



BTL DIFFUSION

Technical Report: (8822)073-0165

Date Received: Mar 14, 2022

Mar 25, 2022

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BTL DIFFUSION
16, RUE ANATOLE MOUSSU – ZA MÉRÉ NORD EST
78490 MÉRÉ, FRANCE

Sample Description: PLAYMAT JUNGLE PLAYMAT FARM ACTIVITY SPIRAL- JUNGLE
ACTIVITY SPIRAL - FARM

Vendor:	N/A	Sample Size:	5
Manufacturer:	N/A	Style No(s):	302818, 302825, 302856, 302863
Labeled Age Grade:	NOT RECORD	SKN/SKU No.:	NOT PROVIDE
Appropriate Age Grade:	NOT REQUESTED	PO No.:	NOT PROVIDE
Client Specified Age Grade:	NOT SPECIFIED	Ref #:	NOT PROVIDE
Tested Age Grade:	N/A	Country of Origin:	CHINA
UPC Code:	N/A	Assortment No.:	NOT PROVIDE
Test Starting Date:	MAR 14, 2022	Test Finished Date:	MAR 25, 2022

EXECUTIVE SUMMARY:

Test Requested	Conclusion
Migration of Certain Elements in Category III - Scraped off toy material requirements of the European Standard, "Safety of toys", EN 71-3:2019+A1:2021.	PASS
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).	PASS
Soluble Heavy Metals Content in Plastic Materials - Canada Consumer Product Safety Act (CCPSA), S.C. 2010, c. 21, Toys Regulations SOR/2011-17 with its Latest Amendment, Section 27 (a)	PASS



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REMARK

If there are questions or concerns on this report, please contact the following persons:

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Tested Component(s) Description List:

Test Item(s)	Item / Component Description(s)	Location(s)	Style(s)
I001	Orange plastic	radish	-
I002	Green plastic	leaf	-



RESULTS:

Migration of Certain Elements, EN 71-3:2019+A1:2021

Test Method: European Standard EN 71-3:2019+A1:2021 Section 8.

Class: Category III - Scraped off toy material

Analyte	Requirement (mg/kg)	Result (mg/kg)				
		Test Item(s)				
	Category III	I001	I002	-	-	-
Aluminium (Al)	28130	ND	ND	-	-	-
Arsenic (As)	47	ND	ND	-	-	-
Boron (B)	15000	ND	ND	-	-	-
Barium (Ba)	18750	ND	ND	-	-	-
Cadmium (Cd)	17	ND	ND	-	-	-
Cobalt (Co)	130	ND	ND	-	-	-
Chromium III (Cr III)	460	ND	ND	-	-	-
Chromium VI (Cr VI)	0.053	ND	ND	-	-	-
Copper (Cu)	7700	ND	ND	-	-	-
Mercury (Hg)	94	ND	ND	-	-	-
Manganese (Mn)	15000	ND	ND	-	-	-
Nickel (Ni)	930	ND	ND	-	-	-
Lead (Pb)	23	ND	ND	-	-	-
Antimony (Sb)	560	ND	ND	-	-	-
Selenium (Se)	460	ND	ND	-	-	-
Tin (Sn)	180000	ND	ND	-	-	-
Organic tin	12	ND	ND	-	-	-
Strontium (Sr)	56000	ND	ND	-	-	-
Zinc (Zn)	46000	ND	ND	-	-	-
Mass of trace amount (gram)		-	-	-	-	-
Conclusion		PASS	PASS	-	-	-



RESULTS:

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

Organic tin = migration of total organic tin is expressed as tributyltin cation content in mg/kg

= Verified results (see note)

ND = Not detected

Detection Limit (mg/kg) :

For Type III - Al : 2 ; Sb : 2 ; As : 2 ; Ba : 2 ; B : 2 ; Cd : 2 ; Cr III : 0.15 ; Cr VI : 0.025 ; Co : 2 ; Cu : 2 ; Pb : 2 ; Mn : 2 ;
Hg : 2 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 2 ; Zn : 2

Remark:

- Results of Cr III and Cr VI were reported as sum of soluble Chromium content unless specified.
- Result(s) of organic tin was (were) calculated while assuming the tin content wholly contributed from tributyltin cation unless specified.
- The pH measured shall be reported after migration if it was outside the range of 1.1 to 1.3.

Note:

If soluble chromium content or soluble tin content exceeded the screening limits of soluble chromium (VI) or organic tin content, the results were verified by below method

- Chromium VI: EN 71-3:2019+A1:2021, Annex F by Ion-chromatography with ICP-MS detector analysis.
- Organic tin: EN 71-3:2019+A1:2021, Annex G by Gas Chromatography-Mass Spectroscopy analysis.



RESULTS:

Soluble Heavy Metals Content in Substrate –ASTM F963-17, Section 4.3.5.2(b)

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

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
Test Item(s)	Result (mg/kg)								(g)	
Type I: Substrate other than modeling clay										
I001	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I002	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS

Note / key:

As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium
 Hg = Mercury Pb = Lead Sb = Antimony Se = Selenium
 ND = Not detected g = gram(s) % = percent
 mg/kg = milligram(s) per kilogram (ppm=parts per million)
 Detection Limit (mg/kg) :
 For Type I – As : 2.5; Ba : 100; Cd : 7.5; Each (Cr, Hg, & Sb) : 6.0; Pb : 9.0; Se : 50
 For Type II – Each (As, Cr & Hg) : 2.5; Ba : 25; Cd : 5.0; Sb : 6.0; Pb : 9.0; Se : 50

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:

Soluble Heavy Metals Content in Plastic Materials - Canada Consumer Product Safety Act (CCPSA), S.C. 2010, c. 21, Toys Regulations SOR/2011-17 with its Latest Amendment, Section 27 (a)

Test Method : Reference to ASTM International Standard ASTM F963-08, Section 8.3.

Soluble Element(s)	As	Ba	Cd	Cr	Hg	Sb	Se
Maximum Allowable Limit (mg/kg)	25	1000	75	60	60	60	500
Analytical Correction (%)	60	30	30	30	50	60	60

Analyte	As	Ba	Cd	Cr	Hg	Sb	Se	Conclusion
Test Item(s)	Result (mg/kg)							
I001	ND	ND	ND	ND	ND	ND	ND	PASS
I002	ND	ND	ND	ND	ND	ND	ND	PASS

Note / key:

As = Arsenic Ba = Barium Cd = Cadmium Hg = Mercury
 Cr = Chromium Sb = Antimony Se = Selenium
 ND = Not detected S = Soluble analysis
 mg/kg = milligram(s) per kilogram
 Detection Limit (mg/kg) : As 2.5; Ba 100; Cd 7.5; Cr 6.0; Hg 6.0; Sb 6.0; Se 50

RESULTS:



END OF REPORT