

TEST REPORT

<u>Applicant</u>	: Qingyuan County Hongyun Penindustry Co., Ltd
<u>Address</u>	: Zhukou Industrial District, Qingyuan, Lishui, Zhejiang China 323807
<u>Sample description</u>	: 18 plastic color pencils
<u>Item no.</u>	: PC18702
<u>Manufacturer</u>	: Qingyuan County Hongyun Penindustry Co., Ltd
<u>Country of origin</u>	: China
<u>Age requested on application form</u>	: 3+
<u>Labelled age grade</u>	: Not Present
<u>Age grade applied in testing</u>	: 3+
<u>Sample received date</u>	: 03 - Feb - 2026
<u>Sample resubmission date</u>	: 13 - Mar - 2026
<u>Turn around time</u>	: 04 - Feb - 2026 to 19 - Mar - 2026

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

TEST REQUESTED	TEST METHOD/REGULATION	RESULT
Physical and Mechanical Hazards	EN 71 Part 1:2014+A1:2018	Pass
General Labeling Requirement	Directive 2009/48/EC	Pass
Flammability of Toys	EN71 Part 2:2020	Pass
Flammability of Toys	EN 71 Part 2:2020+A1:2025	Pass
Migration of Certain Elements	EN 71 Part 3:2019+A2:2024	Pass
Total Cadmium Content	REACH Annex XVII, Entry 23	Pass
Phthalates content	REACH Annex XVII, Entry 51 & 52	Pass
Polycyclic Aromatic Hydrocarbons (PAHs)	REACH Annex XVII, Entry 50	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 Product Testing Service (Hangzhou) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. Unless otherwise stated from the customer, regulation or the standard specification, Eurofins will apply it in accordance with ILAC G8:09/2019-(binary statement for simple acceptance rule). If you happen to have any comments, please do it by sending email to info.hz@cpt.eurofinscn.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 Product Testing Service (Hangzhou) Co., Ltd. If you happen to have any complaints, please do it by sending email to chinacomplaint.hz@cpt.eurofinscn.com and referring to this report number.



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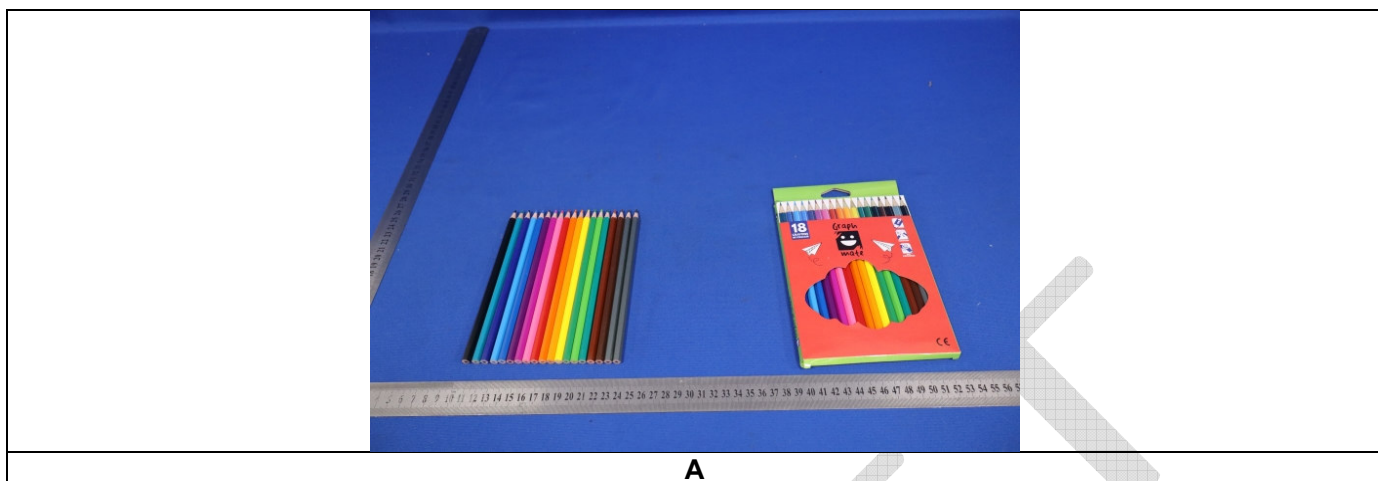
***** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) *****

