



**BUREAU
VERITAS**

CONSUMER PRODUCTS SERVICES DIVISION

Technical Report: (8516)124-0532(A)(Revision)
Date Received: May 03, 2016

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NOBUCO SARL
5 RUE TRONFOU 01700 ST
MAURICE DE BEYNOST FRANCE

(*)Sample Description: TOYS(PUZZLE MAT)

- 1.) PAW PATROL
- 2.) CARS
- 3.) DORY
- 4.) FROZEN
- 5.) HOPSCOTCH

Vendor:	GUANG DONG FAIRNESS ENTERPRISE CO LTD	Sample Size:	5
Manufacturer:	GUANG DONG FAIRNESS ENTERPRISE CO LTD	(*)Style No(s):	TFR8D/DY.S0.9C1-32.10/ TD8D/TPP8D.3/THOPS10D
Buyer:	NOBUCO SARL	SKN/SKU No.:	N/A
Labeled Age Grade:	N/A	PO No.:	N/A
Appropriate Age Grade:	N/A	Ref #:	N/A
Client Specified Age Grade:	N/A	Country of Origin:	CHINA
Tested Age Grade:	FOR STYLE#5 SAMPLE(S) = OVER 3 YEARS OF AGE, FOR OTHERS = OVER 10 MONTHS OF AGE	Assortment No.:	N/A
UPC Code:	N/A		

EXECUTIVE SUMMARY:

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

- The TCEP, TDCPP and TCPP content requirement of the European Council Directive 2009/48/EC(and its amendments), Annex II, Appendix C.
- The Bisphenol A content requirement of the European Council Directive 2009/48/EC(and its amendments), Annex II, Appendix C.
- The BBP, DBP and DEHP content requirements of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 51.
- The DNOP, DINP and DIDP content requirements of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 52.
- The cadmium content requirement of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 23 (amended up to EU No. 2016/217).

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EXECUTIVE SUMMARY:

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

- The polycyclic aromatic hydrocarbons (PAHs) content requirement of European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 50, Paragraph 5 and 6.
- The formamide content requirement of the French Arrêté du 26 Octobre 2015 Portant Suspension de la Mise sur le Marché de Jouets en Mousse « Tapis-Puzzles » Contenant du Formamide (Order of 26 October 2015 suspending the placing on the market of foam toys "puzzle mats" containing formamide).

BUREAU VERITAS SHENZHEN CO.,LTD

Choy Hon Kwong, Adams
Senior Manager
Analytical Department

AC/jq



RESULTS:

TCEP/ TDCPP/ TCPP CONTENT (2009/48/EC(and its amendments) Annex II, Appendix C)

Sample Identity	Test Component	Location	Style
A.	Multi color printed white foam	Puzzle mat	1-4
	Purple foam	Puzzle mat	5
	Yellow foam	Puzzle mat	5
B.	Red foam	Puzzle mat	5
	Blue foam	Puzzle mat	5
C.	Orange foam	Puzzle mat	5
	Green foam	Puzzle mat	5

Analyte:	TCEP	TDCPP	TCPP
Limit (mg/kg):	ND	ND	ND

Analyte	TCEP	TDCPP	TCPP	
Sample	Result (mg/kg)			Conclusion
A.	LT 5	LT 5	LT 5	Pass
B.	LT 5	LT 5	LT 5	Pass
C.	LT 5	LT 5	LT 5	Pass

Detection Limit :

TCEP = Tris(2-chloroethyl)phosphate (5 mg/kg)

TDCPP = Tris(1,3-dichloro-2-propyl)phosphate (5 mg/kg)

TCPP = Tris(1-chloro-2-propyl)phosphate (5 mg/kg)

Results reported in percentage

LT = Less than

ND = None detected



RESULTS:

BISPHENOL A (MIGRATION) CONTENT (2009/48/EC(and its amendments) Annex II, Appendix C)

Parameter:			Bisphenol A		
Maximum allowable limit:			0.1 mg/L		
Color / Component	Location	Style	Result (µg/mL)	Conclusion	
A. Multi color printed white foam	Puzzle mat	1-4	ND	Pass	
B. Purple foam	Puzzle mat	5	ND	Pass	
C. Yellow foam	Puzzle mat	5	ND	Pass	
D. Red foam	Puzzle mat	5	ND	Pass	
E. Blue foam	Puzzle mat	5	ND	Pass	
F. Orange foam	Puzzle mat	5	ND	Pass	
G. Green foam	Puzzle mat	5	ND	Pass	

LT = Less than
 ND = None detected

mg/L = milligram per liter of simulant



RESULTS:

BBP/DBP/DEHP CONTENTS IN TOYS AND CHILDCARE ARTICLES (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 51)

Test Method: Sample was extracted with organic solvent and then analyzed by Liquid Chromatograph Mass Spectrometer / Gas Chromatograph Mass Spectrometer.

