

Applicant : ZHEJIANG STAR LEISURE UTENSIL CO., LTD.  
Address : MANTANG GANG VILLAGE, YONGCHANG STREET, LANXI CITY,  
ZHEJIANG, CHINA  
Sample Name : HORIZONTAL BAR FOR CHILDREN  
Sample Model : XK-022BRS  
P/O No. : N/A  
Buyer : N/A  
Manufacturer : Same to applicant  
Country of Origin : China  
Country of Destination : N/A  
TRF Originator : TÜV AUSTRIA (SHANGHAI) CO., LTD.  
Sample Received : Jan. 19, 2022  
Test Period : Jan. 19, 2022 –Feb.17, 2022

**SUMMARY OF TEST RESULTS**

Test Requested	CONCLUSION
Physical and Mechanical Hazards [EN71 Part 1:2014+A1:2018]	PASS
Labeling Requirement [Directive 2009/48/EC]	See Test Result
Flammability of Toys [EN71 Part 2:2020]	PASS
Migration of Certain Elements [EN71 Part 3:2019+A1:2021]	PASS
Safety of toys part 8: Activity toys for domestic use-as per client's request [EN71-8:2018]	PASS

*Hack He*

Technical Director  
**TÜV AUSTRIA (Shanghai) Co., Ltd.**

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## SAMPLE PHOTO(S)



A

**EFHZ22012294-CG-01**

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## COMPONENT LIST

Component No.	Component	Sample No.
1	Black coating on metal (foot pad)	A
2	Red coating on metal	A
3	Yellow coating on metal	A
4	Dark blue coating on metal	A
5	Green coating on metal	A
6	Beige coating on metal	A
7	Khaki coating on metal	A
8	Light yellow coating on metal	A
9	Light blue coating on metal	A
10	Blue green coating on metal	A
11	Pink coating on metal	A
12	Black coating on plastic (basketball rim)	A
13	Red coating on plastic (basketball rim)	A
14	White coating on plastic (adjustable buckle)	A
15	Yellow soft plastic (swing)	A
16	Red soft plastic cover (bracelet)	A
17	Yellow plastic(bracelet)	A
18	Red plastic (swing)	A
19	Black plastic adjustable buckle (side)	A
20	White plastic (basketball rim)	A
21	White plastic zipper teeth (bag)	A
22	White plastic Velcro hook (bag)	A
23	White plastic buckle (bag)	A
24	White elastic band (bag)	A
25	Black foam (foot pad)	A
26	Red fabric rope	A
27	Dark blue fabric rope	A
28	Light grey fabric (piping) (bag)	A
29	Multicolor printed fabric (bag)	A
30	White fabric rope	A
31	White fabric (bag)	A
32	White fabric (piping) (bag)	A
33	White fabric zipper tape (bag)	A
34	White fabric Velcro loop (bag)	A
35	Grey mesh fabric (bag)	A

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## TEST RESULT

### Physical and Mechanical Hazards

Test Request: As specified in European Standard on Safety of Toys EN71 Part 1:2014+A1 :2018

Section	Description	Result
4	General requirements	
4.1	Material cleanliness (by visual assessment)	P
4.2	Assembly	P
4.3	Flexible plastic sheeting	N/A
4.4	Toy Bags	N/A
4.5	Glass	N/A
4.6	Expanding Materials	N/A
4.7	Edges	P
4.8	Points and Metallic Wires	P
4.9	Protruding parts	N/A
4.10	Parts moving against each other	N/A
4.10.1	Folding and sliding mechanisms	N/A
4.10.2	Driving mechanisms.	N/A
4.10.3	Hinges	N/A
4.10.4	Springs	N/A
4.11	Mouth-actuated toys and other toys intended to be put in the mouth	N/A
4.12	Balloons	N/A
4.13	Cords of toy kites and other flying toys.	N/A
4.14	Enclosures	N/A
4.14.1	Toys which a child can enter	N/A
4.14.2	Masks and helmets	N/A
4.15	Toys intended to bear the mass of a child	N/A
4.15.1	Toys propelled by the child or by other means	N/A
4.15.2	Toy bicycles	N/A
4.15.3	Rocking horses and similar toys	N/A
4.15.4	Toys not propelled by a child	N/A
4.15.5	Toys scooters	N/A
4.16	Heavy immobile toys	N/A
4.17	Projectiles	N/A
4.17.1	General	N/A
4.17.2	All projectiles	N/A
4.17.3	Projectile toy with stored energy	N/A
4.17.4	Certain projectile toys without stored energy	N/A
4.18	Aquatic toys and inflatable toys	N/A
4.19	Percussion caps specifically designed for use in toys and toys using percussion caps	N/A
4.20	Acoustics	N/A
4.20.2.1	General	N/A
4.20.2.2	Close-to-the-ear toys	N/A
4.20.2.3	Table-top or floor toys	N/A
4.20.2.4	Hand-held toys	N/A
4.20.2.5	Toys using headphones or earphones	N/A
4.20.2.6	Rattles	N/A
4.20.2.7	Squeeze toys	N/A
4.20.2.8	Pull-along or push toys	N/A
4.20.2.9	Percussion toys	N/A

