

TEST REPORT

<u>APPLICANT</u>	:
<u>ADDRESS</u>	:
<u>SAMPLE DESCRIPTION</u>	: Hand Highlighter
<u>ITEM NO.</u>	:
<u>PO NO.</u>	:
<u>COUNTRY OF ORIGIN</u>	: China
<u>COUNTRY OF DESTINATION</u>	: EUROPE
<u>AGE REQUESTED ON APPLICATION FORM</u>	: Not Present
<u>LABELED AGE GRADE</u>	: Not Present
<u>AGE GRADE APPLIED IN TESTING</u>	: Over 3 Years
<u>LAB RECOMMENDED AGE GRADE</u>	: Over 3 Years
<u>SAMPLE RECEIVED DATE</u>	: 10-Sep-2021
<u>TURN AROUND TIME</u>	: 10-Sep-2021 to 17-Sep-2021

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 71-1:2014+A1:2018	Pass (Excluding Section 7.1 & 7.2)
Labeling Requirement	Directive 2009/48/EC	See Test Result
Flammability of Toys	EN 71-2:2020	Pass
Migration of Certain Elements	EN 71-3:2019+A1:2021	Pass
Total Lead Content	REACH Annex XVII, Entry 63	Pass
Total Cadmium Content	REACH Annex XVII, Entry 23	Pass
Phthalates Content	REACH Annex XVII, Entry 51 & 52	Pass
Polycyclic Aromatic Hydrocarbons (PAHs)	German GS Specification: AfPS GS 2019:01 PAK	Pass
Writing and Marking Instruments -Part1: Specification for caps to reduce the risk of asphyxiation	BS 7272-1:2008	Pass (Except 4 & 3.3)
Writing and Marking Instruments -Part 2 : Specification for end closures to reduce the risk of asphyxiation (As per client's request)	BS 7272-2:2008+A1:2014	Pass (Except 4.3 & 4.6& 5)

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 (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.sh@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 Product Testing Service (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to chinacomplaint@eurofins.com and referring to this report number.

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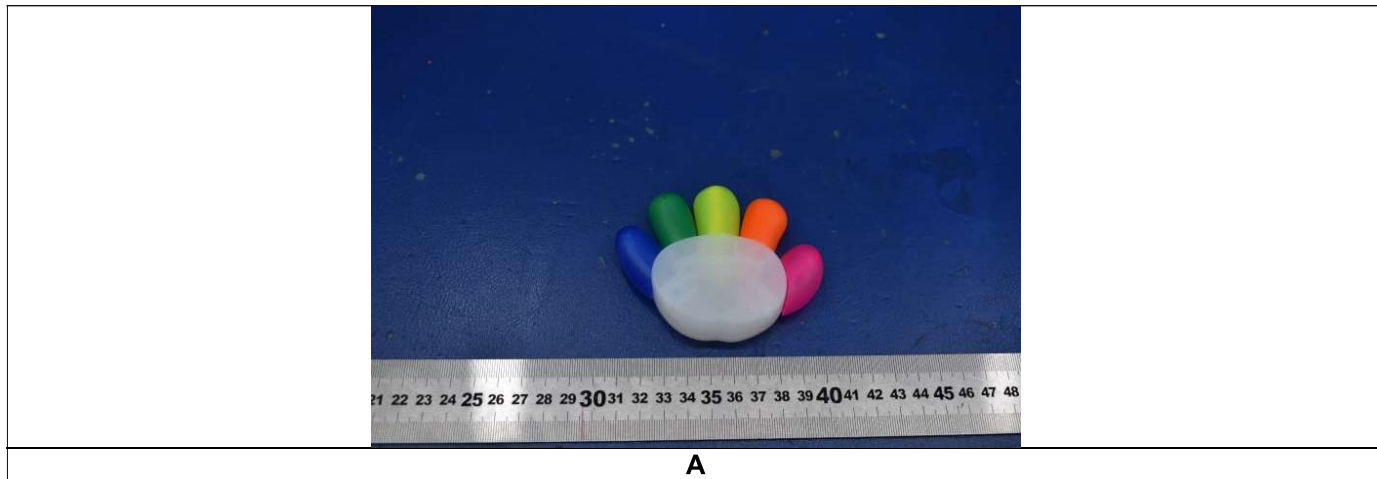
***** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) *****

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

Joyce Liu
Lab Manager

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SAMPLE PHOTO(S)



EFSH21090433-CG-01

TO BE CONTINUED

COMPONENT LIST

Component No.	Component	Sample No.
1	Semi transparent plastic	A
2	Blue plastic	A
3	Green plastic	A
4	Yellow plastic	A
5	Orange plastic	A
6	Hot pink plastic	A
7	Blue ink	A
8	Green ink	A
9	Yellow ink	A
10	Orange ink	A
11	Hot pink ink	A
12	Felt tip	A

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	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	
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	NC (See Remark 1)
7.2	Toys not intended for children under 36 months	NC (See Remark 1)
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	
7.25.1	Flying toys	N/A
7.25.2	Remote controlled flying toys	N/A
7.26	Improvised projectiles	N/A

Remark:

1.The cap was small part as received. There should be appropriate age warning on toy or its packaging. As per client' s request, no relevant package was provided with the tested sample(s), consequently, section 7.1& 7.2 in the request standard was not evaluated.

