

Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



Applicant: Fujian Zhangping D-road Forestry Co.,Ltd
Address: Fushan Industry District,Zhangping City,Fujian,China,364400
Product Name: Kid's Sandbox 2623
Country of Origin: China
Receipt Date of Sample: 2024-09-18, 2024-10-14, 2024-10-15, 2024-10-21, 2024-10-22, 2024-10-23, 2024-10-24, 2024-10-25
Date of Testing: 2024-10-08 ~ 2024-11-05
Sample Submitted: The sample(s) was (were) submitted by applicant and identified.
Test Result: Refer to the data listed in following pages

Test Item	Conclusion
1. EN 71-1:2014+A1:2018 Mechanical and Physical Properties	Pass
2. EN 71-2:2020 Flammability	Pass
3. EN 71-8:2018 Activity toys for domestic use	Pass
4. ASTM F963-23 Standard Consumer Safety Specification for Toy Safety - Physical and Mechanical	Pass
5. ASTM F963-23 Standard Consumer Safety Specification for Toy Safety - Flammability Test of Materials Other Than Textile Materials	Pass
6. ASTM F963-23 Standard Consumer Safety Specification for Toy Safety - Flammability Test of Textile Materials	Pass
7. EN 71-3:2019+A1:2021- Migration of certain elements	Pass
8. Polycyclic Aromatic Hydrocarbons (15 PAHs)	Pass
9. Regulation (EC) No.1907/2006 (REACH) Annex XVII, Item 51 & 52 - Phthalates Content	Pass
10. Regulation (EC) No.1907/2006 (REACH) Annex XVII, Item 50 - Polycyclic Aromatic Hydrocarbons (PAHs)	Pass
11. ASTM F963-23 Section 4.3.5.1 - Total Lead Content Test (Paint and Similar Surface-Coating Materials)	Pass
12. ASTM F963-23 Section 4.3.5.2 - Total Lead Content Test (Substrate Materials)	Pass
13. ASTM F963-23 Section 4.3.5.1 & Section 4.3.5.2 - Soluble Heavy Elements	Pass
14. ASTM F963-23 Section 4.3.8 - Phthalates	Pass
15. Regulation (EC) No.1907/2006 (REACH) Annex XVII, Item 23 - Cadmium Content	Pass
16. 16 CFR Part 1303 / CPSIA section 101(f) - Total Lead Content (surface coating)	Pass
17. 15 U.S.C. 1278a / CPSIA section 101(a)(2) - Total lead content (Substrate)	Pass
18. CPSIA, § 108, 16 CFR 1307- Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates	Pass

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Remarks: 1. MDL = Method Detection Limit
2. ND = Not Detected (<MDL)
3. <= Less than
4. 1 mg/kg = 1 ppm = 0.0001%
5. The test samples were specified by the client.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Testing Center

Prepared by:

Authorized by:

Gianna



Steven

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Note:

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- (2) The results relate only to the items tested.
- (3) The test report shall not be reproduced except in full without the written approval of the laboratory
- (4) If relevant standards do not specify decision rule(s), follow decision rule as below:
 - "Pass" means that the measured result is within the limits, even when extended by expanded uncertainty at a level of confidence of 95%.
 - "Fail" means that the measured result is beyond the limit, even when extended by expanded uncertainty at a level of confidence of 95%.

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Description of Tested Subject:

Sample	Description	Photo
A	Whole product	

T. No	Sample	Description
T1	001	Whole product (Kid's Sandbox 2623)
T2	002	Cream wood
T3	003	Blue coating (Mainbody)
T4	004	White coating (Rod, board, pattern)
T5	005	Black coating (Board, lettering)
T6	006	Black non-woven fabric (Body)
T7	007	Blue/ white woven fabric with white thread (Awning)
T8	008	Grey coating (Mainbody)
T9	009	Red coating (Pattern)
T10	010	Black plastic (Cup)
T11	011	Iridescent metal (Screw A)

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Test Result(s):

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

Sample	001
Labelled age range	For ages 3-7years
Requested age range	3-7years
Age range in testing	Over 2 years
Age Group Assessed As per Age Guideline	Over 2 years

Clause	Requirement	Evaluation
4	General Requirements	--
4.1	Material cleanliness	P
4.2	Assembly	P
4.7	Edges	P
4.8	Points and metallic wires	P
4.16	Heavy immobile toys	P
5	Toys intended for children under 36 months	--
5.1	General requirements	P
5.12	Hemispheric-shaped toys	P
6	Packaging	P
7	Warnings, markings and instructions for use	1#
7.1	General	P

Abbreviation:

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

Note:

Only applicable clauses were shown.