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## TEST RESULT

Section	Description	Result
4.20.2.10	Wind toys	N/A
4.20.2.11	Cap-firing toys	N/A
4.20.2.12	Voice toys	N/A
4.21	Toys containing a non-electrical heat source	N/A
4.22	Small balls	N/A
4.23	Magnets	N/A
4.24	Yo-yo balls	N/A
4.25	Toys attached to food	N/A
4.26	Toy disguise costumes	N/A
4.27	Flying toys	N/A
4.27.1	General	N/A
4.27.2	Rotors and propellers on flying toys	N/A
4.27.3	Rotors and propellers on remote controlled flying toys	N/A
5	Toys intended for children under 36 months	
5.1	General requirements	N/A
5.2	Soft-filled toys and soft-filled parts of a toy	N/A
5.3	Plastic sheeting	N/A
5.4	Cords, chains and electrical cables in toys	N/A
5.5	Liquid-filled toys	N/A
5.6	Speed limitation of electrically-driven ride-on toys	N/A
5.7	Glass and porcelain	N/A
5.8	Shape and size of certain toys	N/A
5.9	Toys comprising monofilament fibres	N/A
5.10	Small balls	N/A
5.11	Play figures	N/A
5.12	Hemispheric-shaped toys	N/A
5.13	Suction cups	N/A
5.14	Straps intended to be worn fully or partially around the neck	N/A
5.15	Sledges with cords for pulling	N/A
6	Packaging	N/A
7	Warnings, markings and instructions for use	
7.1	General	N/A
7.2	Toys not intended for children under 36 months	N/A
7.3	Latex Balloons	N/A
7.4	Aquatic toys	N/A
7.5	Functional Toys	N/A
7.6	Hazardous sharp functional edges and points	N/A
7.7	Projectiles toys	N/A
7.8	Imitation protective masks and helmets	N/A
7.9	Toy kites	N/A
7.10	Roller skates, inline skates, skateboards and certain other ride-on toys	N/A
7.11	Toys intended to be strung across a cradle, cot, or perambulator	N/A
7.12	Liquid-filled teething	N/A
7.13	Percussion caps specifically designed for use in toys	N/A
7.14	Acoustics	N/A
7.15	Toys bicycles	N/A
7.16	Toys intended to bear the mass of a child	N/A
7.17	Toys comprising monofilament fibres	N/A
7.18	Toy scooters	N/A

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## TEST RESULT

Section	Description	Result
7.19	Rocking horses and similar toys	N/A
7.20	Magnetic/electrical experimental sets	N/A
7.21	Toy with electrical cables exceeding 300mm in length	N/A
7.22	Toys with cords or chains intended for children of 18 months and over but under 36 months	N/A
7.23	Toys intended to be attached to a cradle, cot or perambulator	N/A
7.24	Sledges with cords for pulling	N/A
7.25	Flying toys	N/A
7.25.1	Flying toys	N/A
7.25.2	Remote controlled flying toys	N/A
7.26	Improvised projectiles	N/A

**Remark:**

P - Pass

NA - Not Applicable

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## TEST RESULT

### Labeling Requirement

Test Request: Labeling requirement including Washing/Cleaning instruction, CE mark, importer / manufacturer name and address, product identification as specified in Directive 2009/48/EC  
- Safety of toys

Labeling Content	Observation Result	Location	Conclusion
Washing/Cleaning Instruction	Not Applicable	/	/
CE Mark	Not Present	/	See Remark 1
Importer' s Name & Address	Not Present	/	See Remark 2
Manufacturer' s Name & Address	Not Present	/	See Remark 2
Product ID	Not Present	/	See Remark 3

### Remark:

1. According to TSD 2009/48/EC, The CE marking shall be affixed before the toy is placed on the market and its height must be at least 5mm.
2. According to TSD 2009/48/EC, manufacturer's and Importer's name, registered trade name or registered trade mark and the address at which the manufacturer can be contacted must be indicated on the toy or, where that is not possible, on its packaging or in a document accompanying the toy.
3. According to TSD 2009/48/EC, manufacturers shall ensure that their toys 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.

