



Greater China

# Test Report No.: 70.452.22.12527.01R1

Dated: 2022-08-29

**Applicant:** HANGZHOU EZ LEISURE CO., LTD  
**Address:** A311, SHANGKUN CREATIVE INDUSTRY CENTER, NO.10 XIYUAN ROAD, XIHU AREA, HANGZHOU, ZHEJIANG, CHINA. 310030  
**Product Name:** Kubb Game Set  
**Model No.:** A1500429/ A2100698/A2100699  
**PO/Order No.:** 8TA2202779  
**Manufacturer:** Hangzhou EZ Leisure Co., Ltd  
**Receipt Date of Sample:** 2022-08-11  
**Date of Testing:** 2022-08-11 to 2022-08-29  
**Sample Submitted:** The sample(s) was (were) submitted by applicant and identified.  
**Test Result:** Refer to the data listed in following pages

**Remark:** This report supersedes the previous report 70.452.22.12527.01.

Test Item	Conclusion
1. EN 71-1:2014+A1:2018 Mechanical and Physical Properties	Pass
2. EN 71-2:2020 Flammability	Pass
3. Polycyclic Aromatic Hydrocarbons (PAHs) Content in Annex XVII item 50 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
4. Total Cadmium Content Requirement in Annex XVII, Item 23 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
5. Azocolourants Content Requirement in Annex XVII, Item 43 of the REACH Regulation (EC) No 1907/2006 with its Amendment	Pass
6. EN 71-3:2019+A1:2021- Migration of certain elements	Pass
7. "Safety of Toys: Organic Chemical Compounds", EN 71-9:2005+A1:2007-Content of Formaldehyde	Pass
8. pH Value	See result 8
9. Pentachlorophenol (PCP) Content – European Parliament and Council Regulation (EU) 2019/1021 on Persistent Organic Pollutants (POPs)	Pass
10. Phthalates Content in Annex XVII Items 51 and 52 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
11. Dicyclohexyl phthalate (DCHP) Content	Pass

Remarks: 1. MDL = Method Detection Limit  
 2. ND = Not Detected (<MDL)  
 3. <= Less than  
 4. 1 mg/kg = 1 ppm = 0.0001%



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Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties.  
Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

Description of the Tested Subject

Sample	Description	Photo
001	Kubb Game Set	 
007	Kubb Game Set	 

T. No	Sample	Description
T1	001	Kubb Game Set
T2	002	Black coating (001/007)
T3	003	Wood (001/007)
T4	004	Black mesh bag (001/007)
T5	005	Black rope (001/007)
T6	006	Black plastic (001/007)
T7	007	Kubb Game Set



**Test Results**

**1. EN 71-1:2014+A1:2018 Mechanical and Physical Properties**

<b>Sample</b>	001, 007
Labelled age range	Not Stated
Requested age range	18M+
Age range in testing	Over 18 months

Clause	Requirement	Evaluation
4	General Requirements	--
4.1	Material cleanliness	P
4.7	Edges	P
4.8	Points and metallic wires	P
4.9	Protruding parts	P
4.10	Parts moving against each other	P
5	Toys intended for children under 36 months	--
5.1	General requirements	P
5.4	Cords, chains and electrical cables in toys	P

**Abbreviation:**

P = Pass, F = Fail, NA = Not Applicable, NR = Not Requested.

**Note:**

Only applicable clauses were shown.

Labelling requirement (Washing/Cleaning instruction, CE marking, Importer / Manufacturer name and address, Product identification) according to the Directive 2009/48/EC-Safety of toys.

	Result (On Package)	Result (On Product)
<b>CE Marking</b>	Absent	Absent
<b>Importer's /Manufacturer's Name and Address (EU)</b>	Absent	Absent
<b>Product Identification</b>	Absent	Absent

The following marking shall be fulfilled.

- The CE marking is subject to the general principles set out in Article 30 of Regulation (EC) No 765/2008. The CE marking shall be affixed visibly, legibly and indelibly to the toy, to an affixed label to the packaging, or to the counter display.
- The manufacturer's name and address, importer's name and address in the EU shall be indicated on the toy or, where that is not possible, on its packaging or in a document accompanying the toy.
- The toys shall bear a type, batch, serial or model number or other element allowing their identification, or where the size or nature of the toy does not allow it, that the required information is provided on the packaging or in a document accompanying the toy.