Sample Identity	Test Component	Location	Style
A.	Multi color printed white foam	Puzzle mat	1-4
	Purple foam	Puzzle mat	5
	Yellow foam	Puzzle mat	5
B.	Red foam	Puzzle mat	5
	Blue foam	Puzzle mat	5
C.	Orange foam	Puzzle mat	5
	Green foam	Puzzle mat	5

Test Parameter:	BBP	DBP	DEHP	Sum of three phthalates	
Limit (%):	0.1	0.1	0.1	0.1	
Sample	Result (%)				Conclusion
A.	LT 0.005	LT 0.005	LT 0.005	LT 0.015	Pass
B.	LT 0.005	LT 0.005	LT 0.005	LT 0.015	Pass
C.	LT 0.005	LT 0.005	LT 0.005	LT 0.015	Pass

Detection Limit :

BBP = Butyl benzyl phthalate (0.005%)

DBP = Dibutyl phthalate (0.005%)

DEHP = Di(2-ethylhexyl) phthalate (0.005%)

Results reported in percentage

LT = Less than

ND = None detected



RESULTS:

DNOP/DINP/DIDP CONTENTS IN TOYS AND CHILDCARE ARTICLES WHICH CAN BE PLACED IN MOUTH BY THE CHILDREN (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 52)

Test Method: Sample was extracted with organic solvent and then analyzed by Liquid Chromatograph Mass Spectrometer / Gas Chromatograph Mass Spectrometer.

Sample Identity	Test Component	Location	Style
A.	Multi color printed white foam	Puzzle mat	1-4
	Purple foam	Puzzle mat	5
	Yellow foam	Puzzle mat	5
B.	Red foam	Puzzle mat	5
	Blue foam	Puzzle mat	5
C.	Orange foam	Puzzle mat	5
	Green foam	Puzzle mat	5

Test Parameter:	DNOP	DINP	DIDP	Sum of three phthalates	
Limit (%):	0.1	0.1	0.1	0.1	
Sample	Result (%)				Conclusion
A.	LT 0.005	LT 0.005	LT 0.005	LT 0.015	Pass
B.	LT 0.005	LT 0.005	LT 0.005	LT 0.015	Pass
C.	LT 0.005	LT 0.005	LT 0.005	LT 0.015	Pass

Detection Limit :

DNOP = Di-n-octyl phthalate (0.005%)
DINP = Di-iso-nonyl phthalate (0.005%)
DIDP = Di-iso-decyl phthalate (0.005%)

Results reported in percentage
LT = Less than
ND = None detected



RESULTS:

CADMIUM CONTENT (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 23)

Category:				Plastics			
Element:				Cadmium			
Test Method				BS EN 1122: 2001, Method B			
Maximum Allowable Limit:				100 mg/kg (0.01% by weight)			
Sample Description				Reading 1	Reading 2	Average	Conclusion
Color / Component	Location	Style	Result (mg/kg)				
(A) Multi color printed white foam	Puzzle mat	1-4	LT 10	LT 10	LT 10	Pass	
(B) Purple foam	Puzzle mat	5	LT 10	LT 10	LT 10	Pass	
Yellow foam	Puzzle mat	5					
Red foam	Puzzle mat	5					
(C) Blue foam	Puzzle mat	5	LT 10	LT 10	LT 10	Pass	
Orange foam	Puzzle mat	5					
Green foam	Puzzle mat	5					

LT = Less than

= Insufficient sample for duplicate analyses

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

Operator: Tsang Lut Wai Philip



RESULTS:

FORMAMIDE CONTENT (French Arrêté du 26 Octobre 2015 Portant Suspension de la Mise sur le Marché de Jouets en Mousse « Tapis-Puzzles » Contenant du Formamide)

Analyte				Formamide	
Requirement: Maximum allowable limit:				200 mg/kg	
Sample Description				Result (mg/kg)	Conclusion
	Color / Component	Location	Style		
(A)	Multi color printed white foam	Puzzle mat	1-4	LT 20	Pass
(B)	Purple foam	Puzzle mat	5	36.3	Pass
	Yellow foam	Puzzle mat	5		
	Red foam	Puzzle mat	5		
	Blue foam	Puzzle mat	5		
	Orange foam	Puzzle mat	5		
	Green foam	Puzzle mat	5		

LT = Less Than

* = Average of duplicate analyses

mg/kg = milligram per kilogram (ppm = part per million)

RESULTS:





(*)RESULTS:



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