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## TEST RESULT

### Flammability of Toys

Test Request: As Specified in European Standard on Safety of Toys EN71 Part 2:2020

Section	Description	Result
4	Requirements	
4.1	General Requirements	P
4.2	Toys to be worn on the head	N/A
4.3	Toy disguise costumes and toys intended to be worn by a child in play	N/A
4.4	Toys intended to be entered by a child	N/A
4.5	Soft-filled toys (Sample was not tested if its maximum dimension is 150mm or less.)	N/A

**Remark:**

P - Pass

NA - Not Applicable

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## TEST RESULT

### Migration of Certain Elements

Test Request: Migration of certain elements as specified in European Standard on Safety of Toys EN71 Part 3:2019+A1:2021.

Test Method: General elements, with reference to EN 71 Part 3:2019+A1:2021, analysis was performed by ICP-MS;  
Extractable Chromium (VI), with reference to EN 71 Part 3:2019+A1:2021, analysis was performed by IC-ICP-MS/IC-UV/Vis;  
Extractable organic tin, with reference to EN 71 Part 3:2019+A1:2021, analysis was performed by GC-MS.

Test Item(s):	Unit	Result							
		1	2	3	4	5	6	7	8
Category Type		III	III	III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	327	294	344	291	336	358	322	356
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	95	ND	112	57	ND	52	90
Extractable Strontium (Sr)	mg/kg	160	81	ND	ND	ND	ND	ND	78
Extractable Zinc (Zn)	mg/kg	59	ND	ND	ND	ND	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND	77	ND	65	58	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium#2	mg/kg	-	-	-	-	-	-	-	-
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	11	ND	22	ND	ND	ND	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND

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## TEST RESULT

Test Item(s):	Unit	Result							
		9	10	11	12	13	14	15	16
Category Type		III	III	III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	548	377	473	ND	ND	ND	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	75	ND	ND	ND	ND	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	162	ND	98	ND	ND	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium#2	mg/kg	-	-	-	-	-	-	-	-
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND

Test Item(s):	Unit	Result							
		17	18	19	20	21	22	23	24
Category Type		III	III	III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND	ND	ND	ND	ND	ND	74
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND	ND	ND	ND	ND	ND	349
Extractable Copper (Cu)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium#2	mg/kg	-	-	-	0.037	-	0.033	0.036	-
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	ND	ND	-	ND	-	-	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND	-	ND	-	-	ND

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## TEST RESULT

Test Item(s):	Unit	Result							
		25	26	27	28	29	30	31	32
Category Type		III	III	III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	158	ND	ND	ND	ND	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium#2	mg/kg	-	-	-	-	-	-	-	-
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND

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## TEST RESULT

Test Item(s):	Unit	Result		
		33	34	35
Category Type		III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND
Extractable Chromium#2	mg/kg	-	0.031	0.025
Extractable Organic Tin#1	mg/kg	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	-	-
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	-	-

### Note:

#1 - The migration of organic tin is expressed as tributyltin.

#2 - If the migration of total Chromium is below the maximum limit for Chromium (VI), it can be inferred that the material complies with the requirements for both Chromium(III) and Chromium(VI).

#3 - In particular Chromium (III) is calculated by subtracting the Chromium (VI) concentration from the total chromium concentration.

