

TEST REPORT

APPLICANT : Nantong Tianshu Sports Equipment Co., Ltd

ADDRESS : No.8, Group 5, Zhenhe Village, Chahe Town, Rudong
County, Nantong City

SAMPLE DESCRIPTION : Kids Soft Play Set

ITEM NO. : 3D0-008
TS002V01; TS002V02; TS002V03; TS003V01; TS003V02;
TS003V03; TS004V01; TS006V01; TS006V02; TS006V03;
TS008V02; TS008V01; TS009V01; TS009V02; TS010V01;
TS010V02; TS011V01; TS012V02; TS012V03; TS016V02

COUNTRY OF ORIGIN : China

LAB RECOMMENDED AGE GRADE : 12-36 Months

LABELED AGE GRADE : 12-36 Months

AGE GRADE APPLIED IN TESTING : 12-36 Months

SAMPLE RECEIVED DATE : 12-Dec-2023

FURTHER INFORMATION DATE : 20-Jan-2024

TURN AROUND TIME : 12-Dec-2023 to 21-May-2024

REVISED DATE : 21-May-2024

The following test item(s) was/were performed on selected sample(s) and/or component(s) confirmed by applicant

TEST REQUESTED	TEST METHOD/REGULATION	RESULT
Mechanical and Physical Properties	ASTM F963-23	Pass
Total Lead Content in Metal	SOR/2018-83, Consumer Products Containing Lead Regulations	Pass
Total Lead Content in Coating	SOR/2018-83, Consumer Products Containing Lead Regulations	Pass
Total Lead Content in Plastic	SOR/2018-83, Consumer Products Containing Lead Regulations	Pass
Flammability of Toys	ASTM F963-23	Pass
Tracking Label Assessment	US CPSIA, Section 103	Pass
Heavy Metals	ASTM F963-23	Pass

Samples are obtained by express delivery, Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins MTS Consumer Product Testing (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to info@eurofins.com and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins MTS Consumer Product Testing (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to china.complaint@eurofins.com and referring to this report number.

TEST REQUESTED	TEST METHOD/REGULATION	RESULT
Phthalates Content	ASTM F963-23	Pass
Total Lead Content in Substrate	US CPSIA, Section 101	Pass
Total Lead Content in Paint / Surface Coating	US CPSIA, Section 101	Pass
Phthalates Content	US CPSIA, Section 108	Pass
Phthalates Content	CPSC 16 CFR part 1307	Pass
Total Lead Content	US California Proposition 65	Pass
Total Lead Content	REACH Annex XVII, Entry 63	Pass
Physical and Mechanical Hazards	EN 71-1:2014+A1:2018	Pass
Physical and Mechanical Hazards	BS EN 71-1:2014+A1:2018	Pass
Labeling Requirement	Directive 2009/48/EC	Pass
Labeling Requirement for United Kingdom	The Toys (Safety) Regulations 2011 and The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019	Pass
Flammability of Toys	EN 71-2:2020	Pass
Flammability of Toys	BS EN 71-2:2020	Pass
Migration of Certain Elements	EN 71-3:2019+A1:2021	Pass
Migration of Certain Elements	BS EN 71-3:2019+A1:2021	Pass
Total Cadmium Content	REACH Annex XVII, Entry 23	Pass
Phthalates Content	REACH Annex XVII, Entry 51 & 52	Pass
Banned AZO Dyes	REACH Annex XVII, Entry 43	Pass
Polycyclic Aromatic Hydrocarbons (PAHs)	REACH Annex XVII, Entry 50	Pass
Polycyclic Aromatic Hydrocarbons (PAHs)	German GS Specification: AfPS GS 2019:01 PAK	Pass
Mechanical and Physical Properties	SOR/2011-17 amended by SOR/2018-138	Pass
Flammability of Toys	SOR/2011-17 amended by SOR/2018-138	Pass
Phthalate Regulations	SOR/2016-188	Pass
Heavy Metals in Plastic Materials	SOR/2011-17 amended by SOR/2018-138	Pass
Heavy Metals in Surface Coating	SOR/2011-17 amended by SOR/2018-138	Pass
Surface Coating Materials Regulations	SOR/2016-193	Pass

Note : This report cancels and supersedes report number EFW524011176-CG-01 issued on Jan 17th, 2024.

Modification description:

- 1.As per client's request, submit component No.12-25 of sample B for selected chemical tests and add reference sample photo(s) in the revised report.
- 2.As per client's request, add reference sample photo(s) in the revised report.

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Eurofins (Shanghai) contact information**Customer service:** SallyZhang@eurofins.com/ +86 13116656995**Sales specialist:** Diver.Dong@cpt.eurofinscn.com/ +86 13116656995

***** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) *****

Signed for and on behalf of
Eurofins MTS Consumer Product Testing (Shanghai) Co., Ltd.

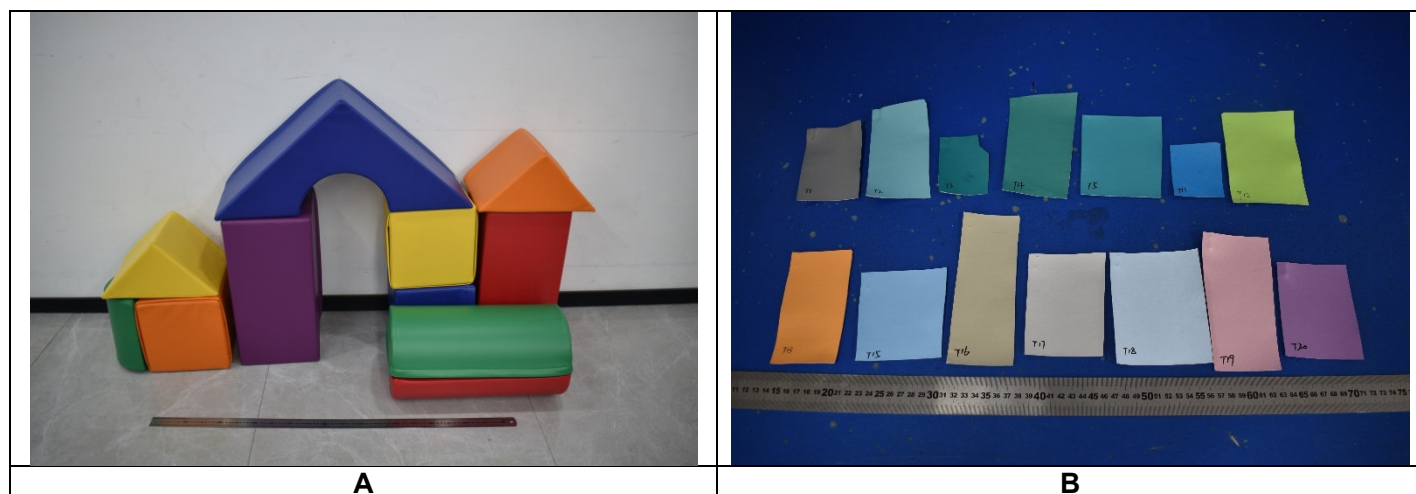


Gao Jian, David
Senior Manager, Toy Division



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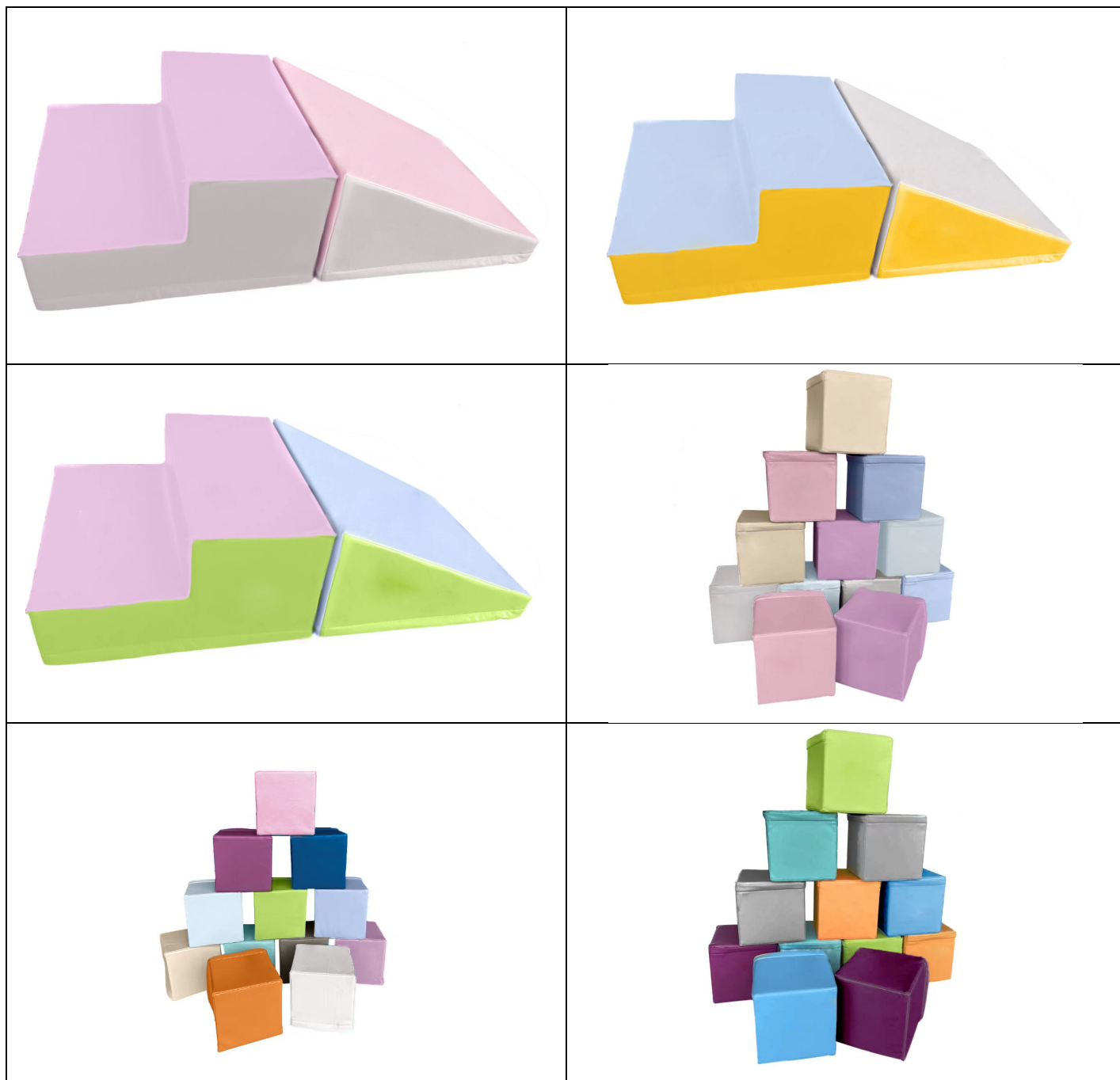
TEST SAMPLE PHOTO(S)