Remark:

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

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.

2. EN 71-2:2020 Flammability

Sample		001
Clause	Requirement	Evaluation
4.1	General Requirement	P

Abbreviation:

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Note:

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3. EN 71-8:2018 Activity toys for domestic use

Sample	001
Labelled age range	For ages 3-7 years
Requested age range	3-7 years
Age range in testing	Over 2 years
Age Group Assessed As per Age Guideline	Over 2 years

Clause	Requirement	Evaluation
4	Requirements	--
4.1	General	--
4.1.1	Assembly	P
4.1.2	Static strength	P
4.1.3	Maximum height	P
4.1.4	Corners and edges	P
4.1.5	Protruding parts	P
4.1.7	Water accumulation	P
4.3	Entrapment	--
4.3.1	Entrapment of head and neck	P
4.4	Stability of activity toys other than slides, swings and activity toys with crossbeams, and see-saws	--
4.4.2	Stability of activity toys with a free height of fall of 600 mm or less	P
5	Warning, markings, and instructions	--
5.1	Warnings and markings	--
5.1.1	General	P
5.2	Assembly and installation instructions	P
5.3	Maintenance	P

Abbreviation:

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Note:

Only applicable clauses were shown.

4. ASTM F963-23 Standard Consumer Safety Specification for Toy Safety - Physical and Mechanical

Sample	001
Labelled age range	For ages 3-7years
Requested age range	3-7years
Age range in testing	Over 2 years
Age Group Assessed As per Age Guideline	Over 2 years

Clause	Requirement	Evaluation
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Clause	Requirement	Evaluation
4	Safety Requirements	--
4.1	Material Quality	P
4.6	Small Objects	P
4.7	Accessible Edges	P
4.9	Accessible Points	P
4.11	Nails and Fasteners	P
4.12	Plastic Film	P
4.15	Stability and Over-load Requirements	P
4.18	Holes, Clearance, and Accessibility of Mechanisms	P
5	Labeling Requirements	--
5.1.2	Tracking Label	P
5.2	Age Grading Labeling	P
5.3	Safety Labeling Requirements	P
5.8	Toys Intended to be Assembled By an Adult	P
5.15	Promotional Materials	P
6	Instructional Literature	--
6.1	Definition and Description	P
6.4	Toys Intended to be Assembled By an Adult	P
7	Producer's Markings	--
7.1	Name and Address of the Producer or Distributor	P

Abbreviation:

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

Note:

Only applicable sections were shown.

5. ASTM F963-23 Standard Consumer Safety Specification for Toy Safety - Flammability Test of Materials Other Than Textile Materials

As per Section 4.2 of ASTM F963-23 Standard Consumer Safety Specification for Toy Safety

Sample: 001

Result: Did Not Ignite

6. ASTM F963-23 Standard Consumer Safety Specification for Toy Safety - Flammability Test of Textile Materials

As per Section 4.2 of ASTM F963-23 Standard Consumer Safety Specification for Toy Safety

Sample: 001

Result: Did Not Ignite

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

Test with reference to EN71-3:2019+A1:2021, determination by ICP-MS.

Parameter	MDL	Limit in scraped-	Result(s) [mg/kg]
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	[mg/kg]	off toy [mg/kg]	002	003
Soluble Aluminum	5.00	28130	ND	1010
Soluble Antimony	5.00	560	ND	ND
Soluble Arsenic	5.00	47	ND	ND
Soluble Barium	5.00	18750	ND	ND
Soluble Boron	5.00	15000	ND	ND
Soluble Cadmium	5.00	17	ND	ND
Soluble Chromium III	0.04	460	0.400	0.656
Soluble Chromium VI	0.04	0.053	ND	ND
Soluble Cobalt	5.00	130	ND	ND
Soluble Copper	5.00	7700	ND	ND
Soluble Lead	5.00	23	ND	ND
Soluble Manganese	5.00	15000	ND	86.3
Soluble Mercury	5.00	94	ND	ND
Soluble Nickel	5.00	930	ND	ND
Soluble Selenium	5.00	460	ND	ND
Soluble Strontium	5.00	56000	ND	132
Soluble Tin	2.50	180000	ND	ND
Organic Tin	7.50	12	ND	ND
Soluble Zinc	5.00	46000	ND	118
Conclusion			Pass	Pass