### Remarks:

mg/kg = milligram per kilogram

MDL = Method Detection Limit

ND = Not Detected, less than MDL

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## TEST RESULT

Limits –MDL per category type:

Test Item(s):	Unit	Limit	MDL	Limit	MDL	Limit	MDL
Category Type		I		II		III	
Extractable Lead (Pb)	mg/kg	2.0	1.0	0.5	0.2	23	10
Extractable Antimony (Sb)	mg/kg	45	5	11.3	1	560	10
Extractable Arsenic (As)	mg/kg	3.8	0.2	0.9	0.1	47	5
Extractable Barium (Ba)	mg/kg	1500	50	375	10	18750	50
Extractable Cadmium (Cd)	mg/kg	1.3	0.1	0.3	0.05	17	1
Extractable Mercury (Hg)	mg/kg	7.5	0.5	1.9	0.2	94	10
Extractable Selenium (Se)	mg/kg	37.5	2	9.4	1	460	10
Extractable Boron (B)	mg/kg	1200	50	300	10	15000	50
Extractable Cobalt (Co)	mg/kg	10.5	1	2.6	0.2	130	10
Extractable Manganese (Mn)	mg/kg	1200	50	300	10	15000	50
Extractable Strontium (Sr)	mg/kg	4500	50	1125	50	56000	50
Extractable Zinc (Zn)	mg/kg	3750	50	938	50	46000	50
Extractable Copper (Cu)	mg/kg	622.5	10	156	10	7700	50
Extractable Aluminum (Al)	mg/kg	2250	50	560	50	28130	50
Extractable Nickel (Ni)	mg/kg	75	5	18.8	2	930	10
Extractable Tin (Sn)	mg/kg	15000	50	3750	50	180000	50
Extractable Organic Tin	mg/kg	0.9	0.2	0.2	0.2	12	0.2
Extractable Chromium	mg/kg	-	0.02	-	0.005	-	0.02
Extractable Chromium (III) (Cr III)	mg/kg	37.5	2	9.4	1	460	10
Extractable Chromium (VI) (Cr VI)	mg/kg	0.02	0.02	0.005	0.005	0.053	0.02

Category I: dry, brittle, powder-like or pliable toy material

Category II: liquid or sticky toy material

Category III: scrapped-off toy material

"-" = Not Regulated

The migration limits for Aluminium have been amended by Commission Directive (EU) 2019/1922. The new limit values (2250 mg/kg, 560 mg/kg and 28130 mg/kg, respectively) apply from 2021-05-20. Before this date the limit values 5625 mg/kg, 1406 mg/kg and 70000 mg/kg, respectively, apply.

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## TEST RESULT

### EN71-8:2018 Safety of toys part 8: Activity toys for domestic use –as per client's request.

1. Description of tested sample: swing
2. Number to test sample: 1 Piece
3. Age group of the user: >6 year's old
4. Test result:

Clause	Test Method/ Requirement	Rating								
4	Requirements									
4.1	General									
4.1.1	Assembly Activity toys shall be assembled using self-locking mechanisms which, to avoid unintentional disassembling due to dynamic forces during use, may include spring washers and/or self-locking nuts.	Pass								
4.1.2	Static strength Activity toys other than swings and paddling pools, when tested according to 6.3.2 (strength of activity toys other than swings and paddling pools), shall not collapse such that they do not continue to comply with the relevant requirements of EN 71-1.	N/A								
4.1.3	Maximum height When measured from the ground, there shall be no part of the activity toy where the child is able to climb, sit or stand above a height of 2 500 mm	Pass								
4.1.4	Corners and edges Exposed edges shall be rounded. Corners and exposed edges on moving parts shall have a minimum radius of 3 mm. This requirement does not apply to swing elements with a mass of 1 000 g or less, the corners and edges of which shall be rounded.	Pass								
4.1.5	Protruding parts Protruding parts such as bolt ends, threaded bolt ends and other protrusions shall be recessed or be protected in such a way that they do not constitute a hazard to users of the equipment. This requirement is applicable when protrusions are situated on accessible moving parts and in places where the user is running, sliding, climbing, sitting or lying down.	Pass								
4.1.6	Diameter of ropes and other means of suspension When measured according to 6.8 (diameter of ropes and other means of suspension), ropes and other means of suspension shall have the following diameters: <table><tr><td>Ropes fixed at both ends</td><td>diameter between 16 mm and 45 mm</td></tr><tr><td>Ropes used in climbing nets and ladders</td><td>diameter between 10 mm and 45 mm</td></tr><tr><td>Free-hanging ropes fixed at upper end</td><td>diameter between 25 mm and 45 mm</td></tr><tr><td>Means of suspension for swing elements</td><td>minimum diameter/width 10 mm</td></tr></table>	Ropes fixed at both ends	diameter between 16 mm and 45 mm	Ropes used in climbing nets and ladders	diameter between 10 mm and 45 mm	Free-hanging ropes fixed at upper end	diameter between 25 mm and 45 mm	Means of suspension for swing elements	minimum diameter/width 10 mm	Pass
Ropes fixed at both ends	diameter between 16 mm and 45 mm									
Ropes used in climbing nets and ladders	diameter between 10 mm and 45 mm									
Free-hanging ropes fixed at upper end	diameter between 25 mm and 45 mm									
Means of suspension for swing elements	minimum diameter/width 10 mm									
4.1.7	Water accumulation	Pass								