Signed for and on behalf of
Eurofins Product Testing Service (Hangzhou) Co., Ltd

Sara Liu
Quality Manager

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SAMPLE PHOTO(S)



A

EFHZ26020520-CG-01

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TO BE CONTINUED

COMPONENT LIST

Component No.	Component	Sample No.
1	Blue green coating on wood	A
2	Light blue coating on wood	A
3	Blue coating on wood	A
4	Blue purple coating on wood	A
5	Dark purple coating on wood	A
6	Rose coating on wood	A
7	Pink coating on wood	A
8	Red coating on wood	A
9	Light orange coating on wood	A
10	Orange coating on wood	A
11	Yellow coating on wood	A
12	Green coating on wood	A
13	Light green coating on wood	A
14	Dark green coating on wood	A
15	Brown coating on wood	A
16	Dark brown coating on wood	A
17	Grey coating on wood	A
18	Black coating on wood	A
19	Blue green colorful pencil lead	A
20	Light blue colorful pencil lead	A
21	Blue colorful pencil lead	A
22	Blue purple colorful pencil lead	A
23	Dark purple colorful pencil lead	A
24	Rose colorful pencil lead	A
25	Pink colorful pencil lead	A
26	Red colorful pencil lead	A
27	Light orange colorful pencil lead	A
28	Orange colorful pencil lead	A
29	Yellow colorful pencil lead	A
30	Green colorful pencil lead	A
31	Light green colorful pencil lead	A
32	Dark green colorful pencil lead	A
33	Brown colorful pencil lead	A
34	Dark brown colorful pencil lead	A
35	Grey colorful pencil lead	A
36	Black colorful pencil lead	A
37	Natural color wood excluding coating	A

TO BE CONTINUED

TEST RESULT

Physical and Mechanical Hazards

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

Test Sample: A

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	N/A
4.10.1	Folding and sliding mechanisms	N/A
4.10.2	Driving mechanisms.	N/A
4.10.3	Hinges	N/A
4.10.4	Springs	N/A
4.11	Mouth-actuated toys and other toys intended to be put in the mouth	N/A
4.12	Balloons	N/A
4.13	Cords of toy kites and other flying toys.	N/A
4.14	Enclosures	N/A
4.14.1	Toys which a child can enter	N/A
4.14.2	Masks and helmets	N/A
4.15	Toys intended to bear the mass of a child	N/A
4.15.1	Toys propelled by the child or by other means	N/A
4.15.2	Toy bicycles	N/A
4.15.3	Rocking horses and similar toys	N/A
4.15.4	Toys not propelled by a child	N/A
4.15.5	Toys scooters	N/A
4.16	Heavy immobile toys	N/A
4.17	Projectiles	N/A
4.17.1	General	N/A
4.17.2	All projectiles	N/A
4.17.3	Projectile toy with stored energy	N/A
4.17.4	Certain projectile toys without stored energy	N/A
4.18	Aquatic toys and inflatable toys	N/A
4.19	Percussion caps specifically designed for use in toys and toys using percussion caps	N/A
4.20	Acoustics	N/A
4.20.2.1	General	N/A
4.20.2.2	Close-to-the-ear toys	N/A
4.20.2.3	Table-top or floor toys	N/A
4.20.2.4	Hand-held toys	N/A
4.20.2.5	Toys using headphones or earphones	N/A
4.20.2.6	Rattles	N/A
4.20.2.7	Squeeze toys	N/A
4.20.2.8	Pull-along or push toys	N/A
4.20.2.9	Percussion toys	N/A

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	N/A
7.2	Toys not intended for children under 36 months	N/A
7.3	Latex Balloons	N/A
7.4	Aquatic toys	N/A
7.5	Functional Toys	N/A
7.6	Hazardous sharp functional edges and points	N/A
7.7	Projectiles toys	N/A
7.8	Imitation protective masks and helmets	N/A
7.9	Toy kites	N/A
7.10	Roller skates, inline skates, skateboards and certain other ride-on toys	N/A
7.11	Toys intended to be strung across a cradle, cot, or perambulator	N/A
7.12	Liquid-filled teethingers	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
7.19	Rocking horses and similar toys	N/A

