809, 8938514199816, 8938514199823, 8938514199830, 8938514199847
L.CO COLOR OIL BISCUIT	8938514199854, 8938514199861, 8938514199878, 8938514199885, 8938514199892, 893851419990



Sample Description:	UPC Code:
L.CO COLOR OIL PEBBLE	8938514199915, 8938514199922, 8938514199939, 8938514199946, 8938514199953, 8938514199960
L.CO COLOR OIL WHITEWASH	8938514199977, 8938514199984, 8938514199991, 8938514199038, 8938514199090, 8938514199151
L.CO COLOR OIL DRIFTWOOD	8938514199212, 8938514199274, 8938514199335, 8938514199397, 8938514199458, 8938514199519

TEST:

- Canada Total Lead content in surface coating
- FDA Resinous And Polymeric Coatings
- EN71-3:2013 Heavy metals +A1:2014

EXECUTIVE SUMMARY:

The sample(s) MEETS the following requirement(s):

- The applicable lead content requirements for surface coatings of the Canada Consumer Product Safety Act, Surface Coating Materials Regulation, SOR/2016-193 Sec 6.
- Requirements for FDA resinous and polymeric coatings - United States Code of Federal Regulations (CFR), Title 21, Sections 175.300.
- The migration of certain elements requirements of client's specification, with reference to the European Standard, "Safety of Toys", EN 71 Part 3: 2013+A1:2014

Note(s):

- This report includes the test result(s) which was conducted & reviewed by Analytical department.

If there is any question regarding this report, please contact the following lab personnel:

Administrative inquiries, please contact:

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BUREAU VERITAS CONSUMER PRODUCTS SERVICES (VN) LTD.

TERRY NGUYEN
AUTHORIZED REPORT APPROVER – HARDLINE, TOYS & JUVENILE PRODUCTS DIVISION



TEST RESULT

Migration of Certain Elements - European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 with its Latest Amendment

Test Method : European Standard EN 71 Part 3: 2013 with Amendment A1: 2014, Section 8.

See Soluble Element (Parameter) and its corresponding Maximum Allowable Limit (Req.) in Result Table	Type I	Dry, brittle, powder-like or pliable toy material
	Type II	Liquid or sticky toy material
	Type III	Scraped-off toy material

-	Unit	Req.	Result
Test Item(s)	-	-	I001+I002+I003
Type	-	III	III
Parameter	-	-	-
Mass of Trace Amount	g	-	-
Aluminium (Al)	mg/kg	70000	ND
Antimony (Sb)	mg/kg	560	ND
Arsenic (As)	mg/kg	47	ND
Barium (Ba)	mg/kg	18750	ND
Boron (B)	mg/kg	15000	ND
Cadmium (Cd)	mg/kg	17	ND
Chromium III (Cr III)	mg/kg	460	ND
Chromium VI (Cr VI)	mg/kg	0.2	ND
Cobalt (Co)	mg/kg	130	ND
Copper (Cu)	mg/kg	7700	ND
Lead (Pb)	mg/kg	160	ND
Manganese (Mn)	mg/kg	15000	ND
Mercury (Hg)	mg/kg	94	ND
Nickel (Ni)	mg/kg	930	ND
Selenium (Se)	mg/kg	460	ND
Strontium (Sr)	mg/kg	56000	ND
Tin (Sn)	mg/kg	180000	ND
Organic tin	mg/kg	12	ND
Zinc (Zn)	mg/kg	46000	ND
Conclusion	-	-	PASS

Note / Key :

ND = Not detected
 NR = Not requested
 mg/kg = milligram(s) per kilogram = ppm = part(s) per million
 [] = Detection Limit by In House Ion Chromatography Analysis
 { } = Detection Limit by test method with reference to EN 71 Part 3: 2013 with Amendment A1: 2014, Annex G

">" = Greater than
 g = gram(s)
 Req. = Requirement
 INCON. = Inconclusive



Detection Limit (mg/kg) :

For Type I - Al : 562.5; Sb : 4.5; As : 0.38; Ba : 150; B : 120; Cd : 0.13; Cr III : 3.75; Cr VI : 0.005 [0.002];