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## TEST RESULT

Clause	Test Method/ Requirement	Rating
	Except when intended for water play, all parts of activity toys should be designed so that they do not accumulate water which could produce drowning hazard.	
4.2	Barriers, handrails and ladders and similar means of access to activity toys	
4.2.1	Barriers and handrails preventing a child from falling down (see A.5)	N/A
4.2.2	Ladders and similar means of access to activity toys (see A.6)	N/A
4.3	Entrapment	
4.3.1	Head and neck entrapment Activity toys shall be constructed so that any openings do not create head and neck entrapment hazards either by head first or feet first passage. Hazardous situations in which this type of entrapment can be encountered include the following: — completely bound openings through which a user may slide feet first or head first; — partially bound or V-shaped openings; — other openings (e.g. shearing or moving openings).	N/A
4.3.2	Entrapment of clothing and hair a) Slides, fireman's poles and roofs shall be constructed so that hazardous situations in which clothing or hair can be entrapped are not created. Such situations may be created by: 1) gaps or V-shaped openings in which parts of clothing can become entrapped while, or immediately before, the user is undergoing a forced movement; 2) protrusions; and 3) spindles/rotating parts. When tested according to 6.6 (toggle test), entrapment of the toggle or chain shall not occur. Application of the toggle test, as described in 6.6, is restricted to the free space, as practical experience has shown that natural material and connections between different parts can vary over time. b) Slides and fireman's poles shall be constructed so that openings located within the free space do not entrap the toggle or chain when tested according to 6.6 (toggle test). c) Roofs shall be constructed so that they do not entrap the toggle or chain when tested according to 6.6 (toggle test). d) Spindles and rotating parts shall have means of preventing entanglement of clothing or hair.	N/A
4.3.3	Entrapment of feet The requirement in 4.3.3 does not apply to nets for climbing or walking, or net bridges. Surfaces intended for standing, running or walking shall not contain any gaps likely to cause foot or leg entrapment. There shall be no gaps greater than 30 mm measured in one direction	N/A

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## TEST RESULT

Clause	Test Method/ Requirement	Rating
4.3.4	Entrapment of fingers The requirements in 4.3.4 do not apply to weather-induced dry cracks in solid wood. Activity toys shall be constructed so that hazardous situations in which entrapment can occur are not created.	Pass
4.4	Stability of activity toys other than slides, swings and activity toys with crossbeams, and see-saws	
4.4.1	General Activity toys supplied with anchors which, according to the manufacturer's instructions, are intended to be permanently fixed (e.g. in concrete) when in use, shall not be subjected to stability tests. Activity toys supplied with removable ground anchors shall be tested with anchors fixed to the standing surface according to the manufacturer's instructions.	
4.4.2	Stability of activity toys with a free height of fall of 600 mm or less Activity toys with a free height of fall of 600 mm or less shall not tip over when tested according to 6.2.1 (stability of activity toys with a free height of fall of 600 mm or less).	N/A
4.4.3	Stability of activity toys with a free height of fall of more than 600 mm Activity toys with a free height of fall of more than 600 mm shall not tip over when tested according to 6.2.2 (stability of activity toys with a free height of fall of more than 600 mm).	N/A
4.5	Slides	
4.5.1	General The requirements in 4.5 do not apply to declined planes, which meet the following requirements: — the free height of fall is less than 600 mm and the overall declination of the declined section is less than 30° from the horizontal; or — the free height of fall is less than 400 mm	N/A
4.5.2	Stability of slides Slides supplied with anchors and intended to be permanently fixed (e.g. in concrete) when in use according to the manufacturer's instructions, shall not be subjected to stability tests. Slides supplied with removable ground anchors shall be tested with anchors fixed to the standing surface according to the manufacturer's instructions. Slides not supplied with anchors shall be subjected to stability tests. Slides (excluding attachment slides) shall not tip over when tested according to 6.2.3 (stability of slides).	N/A
4.5.3	Retaining sides for slides	
	Retaining sides for slides shall comply with the following requirements a) for slides with a starting section height of more than 1 000 mm measured from the ground, the height (h) of the retaining sides shall be 100 mm or more;	N/A
	b) for slides with a starting section height of 1 000 mm or less measured from the ground, the height (h) of the retaining sides shall be 50 mm or more.	N/A

