



WENZHOU KAISI OUTDOOR PRODUCTS CO.,LTD

Technical Report: (8819)112-0111

Apr 29, 2019

Date Received: Apr 23, 2019

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WENZHOU KAISI OUTDOOR PRODUCTS CO.,LTD
NO.8 XINYA ROAD,SANXI INDUSTRIAL PARK, GUOXI
TOWN,OUHAI,WENZHOU

Sample Description:	ACCESSORIES OF BUG NET	Sample Size:	1
Vendor:	WENZHOU KAISI OUTDOOR PRODUCTS CO.,LTD	Style No(s):	NOT PROVIDE
Manufacturer:	WENZHOU KAISI OUTDOOR PRODUCTS CO.,LTD	SKN/SKU No.:	NOT PROVIDE
Buyer:	XXL GROSSIST NORGE AS	PO No.:	NOT PROVIDE
Labeled Age Grade:	NOT RECORD	Ref #:	NOT PROVIDE
Appropriate Age Grade:	NOT REQUESTED	Country of Origin:	CHINA
Client Specified Age Grade:	ADULT	Assortment No.:	NOT PROVIDE
Tested Age Grade:	ADULT	Test Starting Date:	APR 23, 2019
UPC Code:	N/A	Test Finished Date:	APR 29, 2019

EXECUTIVE SUMMARY:

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

- The migration of certain tested elements in Category III - Scraped off toy material requirements of the European Standard, "Safety of Toys", EN 71 Part 3: 2013+A3:2018.
- The listed aromatic amines (azocolourants) 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. 43, Points 1 and 2.

To be continued

BUREAU VERITAS SHENZHEN CO.,LTD
DONGGUAN BRANCH

Harvey Xue
Manager, Analytical Lab

RT/CX/LL

REMARK

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

Report Enquiry: (86) 0769 89952999 Ext. 8175 CPSAnalytical.DG@cn.bureauveritas.com

Business Contact: (86) 0769 85893595

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EXECUTIVE SUMMARY:

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

- The formaldehyde content requirement of the client's specification.

Note: At the request of client, test(s) was conducted on the certain component(s) of the submitted samples(s) / submitted component(s).

Note: The composite test sample(s) of the submitted samples was prepared in the manner requested by the client, when subject to the test performed.

Tested Component(s) Description List:

Test Item(s)	Item / Component Description(s)	Location(s)	Style(s)
I001^	White coating	Words	-
I002	Black plastic	Button	-
I003	Matt black plastic	Buckle	-
I004	Black string	String of bag & bug net	-
I005	White/black string	Marine rope	-
I006	Grey knit fabric	Belt ,base of bag	-
I007	Black knit fabric	Binding of bug net	-

Remark:

"^"The received sample(s) contained accessible component(s) of less than 10 milligrams by weight on one single sample, therefore such component(s) was not subject to migration of certain elements of European Standard, "Safety of Toys", EN 71 Part 3: 2013+A3:2018, as specified in Clause 7.1 - Selection of test portions.



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RESULTS:

Migration of Certain Elements – European Standard EN 71 Part 3: 2013+A3:2018

Test Method: European Standard EN 71 Part 3: 2013+A3:2018, Annex E.

Class: Category III - Scraped off toy material

Analyte	Requirement (mg/kg)	Result (mg/kg)				
		Test Item(s)				
	Category III	I002	I003	I004	I005	I006
Aluminium (Al)	70000	5	5	7	7	9
Arsenic (As)	47	LT 2	LT 2	LT 2	LT 2	LT 2
Boron (B)	15000	LT 2	LT 2	LT 2	LT 2	LT 2
Barium (Ba)	18750	23	LT 2	2	2	LT 2
Cadmium (Cd)	17	LT 2	LT 2	LT 2	LT 2	LT 2
Cobalt (Co)	130	LT 2	LT 2	LT 2	LT 2	LT 2
Chromium III (Cr III)	460	LT 0.15	LT 0.15	LT 0.15	LT 0.15	LT 0.15
Chromium VI (Cr VI)	0.2					
Copper (Cu)	7700	LT 2	LT 2	LT 2	LT 2	LT 2
Mercury (Hg)	94	LT 2	LT 2	LT 2	LT 2	LT 2
Manganese (Mn)	15000	LT 2	LT 2	LT 2	LT 2	LT 2
Nickel (Ni)	930	LT 2	LT 2	LT 2	LT 2	LT 2
Lead (Pb)	23	LT 2	LT 2	LT 2	LT 2	LT 2
Antimony (Sb)	560	LT 2	LT 2	LT 2	LT 2	LT 2
Selenium (Se)	460	LT 2	LT 2	LT 2	LT 2	LT 2
Tin (Sn)	180000	LT 2	LT 2	LT 2	LT 2	LT 2
Organic tin	12	LT 2	LT 2	LT 2	LT 2	LT 2
Strontium (Sr)	56000	2	LT 2	LT 2	LT 2	LT 2
Zinc (Zn)	46000	3	3	7	4	3
Mass of trace amount (gram)		-	-	-	-	-
Conclusion		PASS	PASS	PASS	PASS	PASS



RESULTS:

Analyte	Requirement (mg/kg)	Result (mg/kg)				
		Test Item(s)				
	Category III	I007	-	-	-	-
Aluminium (Al)	70000	5	-	-	-	-
Arsenic (As)	47	LT 2	-	-	-	-
Boron (B)	15000	LT 2	-	-	-	-
Barium (Ba)	18750	LT 2	-	-	-	-
Cadmium (Cd)	17	LT 2	-	-	-	-
Cobalt (Co)	130	LT 2	-	-	-	-
Chromium III (Cr III)	460	LT 0.15	-	-	-	-
Chromium VI (Cr VI)	0.2					
Copper (Cu)	7700	LT 2	-	-	-	-
Mercury (Hg)	94	LT 2	-	-	-	-
Manganese (Mn)	15000	LT 2	-	-	-	-
Nickel (Ni)	930	LT 2	-	-	-	-
Lead (Pb)	23	LT 2	-	-	-	-
Antimony (Sb)	560	LT 2	-	-	-	-
Selenium (Se)	460	LT 2	-	-	-	-
Tin (Sn)	180000	LT 2	-	-	-	-
Organic tin	12	LT 2	-	-	-	-
Strontium (Sr)	56000	LT 2	-	-	-	-
Zinc (Zn)	46000	2	-	-	-	-
Mass of trace amount (gram)		-	-	-	-	-
Conclusion		PASS	-	-	-	-

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

* = Average of duplicate analysis

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

= Verified results (see note)

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.

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: In house Ion-chromatography analysis.
- Organic tin: EN71 part 3:2013+A3:2018, Annex G by Gas Chromatography – Mass Spectroscopy analysis.



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RESULTS:

AROMATIC AMINES (AZOCOLOURANTS) CONTENT (European Regulation (EC) No. 1907/2006 REACH, Annex XVII, Item no. 43, Points 1 and 2)

Test Method: Quantification by Gas Chromatography/Mass Spectrometry (GC/MS)
Additional chromatographic technique employed to confirm positive result by HPLC/TLC

Test Parameter:		Aromatic Amines (Azocolourants)		
Requirement:		30 mg/kg		
Test Item(s)	Test Method	Detected Amine Number	Concentration (mg/kg (ppm))	Conclusion
I004+I005	II	-	ND	PASS
I006+I007	II	-	ND	PASS

ND = Not Detected (Detection Limit = 10 mg/kg (ppm))

ppm = parts per million

mg/kg = milligrams per kilogram

NR = Not Requested

* = The specimen is a minor component. As only a reduced mass (< 0.5 g) could be used for the test the result may have a greater uncertainty due to lower material homogeneity

Amine No. = Refer to List of Banned Amines for the description of the detected Amine.

Test Method I = European Standard EN 14362-1: 2017, Clauses 9, 10.2 and afterwards.

Test Method II = European Standard EN 14362-1: 2017, Clauses 9, 10.1, 10.3 and afterwards.

Test Method III = International Standard ISO 17234-1: 2015.

Remark:

The list of aromatic amines in azo colorants is summarized in table of Appendix.

The CAS-number 97-56-3 (no. 5) and 99-55-8 (no. 6) are further reduced to CAS-number 95-53-4 (no. 18) and 95-80-7 (no. 19), respectively.

The colorant(s) of Test Item(s), that are able to form 4-aminoazobenzene, is (are) able to generate aniline and 1,4-phenylenediamine under the condition of Test Method.

The absence of 4-aminoazobenzene is inferred by the absence of aniline and 1,4-phenylenediamine under the condition of Test Method.



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RESULTS:

LIST OF BANNED AMINES		
Specified Amines		
Number	Chemical Name	CAS Number
1.	4-aminobiphenyl	92-67-1
2.	Benzidine	92-87-5
3.	4-chloro-o-toluidine	95-69-2
4.	2-naphthylamine	91-59-8
5.	o-aminoazotoluene	97-56-3
6.	5-nitro-o-toluidine	99-55-8
7.	4-chloroaniline	106-47-8
8.	4-methoxy-m-phenylenediamine	615-05-4
9.	4,4'-diaminodiphenylmethane	101-77-9
10.	3,3'-dichlorobenzidine	91-94-1
11.	3,3'-dimethoxybenzidine	119-90-4
12.	3,3'-dimethylbenzidine	119-93-7
13.	4,4'-methylenedi-o-toluidine	838-88-0
14.	p-cresidine	120-71-8
15.	4,4'-methylene-bis-(2-chloro-aniline)	101-14-4
16.	4,4'-oxydianiline	101-80-4
17.	4,4'-thiodianiline	139-65-1
18.	o-toluidine	95-53-4
19.	4-methyl-m-phenylenediamine	95-80-7
20.	2,4,5-trimethylaniline	137-17-7
21.	o-anisidine	90-04-0
22.	4-amino azobenzene	60-09-3



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RESULTS:

Formaldehyde Content in Textiles – Client's Specification

Test Method : ISO 14184-1: 2011

Client's Limit :	75 mg/kg
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Test Item(s)	Result	Unit	Conclusion
	Formaldehyde		
I004+I005	ND	mg/kg	PASS
I006+I007	ND	mg/kg	PASS

Note / key:

ND = Not detected

mg/kg = milligram(s) per kilogram

Detection Limit (mg/kg) : 16



**BUREAU
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RESULTS:



END OF REPORT