Parameter	MDL [mg/kg]	Limit in scraped- off toy [mg/kg]	Result(s) [mg/kg]	
			004	005
Soluble Aluminum	5.00	28130	890	21.7
Soluble Antimony	5.00	560	ND	11.6
Soluble Arsenic	5.00	47	ND	ND
Soluble Barium	5.00	18750	5.33	30.2
Soluble Boron	5.00	15000	ND	ND
Soluble Cadmium	5.00	17	ND	ND
Soluble Chromium III	0.04	460	0.827	0.527
Soluble Chromium VI	0.04	0.053	ND	ND
Soluble Cobalt	5.00	130	ND	ND
Soluble Copper	5.00	7700	ND	6.46
Soluble Lead	5.00	23	ND	ND
Soluble Manganese	5.00	15000	5.07	71.1
Soluble Mercury	5.00	94	ND	ND
Soluble Nickel	5.00	930	ND	ND
Soluble Selenium	5.00	460	ND	ND
Soluble Strontium	5.00	56000	30.1	ND
Soluble Tin	2.50	180000	ND	ND
Organic Tin	7.50	12	ND	ND
Soluble Zinc	5.00	46000	63.3	21.8

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No.: 68.452.24.3968.02

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Conclusion	Pass	Pass
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Parameter	MDL [mg/kg]	Limit in scraped- off toy [mg/kg]	Result(s) [mg/kg]	
			006	007
Soluble Aluminum	5.00	28130	ND	ND
Soluble Antimony	5.00	560	ND	ND
Soluble Arsenic	5.00	47	ND	ND
Soluble Barium	5.00	18750	ND	ND
Soluble Boron	5.00	15000	ND	ND
Soluble Cadmium	5.00	17	ND	ND
Soluble Chromium III	0.04	460	0.141	0.159
Soluble Chromium VI	0.04	0.053	ND	ND
Soluble Cobalt	5.00	130	ND	ND
Soluble Copper	5.00	7700	ND	ND
Soluble Lead	5.00	23	ND	ND
Soluble Manganese	5.00	15000	ND	ND
Soluble Mercury	5.00	94	ND	ND
Soluble Nickel	5.00	930	ND	ND
Soluble Selenium	5.00	460	ND	ND
Soluble Strontium	5.00	56000	ND	ND
Soluble Tin	2.50	180000	ND	ND
Organic Tin	7.50	12	ND	ND
Soluble Zinc	5.00	46000	ND	12.4
Conclusion			Pass	Pass

Parameter	MDL [mg/kg]	Limit in scraped- off toy [mg/kg]	Result(s) [mg/kg]	
			008	009
Soluble Aluminum	5.00	28130	657	6.03
Soluble Antimony	5.00	560	ND	ND
Soluble Arsenic	5.00	47	ND	ND
Soluble Barium	5.00	18750	6.35	36.5
Soluble Boron	5.00	15000	ND	22.8
Soluble Cadmium	5.00	17	ND	ND
Soluble Chromium III	0.04	460	0.294	ND
Soluble Chromium VI	0.04	0.053	ND	ND
Soluble Cobalt	5.00	130	ND	ND
Soluble Copper	5.00	7700	ND	ND
Soluble Lead	5.00	23	ND	ND
Soluble Manganese	5.00	15000	98.8	ND
Soluble Mercury	5.00	94	ND	ND
Soluble Nickel	5.00	930	ND	ND

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Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



Soluble Selenium	5.00	460	ND	ND
Soluble Strontium	5.00	56000	45.1	ND
Soluble Tin	2.50	180000	ND	ND
Organic Tin	7.50	12	ND	ND
Soluble Zinc	5.00	46000	81.2	ND
Conclusion			Pass	Pass

Note: Mass of trace amount of sample 009 is 10.10 mg

Parameter	MDL [mg/kg]	Limit in scraped- off toy [mg/kg]	Result(s) [mg/kg]
			010
Soluble Aluminum	5.00	28130	ND
Soluble Antimony	5.00	560	ND
Soluble Arsenic	5.00	47	ND
Soluble Barium	5.00	18750	ND
Soluble Boron	5.00	15000	ND
Soluble Cadmium	5.00	17	ND
Soluble Chromium III	0.04	460	ND
Soluble Chromium VI	0.04	0.053	ND
Soluble Cobalt	5.00	130	ND
Soluble Copper	5.00	7700	ND
Soluble Lead	5.00	23	ND
Soluble Manganese	5.00	15000	ND
Soluble Mercury	5.00	94	ND
Soluble Nickel	5.00	930	ND
Soluble Selenium	5.00	460	ND
Soluble Strontium	5.00	56000	ND
Soluble Tin	2.50	180000	ND
Organic Tin	7.50	12	ND
Soluble Zinc	5.00	46000	ND
Conclusion			Pass

Remark:

1. The test results of the sample 002 is transferred from sample 019 of report 68.452.24.3970.
2. The test results of the sample 003 is transferred from sample 020 of report 68.452.24.3970.
3. The test results of the sample 004 is transferred from sample 021 of report 68.452.24.3970.
4. The test results of the sample 005 is transferred from sample 022 of report 68.452.24.3970.
5. The test results of the sample 006 is transferred from sample 009 of report 68.452.24.3969.
6. The test results of the sample 007 is transferred from sample 032 of report 68.452.24.3970.