EFW524011176-CG-01+Rev 1

TO BE CONTINUED

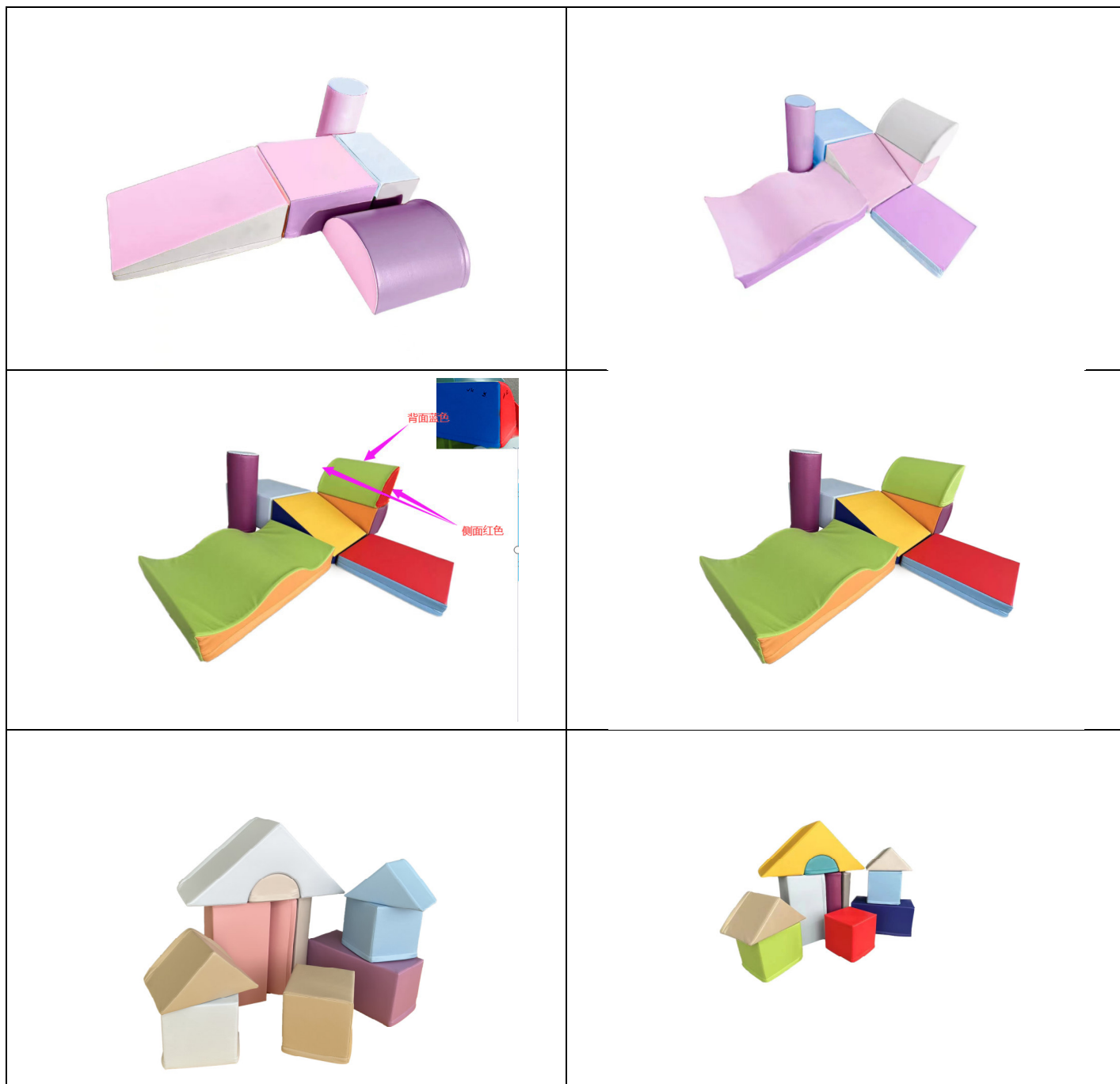
REFERENCE SAMPLE PHOTO(S)



The reference sample(s) has not been tested in current report, but according to customer's request, the picture has also been included. For sample tested in current report, please refer to "Test sample photo".

TO BE CONTINUED

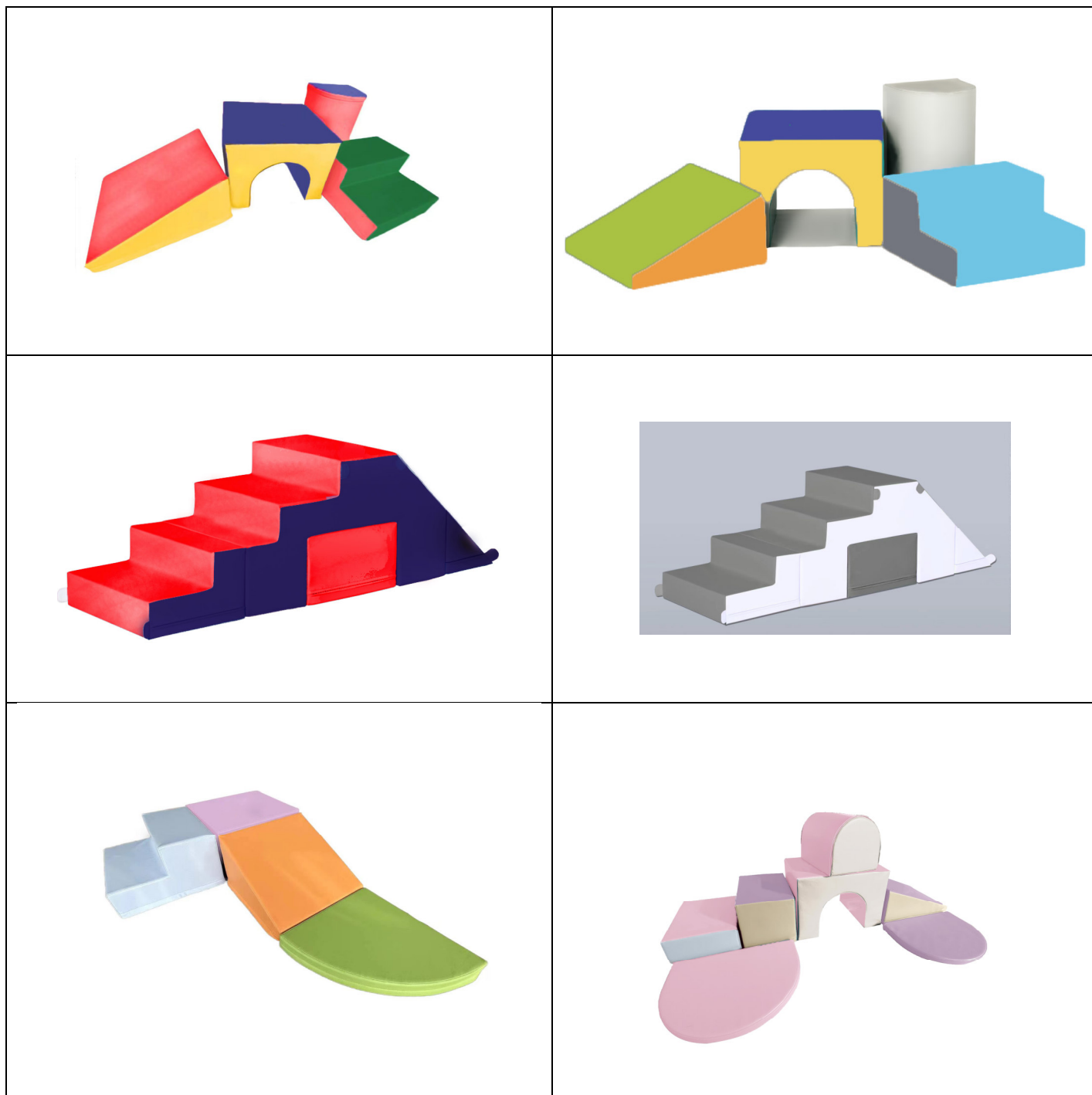
REFERENCE SAMPLE PHOTO(S)



