



CONSUMER PRODUCTS SERVICES DIVISION

SILVER TIMING LTD

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KALI / TERRY
SILVER TIMING LTD
UNIT 801-802, 8/F, PIONEER PLACE
33 HOI YUAN ROAD
KWUN TONG
KOWLOON
HONG KONG

Sample Description:	FOAM PUZZLE ALPHABET & NUMBERS		
Vendor:	N/A	Sample Size:	6
Manufacturer:	N/A	Style No(s):	G16733
Buyer:	OWN NAME	SKN/SKU No.:	G16733
Labeled Age Grade:	FOR AGES 4+	PO No.:	6758
Appropriate Age Grade:	N/A	Ref #:	N/A
Client Specified Age Grade:	NOT SPECIFIED	Country of Origin:	CHINA
Grade:			
Tested Age Grade:	N/A	Assortment No.:	N/A
UPC Code:	N/A	Country of Destination:	USA
		Protocol #:	CPSD-AN-06572-USA

EXECUTIVE SUMMARY:

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

- The soluble heavy metals content in substrate requirements of ASTM F963-17, "Standard Consumer Safety Specification for Toy Safety," Section 4.3.5.2(2)(b).
- The initial total heavy metals content analysis for soluble heavy metals content in substrate requirements of ASTM F963-17, "Standard Consumer Safety Specification for Toy Safety," Section 4.3.5.2(2)(b).
- The BBP, DBP, DEHP, DnHP and DIDP content requirements in toys, child care articles and watches according to the California Proposition 65 settlements of County of Sacramento case number 07AS04683, and the Alameda Superior Court case numbers BG07350969, RG08367601, RG07351032 and RG08378050.



EXECUTIVE SUMMARY:

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

- The total lead content requirements in children products according to the California Proposition 65 settlements of Alameda Superior Court RG 07356892.
- The phthalates (BBP, DBP, DEHP, DINP, DIBP, DPENP, DHEXP & DCHP) content requirements of the Consumer Product Safety Improvement Act (CPSIA) of 2008 Sec. 108(a) and 108(c), 16 CFR 1307).
- The total lead content of 100ppm requirements by composite testing in substrate materials (Consumer Products Safety Improvement Act (CPSIA) of 2008).
- The total lead content of 90ppm requirements of 16 CFR 1303, "Ban of lead-containing paint and certain consumer products bearing lead-containing paint" as mandated by Congress in section 101(f) of the Consumer Products Safety Improvement Act (CPSIA) of 2008, Public Law 110-314.

Note: The received sample(s) contained surface coating(s) which are bonded to the substrate materials during the manufacturing process and cannot be scraped off for testing, therefore such coating material(s) was not subject to the heavy metals analysis of surface coating in ASTM F963-17, "Standard consumer safety specification on toy safety", section 4.3.5.1(2).

BUREAU VERITAS SHENZHEN CO.,LTD

Choy Hon Kwong, Adams
Deputy Director
Analytical Department

AC/ dl



RESULTS:

PHthalATES CONTENT IN CHILDREN'S TOYS AND CHILD CARE ARTICLES (Consumer Product Safety Improvement Act (CPSIA) of 2008, Section 108(a) and 108(c), 16 CFR 1307)

Test Method: With reference to U. S. CPSC-CH-C1001-09.3 (April 1, 2010) / CPSC-CH-C1001-09.4 (January 17, 2018).