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8. Polycyclic Aromatic Hydrocarbons (15 PAHs)

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

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					004	006+010
Naphthalene	91-20-3	mg/kg	0.1	2	ND	0.2
Phenanthrene	85-01-8	mg/kg	0.1	-	0.1	ND
Anthracene	120-12-7	mg/kg	0.1	-	ND	ND
Fluoranthene	206-44-0	mg/kg	0.1	-	ND	ND
Pyrene	129-00-0	mg/kg	0.1	-	ND	ND
Sum of 4 PAHs	-	mg/kg	0.1	5	0.10	ND
Benzo[a]anthracene	56-55-3	mg/kg	0.1	0.2	ND	ND
Chrysene	218-01-9	mg/kg	0.1	0.2	ND	ND
Benzo[b]fluoranthene	205-99-2	mg/kg	0.1	0.2	ND	ND
Benzo[j]fluoranthene	205-82-3	mg/kg	0.1	0.2	ND	ND
Benzo[k]fluoranthene	207-08-9	mg/kg	0.1	0.2	ND	ND
Benzo[a]pyrene	50-32-8	mg/kg	0.1	0.2	ND	ND
Benzo[e]pyrene	192-97-2	mg/kg	0.1	0.2	ND	ND
Benzo[ghi]perylene	191-24-2	mg/kg	0.1	0.2	ND	ND
dibenzo[ah]anthracene	53-70-3	mg/kg	0.1	0.2	ND	ND
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.1	0.2	ND	ND
Sum of detected 15 PAHs	-	mg/kg	0.1	5	0.1	0.2
Category Conclusion					Category 2 Pass	Category 2 Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					008	
Naphthalene	91-20-3	mg/kg	0.1	2	0.1	
Phenanthrene	85-01-8	mg/kg	0.1	-	0.3	
Anthracene	120-12-7	mg/kg	0.1	-	ND	
Fluoranthene	206-44-0	mg/kg	0.1	-	ND	
Pyrene	129-00-0	mg/kg	0.1	-	0.3	
Sum of 4 PAHs	-	mg/kg	0.1	5	0.60	
Benzo[a]anthracene	56-55-3	mg/kg	0.1	0.2	ND	
Chrysene	218-01-9	mg/kg	0.1	0.2	ND	
Benzo[b]fluoranthene	205-99-2	mg/kg	0.1	0.2	ND	
Benzo[j]fluoranthene	205-82-3	mg/kg	0.1	0.2	ND	
Benzo[k]fluoranthene	207-08-9	mg/kg	0.1	0.2	ND	
Benzo[a]pyrene	50-32-8	mg/kg	0.1	0.2	ND	
Benzo[e]pyrene	192-97-2	mg/kg	0.1	0.2	ND	
Benzo[ghi]perylene	191-24-2	mg/kg	0.1	0.2	ND	
dibenzo[ah]anthracene	53-70-3	mg/kg	0.1	0.2	ND	
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.1	0.2	ND	
Sum of detected 15 PAHs	-	mg/kg	0.1	5	0.7	
Category					Category 2	

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Lab 2 - Physical & mechanical testing

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Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



Conclusion	Pass
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Remark: 1. Limit according to AfPS GS 2019:01PAK :

Parameter	Category 1	Category 2		Category 3	
	Materials intended to be taken into the mouth, or materials in toys according to Directive 2009/48/EC or materials in articles intended for the use by children up to 3 years of age having long-term skin contact (more than 30s) within intended use	Materials that do not fall into category 1, with long-term skin contact (more than 30s) or repeated short-term skin contact within intended or foreseeable use		Materials that do neither fall into category 1 nor 2, with short-term skin contact (up to 30s) within foreseeable use	
		Used by children (mg/kg)	Other consumer products (mg/kg)	Used by children (mg/kg)	Other consumer products (mg/kg)
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-c,d]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Phenanthrene, Pyrene, Anthracene, Fluoranthene	Sum < 1	Sum < 5	Sum < 10	Sum < 20	Sum < 50
Naphthalene	< 1	< 2		< 10	
Sum 15 PAH	< 1	< 5	< 10	< 20	< 50

Remark:

- The test results of the sample 004 is transferred from sample 021 of report 68.452.24.3970.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					003	005
Naphthalene	91-20-3	mg/kg	0.1	10	ND	1.6
Phenanthrene	85-01-8	mg/kg	0.1	-	0.3	1.0

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Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



Anthracene	120-12-7	mg/kg	0.1	-	ND	ND
Fluoranthene	206-44-0	mg/kg	0.1	-	ND	1.0
Pyrene	129-00-0	mg/kg	0.1	-	ND	4.6
Sum of 4 PAHs	-	mg/kg	0.1	20	0.30	6.60
Benzo[a]anthracene	56-55-3	mg/kg	0.1	0.5	ND	ND
Chrysene	218-01-9	mg/kg	0.1	0.5	ND	ND
Benzo[b]fluoranthene	205-99-2	mg/kg	0.1	0.5	ND	ND
Benzo[j]fluoranthene	205-82-3	mg/kg	0.1	0.5	ND	ND
Benzo[k]fluoranthene	207-08-9	mg/kg	0.1	0.5	ND	ND
Benzo[a]pyrene	50-32-8	mg/kg	0.1	0.5	ND	0.1
Benzo[e]pyrene	192-97-2	mg/kg	0.1	0.5	ND	0.4
Benzo[ghi]perylene	191-24-2	mg/kg	0.1	0.5	ND	0.3
dibenzo[ah]anthracene	53-70-3	mg/kg	0.1	0.5	ND	ND
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.1	0.5	ND	ND
Sum of detected 15 PAHs	-	mg/kg	0.1	20	0.3	9.0
Category Conclusion					Category 3 Pass	Category 3 Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)
					009*
Naphthalene	91-20-3	mg/kg	0.1	10	2.9
Phenanthrene	85-01-8	mg/kg	0.1	-	0.5
Anthracene	120-12-7	mg/kg	0.1	-	ND
Fluoranthene	206-44-0	mg/kg	0.1	-	ND
Pyrene	129-00-0	mg/kg	0.1	-	ND
Sum of 4 PAHs	-	mg/kg	0.1	20	0.50
Benzo[a]anthracene	56-55-3	mg/kg	0.1	0.5	ND
Chrysene	218-01-9	mg/kg	0.1	0.5	ND
Benzo[b]fluoranthene	205-99-2	mg/kg	0.1	0.5	ND
Benzo[j]fluoranthene	205-82-3	mg/kg	0.1	0.5	ND
Benzo[k]fluoranthene	207-08-9	mg/kg	0.1	0.5	ND
Benzo[a]pyrene	50-32-8	mg/kg	0.1	0.5	ND
Benzo[e]pyrene	192-97-2	mg/kg	0.1	0.5	ND
Benzo[ghi]perylene	191-24-2	mg/kg	0.1	0.5	ND
dibenzo[ah]anthracene	53-70-3	mg/kg	0.1	0.5	ND
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.1	0.5	ND
Sum of detected 15 PAHs	-	mg/kg	0.1	20	3.4
Category Conclusion					Category 3 Pass

Remark: 1. Limit according to AfPS GS 2019:01PAK :

Parameter	Category 1	Category 2	Category 3
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	Materials intended to be taken into the mouth, or materials in toys according to Directive 2009/48/EC or materials in articles intended for the use by children up to 3 years of age having long-term skin contact (more than 30s) within intended use	Materials that do not fall into category 1, with long-term skin contact (more than 30s) or repeated short-term skin contact within intended or foreseeable use		Materials that do neither fall into category 1 nor 2, with short-term skin contact (up to 30s) within foreseeable use	
		Used by children (mg/kg)	Other consumer products (mg/kg)	Used by children (mg/kg)	Other consumer products (mg/kg)
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-c,d]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Phenanthrene, Pyrene, Anthracene, Fluoranthene	Sum < 1	Sum < 5	Sum < 10	Sum < 20	Sum < 50
Naphthalene	< 1	< 2		< 10	
Sum 15 PAH	< 1	< 5	< 10	< 20	< 50

“*” denotes sample was received on 2024-10-25.

Remark:

1. The test results of the sample 003 is transferred from sample 020 of report 68.452.24.3970.
2. The test results of the sample 005 is transferred from sample 022 of report 68.452.24.3970.