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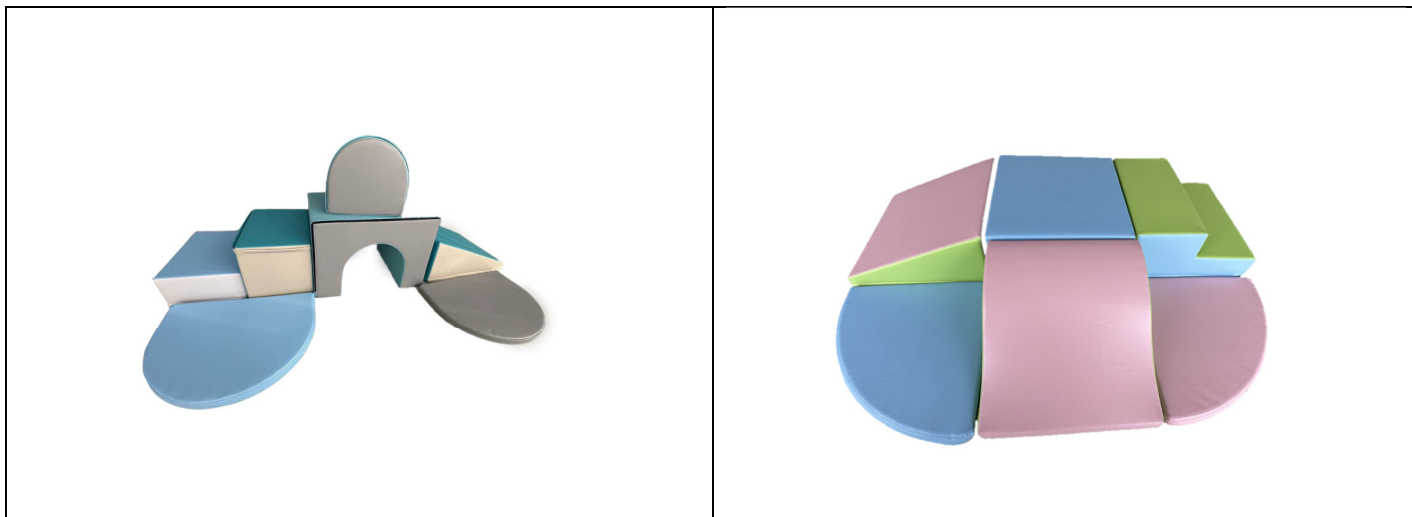
TO BE CONTINUED

REFERENCE SAMPLE PHOTO(S)



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TO BE CONTINUED

REFERENCE SAMPLE PHOTO(S)

The reference sample(s) has not been tested in current report, but according to customer's request, the picture has also been included. For sample tested in current report, please refer to "Test sample photo".

TO BE CONTINUED

COMPONENT LIST

Component No.	Component	Sample No.
1	Black coating on metal (zipper)	A
2	Black plastic (zipper teeth)	A
3	White foam	A
4	Red artificial leather	A
5	Purple artificial leather	A
6	Yellow artificial leather	A
7	Green artificial leather	A
8	Orange artificial leather	A
9	Dark blue artificial leather	A
10	Black fabric (zipper tape)	A
11	Silver metal excluding coating (zipper)	A
12	Grey artificial leather T1	B
13	Light lake blue artificial leather T2	B
14	Blue green artificial leather T3	B
15	Green artificial leather T4	B
16	Lake blue artificial leather T5	B
17	Sky blue artificial leather T11	B
18	Yellow green artificial leather T12	B
19	Orange artificial leather T13	B
20	Baby blue artificial leather T15	B
21	Light brown artificial leather T16	B
22	Light grey artificial leather T17	B
23	White blue artificial leather T18	B
24	Pink artificial leather T19	B
25	Purple artificial leather T20	B

TO BE CONTINUED

TEST RESULT

Mechanical and Physical Properties

Test Request: As specified in Consumer Safety Specification ASTM F963-23

Section	Description	Result
4.1	Material Quality	P
4.3.7	Stuffing Materials	P
4.5	Sound-producing Toys	N/A
4.6	Small Objects	N/A
4.6.1	Toys that are intended for children under 36 months of age	N/A
4.6.2	Mouth-actuated Toys	N/A
4.6.3	Toys that are intended for children over 36 months but less than 72 months	N/A
4.7	Accessible Edges	P
4.8	Projections	N/A
4.8.1	Bath Toy Projections	N/A
4.9	Accessible Points	P
4.10	Wires or Rods	N/A
4.11	Nails and Fasteners	N/A
4.12	Plastic Film	N/A
4.13	Folding Mechanisms and Hinges	N/A
4.14	Cords, Straps and Elastics	N/A
4.15	Stability and Over-load Requirements	N/A
4.16	Confined Spaces	N/A
4.17	Wheels, Tires, and Axles	N/A
4.18	Holes, Clearance and Accessibility of Mechanisms	N/A
4.19	Simulated Protective Devices	N/A
4.20	Pacifiers	N/A
4.21	Projectile Toys	N/A
4.22	Teethers and Teething Toys	N/A
4.23	Rattles	N/A
4.24	Squeeze Toys	N/A
4.25	Battery-operated Toys (exclude section 4.25.9 Battery-powered Ride-on Toys and section 4.25.10 Toys that Contain Secondary Cells or Secondary Batteries)	N/A
4.26	Toys Intended to be Attached to a Crib or Playpen	N/A
4.27	Stuffed and Beanbag-type Toys	P
4.28	Stroller and Carriage Toys	N/A
4.30	Toy Gun Marking	N/A
4.31	Balloons	N/A
4.32	Certain Toys with Nearly Spherical Ends	N/A
4.33	Marbles	N/A
4.34	Balls	N/A
4.35	Pompoms	N/A
4.36	Hemispheric-shaped Objects	N/A
4.37	Yo Yo Elastic Tether Toys	N/A
4.38	Magnets	N/A
4.39	Jaw Entrapment in Handles and Steering Wheels	N/A
4.40	Expanding Materials	N/A

TO BE CONTINUED

TEST RESULT

4.41	Toy Chests	N/A
5	Labeling Requirements	
5.1	Federal Government Requirements	P
5.2	Age Grading Labeling	P
5.3	Safety Labeling Requirements	N/A
5.4	Aquatic Toys	N/A
5.5	Crib and Playpen Toys	N/A
5.6	Mobiles	N/A
5.7	Stroller and Carriage Toys	N/A
5.8	Toys Intended to be Assembled by an Adult	N/A
5.9	Simulated Protective Devices	N/A
5.10	Toys with Functional Sharp Edges or Points	N/A
5.11	Small Objects, Small Balls, Marbles and Balloons (16 CFR 1500.19)	N/A
5.12	Art Materials (16 CFR 1500.14(b)(8))	N/A
5.13	Electric Toys	N/A
5.14	Battery-operated Toys	N/A
5.14.1	Battery-powered Ride-on Toys	N/A
5.14.2	Button or Coin Cell Batteries	N/A
5.15	Promotional Materials	N/A
5.16	Magnets	N/A
6	Instructional Literature	
6.1	Definition and Description	N/A
6.2	Crib and Playpen Toys	N/A
6.3	Mobiles	N/A
6.4	Toys Intended to be Assembled by an Adult	N/A
6.5	Battery-operated Toys	N/A
6.6	Battery-powered Ride-on Toys	N/A
6.7	Toys in Contact with Food	N/A
6.8	Toy Chests	N/A
6.9	Manufacturer-supplied specialty or custom tools to access the battery(ies)	N/A
7	Producer's Markings	
7.1	Producer's or Distributor's Name and Address	P
7.2	Battery-powered Ride-on Toys	N/A
7.3	Toy Chests	N/A

Remark:

P-Pass, F- Fail, N/A-Not Applicable, N/C-Not conduct as per client's request

TO BE CONTINUED

TEST RESULT

Total Lead Content in Metal

Test Request: Lead content as specified in Canada Consumer Product Safety Act – Consumer Products Containing Lead Regulations, SOR/2018-83.

Test Method: With reference to Product Safety Laboratory, Reference Manual, Book 5 - Laboratory Policies and Procedures, Part B: Test Methods Section, Method C02.4.1-2019, analysis is performed by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result
				11
Lead (Pb)	mg/kg	90	10	20

Remark:

Exception:

Each accessible part may contain more than 90 mg/kg of lead if

- a) lead is necessary to produce an essential characteristic of the part;
- b) no alternative part containing less lead is available; and
- c) the part, when tested in accordance with good laboratory practices, does not release more than 90 mg/kg of lead.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Total Lead Content in Coating

Test Request: Lead content as specified in Canada Consumer Product Safety Act – Consumer Products Containing Lead Regulations, SOR/2018-83.

Test Method: With reference to Product Safety Laboratory, Reference Manual, Book 5 - Laboratory Policies and Procedures, Part B: Test Methods Section, Method C02.2.2-2020, analysis is performed by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result
				1
Total Lead	mg/kg	90	10	ND

Remark:

Exception:

Each accessible part may contain more than 90 mg/kg of lead if

- a) lead is necessary to produce an essential characteristic of the part;
- b) no alternative part containing less lead is available; and
- c) the part, when tested in accordance with good laboratory practices, does not release more than 90 mg/kg of lead.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Total Lead Content in Plastic

Test Request: Lead content as specified in Canada Consumer Product Safety Act – Consumer Products Containing Lead Regulations, SOR/2018-83.

Test Method: With reference to Product Safety Laboratory, Reference Manual, Book 5 - Laboratory Policies and Procedures, Part B: Test Methods Section, Method C02.3.2-2021, analysis is performed by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result			
				2	3	4+5+6	7+8+9
Total Lead	mg/kg	90	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result			
				10			
Total Lead	mg/kg	90	10	ND			

Test Item(s)	Unit	Limit	MDL	Result			
				12+13+14	15+16+17	18+19+20	21+22+23
Total Lead	mg/kg	90	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result			
				24+25			
Total Lead	mg/kg	90	10	ND			

Remark:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

Exception:

Each accessible part may contain more than 90 mg/kg of lead if

- a) lead is necessary to produce an essential characteristic of the part;
- b) no alternative part containing less lead is available; and
- c) the part, when tested in accordance with good laboratory practices, does not release more than 90 mg/kg of lead.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Flammability of Toys

Test Request: As specified in ASTM F963-23, Section 4.2, testing procedure for materials other than textiles (excluding paper) used in toys is contained in Annex A5.