Sample Identity	Color / Component	Location	Style
A.	Green foam Yellow foam	puzzle puzzle	
B.	Red foam White printed blue foam	puzzle puzzle	

Test Parameter:	Listed Phthalates (See Remark)		
Requirement:	Each 0.1%		
Sample ID	Detected Analyte	Concentration (%)	Conclusion
A.	ND	ND	PASS
B.	ND	ND	PASS

Results reported in percentage
ND = None detected
Detection Limit: Each Phthalate (0.005%)

LIST OF RESTRICTED PHTHALATES		
Number	Chemical Name	CAS Number
1.	Butyl benzyl phthalate (BBP)	85-68-7
2.	Dibutyl phthalate (DBP)	84-74-2
3.	Di(2-ethylhexyl) phthalate (DEHP)	117-81-7
4.	Di-iso-nonyl phthalate (DINP)	28553-12-0 & 68515-48-0
5.	Di-iso-butyl phthalate (DIBP)	84-69-5
6.	Di-n-pentyl phthalate (DPENP or DnPP)	131-18-0
7.	Di-n-hexyl phthalate (DHEXP or DnHP)	84-75-3
8.	Dicyclohexyl phthalate (DCHP)	84-61-7



RESULTS:

BBP/DBP/DEHP/DnHP/DIDP PHTHALATES CONTENT REQUIREMENTS IN TOYS, CHILD CARE ARTICLES AND WATCHES (California Proposition 65 settlements of County of Sacramento case number 07AS04683, and the Alameda Superior Court case numbers BG07350969, RG08367601, RG07351032 and RG08378050)

Color / Component		Location	Style
A.	Green foam Yellow foam	puzzle puzzle	
B.	Red foam White printed blue foam	puzzle puzzle	

Test Parameter	BBP	DBP	DEHP	DnHP	DIDP	
Limit (%)	0.1	0.1	0.1	0.1	0.1	
Sample	Result (%)					Conclusion
A	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	PASS
B	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	PASS

Detection Limit :

BBP = Butyl benzyl phthalate (0.005%)
DBP = Dibutyl phthalate (0.005%)
DEHP = Di(2-ethylhexyl) phthalate (0.005%)
DnHP = Di-n-hexyl phthalate (0.005%)
DIDP = Di-iso-decyl phthalate (0.005%)

Results reported in percentage

LT = Less than
ND = None detected



RESULTS:

TOTAL LEAD CONTENT IN SURFACE COATING BY COMPOSITE TESTING ("Ban of Lead-containing paint and certain consumer products bearing Lead-containing paint", Consumer Product Safety Improvement Act (CPSIA) of 2008)

Test Method: U.S. CPSC-CH-E1003.09.1:2011

Element:			Lead		
Requirement: Maximum allowable limit:			90 mg/kg		
Sample Description			Result (mg/kg)		Conclusion
Color / Component	Location	Style	Overall	Potential	
(A) White coating	tracking label		LT 10	-	PASS

LT = Less Than

** = Average of duplicate analyses*

mg/kg = milligrams per kilogram (ppm = parts per million)

Potential = Estimated lead content per component is based on calculation by component individual weight



RESULTS:

TOTAL LEAD CONTENT IN SUBSTRATE BY COMPOSITE TESTING (100PPM) (Consumer Product Safety Improvement Act (CPSIA) of 2008)

Test Method: U.S. CPSC-CH-E1001-08.3:2012 or U.S. CPSC-CH-E1002-08.3:2012

Analyte	Lead	
Requirement: Maximum allowable limit:	100 mg/kg	

Analyte			Lead (Pb)	Conclusion
Sample Description			Result (mg/kg)	
Color / Component	Location	Style		
(A) Blue foam	puzzle		LT 10	PASS
(B) Green foam Yellow foam Red foam	puzzle puzzle puzzle		LT 10	PASS

LT = Less Than

** = Average of duplicate analyses*

mg/kg = milligrams per kilogram (ppm = parts per million)



RESULTS:

TOTAL LEAD CONTENT IN CHILDREN PRODUCTS (California Proposition 65 settlements of Alameda Superior Court RG 07356892)

Test Method: Acid digestion followed by Atomic Absorption Spectrophotometry or Inductively Coupled Plasma Spectrometry

		Maximum allowable limit	
Analyte		Lead	
Type 1	Paint and surface coatings	90 mg/kg	
Type 2	Substrate materials	100 mg/kg	