9. Regulation (EC) No.1907/2006 (REACH) Annex XVII, Item 51 & 52 - Phthalates Content

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

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					003	004
Bis (2-ethylhexyl) phthalate, DEHP	117-81-7	%	0.005	-	ND	ND

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Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



Dibutyl phthalate, DBP	84-74-2	%	0.005	-	ND	ND
Benzyl butyl phthalate, BBP	85-68-7	%	0.005	-	ND	ND
Diisobutylphthalate, DIBP	84-69-5	%	0.005	-	ND	ND
Sum of DBP, BBP, DEHP, DIBP	-	%	0.005	0.1	ND	ND
Di-isononyl phthalate, DINP	28553-12-0 /68515-48-0	%	0.005	-	ND	ND
Di-isodecyl phthalate, DIDP	26761-40-0 /68515-49-1	%	0.005	-	ND	ND
Di-n-octyl phthalate, DNOP	117-84-0	%	0.005	-	ND	ND
Sum of DINP, DIDP, DNOP	-	%	0.005	0.1	ND	ND
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					005	006+010
Bis (2-ethylhexyl) phthalate, DEHP	117-81-7	%	0.005	-	ND	ND
Dibutyl phthalate, DBP	84-74-2	%	0.005	-	ND	ND
Benzyl butyl phthalate, BBP	85-68-7	%	0.005	-	ND	ND
Diisobutylphthalate, DIBP	84-69-5	%	0.005	-	ND	ND
Sum of DBP, BBP, DEHP, DIBP	-	%	0.005	0.1	ND	ND
Di-isononyl phthalate, DINP	28553-12-0 /68515-48-0	%	0.005	-	ND	ND
Di-isodecyl phthalate, DIDP	26761-40-0 /68515-49-1	%	0.005	-	ND	ND
Di-n-octyl phthalate, DNOP	117-84-0	%	0.005	-	ND	ND
Sum of DINP, DIDP, DNOP	-	%	0.005	0.1	ND	ND
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					008	009
Bis (2-ethylhexyl) phthalate, DEHP	117-81-7	%	0.005	-	ND	ND
Dibutyl phthalate, DBP	84-74-2	%	0.005	-	ND	ND
Benzyl butyl phthalate, BBP	85-68-7	%	0.005	-	ND	ND
Diisobutylphthalate, DIBP	84-69-5	%	0.005	-	ND	ND
Sum of DBP, BBP, DEHP, DIBP	-	%	0.005	0.1	ND	ND
Di-isononyl phthalate, DINP	28553-12-0 /68515-48-0	%	0.005	-	ND	ND
Di-isodecyl phthalate, DIDP	26761-40-0 /68515-49-1	%	0.005	-	ND	ND
Di-n-octyl phthalate, DNOP	117-84-0	%	0.005	-	ND	ND

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Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



Sum of DINP, DIDP, DNOP	-	%	0.005	0.1	ND	ND
Conclusion					Pass	Pass

Remark:

1. The test results of the sample 003 is transferred from sample 020 of report 68.452.24.3970.
2. The test results of the sample 004 is transferred from sample 021 of report 68.452.24.3970.
3. The test results of the sample 005 is transferred from sample 022 of report 68.452.24.3970.

10. Regulation (EC) No.1907/2006 (REACH) Annex XVII, Item 50 - Polycyclic Aromatic Hydrocarbons (PAHs)

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

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					003	004
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 (DBA _h A)	53-70-3	mg/kg	0.1	0.5	ND	ND
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					005	006+010
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	0.20	ND
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	0.5	0.30	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 (DBA _h A)	53-70-3	mg/kg	0.1	0.5	ND	ND
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					008	009*
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

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Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



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
Conclusion					Pass	Pass

Remark:

1. The test results of the sample 003 is transferred from sample 020 of report 68.452.24.3970.
2. The test results of the sample 004 is transferred from sample 021 of report 68.452.24.3970.
3. The test results of the sample 005 is transferred from sample 022 of report 68.452.24.3970.
4. "*"denotes sample was received on 2024-10-25.

11. ASTM F963-23 Section 4.3.5.1 - Total Lead Content Test (Paint and Similar Surface-Coating Materials)

Test with reference to CPSC-CH-E1003-09.1, determination by ICP-OES.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
003	mg/kg	10.0	90	14.5	Pass
004	mg/kg	10.0	90	14.9	Pass
005	mg/kg	10.0	90	22.9	Pass
008	mg/kg	10.0	90	ND	Pass
009	mg/kg	10.0	90	ND	Pass

Remark:

1. The test results of the sample 003 is transferred from sample 020 of report 68.452.24.3970.
2. The test results of the sample 004 is transferred from sample 021 of report 68.452.24.3970.
3. The test results of the sample 005 is transferred from sample 022 of report 68.452.24.3970.