Sample	Limit	Result
A	0.1 inch/second	P

Remark:

P-Pass, F- Fail, N/A-Not Applicable

Tracking Label Assessment

Test Request: As per Consumer Product Safety Improvement Act (CPSIA) 2008 section 103 tracking labels for children products

Labeling Content	Observation Result	Location	Conclusion
Name of Manufacturer/ Import / Private Labeler in the tracking label	Provided	Packaging	Pass
Location of production	Provided	Packaging	Pass
Date of production	Provided	Packaging	Pass
Cohort information (including the batch, run number, or other identifying characteristic)	Provided	Packaging	Pass
Name of Manufacturer/ Import / Private Labeler in the tracking label	Provided	Product	Pass
Location of production	Provided	Product	Pass
Date of production	Provided	Product	Pass
Cohort information (including the batch, run number, or other identifying characteristic)	Provided	Product	Pass

Remark:

The tracking label assessment was based on the submitted sample and the information provided by the applicant. There was no verification on the validity of such information.

TO BE CONTINUED

TEST RESULT

Heavy Metals

1) ASTM F963-23- Heavy Elements – Total Lead in Paint and Similar Surface-Coating Material (Clause 4.3.5.1(1))

Test Method: ASTM International Standard ASTM F963-23, Section 8.3.1 and Annex A7.

Tested Item(s)	Unit	Limit	MDL	Result				
				1				
Total Lead	mg/kg	90	10	ND				

2) ASTM F963-23- Heavy Elements – Total Lead in Substrate Material (Clause 4.3.5.2(2)(a))

Test Method: ASTM International Standard ASTM F963-23, Section 8.3.1 and Annex A7.

Tested Item(s)	Unit	Limit	MDL	Result				
				2	3	4	5	6
Total Lead in Substrate	mg/kg	100	10	ND	ND	ND	ND	ND

Tested Item(s)	Unit	Limit	MDL	Result			
				7	8	9	11
Total Lead in Substrate	mg/kg	100	10	ND	ND	ND	20

Tested Item(s)	Unit	Limit	MDL	Result				
				12	13	14	15	16
Total Lead in Substrate	mg/kg	100	10	ND	ND	ND	ND	ND

Tested Item(s)	Unit	Limit	MDL	Result				
				17	18	19	20	21
Total Lead in Substrate	mg/kg	100	10	ND	ND	ND	ND	ND

Tested Item(s)	Unit	Limit	MDL	Result			
				22	23	24	25
Total Lead in Substrate	mg/kg	100	10	ND	ND	ND	ND

3) ASTM F963-23- Heavy Elements – Total Elements Content, Initial Screening for Soluble Migrated Elements Content in Surface Coatings and Substrates Other Than Modeling Clay (Clause 4.3.5.1(2) and 4.3.5.2(2)(b))

Test Method: ASTM International Standard ASTM F963-23, Section 8.3.1 and Annex A7.

Tested Item(s)	Unit	Limit	MDL	Result				
				2	3	4	5	6
Total Antimony	mg/kg	60	5	ND	ND	ND	ND	ND
Total Arsenic	mg/kg	25	2.5	ND	ND	ND	ND	ND
Total Barium	mg/kg	1000	10	ND	ND	16	14	10
Total Cadmium	mg/kg	75	5	ND	ND	ND	ND	ND
Total Chromium	mg/kg	60	5	ND	ND	ND	ND	ND
Total Lead	mg/kg	90	5	ND	ND	ND	ND	ND
Total Mercury	mg/kg	60	5	ND	ND	ND	ND	ND
Total Selenium	mg/kg	500	10	ND	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Tested Item(s)	Unit	Limit	MDL	Result				
				7	8	9	10	11
Total Antimony	mg/kg	60	5	ND	ND	ND	ND	ND
Total Arsenic	mg/kg	25	2.5	ND	ND	ND	ND	ND
Total Barium	mg/kg	1000	10	ND	16	16	ND	ND
Total Cadmium	mg/kg	75	5	ND	ND	ND	ND	ND
Total Chromium	mg/kg	60	5	ND	ND	ND	ND	ND
Total Lead	mg/kg	90	5	ND	ND	ND	ND	ND
Total Mercury	mg/kg	60	5	ND	ND	ND	ND	ND
Total Selenium	mg/kg	500	10	ND	ND	ND	ND	ND

4) ASTM F963-23- Heavy Elements – Soluble Migrated Elements Content in Surface Coatings and Substrates Other Than Modeling Clay (Clause 4.3.5.1(2) and 4.3.5.2(2)(b))

Test Method: ASTM International Standard ASTM F963-23, Section 8.3.2 to 8.3.5 (excluding 8.3.5.5(3))

Tested Item(s)	Unit	Limit	MDL	Result				
				12	13	14	15	16
Soluble Antimony	mg/kg	60	5	ND	ND	ND	ND	ND
Soluble Arsenic	mg/kg	25	5	ND	ND	ND	ND	ND
Soluble Barium	mg/kg	1000	10	ND	ND	ND	13	ND
Soluble Cadmium	mg/kg	75	5	ND	ND	ND	ND	ND
Soluble Chromium	mg/kg	60	5	ND	ND	ND	ND	ND
Soluble Lead	mg/kg	90	10	ND	ND	ND	ND	ND
Soluble Mercury	mg/kg	60	5	ND	ND	ND	ND	ND
Soluble Selenium	mg/kg	500	10	ND	ND	ND	ND	ND

Tested Item(s)	Unit	Limit	MDL	Result				
				17	18	19	20	21
Soluble Antimony	mg/kg	60	5	ND	ND	ND	ND	ND
Soluble Arsenic	mg/kg	25	5	ND	ND	ND	ND	ND
Soluble Barium	mg/kg	1000	10	ND	ND	ND	ND	ND
Soluble Cadmium	mg/kg	75	5	ND	ND	ND	ND	ND
Soluble Chromium	mg/kg	60	5	ND	ND	ND	ND	ND
Soluble Lead	mg/kg	90	10	ND	ND	ND	ND	ND
Soluble Mercury	mg/kg	60	5	ND	ND	ND	ND	ND
Soluble Selenium	mg/kg	500	10	ND	ND	ND	ND	ND

Tested Item(s)	Unit	Limit	MDL	Result			
				22	23	24	25
Soluble Antimony	mg/kg	60	5	ND	ND	ND	ND
Soluble Arsenic	mg/kg	25	5	ND	ND	ND	ND
Soluble Barium	mg/kg	1000	10	ND	ND	ND	ND
Soluble Cadmium	mg/kg	75	5	ND	ND	ND	ND
Soluble Chromium	mg/kg	60	5	ND	ND	ND	ND
Soluble Lead	mg/kg	90	10	ND	ND	ND	ND
Soluble Mercury	mg/kg	60	5	ND	ND	ND	ND
Soluble Selenium	mg/kg	500	10	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

The analytical results were adjusted by subtracting analytical correction factor.

The test result of component No.1 of migrated elements content is not applicable due to the sample weight of test portion is less than 10 mg.

TO BE CONTINUED

TEST RESULT

Phthalates Content

Test Request: Phthalates Content in Toys (including pacifiers, rattles, and teethingers) Material (ASTM F963-23, Section 4.3.8)

Test Method: CPSC-CH-C1001-09.4

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					1	2	3
Diisononylphthalate (DINP)	28553-12-0	%	0.1	0.005	ND	ND	ND
Di-n-pentyl phthalate (DPENP)	131-18-0	%	0.1	0.005	ND	ND	ND
Di-n-hexyl phthalate (DHEXP)	84-75-3	%	0.1	0.005	ND	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.1	0.005	ND	ND	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	0.1	0.005	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.005	ND	ND	ND
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.005	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.005	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					7+8+9	10	11
Diisononylphthalate (DINP)	28553-12-0	%	0.1	0.005	ND	ND	ND
Di-n-pentyl phthalate (DPENP)	131-18-0	%	0.1	0.005	ND	ND	ND
Di-n-hexyl phthalate (DHEXP)	84-75-3	%	0.1	0.005	ND	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.1	0.005	ND	ND	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	0.1	0.005	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.005	0.007	ND	ND
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.005	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.005	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					15+16+17	18+19+20	21+22+23
Diisononylphthalate (DINP)	28553-12-0	%	0.1	0.005	ND	ND	ND
Di-n-pentyl phthalate (DPENP)	131-18-0	%	0.1	0.005	ND	ND	ND
Di-n-hexyl phthalate (DHEXP)	84-75-3	%	0.1	0.005	ND	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.1	0.005	ND	ND	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	0.1	0.005	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.005	0.017	0.010	0.012
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.005	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.005	ND	ND	ND

Remarks:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Total Lead Content in Substrate

Test Request: Total lead in substrate as specified in US Consumer Product Safety Improvement Act 2008 (CPSIA), Section 101

Test Method: CPSC-CH-E1001-08.3 for metal product, CPSC-CH-E1002-08.3 for nonmetal product.
The sample was acid digested, and total lead content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result			
				2	3	4+5+6	7+8+9
Total Lead (Pb)	mg/kg	100	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result	
				10	11
Total Lead (Pb)	mg/kg	100	10	ND	20

Test Item(s)	Unit	Limit	MDL	Result			
				12+13+14	15+16+17	18+19+20	21+22+23
Total Lead (Pb)	mg/kg	100	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result	
				24+25	
Total Lead (Pb)	mg/kg	100	10	ND	

Remark:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Total Lead Content in Paint / Surface Coating

Test Request: Total lead in paint/ similar surface coatings as specified in US Consumer Product Safety Improvement Act 2008 (CPSIA), Section 101

Test Method: CPSC-CH-E1003-09.1
The sample was acid digested, and total lead content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result
				1
Total Lead (Pb)	mg/kg	90	10	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Phthalates Content

Test Request: Phthalates Content as specified in US Consumer Product Safety Improvement Act 2008 (CPSIA), Section 108

Test Method: CPSC-CH-C1001-09.3

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					1	2	3
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.0050	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.0050	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.0050	ND	ND	ND
Di-n-octylphthalate (DNOP)	117-84-0	%	0.1	0.0050	ND	ND	ND
Diisononylphthalate (DINP)	28553-12-0	%	0.1	0.0050	ND	ND	ND
Diisodecylphthalate (DIDP)	26761-40-0	%	0.1	0.0050	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					7+8+9	10	11
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.0050	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.0050	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.0050	0.007	ND	ND
Di-n-octylphthalate (DNOP)	117-84-0	%	0.1	0.0050	ND	ND	ND
Diisononylphthalate (DINP)	28553-12-0	%	0.1	0.0050	ND	ND	ND
Diisodecylphthalate (DIDP)	26761-40-0	%	0.1	0.0050	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					15+16+17	18+19+20	21+22+23
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.0050	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.0050	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.0050	0.017	0.010	0.012
Di-n-octylphthalate (DNOP)	117-84-0	%	0.1	0.0050	ND	ND	ND
Diisononylphthalate (DINP)	28553-12-0	%	0.1	0.0050	ND	ND	ND
Diisodecylphthalate (DIDP)	26761-40-0	%	0.1	0.0050	ND	ND	ND

Remarks:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Phthalates Content

Test Request: Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates as specified in CPSC 16 CFR part 1307.