P - Pass, NA - Not Applicable, NC - Not Conduct as per client' s request

Labeling Requirement

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

Labeling Content	Observation Result	Location	Conclusion
Washing/Cleaning Instruction	Not Applicable	-	-
CE Mark	Not Present	-	See Remark1
Importer's Name & Address	Not Present	-	See Remark2
Manufacturer's Name & Address	Not Present	-	
Product ID	Not Present	-	See Remark3

Remark:

1. According to TSD 2009/48/EC, The CE marking shall be affixed before the toy is placed on the market and its height must be at least 5mm.
2. According to TSD 2009/48/EC, manufacturer's and importer's name, registered trade name or registered trade mark and the address at which the manufacturer can be contacted must be indicated on the toy or, where that is not possible, on its packaging or in a document accompanying the toy.
3. According to TSD 2009/48/EC, manufacturers shall ensure that their toys bear a type, batch, serial or model number or other element allowing their identification, or, where the size or nature of the toy does not allow it, that the required information is provided on the packaging or in a document accompanying the toy.

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	N/A

Remark:

P - Pass, NA - 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							
		1	2	3	4	5	6	7*	8
Category Type		III	III	III	III	III	III	II	II
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	93
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	-	-	-	-	-	-	-	-
Extractable Chromium (VI) (Cr VI)	mg/kg	-	-	-	-	-	-	-	-

TO BE CONTINUED

TEST RESULT

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

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

* The test result was calculated as if 100 mg of test portion had been used and the sample weight of test portion is less than 100 mg.

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 Aluminium (Al)*	mg/kg	2250	50	560	50	28130	50
Extractable Nickel (Ni)	mg/kg	75	5	18.8	2	930	10
Extractable Tin (Sn)	mg/kg	15000	50	3750	50	180000	50
Extractable Organic Tin	mg/kg	0.9	0.2	0.2	0.2	12	0.2
Extractable Chromium	mg/kg	-	0.02	-	0.005	-	0.02
Extractable Chromium (III) (Cr III)	mg/kg	37.5	2	9.4	1	460	10
Extractable Chromium (VI) (Cr VI)	mg/kg	0.02	0.02	0.005	0.005	0.053	0.02

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

Category II: liquid or sticky toy material

Category III: scrapped-off toy material

"-" = Not Regulated

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

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 and total lead content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result			
				1+2+3	4+5+6	7+8+9	10+11
Total Lead	mg/kg	500	10	ND	ND	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

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 3051A:2007, EPA 3052:1996
 Acid digestion/ microwave 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
Total Cadmium	mg/kg	100	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: 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	4+5+6	7+8+9	10+11
Dibutyl phthalate (DBP)	84-74-2	%	-	0.005	ND	ND	ND	ND
Benzylbutyl phthalate (BBP)	85-68-7	%	-	0.005	ND	ND	ND	ND
Diethylhexyl phthalate (DEHP)	117-81-7	%	-	0.005	ND	ND	ND	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	-	0.005	ND	ND	ND	ND
Sum of (DEHP+DBP+BBP+DIBP)	-	%	0.1	-	ND	ND	ND	ND
Di-n-octyl phthalate (DNOP)	117-84-0	%	-	0.005	ND	ND	ND	ND
Diisononyl phthalate (DINP)	28553-12-0	%	-	0.005	ND	ND	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND	ND	ND	ND
Sum of (DNOP + DINP + DIDP)	-	%	0.1	-	ND	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

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
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
Pyrene	129-00-0	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
Naphthalene	91-20-3	mg/kg	ND	ND	ND	ND	ND
Sum of 4 GS PAHS (Phenanthrene, Pyrene, Anthracene, Fluoranthene)	-	mg/kg	ND	ND	ND	ND	ND
Sum of 15 GS PAHs	-	mg/kg	ND	ND	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Parameter	CAS No.	Unit	Result				
			6	7	8	9	10
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
Pyrene	129-00-0	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
Naphthalene	91-20-3	mg/kg	ND	ND	ND	ND	ND
Sum of 4 GS PAHS (Phenanthrene, Pyrene, Anthracene, Fluoranthene)	-	mg/kg	ND	ND	ND	ND	ND
Sum of 15 GS PAHS	-	mg/kg	ND	ND	ND	ND	ND