12. ASTM F963-23 Section 4.3.5.2 - Total Lead Content Test (Substrate Materials)

Test with reference to CPSC-CH-E1001-08.3:2012 or CPSC-CH-E1002-08.3:2012, determination by ICP-OES.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
006+010	mg/kg	10.0	100	ND	Pass
011	mg/kg	10.0	100	ND	Pass

Remark:

1. The test results of the sample 011 is transferred from sample 008 of report 68.452.24.3970.

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Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



13. ASTM F963-23 Section 4.3.5.1 & Section 4.3.5.2 - Soluble Heavy Elements

Test with reference to ASTM F963-23 Section 8.3, determination by ICP-MS.

Parameter	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]	
			003	004
Soluble Antimony (Sb)	5.0	60	ND	ND
Soluble Arsenic (As)	2.5	25	ND	ND
Soluble Barium (Ba)	5.0	1000	ND	ND
Soluble Cadmium (Cd)	5.0	75	ND	ND
Soluble Chromium (Cr)	5.0	60	ND	ND
Soluble Lead (Pb)	5.0	90	ND	ND
Soluble Mercury (Hg)	5.0	60	ND	ND
Soluble Selenium (Se)	5.0	500	ND	ND
Conclusion			Pass	Pass

Parameter	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]	
			005	006
Soluble Antimony (Sb)	5.0	60	ND	ND
Soluble Arsenic (As)	2.5	25	ND	ND
Soluble Barium (Ba)	5.0	1000	21.1	ND
Soluble Cadmium (Cd)	5.0	75	ND	ND
Soluble Chromium (Cr)	5.0	60	ND	ND
Soluble Lead (Pb)	5.0	90	ND	ND
Soluble Mercury (Hg)	5.0	60	ND	ND
Soluble Selenium (Se)	5.0	500	ND	ND
Conclusion			Pass	Pass

Parameter	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]	
			007	008
Soluble Antimony (Sb)	5.0	60	ND	ND
Soluble Arsenic (As)	2.5	25	ND	ND
Soluble Barium (Ba)	5.0	1000	ND	ND
Soluble Cadmium (Cd)	5.0	75	ND	ND
Soluble Chromium (Cr)	5.0	60	ND	ND
Soluble Lead (Pb)	5.0	90	ND	ND
Soluble Mercury (Hg)	5.0	60	ND	ND
Soluble Selenium (Se)	5.0	500	ND	ND
Conclusion			Pass	Pass

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Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



Parameter	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]	
			009	010
Soluble Antimony (Sb)	5.0	60	ND	ND
Soluble Arsenic (As)	2.5	25	ND	ND
Soluble Barium (Ba)	5.0	1000	253	ND
Soluble Cadmium (Cd)	5.0	75	ND	ND
Soluble Chromium (Cr)	5.0	60	ND	ND
Soluble Lead (Pb)	5.0	90	8.04	ND
Soluble Mercury (Hg)	5.0	60	ND	ND
Soluble Selenium (Se)	5.0	500	ND	ND
Conclusion			Pass	Pass

Note: - Mass of trace amount of sample 009 is 10.10 mg

Remark: 1. Adjusted analytical result.

Remark:

1. The test results of the sample 003 is transferred from sample 020 of report 68.452.24.3970.
2. The test results of the sample 004 is transferred from sample 021 of report 68.452.24.3970.
3. The test results of the sample 005 is transferred from sample 022 of report 68.452.24.3970.
4. The test results of the sample 007 is transferred from sample 032 of report 68.452.24.3970.

14. ASTM F963-23 Section 4.3.8 - Phthalates

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

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					003	004
Dibutyl phthalate (DBP)	84-74-2	%	0.005	0.1	ND	ND
Benzyl butyl phthalate (BBP)	85-68-7	%	0.005	0.1	ND	ND
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	%	0.005	0.1	ND	ND
Di-isononyl phthalate (DINP)	28553-12-0 /68515-48-0	%	0.005	0.1	ND	ND
Diisobutylphthalate (DIBP)	84-69-5	%	0.005	0.1	ND	ND
Dipentyl phthalate (DPP)	131-18-0	%	0.005	0.1	ND	ND
Di-n-hexyl phthalate (DHP)	84-75-3	%	0.005	0.1	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	ND	ND
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					005	006+010
Dibutyl phthalate (DBP)	84-74-2	%	0.005	0.1	ND	ND