	Result (On Package)	Result (On Product)
<b>Washing/Cleaning instruction</b>	Not Applicable	Not Applicable

A toy intended for use by children under 36 months must be designed and manufactured in such a way that it can be cleaned. A textile toy must, to this end, be washable, except if it contains a mechanism that may be damaged if soaked. The manufacturer should, if applicable, provide instructions on how the toy has to be cleaned.

2. EN 71-2:2020 Flammability

Sample		001, 007
Clause	Requirement	Evaluation
4.1	General Requirement	P

Abbreviation:

P = Pass, F = Fail, NA = Not Applicable, NR = Not Requested.

Note:

Only applicable clauses were shown.

3. Polycyclic Aromatic Hydrocarbons (PAHs) Content in Annex XVII item 50 of the REACH Regulation (EC) No 1907/2006 with its Amendments

Test with reference to AfPS GS 2019:01, determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					002	006
Benzo[b]fluoranthene (BbFA)	205-99-2	mg/kg	0.1	<0.5	ND	ND
Benzo[a]anthracene (BaA)	56-55-3	mg/kg	0.1	<0.5	ND	ND
Benzo[a]pyrene (BaP)	50-32-8	mg/kg	0.1	<0.5	ND	ND
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	<0.5	ND	ND
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.1	<0.5	ND	ND
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.1	<0.5	ND	ND
Chrysene (CHR)	218-01-9	mg/kg	0.1	<0.5	ND	ND
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.1	<0.5	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>

4. Total Cadmium Content Requirement in Annex XVII, Item 23 of the REACH Regulation(EC) No 1907/2006 with its Amendments

Test with reference to Acid digestion and EN 1122:2001 Method B, determination by ICP-OES/ICP-MS.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
002	mg/kg	10	<1000	<10.0	Pass
006	mg/kg	10	<100	<10.0	Pass

5. Azocolourants Content Requirement in Annex XVII, Item 43 of the REACH Regulation(EC) No 1907/2006 with its Amendment

Test with reference to EN ISO 14362-1:2017, determination by GC-MS/HPLC.

No.	Prohibited Amines	CAS No.	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]
					004+005
1	4-aminobiphenyl	92-67-1	5.0	<30	<5.0
2	Benzidine	92-87-5	5.0	<30	<5.0
3	4-chloro-o-toluidine	95-69-2	5.0	<30	<5.0
4	2-naphthylamine	91-59-8	5.0	<30	<5.0
5	o-aminoazotoluene	97-56-3	5.0	<30	<5.0
6	5-nitro-o-toluidine	99-55-8	5.0	<30	<5.0
7	4-chloroaniline	106-47-8	5.0	<30	<5.0
8	2,4-diaminoanisole	615-05-4	5.0	<30	<5.0
9	4,4'-diaminodiphenylmethane	101-77-9	5.0	<30	<5.0
10	3,3'-dichlorobenzidine	91-94-1	5.0	<30	<5.0
11	3,3'-Dimethoxybenzidine	119-90-4	5.0	<30	<5.0
12	3,3'-dimethylbenzidine	119-93-7	5.0	<30	<5.0
13	4,4'-methylenedi-o-toluidine	838-88-0	5.0	<30	<5.0
14	p-cresidine	120-71-8	5.0	<30	<5.0
15	4,4'-methylene-bis-(2-chloro-aniline)	101-14-4	5.0	<30	<5.0
16	4,4'-oxydianiline	101-80-4	5.0	<30	<5.0
17	4,4'-thiodianiline	139-65-1	5.0	<30	<5.0
18	o-toluidine	95-53-4	5.0	<30	<5.0
19	2,4-toluenediamine	95-80-7	5.0	<30	<5.0
20	2,4,5-trimethylaniline	137-17-7	5.0	<30	<5.0
21	2-methoxyaniline	90-04-0	5.0	<30	<5.0
22	2,4-xylidine	95-68-1	5.0	<30	<5.0
23	2,6-xylidine	87-62-7	5.0	<30	<5.0
24	4-aminoazobenzene	60-09-3	5.0	<30	<5.0
<b>Conclusion</b>					<b>Pass</b>

**Interpretation of test results:**

- (1) In the case of the measured value per amine component  $\leq 30$  mg/kg and according to the analysis carried out, the azo colourants banned under the Annex XVII of Regulation (EC) No. 1907/2006, REACH are not detected in the article submitted.
- (2) Banned AZO dyes in accordance to REACH regulation (EC) No. 1907/2006 and Amendment No. 552/2009 Annex XVII Item 43 (formerly known as 2002/61/EC)

**6. EN 71-3:2019+A1:2021- Migration of certain elements**

Test with reference to EN 71-3:2019+A1:2021, determination by ICP-MS.