Analyte				Lead (Pb)	Conclusion
Sample Description				Result	
Color / Component	Location	Style	(mg/kg)		
Type 1: Paint and surface coatings					
(A)	White coating	tracking label		LT 10	PASS
Type 2: Substrate materials					
(B)	Blue foam	puzzle		LT 10	PASS
(C)	Green foam Yellow foam Red foam	puzzle puzzle puzzle		LT 10	PASS

LT = Less Than

* = Average of duplicate analyses

mg/kg = milligrams per kilogram (ppm=parts per million)



RESULTS:

TOTAL HEAVY METALS CONTENT – INITIAL ANALYSIS FOR SOLUBLE HEAVY METALS CONTENT IN SUBSTRATE (ASTM F963-17, Section 4.3.5.2(2)(b))

Test Method: ASTM International Standard ASTM F963-17, Section 8.3.1 and Annex A7.

Sample Identity	Color	Location	Style
Type I: Substrate other than modeling clay			
A.	Green foam Yellow foam Red foam	puzzle puzzle puzzle	
B.	White printed blue foam	puzzle	

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se
Max. Limit Type I (mg/kg)	25	1000	75	60	60	90	60	500
Max. Limit Type II (mg/kg)	25	250	50	25	25	90	60	500

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se	Conclusion
Sample	Result (mg/kg)								
A	LT 7	1600	LT 10	LT 7	LT 5	LT 10	LT 10	LT 10	DATA
B	LT 7	330	LT 10	LT 7	LT 5	LT 10	LT 10	LT 10	PASS

mg/kg = milligrams per kilogram (ppm=parts per million)
LT = Less Than
ND = None Detected
Detection limit (mg/kg): As and Cr = 7, Hg = 5, other elements = 10

*As = Arsenic, Ba = Barium, Cd = Cadmium,
 Cr = Chromium, Hg = Mercury, Pb = Lead,
 Sb = Antimony, Se = Selenium*

Remark:

Textiles (natural or synthetic) are exempted for lead content requirement according to clarification of Toy Industry Association for ASTM F963-17. The lead content analysis result of corresponding material herein is for client's reference only.

On an initial analysis for soluble heavy metals content, any individually tested component of greater than the set limit or any composite tested components of greater than 80% of the set limit, the result is inconclusive for the requirement and therefore were retested with soluble heavy metals analysis of ASTM F963-17, Sections 8.3.5 (excluding 8.3.5.5(3)) as specified in Section 8.3.1.3. The result herein is for reference only (show data), please refer to soluble heavy metals content analysis for the corresponding conclusive results.



RESULTS:

SOLUBLE HEAVY METALS CONTENT IN SUBSTRATE (ASTM F963-17, Section 4.3.5.2(2)(b))

Test Method: ASTM International Standard ASTM F963-17, Section 8.3.5 (Excluding 8.3.5.5(3))

Sample Identity	Color	Location	Style
Type I: Substrate other than modeling clay			
A	Green foam	puzzle	
B	Yellow foam	puzzle	
C	Red foam	puzzle	

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se
Max. Limit Type I (mg/kg)	25	1000	75	60	60	90	60	500
Max. Limit Type II (mg/kg)	25	250	50	25	25	90	60	500
Analytical Correction	60%	30%	30%	30%	50%	30%	60%	60%

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se	Mass of Trace Amount	Conclusion
Sample	Result (mg/kg)								(g)	
A	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS
B	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS
C	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS

mg/kg = milligrams per kilogram (ppm=parts per million)
CR = adjusted analytical result
LT = Less Than
ND = None Detected

As = Arsenic, Ba = Barium, Cd = Cadmium,
Cr = Chromium, Hg = Mercury, Pb = Lead,
Sb = Antimony, Se = Selenium
Detection limit (mg/kg): Each element 2

Remark:

Textiles (natural or synthetic) are exempted for lead content requirement according to clarification of Toy Industry Association for ASTM F963-17. The lead content analysis result of corresponding material herein is for client's reference only.

RESULTS:



END OF REPORT