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Test Report

No.: 68.452.24.3968.02

Date: 2024-11-06



Benzyl butyl phthalate (BBP)	85-68-7	%	0.005	0.1	ND	ND
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	%	0.005	0.1	ND	ND
Di-isononyl phthalate (DINP)	28553-12-0 /68515-48-0	%	0.005	0.1	ND	ND
Diisobutylphthalate (DIBP)	84-69-5	%	0.005	0.1	ND	ND
Dipentyl phthalate (DPP)	131-18-0	%	0.005	0.1	ND	ND
Di-n-hexyl phthalate (DHP)	84-75-3	%	0.005	0.1	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	ND	ND
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					008	009
Dibutyl phthalate (DBP)	84-74-2	%	0.005	0.1	ND	ND
Benzyl butyl phthalate (BBP)	85-68-7	%	0.005	0.1	ND	ND
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	%	0.005	0.1	ND	ND
Di-isononyl phthalate (DINP)	28553-12-0 /68515-48-0	%	0.005	0.1	ND	ND
Diisobutylphthalate (DIBP)	84-69-5	%	0.005	0.1	ND	ND
Dipentyl phthalate (DPP)	131-18-0	%	0.005	0.1	ND	ND
Di-n-hexyl phthalate (DHP)	84-75-3	%	0.005	0.1	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	ND	ND
Conclusion					Pass	Pass

Remark:

1. The test results of the sample 003 is transferred from sample 020 of report 68.452.24.3970.
2. The test results of the sample 004 is transferred from sample 021 of report 68.452.24.3970.
3. The test results of the sample 005 is transferred from sample 022 of report 68.452.24.3970.

15. Regulation (EC) No.1907/2006 (REACH) Annex XVII, Item 23 - Cadmium Content

Test with reference to EPA 3052:1996 microwave digestion or acid digestion, determination by ICP-OES.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
003	mg/kg	10.0	1000	ND	Pass
004	mg/kg	10.0	1000	ND	Pass
005	mg/kg	10.0	1000	ND	Pass
006	mg/kg	10.0	100	ND	Pass
008	mg/kg	10.0	1000	ND	Pass
009	mg/kg	10.0	1000	ND	Pass
010	mg/kg	10.0	100	ND	Pass

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Remark:

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3. The test results of the sample 005 is transferred from sample 022 of report 68.452.24.3970.
4. The test results of the sample 006 is transferred from sample 009 of report 68.452.24.3969.

16. 16 CFR Part 1303 / CPSIA section 101(f) - Total Lead Content (surface coating)

Test with reference to CPSC-CH-E1003-09.1, determination by ICP-OES.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
003	mg/kg	10.0	90	14.5	Pass
004	mg/kg	10.0	90	14.9	Pass
005	mg/kg	10.0	90	22.9	Pass
008	mg/kg	10.0	90	ND	Pass
009	mg/kg	10.0	90	ND	Pass

Remark:

1. The test results of the sample 003 is transferred from sample 020 of report 68.452.24.3970.
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3. The test results of the sample 005 is transferred from sample 022 of report 68.452.24.3970.

17. 15 U.S.C. 1278a / CPSIA section 101(a)(2) - Total lead content (Substrate)

Test with reference to CPSC-CH-E1001-08.3:2012 or CPSC-CH-E1002-08.3:2012, determination by ICP-OES.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
006+010	mg/kg	10.0	100	ND	Pass
011	mg/kg	10.0	100	ND	Pass

Remark:

1. The test results of the sample 011 is transferred from sample 008 of report 68.452.24.3970.

18. CPSIA, § 108, 16 CFR 1307- Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates

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

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					003	004
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	ND	ND
Benzyl butyl phthalate,	85-68-7	%	0.005	0.1	ND	ND

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(BBP)						
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	ND	ND
Di-isononyl phthalate, (DINP)	28553-12-0 /68515-48-0	%	0.005	0.1	ND	ND
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	ND	ND
Dipentyl phthalate (DPP)	131-18-0	%	0.005	0.1	ND	ND
Di-n-hexyl phthalate (DHP)	84-75-3	%	0.005	0.1	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	ND	ND
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					005	006+010
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	ND	ND
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	ND	ND
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	ND	ND
Di-isononyl phthalate, (DINP)	28553-12-0 /68515-48-0	%	0.005	0.1	ND	ND
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	ND	ND
Dipentyl phthalate (DPP)	131-18-0	%	0.005	0.1	ND	ND
Di-n-hexyl phthalate (DHP)	84-75-3	%	0.005	0.1	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	ND	ND
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					008	009
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	ND	ND
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	ND	ND
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	ND	ND
Di-isononyl phthalate, (DINP)	28553-12-0 /68515-48-0	%	0.005	0.1	ND	ND
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	ND	ND
Dipentyl phthalate (DPP)	131-18-0	%	0.005	0.1	ND	ND
Di-n-hexyl phthalate (DHP)	84-75-3	%	0.005	0.1	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	ND	ND
Conclusion					Pass	Pass

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-End of Test Report-



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