Test Item	Limit in scraped-off toy materials [mg/kg]	MDL [mg/kg]	Result(s) [mg/kg]	
			002	003
Soluble Aluminum	28130	5.00	NA	6.80
Soluble Antimony	60	5.00	NA	<5.00
Soluble Arsenic	25	5.00	NA	<5.00
Soluble Barium	1000	5.00	NA	<5.00
Soluble Boron	15000	5.00	NA	25.1
Soluble Cadmium	17	5.00	NA	<5.00
Soluble Chromium III	460	0.04	NA	0.190
Soluble Chromium VI	0.053	0.04	NA	<0.04
Soluble Cobalt	130	5.00	NA	<5.00
Soluble Copper	7700	5.00	NA	<5.00
Soluble Lead	23	5.00	NA	<5.00
Soluble Manganese	15000	5.00	NA	11.7
Soluble Mercury	60	5.00	NA	<5.00
Soluble Nickel	930	5.00	NA	<5.00
Soluble Selenium	460	5.00	NA	<5.00
Soluble Strontium	56000	5.00	NA	<5.00
Soluble Tin	180000	2.50	NA	<2.50
Organic Tin	12	7.50	NA	<7.50
Soluble Zinc	46000	5.00	NA	5.15
<b>Conclusion</b>			-	<b>Pass</b>

Note: NA = With reference to EN 71-3:2019+A1:2021, test portions where less than 10mg of material available are not tested.

**7. “Safety of Toys: Organic Chemical Compounds”, EN 71-9:2005+A1:2007-Content of Formaldehyde**

Test with reference to EN 717-3:1996, determination by UV-Vis.

Sample	Unit	MDL	Limit	Moisture content	Result(s)	Conclusion
003	mg/kg	10	<80	11.3%	<10	Pass

**8. pH Value**

Test with reference to ISO 3071:2020.

Sample	Ph Value
004	6.75
005	6.60

**9. Pentachlorophenol (PCP) Content – European Parliament and Council Regulation (EU) 2019/1021 on Persistent Organic Pollutants (POPs)**

Test with reference to in house method, determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)
					003
Pentachlorophenol (PCP)	87-86-5	mg/kg	0.5	<5	<0.5
<b>Conclusion</b>					<b>Pass</b>

**10. Phthalates Content in Annex XVII Items 51 and 52 of the REACH Regulation (EC) No 1907/2006 with its Amendments**

Test with reference to in house method, solvent extraction and determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)
					002
Bis (2-ethylhexyl) phthalate, DEHP	117-81-7	%	0.005	-	ND
Dibutyl phthalate, DBP	84-74-2	%	0.005	-	ND
Benzyl butyl phthalate, BBP	85-68-7	%	0.005	-	ND
Diisobutylphthalate, DIBP	84-69-5	%	0.005	-	ND
<b>Sum of DBP, BBP, DEHP, DIBP</b>	-	%	0.005	<b>&lt;0.1</b>	<b>ND</b>
Di-isononyl phthalate, DINP	28553-12-0 , 68515-48-0	%	0.005	-	ND
Di-isodecyl phthalate, DIDP	26761-40-0 , 68515-49-1	%	0.005	-	ND
Di-n-octyl phthalate, DNOP	117-84-0	%	0.005	-	ND
<b>Sum of DINP, DIDP, DNOP</b>	-	%	0.005	<b>&lt;0.1</b>	<b>ND</b>
<b>Conclusion</b>					<b>Pass</b>

**11. Dicyclohexyl phthalate (DCHP) Content**

Test with reference to CPSC-CH-C1001-09.4, determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)
					002
Dicyclohexyl phthalate (DCHP)	84-61-7	mg/kg	50	<1000	ND
<b>Conclusion</b>					<b>Pass</b>

Remark: 1. Limit was according to client's requirement

- End of Test Report -