Test Method: CPSC-CH-C1001-09.4

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					1	2	3
Diisononylphthalate (DINP)	28553-12-0	%	0.1	0.005	ND	ND	ND
Di-n-pentyl phthalate (DPENP)	131-18-0	%	0.1	0.005	ND	ND	ND
Di-n-hexyl phthalate (DHEXP)	84-75-3	%	0.1	0.005	ND	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.1	0.005	ND	ND	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	0.1	0.005	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.005	ND	ND	ND
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.005	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.005	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					7+8+9	10	11
Diisononylphthalate (DINP)	28553-12-0	%	0.1	0.005	ND	ND	ND
Di-n-pentyl phthalate (DPENP)	131-18-0	%	0.1	0.005	ND	ND	ND
Di-n-hexyl phthalate (DHEXP)	84-75-3	%	0.1	0.005	ND	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.1	0.005	ND	ND	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	0.1	0.005	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.005	0.007	ND	ND
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.005	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.005	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					15+16+17	18+19+20	21+22+23
Diisononylphthalate (DINP)	28553-12-0	%	0.1	0.005	ND	ND	ND
Di-n-pentyl phthalate (DPENP)	131-18-0	%	0.1	0.005	ND	ND	ND
Di-n-hexyl phthalate (DHEXP)	84-75-3	%	0.1	0.005	ND	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.1	0.005	ND	ND	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	0.1	0.005	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.005	0.017	0.010	0.012
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.005	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.005	ND	ND	ND

Remarks:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Total Lead Content

Test Request: Total lead content as specified in US California Proposition 65.

Test Method: EPA 3050B:1996, EPA 3051A:2007, EPA 3052:1996, acid digestion/ microwave digestion method was used, analysis was performed by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result			
				2	3	4+5+6	7+8+9
Lead (Pb)	mg/kg	100	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result	
				10	11
Lead (Pb)	mg/kg	100	10	ND	20

Test Item(s)	Unit	Limit	MDL	Result			
				12+13+14	15+16+17	18+19+20	21+22+23
Lead (Pb)	mg/kg	100	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result	
				24+25	
Lead (Pb)	mg/kg	100	10	ND	

Remark:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

The limit(s) was/were referred from various court cases. Compliance with the above stated limit(s) does not show compliance with Proposition 65 or a guarantee against possible legal action but provides a relative level of assurance against potential lawsuits.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Total Lead Content

Test Request: Total lead content as specified in US California Proposition 65.

Test Method: EPA 3050B:1996, EPA 3051A:2007, EPA 3052:1996, acid digestion/ microwave digestion method was used, analysis was performed by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result
				1
Lead (Pb)	mg/kg	90	10	ND

Remark:

The limit(s) was/were referred from various court cases. Compliance with the above stated limit(s) does not show compliance with Proposition 65 or a guarantee against possible legal action but provides a relative level of assurance against potential lawsuits.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Total Lead Content

Test Request: Total lead content as specified in entry 63 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Regulation (EU) No 2015/628.

Test Method: EPA 3050B:1996, EPA 3051A:2007, EPA 3052:1996, acid digestion/ microwave digestion method was used, analysis was performed by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result			
				1	2	3	4+5+6
Lead (Pb)	mg/kg	500	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result		
				7+8+9	10	11
Lead (Pb)	mg/kg	500	10	ND	ND	20

Test Item(s)	Unit	Limit	MDL	Result			
				12+13+14	15+16+17	18+19+20	21+22+23
Lead (Pb)	mg/kg	500	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result	
				24+25	
Lead (Pb)	mg/kg	500	10	ND	

Remark:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Physical and Mechanical Hazards

Test Request: As specified in European Standard on Safety of Toys EN 71-1:2014+A1:2018

Section	Description	Result
4	General requirements	
4.1	Material cleanliness (by visual assessment)	P
4.2	Assembly	N/A
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	
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	
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	
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	
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	
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

TO BE CONTINUED

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	
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	P
7.2	Toys not intended for children under 36 months	P
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 teethers	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

TO BE CONTINUED

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	
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, F - Fail, N/A - Not Applicable, N/C - Not Conduct as per client's request

TO BE CONTINUED

TEST RESULT

Physical and Mechanical Hazards

Test Request: As specified in British Standard on Safety of Toys BS EN 71-1:2014+A1:2018

Section	Description	Result
4	General requirements	
4.1	Material cleanliness (by visual assessment)	P
4.2	Assembly	N/A
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	
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	
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	
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	
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	
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

TO BE CONTINUED

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	P
7.2	Toys not intended for children under 36 months	P
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 teethers	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

TO BE CONTINUED

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	
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, F - Fail, N/A - Not Applicable, N/C - Not Conduct as per client's request

TO BE CONTINUED

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	Present, Correct form, CE marking (height >5mm)	Product	Pass
Importer's Name & Address	Present	Product	Pass
Manufacturer's Name & Address	Present	Product	Pass
Product ID	Present	Product	Pass

Labeling Requirement for United Kingdom

Test Request: Labeling requirement including Washing/Cleaning instruction, compliance marking, importer / manufacturer name and address, product identification as specified in The Toys (Safety) Regulations 2011 and The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019

Labeling Content	Observation Result	Location	Conclusion
Washing/Cleaning Instruction	Not Applicable	-	-
UKCA Marking	Present, Correct form, UKCA marking (height >5mm)	Product	Pass
Importer's Name & Address	Present	Product	Pass
Manufacturer's Name & Address	Present	Product	Pass
Product ID	Present	Product	Pass

TO BE CONTINUED

TEST RESULT

Flammability of Toys

Test Request: As Specified in European Standard on Safety of Toys EN 71-2:2020

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	P

Remark:

P - Pass, F - Fail, N/A - Not Applicable

Flammability of Toys

Test Request: As Specified in European Standard on Safety of Toys BS EN 71-2:2020

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	P

Remark:

P - Pass, F - Fail, N/A - Not Applicable

TO BE CONTINUED

TEST RESULT

Migration of Certain Elements

Test Request: Migration of certain elements as specified in European Standard on Safety of Toys EN 71-3:2019+A1:2021.

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

Test Item(s):	Unit	Result						
		2	3	4	5	6	7	8
Category Type		III	III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium#2	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Test Item(s):	Unit	Result		
		9	10	11
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	4.21x10 ³
Extractable Copper (Cu)	mg/kg	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	172
Extractable Nickel (Ni)	mg/kg	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND
Extractable Chromium#2	mg/kg	ND	ND	ND
Extractable Organic Tin#1	mg/kg	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	ND	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND

Test Item(s):	Unit	Result							
		12	13	14	15	16	17	18	19
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	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	ND	ND	ND	ND	ND	ND	ND	ND
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

TO BE CONTINUED

TEST RESULT

Test Item(s):	Unit	Result					
		20	21	22	23	24	25
Category Type		III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Chromium#2	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND	ND	ND	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:

The test result of component No.1 of migrated elements content is not applicable due to the sample weight of test portion is less than 10 mg.

mg/kg = milligram per kilogram

MDL = Method Detection Limit

ND = Not Detected, less than MDL

TO BE CONTINUED

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

TO BE CONTINUED

TEST RESULT

Migration of Certain Elements

Test Request: Migration of certain elements as specified in British Standard on Safety of Toys BS EN 71-3:2019+A1:2021.

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

Test Item(s):	Unit	Result						
		2	3	4	5	6	7	8
Category Type		III	III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium#2	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Test Item(s):	Unit	Result		
		9	10	11
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	4.21x10 ³
Extractable Copper (Cu)	mg/kg	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	172
Extractable Nickel (Ni)	mg/kg	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND
Extractable Chromium#2	mg/kg	ND	ND	ND
Extractable Organic Tin#1	mg/kg	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	ND	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND

Test Item(s):	Unit	Result							
		12	13	14	15	16	17	18	19
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	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	ND	ND	ND	ND	ND	ND	ND	ND
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

TO BE CONTINUED

TEST RESULT

Test Item(s):	Unit	Result					
		20	21	22	23	24	25
Category Type		III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Chromium#2	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	ND	ND	ND	ND	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:

The test result of component No.1 of migrated elements content is not applicable due to the sample weight of test portion is less than 10 mg.

mg/kg = milligram per kilogram

MDL = Method Detection Limit

ND = Not Detected, less than MDL

TO BE CONTINUED

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

TO BE CONTINUED

TEST RESULT

Total Cadmium Content

Test Request: Total cadmium content as specified in Commission Regulation (EU) 2016/217 amending entry 23 of Annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: EPA 3050B:1996, EPA 3052:1996, EN 1122:2001 Method B, acid digestion method was used and total cadmium content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result
				1
Cadmium (Cd)	mg/kg	1000	5	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

Total Cadmium Content

Test Request: Total cadmium content as specified in Commission Regulation (EU) 2016/217 amending entry 23 of Annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: EPA 3050B:1996, EPA 3052:1996, EN 1122:2001 Method B, acid digestion method was used and total cadmium content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result			
				2	3	4+5+6	7+8+9
Cadmium (Cd)	mg/kg	100	5	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result	
				10	11
Cadmium (Cd)	mg/kg	100	5	ND	ND

Test Item(s)	Unit	Limit	MDL	Result			
				12+13+14	15+16+17	18+19+20	21+22+23
Cadmium (Cd)	mg/kg	100	5	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result
				24+25
Cadmium (Cd)	mg/kg	100	5	ND

Remark:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Phthalates Content

Test Request: Phthalates content as specified in entry 51&52 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/2005.