Co : 1.05; Cu : 62.25; Pb : 0.2; Mn : 120; Hg : 0.75; Ni : 7.5; Se : 3.75; Sr : 450; Sn : 1 500;

Organic tin : 0.09 {0.04}; Zn : 375

For Type II - Al : 140.6; Sb : 1.13; As : 0.09; Ba : 37.5; B : 30; Cd : 0.03; Cr III : 0.94; Cr VI : 0.005 [0.002];

Co : 0.26; Cu : 15.6; Pb : 0.05; Mn : 30; Hg : 0.19; Ni : 1.88; Se : 0.94; Sr : 112.5; Sn : 375;

Organic tin : 0.02 {0.04}; Zn : 93.8

For Type III - Al : 7 000; Sb : 56; As : 4.7; Ba : 1 875; B : 1 500; Cd : 1.7; Cr III : 46; Cr VI : 0.02 [0.002];

Co : 13; Cu : 770; Pb : 2.3; Mn : 1 500; Hg : 9.4; Ni : 93; Se : 46; Sr : 5 600; Sn : 18 000; Organic tin : 1.2

{2}; Zn : 4 600

Remark :

- Results of Cr III and Cr VI were reported as sum of soluble chromium content unless further verified.
 - Result(s) of organic tin was (were) calculated by assuming the soluble tin content was wholly contributed from tributyltin (TBT) cation unless further specified.
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TEST RESULT

Requirements for FDA Resinous and Polymeric Coatings - United States Code of Federal Regulations (CFR), Title 21, Sections 175.300

Test Method : U. S. FDA 21 CFR 175.300.

Requirement(s) (See Comment for the List of Types) :					
Parameter(s)	Unit	Maximum Allowable Limit (Each Extraction Simulant Used ^[a])			
		Type I	Type II	Type III	Type IV
Chloroform-soluble Extractives	mg/sq. in	0.5	1.8	18	18
	ppm	50	-	-	-
Test Item(s)	I004				
Type	III				
Condition of Use	D. Hot filled or pasteurized below 150 deg. F				
Parameter	Unit	Result			
Chloroform-soluble Extractives - Distilled Water (150 deg. F, 2 hours)	mg/sq. in	1.98			
Chloroform-soluble Extractives - 8 % Alcohol (150 deg. F, 2 hours)	mg/sq. in	-			
Chloroform-soluble Extractives - n-Heptane (100 deg. F, 30 minutes)	mg/sq. in	< 0.5			
Conclusion	PASS				

Test Item(s)	I004				
Type	III				
Condition of Use	E. Room temperature filled and stored				
Parameter	Unit	Result			
Chloroform-soluble Extractives - Distilled Water (120 deg. F, 24 hours)	mg/sq. in	3.93			
Chloroform-soluble Extractives - 8 % Alcohol (120 deg. F, 24 hours)	mg/sq. in	4.54			
Chloroform-soluble Extractives - n-Heptane (70 deg. F, 30 minutes)	mg/sq. in	< 0.5			
Conclusion	PASS				

"<" = Less than U. S. = United States % = percent
 mg/ in² = milligram(s) per square inch
 ppm = part(s) per million deg. F = degree Fahrenheit (°F) FDA = Food and Drug Administration

Remark :

- ^[a] denotes as only suitable extraction simulant(s) was (were) used according to the type of food and the condition of use as mentioned in United States Code of Federal Regulations (CFR), Title 21, Section 175.300(d), Tables 1 and 2.
- ^c denotes as the result(s) of chloroform-soluble extractives was (were) adjusted to correct for zinc as zinc oleate and reported as net value(s).

Comment :

List of Types [U. S. FDA 21 CFR 175.300] :	
Type	Type Description



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I	Coating intended for or employed as a component of a container not to exceed 1 gallon and intended for one-time use [U. S. FDA 21 CFR 175.300(c)(1)]
II	Coating intended for or employed as a component of a container having a capacity in excess of 1 gallon and intended for one-time use [U. S. FDA 21 CFR 175.300(c)(2)]
III	Coating intended for or employed as a component of a container for repeated use [U. S. FDA 21 CFR 175.300(c)(3)]
IV	Coating intended for repeated use, and employed other than as a component of a container [U. S. FDA 21 CFR 175.300(c)(4)]