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## TEST RESULT

Clause	Test Method/ Requirement	Rating
	c) Retaining sides are not required for the run-out section of <i>slides</i> . If the run-out section is equipped with retaining sides, the finishing end of the retaining side shall have a minimum radius of 10 mm	N/A
4.5.4	Starting, sliding and run-out sections on slides Slides shall consist at least of a starting section, a sliding section and a run-out section. For attachment slides, a platform may be regarded as the starting section. The starting, sliding and run-out sections of slides shall comply with the following requirements	N/A
	a) the starting section for slides with a starting section height of less than 1 000 mm measured from the ground shall have at least the same width as the sliding section; a length of 150 mm or more; and an inclination of between 0° and 10° to the horizontal.	N/A
	b) the starting section for slides with a starting section height of 1 000 mm or more measured from the ground shall have at least the same width as the sliding section; a length of 250 mm or more; and an inclination of between 0° and 10° to the horizontal.	N/A
	c) the starting section of slides (excluding attachment slides) shall be provided with handrails in order to provide assistance to the child coming from the stair/ladder into the sitting position: 1) for slides with a starting section height less than 600 mm, the height of the handrail shall be 100 mm or more; 2) for slides with a starting section height of 600 mm or more but less than 1 000 mm, the height of the handrail shall be 150 mm or more; 3) for slides with a starting section height of 1 000 mm or more but less than 1 800 mm, the height of the handrail shall be 350 mm or more; 4) for slides with a starting section height of 1 800 mm or more, the height of the handrail shall be 500mm or more	N/A
	d) the run-out section of the slide shall have a length of 150 mm or more. The inclination of the run-out section shall be between 0° and 10° to the horizontal, and the height of the end of the run-out section shall be 300 mm or less from the ground;	N/A
	e) the finishing end of the run-out section shall have a minimum radius of 25 mm. This requirement does not apply to <i>slides</i> where the run-out section ends 50 mm or less from the ground;	N/A
	f) the sliding section of the <i>slide</i> shall not exceed an angle of inclination of 60° to the horizontal at any point when measured according to 6.7.1	N/A
	g) the minimum angle ( $\alpha$ ) along the sliding section and the run-out section shall not be less than the values given in Table 2. Table 2 — Minimum angle ( $\alpha$ ) along the sliding section and the run-out section in relation to the height of the starting section	N/A

Height of the starting section	Minimum angle ( $\alpha$ ) along the sliding section and the run-out section
Less than 600 mm	120°
600 mm or more but less than 1 000 mm	130°
1 000 mm or more but less than 1 800 mm	140°
1 800 mm or more	150°

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## TEST RESULT

Clause	Test Method/ Requirement	Rating
	h) junction between sliding section and run-out section shall be a continuous curve;	N/A
	i) the finishing end of the retaining section shall have a minimum radius of 10 mm.	N/A
4.6	Swings	
4.6.1	Stability of swings and other activity toys with crossbeams	N/A
4.6.2	Static strength of crossbeams, swing devices and suspension connectors When tested according to 6.3.3 (strength of swings), structures and/or crossbeams shall not collapse and swing devices and suspension connectors shall not become deformed, so that the activity toy does not comply with relevant requirements of EN 71-1.	N/A
4.6.3	Swings intended for children under 36 months The seats of swings shall provide with a backrest and a safety device preventing the child from falling off the seat. -If the seat is provided with a T-bar or a protective bar with a crotch strap, the horizontal section of the T-bar or the protective bar shall be situated between 200 mm and 300 mm above the seat, measured as the distance between the lowest part of the sitting surface area of the seat and the upper surface of the bar. -If the seat is provided with a device to fasten the child to the seat, the device shall comprise a crotch strap.	N/A
4.6.4	Minimum clearance between adjacent swing elements, and adjacent structures The requirements in 4.6.4 do not apply to single swing elements in swings with a crossbeam height of 1 200 mm or less above the ground. The minimum clearances between adjacent swing elements and between swing elements and adjacent structures shall be as given in Table 3.	N/A
4.6.5	Lateral stability of swing elements The requirement in 4.6.5 does not apply to swings with rigid means of suspension and swings with swing elements with a single suspension point. The minimum distance between the suspension points of a swing measured along the crossbeam shall be calculated as follows (see Figure 8): $A = 0,04 h_2 + B$ where A is the distance between the suspension points along the crossbeam; B is the distance between the junction points of the swing element and the means of suspension; $h_2$ is the distance from the ground to the lower side of the crossbeam	Pass
4.6.6	Minimum clearance between swing elements and the ground (see A.11) The minimum clearance between swing elements and the ground shall be as follows: swings with a crossbeam height of 1200 mm or less 200mm;	N/A