Test Method: EPA 3550C:2007, EPA 8270E:2018, solvent extraction and quantification by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					1	2	3
Di-n-butyl phthalate (DBP)	84-74-2	%	-	0.005	ND	ND	ND
Benzylbutyl phthalate (BBP)	85-68-7	%	-	0.005	ND	ND	ND
Diethylhexyl phthalate (DEHP)	117-81-7	%	-	0.005	ND	ND	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	-	0.005	ND	ND	ND
Sum of DEHP, DBP, BBP, DIBP	-	%	0.1	-	ND	ND	ND
Di-n-octyl phthalate (DNOP)	117-84-0	%	-	0.005	ND	ND	ND
Diisononyl phthalate (DINP)	28553-12-0	%	-	0.005	ND	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND	ND	ND
Sum of DNOP, DINP, DIDP	-	%	0.1	-	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					7+8+9	10	11
Di-n-butyl phthalate (DBP)	84-74-2	%	-	0.005	ND	ND	ND
Benzylbutyl phthalate (BBP)	85-68-7	%	-	0.005	ND	ND	ND
Diethylhexyl phthalate (DEHP)	117-81-7	%	-	0.005	0.007	ND	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	-	0.005	ND	ND	ND
Sum of DEHP, DBP, BBP, DIBP	-	%	0.1	-	0.007	ND	ND
Di-n-octyl phthalate (DNOP)	117-84-0	%	-	0.005	ND	ND	ND
Diisononyl phthalate (DINP)	28553-12-0	%	-	0.005	ND	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND	ND	ND
Sum of DNOP, DINP, DIDP	-	%	0.1	-	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					15+16+17	18+19+20	21+22+23
Di-n-butyl phthalate (DBP)	84-74-2	%	-	0.005	ND	ND	ND
Benzylbutyl phthalate (BBP)	85-68-7	%	-	0.005	ND	ND	ND
Diethylhexyl phthalate (DEHP)	117-81-7	%	-	0.005	0.017	0.010	0.012
Diisobutyl phthalate (DIBP)	84-69-5	%	-	0.005	ND	ND	ND
Sum of DEHP, DBP, BBP, DIBP	-	%	0.1	-	0.017	0.010	0.012
Di-n-octyl phthalate (DNOP)	117-84-0	%	-	0.005	ND	ND	ND
Diisononyl phthalate (DINP)	28553-12-0	%	-	0.005	ND	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND	ND	ND
Sum of DNOP, DINP, DIDP	-	%	0.1	-	ND	ND	ND

Remarks:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

MDL = method detection limit

ND = Not detected, less than MDL

"-"= Not Regulated

TO BE CONTINUED

TEST RESULT

Banned AZO Dyes

Test Request: Banned AZO dyes as specified in entry 43 of annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: EN ISO 14362-1:2017, sampling procedure and sample preparation according to Annex E4.2 and Annex E4.3.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result			
					1	2	3	4+5+6
4-methyl-m-phenylenediamine	95-80-7	mg/kg	30	5	ND	ND	ND	ND
4-Amino-azobenzene (Note 2)	60-09-3	mg/kg	30	5	ND	ND	ND	ND
2-Naphthylamine	91-59-8	mg/kg	30	5	ND	ND	ND	ND
4,4'-methylenedi-o-toluidine	838-88-0	mg/kg	30	5	ND	ND	ND	ND
Bis-(4-aminophenyl)methane	101-77-9	mg/kg	30	5	ND	ND	ND	ND
4,4'-Oxydianiline	101-80-4	mg/kg	30	5	ND	ND	ND	ND
4,4'-Thiodianiline	139-65-1	mg/kg	30	5	ND	ND	ND	ND
Benzidine	92-87-5	mg/kg	30	5	ND	ND	ND	ND
o-Toluidine	95-53-4	mg/kg	30	5	ND	ND	ND	ND
5-Nitro-o-toluidine (Note 1)	99-55-8	mg/kg	30	5	ND	ND	ND	ND
4-methoxy-m-phenylenediamine	615-05-4	mg/kg	30	5	ND	ND	ND	ND
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	mg/kg	30	5	ND	ND	ND	ND
o-Aminoazotoluene (Note 1)	97-56-3	mg/kg	30	5	ND	ND	ND	ND
2,4,5-Trimethylaniline	137-17-7	mg/kg	30	5	ND	ND	ND	ND
4-Aminobiphenyl	92-67-1	mg/kg	30	5	ND	ND	ND	ND
o-Anisidine	90-04-0	mg/kg	30	5	ND	ND	ND	ND
3,3'-Dichlorobenzidine	91-94-1	mg/kg	30	5	ND	ND	ND	ND
4-Chloroaniline	106-47-8	mg/kg	30	5	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	119-90-4	mg/kg	30	5	ND	ND	ND	ND
n.d.3,3'-Dimethybenzidine	119-93-7	mg/kg	30	5	ND	ND	ND	ND
2-Methoxy-5-methylaniline	120-71-8	mg/kg	30	5	ND	ND	ND	ND
4-Chloro-2-methylaniline	95-69-2	mg/kg	30	5	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					7+8+9	10	11
4-methyl-m-phenylenediamine	95-80-7	mg/kg	30	5	ND	ND	ND
4-Amino-azobenzene (Note 2)	60-09-3	mg/kg	30	5	ND	ND	ND
2-Naphthylamine	91-59-8	mg/kg	30	5	ND	ND	ND
4,4'-methylenedi-o-toluidine	838-88-0	mg/kg	30	5	ND	ND	ND
Bis-(4-aminophenyl)methane	101-77-9	mg/kg	30	5	ND	ND	ND
4,4'-Oxydianiline	101-80-4	mg/kg	30	5	ND	ND	ND
4,4'-Thiodianiline	139-65-1	mg/kg	30	5	ND	ND	ND
Benzidine	92-87-5	mg/kg	30	5	ND	ND	ND
o-Toluidine	95-53-4	mg/kg	30	5	ND	ND	ND
5-Nitro-o-toluidine (Note 1)	99-55-8	mg/kg	30	5	ND	ND	ND
4-methoxy-m-phenylenediamine	615-05-4	mg/kg	30	5	ND	ND	ND
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	mg/kg	30	5	ND	ND	ND
o-Aminoazotoluene (Note 1)	97-56-3	mg/kg	30	5	ND	ND	ND
2,4,5-Trimethylaniline	137-17-7	mg/kg	30	5	ND	ND	ND
4-Aminobiphenyl	92-67-1	mg/kg	30	5	ND	ND	ND
o-Anisidine	90-04-0	mg/kg	30	5	ND	ND	ND
3,3'-Dichlorobenzidine	91-94-1	mg/kg	30	5	ND	ND	ND
4-Chloroaniline	106-47-8	mg/kg	30	5	ND	ND	ND
3,3'-Dimethoxybenzidine	119-90-4	mg/kg	30	5	ND	ND	ND
n.d.3,3'-Dimethybenzidine	119-93-7	mg/kg	30	5	ND	ND	ND
2-Methoxy-5-methylaniline	120-71-8	mg/kg	30	5	ND	ND	ND
4-Chloro-2-methylaniline	95-69-2	mg/kg	30	5	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Test Item(s)	CAS No.	Unit	Limit	MDL	Result			
					12+13+14	15+16+17	18+19+20	21+22+23
4-methyl-m-phenylenediamine	95-80-7	mg/kg	30	5	ND	ND	ND	ND
4-Amino-azobenzene (Note 2)	60-09-3	mg/kg	30	5	ND	ND	ND	ND
2-Naphthylamine	91-59-8	mg/kg	30	5	ND	ND	ND	ND
4,4'-methylenedi-o-toluidine	838-88-0	mg/kg	30	5	ND	ND	ND	ND
Bis-(4-aminophenyl)methane	101-77-9	mg/kg	30	5	ND	ND	ND	ND
4,4'-Oxydianiline	101-80-4	mg/kg	30	5	ND	ND	ND	ND
4,4'-Thiodianiline	139-65-1	mg/kg	30	5	ND	ND	ND	ND
Benzidine	92-87-5	mg/kg	30	5	ND	ND	ND	ND
o-Toluidine	95-53-4	mg/kg	30	5	ND	ND	ND	ND
5-Nitro-o-toluidine (Note 1)	99-55-8	mg/kg	30	5	ND	ND	ND	ND
4-methoxy-m-phenylenediamine	615-05-4	mg/kg	30	5	ND	ND	ND	ND
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	mg/kg	30	5	ND	ND	ND	ND
o-Aminoazotoluene (Note 1)	97-56-3	mg/kg	30	5	ND	ND	ND	ND
2,4,5-Trimethylaniline	137-17-7	mg/kg	30	5	ND	ND	ND	ND
4-Aminobiphenyl	92-67-1	mg/kg	30	5	ND	ND	ND	ND
o-Anisidine	90-04-0	mg/kg	30	5	ND	ND	ND	ND
3,3'-Dichlorobenzidine	91-94-1	mg/kg	30	5	ND	ND	ND	ND
4-Chloroaniline	106-47-8	mg/kg	30	5	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	119-90-4	mg/kg	30	5	ND	ND	ND	ND
n.d.3,3'-Dimethoxybenzidine	119-93-7	mg/kg	30	5	ND	ND	ND	ND
2-Methoxy-5-methylaniline	120-71-8	mg/kg	30	5	ND	ND	ND	ND
4-Chloro-2-methylaniline	95-69-2	mg/kg	30	5	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					24+25
4-methyl-m-phenylenediamine	95-80-7	mg/kg	30	5	ND
4-Amino-azobenzene (Note 2)	60-09-3	mg/kg	30	5	ND
2-Naphthylamine	91-59-8	mg/kg	30	5	ND
4,4'-methylenedi-o-toluidine	838-88-0	mg/kg	30	5	ND
Bis-(4-aminophenyl)methane	101-77-9	mg/kg	30	5	ND
4,4'-Oxydianiline	101-80-4	mg/kg	30	5	ND
4,4'-Thiodianiline	139-65-1	mg/kg	30	5	ND
Benzidine	92-87-5	mg/kg	30	5	ND
o-Toluidine	95-53-4	mg/kg	30	5	ND
5-Nitro-o-toluidine (Note 1)	99-55-8	mg/kg	30	5	ND
4-methoxy-m-phenylenediamine	615-05-4	mg/kg	30	5	ND
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	mg/kg	30	5	ND
o-Aminoazotoluene (Note 1)	97-56-3	mg/kg	30	5	ND
2,4,5-Trimethylaniline	137-17-7	mg/kg	30	5	ND
4-Aminobiphenyl	92-67-1	mg/kg	30	5	ND
o-Anisidine	90-04-0	mg/kg	30	5	ND
3,3'-Dichlorobenzidine	91-94-1	mg/kg	30	5	ND
4-Chloroaniline	106-47-8	mg/kg	30	5	ND
3,3'-Dimethoxybenzidine	119-90-4	mg/kg	30	5	ND
n.d.3,3'-Dimethoxybenzidine	119-93-7	mg/kg	30	5	ND
2-Methoxy-5-methylaniline	120-71-8	mg/kg	30	5	ND
4-Chloro-2-methylaniline	95-69-2	mg/kg	30	5	ND