TO BE CONTINUED

TEST RESULT

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

Remark:

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

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TO BE CONTINUED

TEST RESULT

General 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
 Test Sample: A

Labeling Content	Observation Result	Location	Conclusion
Washing/Cleaning Instruction	Not Applicable	/	/
CE Mark	Present, Correct form, CE marking (height >5.0 mm)	Packaging	Pass
Importer's Name & Address	Present	Packaging	Pass
Manufacturer's Name & Address	Present	Packaging	Pass
Product ID	Present	Packaging	Pass

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TO BE CONTINUED

TEST RESULT

Flammability of Toys

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

Test Sample: A

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

Remark:

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

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TO BE CONTINUED

TEST RESULT

Flammability of Toys

Test Request: As Specified in European Standard on Safety of Toys EN 71 Part 2:2020+A1:2025

Test Sample: A

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	N/A

Remark:

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

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TO BE CONTINUED

TEST RESULT

Migration of Certain Elements

Test Request: Migration of certain elements as specified in European Standard on Safety of Toys EN71 Part 3:2019+A2:2024.

Test Method: General elements, with reference to EN 71 Part 3:2019+A2:2024, analysis was performed by ICP-MS;
Extractable Chromium (VI), with reference to EN 71 Part 3:2019+A2:2024, analysis was performed by IC-ICP-MS/IC-UV/Vis;
Extractable organic tin, with reference to EN 71 Part 3:2019+A2:2024, analysis was performed by GC-MS.

Test Item(s):	Unit	Result							
		19	20	21	22	23	24	25	26
Category Type		I	I	I	I	I	I	I	I
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 (Cr)#2	mg/kg	-	-	-	-	-	-	-	-
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium III (Cr III) #3	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium VI (Cr VI)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND

Test Item(s):	Unit	Result							
		27	28	29	30	31	32	33	34
Category Type		I	I	I	I	I	I	I	I
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

TO BE CONTINUED

TEST RESULT

Test Item(s):	Unit	Result							
		27	28	29	30	31	32	33	34
Category Type		I	I	I	I	I	I	I	I
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium (Cr)#2	mg/kg	-	-	-	-	-	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	-
Extractable Chromium VI (Cr VI)	mg/kg	ND	ND	ND	ND	ND	-	ND	-

Test Item(s):	Unit	Result	
		35	36
Category Type		I	I
Extractable Lead (Pb)	mg/kg	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND
Extractable Boron (B)	mg/kg	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND
Extractable Chromium (Cr)#2	mg/kg	-	-
Extractable Organic Tin#1	mg/kg	ND	ND
Extractable Chromium III (Cr III) #3	mg/kg	ND	ND
Extractable Chromium VI (Cr VI)	mg/kg	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:

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: scraped-off toy material

“-” = Not Regulated

TO BE CONTINUED

TEST RESULT

Migration of Certain Elements

Test Request: Migration of certain elements as specified in European Standard on Safety of Toys EN71 Part 3:2019+A2:2024.

Test Method: General elements, with reference to EN 71 Part 3:2019+A2:2024, analysis was performed by ICP-MS;
Extractable Chromium (VI), with reference to EN 71 Part 3:2019+A2:2024, analysis was performed by IC-ICP-MS/IC-UV/Vis;
Extractable organic tin, with reference to EN 71 Part 3:2019+A2:2024, analysis was performed by GC-MS.

Test Item(s):	Unit	Result							
		1	2	3	4	5	6	7	8
Category Type		III	III	III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	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	54.66 1	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	70.04	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 (Cr)#2	mg/kg	-	-	-	-	-	-	-	-
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium III (Cr III) #3	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium VI (Cr VI)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND

Test Item(s):	Unit	Result							
		9	10	11	12	13	14	15	16
Category Type		III	III	III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	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

TO BE CONTINUED

TEST RESULT

Test Item(s):	Unit	Result							
		9	10	11	12	13	14	15	16
Category Type		III	III	III	III	III	III	III	III
Extractable 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 (Cr)#2	mg/kg	-	-	-	-	-	-	-	-
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium III (Cr III) #3	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Extractable Chromium VI (Cr VI)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND

Test Item(s):	Unit	Result		
		17	18	37
Category Type		III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	91.612	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND
Extractable Chromium (Cr)#2	mg/kg	-	-	0.034
Extractable Organic Tin#1	mg/kg	ND	ND	ND
Extractable Chromium III (Cr III) #3	mg/kg	ND	ND	-
Extractable Chromium VI (Cr VI)	mg/kg	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:

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: scraped-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+2+3	4+5+6	7+8+9	10+11+12
Cadmium (Cd)	mg/kg	1000	5	ND	ND	ND	ND

Test Item(s)	Unit	Limit	MDL	Result	
				13+14+15	16+17+18
Cadmium (Cd)	mg/kg	1000	5	ND	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: IEC 62321-8:2017, solvent extraction and quantification by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result			
					1+2+3	4+5+6	7+8+9	10+11+12
Dibutylphthalate (DBP)	84-74-2	%	-	0.005	ND	ND	ND	ND
Benzylbutyl phthalate (BBP)	85-68-7	%	-	0.005	ND	ND	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	-	0.005	ND	ND	ND	ND
Di-isobutyl phthalate (DiBP)	84-69-5	%	-	0.005	ND	ND	ND	ND
Sum (DBP + BBP + DEHP + DiBP)	-	%	0.1	-	ND	ND	ND	ND
Di-n-octylphthalate (DNOP)	117-84-0	%	-	0.005	ND	ND	ND	ND
Diisononylphthalate (DINP)	28553-12-0	%	-	0.005	ND	ND	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND	ND	ND	ND
Sum (DNOP + DINP + DIDP)	-	%	0.1	-	ND	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result	
					13+14+15	16+17+18
Dibutylphthalate (DBP)	84-74-2	%	-	0.005	ND	ND
Benzylbutyl phthalate (BBP)	85-68-7	%	-	0.005	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	-	0.005	ND	ND
Di-isobutyl phthalate (DiBP)	84-69-5	%	-	0.005	ND	ND
Sum (DBP + BBP + DEHP + DiBP)	-	%	0.1	-	ND	ND
Di-n-octylphthalate (DNOP)	117-84-0	%	-	0.005	ND	ND
Diisononylphthalate (DINP)	28553-12-0	%	-	0.005	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND	ND
Sum (DNOP + DINP + DIDP)	-	%	0.1	-	ND	ND

Remarks:

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

1 mg/kg = 1 ppm = 0.0001%

MDL = method detection limit

ND = Not detected, less than MDL

“- “ = Not Regulated

TO BE CONTINUED

TEST RESULT

Polycyclic Aromatic Hydrocarbons (PAHs)

Test Request: Polycyclic Aromatic Hydrocarbons (PAHs) content as specified in Regulation (EU) 2015/326 amending entry 50 of Annex XVII of REACH Regulation (EC) No 1907/2006.

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+6	7+8
Benz(a)anthracene	56-55-3	mg/kg	0.5	0.2	ND	ND	ND	ND
Chrysene	218-01-9	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo-(j)-fluoranthene	205-82-3	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo(a)pyrene	50-32-8	mg/kg	0.5	0.2	ND	ND	ND	ND
Dibenz(a,h)anthracene	53-70-3	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	0.5	0.2	ND	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result			
					9+10	11+1 2	13+1 4	15+1 6
Benz(a)anthracene	56-55-3	mg/kg	0.5	0.2	ND	ND	ND	ND
Chrysene	218-01-9	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo-(j)-fluoranthene	205-82-3	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo(a)pyrene	50-32-8	mg/kg	0.5	0.2	ND	ND	ND	ND
Dibenz(a,h)anthracene	53-70-3	mg/kg	0.5	0.2	ND	ND	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	0.5	0.2	ND	ND	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					17+18
Benz(a)anthracene	56-55-3	mg/kg	0.5	0.2	ND
Chrysene	218-01-9	mg/kg	0.5	0.2	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	0.5	0.2	ND
Benzo-(j)-fluoranthene	205-82-3	mg/kg	0.5	0.2	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	0.5	0.2	ND
Benzo(a)pyrene	50-32-8	mg/kg	0.5	0.2	ND
Dibenz(a,h)anthracene	53-70-3	mg/kg	0.5	0.2	ND
Benzo(e)pyrene	192-97-2	mg/kg	0.5	0.2	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

END OF THE REPORT