Parameter	CAS No.	Unit	Result
			11
PAHs Category			Category 1
Benzo(a)pyrene	50-32-8	mg/kg	ND
Benzo(e)pyrene	192-97-2	mg/kg	ND
Benzo(a)anthracene	56-55-3	mg/kg	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	ND
Chrysene	218-01-9	mg/kg	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	ND
Benzo(ghi)perylene	191-24-2	mg/kg	ND
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	ND
Phenanthrene	85-01-8	mg/kg	ND
Pyrene	129-00-0	mg/kg	ND
Anthracene	120-12-7	mg/kg	ND
Fluoranthene	206-44-0	mg/kg	ND
Naphthalene	91-20-3	mg/kg	ND
Sum of 4 GS PAHS (Phenanthrene, Pyrene, Anthracene, Fluoranthene)	-	mg/kg	ND
Sum of 15 GS PAHS	-	mg/kg	ND

Note:

mg/kg = milligram per kilogram

ND = not detected, less than 0.2 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

In the sum of the 15 PAH, only those PAH components quantified in the material from 0.2 mg/kg are taken into account.

TO BE CONTINUED

TEST RESULT

BS 7272-1:2008- Writing and Marking Instruments

-Part1: Specification for caps to reduce the risk of asphyxiation

Number of Test Specimen: 2 sets

Test Result : Details Shown As Following Table:

Clause	Test Requirement / Method	Result
3	Requirements	
3.1	General Caps shall conform to at least one of the following 3.2or 3.3	Pass
3.2	Cap Size When a cap is introduced with its main axis perpendicular to a 16mm diameter ring gauge of at least 19mm thickness, and part of the cap enters the gauge, at least 5mmof the length shall not enter under its own weight	Pass
3.3	Ventilated caps air flow When tested in accordance with Annex A, Caps shall permit a minimum air flow of 8L/min, measured at room temperature, with a maximum pressure drop of 1.33kPa	N/T
3.4	Test report	
4	Identification Writing or marking instruments, or their packaging or accompanying documentation, shall be legibly and indelibly identified with the name, trademark or other means of identifying the manufacturer/supplier	N/C

TO BE CONTINUED

TEST RESULT

BS 7272-2:2008+A1:2014- Writing and Marking Instruments

-Part 2 : Specification for end closures to reduce the risk of asphyxiation (As per client's request)

Number of Test Specimen: _2_sets

Test Result: Details Shown As Following Table:

Clause	Test Requirement / Method	Result
4	Requirements	
4.1	General Except for cap-like end closures and those secured by a thread, which shall conform to 4.7, other end closures shall conform to at least one of the following requirements. -Size -Security -Inaccessibility -Minimal protrusion or; -Air flow	Pass
4.2	Size An end closure shall not pass through a 16 mm diameter ring gauge of at least 19mm thickness under its own weight.	Pass
4.3	Security The end closure shall not be removed when subjected to a force of 50N applied in line with the body of the writing or marking instrument	N/T
4.4	Inaccessibility The end closure when in the form of a plug shall be completely recessed, and be reasonably secure by withstanding minimum of force of 10N When tested in accordance with Annex B, applied in line with the body of the writing or marking instrument.	N/A
4.5	Minimal protrusion The grippable surface of an end closure, when in the form of a plug, shall not extend more than 1 mm beyond the end of writing or marking instrument and overall the end closure shall not extend more than 3mm beyond the end of the writing or marking instrument, It shall be reasonably secure by withstanding a minimum force of 10N, when tested in accordance with Annex B, applied in line with the body of the writing or marking instrument.	N/A
4.6	Air flow When tested in accordance with Annex A, end closures shall permit a minimum air flow of 8L/min, measured at room temperature, with a maximum pressure drop of 1.33kPa	N/T

TO BE CONTINUED

TEST RESULT

4.7	<p>Additional safeguard</p> <p>For end closures that do not conform to 4.2(Size), if the end closure is either</p> <p>a) In the form of a cap and fits over the barrel(instead of inside it like a plug) and itslength exceeds its diameter; or</p> <p>b) Secured by a screw thread but does not conform to requirement4.4(Inaccessibility),</p> <p>Then it shall conform to 4.3(Security) and 4.6 (airflow)</p>	N/A
5	<p>Identification</p> <p>Writing or marking instruments, or their packaging or accompanying documentation, shall be legibly and indelibly identified with the name, trademark or other means of identifying the manufacturer/supplier.</p>	N/C

Remark:

N/A=Not Applicable, N/T=Not tested

N/C=Not conducted as there is no related information provided

The test was subcontracted to Eurofins Product Testing Service (Shanghai) Co., Ltd. Hangzhou Branch

END OF THE REPORT