Remarks:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

Note 1: The CAS-numbers 97-56-3 and 99-55-8 are further reduced to CAS-numbers 95-53-4 and 95-80-7.

Note 2: 4-Amino-azobenzene(CAS No.:60-09-3) is reduced to aniline and 1,4-phenylenediamine.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Polycyclic Aromatic Hydrocarbons (PAHs)

Test Request: Polycyclic Aromatic Hydrocarbons (PAHs) content as specified in entry 50 of Annex XVII of REACH Regulation (EC) No 1907/2006 and its latest amendment.

Test Method: Solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS) with respect to AfPS GS 2019:01 PAK

Test Item(s)	CAS No.	Unit	Limit	MDL	Result			
					1	2	3	4+5
Benzo(a)anthracene	56-55-3	mg/kg	0.5	0.1	ND	ND	ND	ND
Chrysene	218-01-9	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(a)pyrene	50-32-8	mg/kg	0.5	0.1	ND	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	0.5	0.1	ND	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result			
					6+7	8+9	10	11
Benzo(a)anthracene	56-55-3	mg/kg	0.5	0.1	ND	ND	ND	ND
Chrysene	218-01-9	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(a)pyrene	50-32-8	mg/kg	0.5	0.1	ND	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	0.5	0.1	ND	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result			
					12+13	14+15	16+17	18+19
Benzo(a)anthracene	56-55-3	mg/kg	0.5	0.1	ND	ND	ND	ND
Chrysene	218-01-9	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(a)pyrene	50-32-8	mg/kg	0.5	0.1	ND	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.5	0.1	ND	ND	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	0.5	0.1	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					20+21	22+23	24+25
Benzo(a)anthracene	56-55-3	mg/kg	0.5	0.1	ND	ND	ND
Chrysene	218-01-9	mg/kg	0.5	0.1	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	0.5	0.1	ND	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	0.5	0.1	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	0.5	0.1	ND	ND	ND
Benzo(a)pyrene	50-32-8	mg/kg	0.5	0.1	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.5	0.1	ND	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	0.5	0.1	ND	ND	ND

Remarks:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Polycyclic Aromatic Hydrocarbons (PAHs)

Test Request: Polycyclic Aromatic Hydrocarbons (PAHs) content according to German GS Specification: AfPS GS 2019:01 PAK

Test Method: Solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS) with respect to AfPS GS 2019:01 PAK

Parameter	CAS No.	Unit	Result				
			1	2	3	4+5	6+7
PAHs Category			Category 1	Category 1	Category 1	Category 1	Category 1
Benzo(a)pyrene	50-32-8	mg/kg	ND	ND	ND	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	ND	ND	ND	ND	ND
Benzo(a)anthracene	56-55-3	mg/kg	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	ND	ND	ND	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	ND	ND	ND	ND	ND
Chrysene	218-01-9	mg/kg	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	ND	ND	ND	ND	ND
Benzo(ghi)perylene	191-24-2	mg/kg	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	ND	ND	ND	ND	ND
Phenanthrene	85-01-8	mg/kg	ND	ND	ND	ND	ND
Anthracene	120-12-7	mg/kg	ND	ND	ND	ND	ND
Fluoranthene	206-44-0	mg/kg	ND	ND	ND	ND	ND
Pyrene	129-00-0	mg/kg	ND	ND	ND	ND	ND
Sum of Phenanthrene, Pyrene, Anthracene, Fluoranthene	-	mg/kg	ND	ND	ND	ND	ND
Naphthalene	91-20-3	mg/kg	ND	ND	ND	ND	ND
Sum 15 PAHs	-	mg/kg	ND	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Parameter	CAS No.	Unit	Result		
			8+9	10	11
PAHs Category			Category 1	Category 1	Category 1
Benzo(a)pyrene	50-32-8	mg/kg	ND	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	ND	ND	ND
Benzo(a)anthracene	56-55-3	mg/kg	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	ND	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	ND	ND	ND
Chrysene	218-01-9	mg/kg	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	ND	ND	ND
Benzo(ghi)perylene	191-24-2	mg/kg	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	ND	ND	ND
Phenanthrene	85-01-8	mg/kg	ND	ND	ND
Anthracene	120-12-7	mg/kg	ND	ND	ND
Fluoranthene	206-44-0	mg/kg	ND	ND	ND
Pyrene	129-00-0	mg/kg	ND	ND	ND
Sum of Phenanthrene, Pyrene, Anthracene, Fluoranthene	-	mg/kg	ND	ND	ND
Naphthalene	91-20-3	mg/kg	ND	ND	ND
Sum 15 PAHs	-	mg/kg	ND	ND	ND

Parameter	CAS No.	Unit	Result				
			12+13	14+15	16+17	18+19	20+21
PAHs Category			Category 1	Category 1	Category 1	Category 1	Category 1
Benzo(a)pyrene	50-32-8	mg/kg	ND	ND	ND	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	ND	ND	ND	ND	ND
Benzo(a)anthracene	56-55-3	mg/kg	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	ND	ND	ND	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	ND	ND	ND	ND	ND
Chrysene	218-01-9	mg/kg	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	ND	ND	ND	ND	ND
Benzo(ghi)perylene	191-24-2	mg/kg	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	ND	ND	ND	ND	ND
Phenanthrene	85-01-8	mg/kg	ND	ND	ND	ND	ND
Anthracene	120-12-7	mg/kg	ND	ND	ND	ND	ND
Fluoranthene	206-44-0	mg/kg	ND	ND	ND	ND	ND
Pyrene	129-00-0	mg/kg	ND	ND	ND	ND	ND
Sum of Phenanthrene, Pyrene, Anthracene, Fluoranthene	-	mg/kg	ND	ND	ND	ND	ND
Naphthalene	91-20-3	mg/kg	ND	ND	ND	ND	ND
Sum 15 PAHs	-	mg/kg	ND	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Parameter	CAS No.	Unit	Result	
			22+23	24+25
PAHs Category			Category 1	Category 1
Benzo(a)pyrene	50-32-8	mg/kg	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	ND	ND
Benzo(a)anthracene	56-55-3	mg/kg	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	ND	ND
Chrysene	218-01-9	mg/kg	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	ND	ND
Benzo(ghi)perylene	191-24-2	mg/kg	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	ND	ND
Phenanthrene	85-01-8	mg/kg	ND	ND
Anthracene	120-12-7	mg/kg	ND	ND
Fluoranthene	206-44-0	mg/kg	ND	ND
Pyrene	129-00-0	mg/kg	ND	ND
Sum of Phenanthrene, Pyrene, Anthracene, Fluoranthene	-	mg/kg	ND	ND
Naphthalene	91-20-3	mg/kg	ND	ND
Sum 15 PAHs	-	mg/kg	ND	ND

Note:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

mg/kg = milligram per kilogram

ND = not detected, less than 0.1 mg/kg

TO BE CONTINUED

TEST RESULT

Table 1

AfPS GS 2019:01 PAK requirement:

Parameter	Unit	Category 1 Materials intended to be taken into the mouth, or materials in toys acc. to DIR 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	Category 2 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		Category 3 Materials that do neither fall into category 1 nor 2, with short-term skin contact (up to 30s) within intended or foreseeable use	
			a. use by children	b. other consumer products	a. use by children	b. other consumer products
Benzo(a)pyrene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo(e)pyrene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo(a)anthracene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo(b)fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo(j)fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo(k)fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Chrysene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Dibenzo(a,h)anthracene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo(ghi)perylene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Indeno(1,2,3-cd)pyrene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Phenanthrene, Pyrene, Anthracene, Fluoranthene	mg/kg	<1 Sum	<5 Sum	<10 Sum	<20 Sum	<50 Sum
Naphthalene	mg/kg	<1	<2		<10	
Sum 15 PAH	mg/kg	<1	<5	<10	<20	<50

TO BE CONTINUED

TEST RESULT

Mechanical and Physical Properties

Test Request: As specified in the mechanical hazards requirements of the tested sections of Canada Consumer Product Safety Act, Toys Regulations, SOR/2011-17 amended by SOR/2018-138 and Schedule 2.