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## TEST RESULT

Clause	Test Method/ Requirement	Rating
	swings with a crossbeam height exceeding 1200 mm: 350mm. If a swing element has a footrest, the minimum clearance is measured between the footrest and the ground. If the clearance between the swing elements and ground is adjustable, the minimum clearance shall be mentioned in the assembly and installation instructions. For a flexible swing element, the fixture detailed in Figure 7 shall be used to simulate normal use	
4.6.7	Suspension connectors and swing devices a) The suspension coupling(s) (see Figure 1, key 4) shall be prefixed to the means of suspension when supplied. This requirement does not apply to swings with rigid means of suspensions. b) Methods of attachment requiring knots are not permitted. Only: 1) non disassembling systems, a forced disassembling causing the destruction of the product, and 2) inviolable systems, like weld or injection stop are permitted. c) Suspension connectors shall be of a design that will prevent unintentional disconnection. d) Chains shall have a maximum opening of 5 mm in order to prevent fingers from being trapped	Pass
4.6.8	Impact, geometry and design of swing elements	N/A
4.7	See-saws	
4.7.1	Stability of see-saws The requirements in 4.7.1 do not apply to see-saws supplied with <i>anchors</i> that are intended to be permanently fixed (e.g. in concrete). See-saws supplied with removable ground <i>anchors</i> shall be tested with <i>anchors</i> fixed to the standing surface according to the manufacturer's instructions. When tested according to 6.2.5 (stability of see-saws), see-saws supplied with removable ground <i>anchors</i> and see-saws not supplied with <i>anchors</i> shall not tip over.	N/A
4.7.2	Seat/stand height The central point of the sitting or standing position of the see-saw shall not exceed a height of 1 200 mm. The sitting surface of the seats shall not swing out of the horizontal by more than 30°.	N/A
4.7.3	Restraint of motion For see-saws where the central point of the sitting or standing position can reach a height of 1 000 mm or more, each end of the see-saw shall be provided with dampening material on the part that touches the ground or have a dampening device incorporated in the centre of the see-saw.	N/A
4.7.4	Pinching and crushing of fingers and toes When one end of the beam is touching the ground, the space between the underside of the beam and its central pivot shall admit a 12 mm diameter rod.	N/A
4.7.5	Hand supports Each seating position shall be provided with one hand support at least.	N/A

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## TEST RESULT

Clause	Test Method/ Requirement	Rating
4.8	Carousels and rocking activity toys The requirements in 4.8 do not apply to bow-mounted rocking horses and similar toys. Carousels, rocking activity toys and similar toys shall comply with the following requirements: a) when tested according to 6.2.1 (stability of activity toys with a free height of fall of 600 mm or less), activity toys shall not tip over; b) when tested according to 6.3.2 (strength of activity toys other than swings and paddling pools), activity toys shall not collapse; c) when measured from the ground and surface to any sitting or standing position, the free height of fall for carousels and rocking activity toys shall not exceed 600 mm.	N/A
4.9	Paddling pools	
4.9.1	Static strength of paddling pools with non-inflatable walls When tested according to 6.10 (static load test for paddling pools with non-inflatable walls), the structure shall not present any hazardous sharp edges or hazardous sharp points, or any small parts which fit entirely in the small parts cylinder specified in EN 71-1.	N/A
4.9.2	Paddling pools with inflatable walls All air-inflation inlets on paddling pools with inflatable walls shall comply with the requirements for inflatable toys specified in EN 71-1.	N/A
5	Warnings, markings, and instructions	
5.1	Warnings and markings	N/A
5.2	Assembly and installation instructions	N/A
5.3	Maintenance	N/A

**Remark:**

N/A = Not applicable;

\*\*\*END OF THE REPORT\*\*\*

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