Section	Description	Result
	Packaging	
4	Flexible film bag	N/A
	Mechanical Hazards	
7	Small parts	N/A
8	Metal edges	P
9	Wire frames	N/A
10	Plastic edges	P
11	Wood	N/A
12	Glass	N/A
13	Fasteners	N/A
14	Safety stops or locking devices	N/A
15	Spring-wound driving mechanisms	N/A
16	Projectile components	N/A
17	Enclosures	N/A
18	Stability	N/A
	Auditory Hazards	
19	Decibel limit	N/A
	Thermal and Flammability Hazards	
20	Heated surfaces, parts or substances	N/A
	Specific Products	
28	Dolls, plush toys and soft toys - fastenings	N/A
29	Dolls, plush toys and soft toys - stuffing	N/A
30	Dolls, plush toys and soft toys - small parts	N/A
31	Dolls, plush toys and soft toys - eyes and noses	N/A
35	Plant seeds - noise	N/A
36	Plant seeds - stuffing material	N/A
37	Pull and push toys - shaft-like handles	N/A
38	Toys steam engines - boilers - safety valves	N/A
39	Finger paints - water-based paints	N/A
40	Rattles - construction	N/A
41	Elastics - length or extensibility	N/A
42	Yo-Yo type balls - stretchable cord	N/A
43	Magnetic Toys - Magnetic Force	N/A
44	Magnetic Toys - Exceptions	N/A
	Canada Consumer Product Safety Act, Schedule 2	
1	Jequirity Beans	P
8	Kites	N/A
9	Kite strings	N/A
14	Lawn, darts with elongated tips	N/A

Remark:

P - Pass, F - Fail, N/A - Not Applicable, N/C - Not Conduct as per client's request

TO BE CONTINUED

TEST RESULT

Flammability of Toys

Test Request: As specified in the flammability requirements of the tested sections of Canada Consumer Product Safety Act, Toys Regulations, SOR/2011-17 amended by SOR/2018-138.

Section	Description	Result
21	Flammability of celluloid or cellulose nitrate	P
32	Flammability of outer covering on doll, plush toy and soft toy	N/A
33	Flammability of yarn on doll, plush toy and soft toy	N/A
34	Flammability of hair or mane on doll, plush toy and soft toy	N/A

Remark:

P - Pass, F - Fail, N/A - Not Applicable, N/C - Not Conduct as per client's request

TO BE CONTINUED

TEST RESULT

Phthalate Regulations

Test Request: Phthalates Content as specified in Canada Consumer Product Safety Act - Phthalate Regulations, SOR/2016-188.

Test Method: With reference to Product Safety Laboratory, Reference Manual, Book 5 - Laboratory Policies and Procedures, Part B: Test Methods Section, Method C34.2-2018, analysis is performed by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					1	2	3
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	%	0.1	0.0050	ND	ND	ND
Di-n-butyl phthalate (DBP)	84-74-2	%	0.1	0.0050	ND	ND	ND
Benzyl butyl phthalate (BBP)	85-68-7	%	0.1	0.0050	ND	ND	ND
Diisononyl phthalate (DINP)	28553-12-0	%	0.1	0.0050	ND	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	0.1	0.0050	ND	ND	ND
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.1	0.0050	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					7+8+9	10	11
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	%	0.1	0.0050	0.007	ND	ND
Di-n-butyl phthalate (DBP)	84-74-2	%	0.1	0.0050	ND	ND	ND
Benzyl butyl phthalate (BBP)	85-68-7	%	0.1	0.0050	ND	ND	ND
Diisononyl phthalate (DINP)	28553-12-0	%	0.1	0.0050	ND	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	0.1	0.0050	ND	ND	ND
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.1	0.0050	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					15+16+17	18+19+20	21+22+23
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	%	0.1	0.0050	0.017	0.010	0.012
Di-n-butyl phthalate (DBP)	84-74-2	%	0.1	0.0050	ND	ND	ND
Benzyl butyl phthalate (BBP)	85-68-7	%	0.1	0.0050	ND	ND	ND
Diisononyl phthalate (DINP)	28553-12-0	%	0.1	0.0050	ND	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	0.1	0.0050	ND	ND	ND
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.1	0.0050	ND	ND	ND

Remarks:

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

MDL = method detection limit

ND = Not detected, less than MDL

DEHP, DBP and BBP are restricted for the vinyl in a toy or child care article.

DINP, DIDP and DNOP are restricted for the vinyl in any part of a toy or child care article that can, in a reasonably foreseeable manner, be placed in the mouth of a child under four years of age.

TO BE CONTINUED

TEST RESULT

Heavy Metals in Plastic Materials

Test Request: Heavy Metals Content in Plastic Materials as specified in Canada Consumer Product Safety Act - Toys Regulations, SOR/2011-17 amended by SOR/2018-138, Section 27(b)

Test Method: With reference to Product Safety Laboratory, Reference Manual, Book 5 - Laboratory Policies and Procedures, Part B: Test Methods Section, Method C02.3.2-2021, Method C07-2017 modified, Method C03-2022

Test Item(s)	Unit	Limit	MDL	Result			
				2	3	4	5
Total Lead	mg/kg	90	10	ND	ND	ND	ND
Total Mercury	mg/kg	See Note	1	ND	ND	ND	ND
Soluble Arsenic	mg/kg	1000	2.5	ND	ND	ND	ND
Soluble Barium	mg/kg	1000	10	ND	ND	23	20
Soluble Antimony	mg/kg	1000	5	ND	ND	ND	ND
Soluble Cadmium	mg/kg	1000	5	ND	ND	ND	ND
Soluble Selenium	mg/kg	1000	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result			
				6	7	8	9
Total Lead	mg/kg	90	10	ND	ND	ND	ND
Total Mercury	mg/kg	See Note	1	ND	ND	ND	ND
Soluble Arsenic	mg/kg	1000	2.5	ND	ND	ND	ND
Soluble Barium	mg/kg	1000	10	14	ND	23	23
Soluble Antimony	mg/kg	1000	5	ND	ND	ND	ND
Soluble Cadmium	mg/kg	1000	5	ND	ND	ND	ND
Soluble Selenium	mg/kg	1000	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result			
				10			
Total Lead	mg/kg	90	10	ND			
Total Mercury	mg/kg	See Note	1	ND			
Soluble Arsenic	mg/kg	1000	2.5	ND			
Soluble Barium	mg/kg	1000	10	ND			
Soluble Antimony	mg/kg	1000	5	ND			
Soluble Cadmium	mg/kg	1000	5	ND			
Soluble Selenium	mg/kg	1000	10	ND			

Test Item(s)	Unit	Limit	MDL	Result			
				12	13	14	15
Total Lead	mg/kg	90	10	ND	ND	ND	ND
Total Mercury	mg/kg	See Note	1	ND	ND	ND	ND
Soluble Arsenic	mg/kg	1000	2.5	ND	ND	ND	ND
Soluble Barium	mg/kg	1000	10	ND	ND	ND	18
Soluble Antimony	mg/kg	1000	5	ND	ND	ND	ND
Soluble Cadmium	mg/kg	1000	5	ND	ND	ND	ND
Soluble Selenium	mg/kg	1000	10	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Test Item(s)	Unit	Limit	MDL	Result			
				16	17	18	19
Total Lead	mg/kg	90	10	ND	ND	ND	ND
Total Mercury	mg/kg	See Note	1	ND	ND	ND	ND
Soluble Arsenic	mg/kg	1000	2.5	ND	ND	ND	ND
Soluble Barium	mg/kg	1000	10	ND	ND	ND	ND
Soluble Antimony	mg/kg	1000	5	ND	ND	ND	ND
Soluble Cadmium	mg/kg	1000	5	ND	ND	ND	ND
Soluble Selenium	mg/kg	1000	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result			
				20	21	22	23
Total Lead	mg/kg	90	10	ND	ND	ND	ND
Total Mercury	mg/kg	See Note	1	ND	ND	ND	ND
Soluble Arsenic	mg/kg	1000	2.5	ND	ND	ND	ND
Soluble Barium	mg/kg	1000	10	ND	ND	ND	ND
Soluble Antimony	mg/kg	1000	5	ND	ND	ND	ND
Soluble Cadmium	mg/kg	1000	5	ND	ND	ND	ND
Soluble Selenium	mg/kg	1000	10	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result	
				24	25
Total Lead	mg/kg	90	10	ND	ND
Total Mercury	mg/kg	See Note	1	ND	ND
Soluble Arsenic	mg/kg	1000	2.5	ND	ND
Soluble Barium	mg/kg	1000	10	ND	ND
Soluble Antimony	mg/kg	1000	5	ND	ND
Soluble Cadmium	mg/kg	1000	5	ND	ND
Soluble Selenium	mg/kg	1000	10	ND	ND

Remark:

Note: Any compound of mercury introduced as such.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Heavy Metals in Surface Coating

Test Request: Heavy Metals Content in Surface Coating as specified in Canada Consumer Product Safety Act - Toys Regulations, SOR/2011-17 amended by SOR/2018-138, Section 23

Test Method: With reference to Product Safety Laboratory, Reference Manual, Book 5 - Laboratory Policies and Procedures, Part B: Test Methods Section, Method C02.2.2-2020, Method C07-2017 modified, Method C03-2022

Test Item(s)	Unit	Limit	MDL	Result
				1
Total Lead	mg/kg	90	10	ND
Total Mercury	mg/kg	See Note	1	ND
Soluble Arsenic	mg/kg	1000	2.5	ND
Soluble Barium	mg/kg	1000	10	ND
Soluble Antimony	mg/kg	1000	5	ND
Soluble Cadmium	mg/kg	1000	5	ND
Soluble Selenium	mg/kg	1000	10	ND

Remark:

Note: Any compound of mercury introduced as such.

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

Surface Coating Materials Regulations

Test Request: Total lead and mercury in surface coatings as specified in Canada Consumer Product Safety Act, Surface Coating Materials Regulations, SOR/2016-193.

Test Method: With reference to Product Safety Laboratory, Reference Manual, Book 5 - Laboratory Policies and Procedures, Part B: Test Methods Section, Method C02.2.1-2018, Method C07.

Test Item(s)	Unit	Limit	MDL	Result
				1
Lead (Pb)	mg/kg	90	10	ND
Total Mercury	mg/kg	10	1	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

END OF THE REPORT