

Test Report

Report No. : AGC03778221002-001S1

- **SAMPLE NAME** : Set of 4 highlighter pencils
- MODEL NAME : MO6836-99
- **APPLICANT** : MID OCEAN BRANDS B.V
- **STANDARD(S)** : Please refer to the following page(s).
- **DATE OF ISSUE** : Nov. 01, 2022





Applicant	:	MID OCEAN BRANDS B.V
Address	:	7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Test Site	:	2,6/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Report on the submitted sample(s) said to be:

Sample Name	:	Set of 4 highlighter pencils
Model	:	MO6836-99
Country of Origin	:	CHINA
Country of Destination	:	EUROPE
Labeled Age Grading	:	Not stated
Requested Age Grading	:	3+
Age Group Applied in Testing	:	3+
Sample receiving state	:	Normal
Sample Received Date	:	Oct. 25, 2022
Testing Period	:	Oct. 25, 2022 to Nov. 01, 2022
Test Requested	:	Selected test(s) as requested by client.

Approved by: Keel Approved by : Jossie ling

Qinlianzhi, Reed

Laboratory Supervisor

Liangdan, Jessie.Liang

Technical Director

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Report Revise Record

Report Version	Issued Date	Valid Version	Notes
/	Oct. 28, 2022	Invalid	Initial release
S1	Nov. 01, 2022	Valid	Add picture



Test Requested:	Conclusion
European Standard on Safety of Toys	Pass
- EN 71-1:2014+A1:2018: Mechanical and Physical Properties	
European Standard on Safety of Toys	Pass
- EN 71-2:2020: Flammability	
The Directive 2009/48/EC-Safety of Toys	P
- Labeling requirement (Washing/Cleaning Label, CE mark, importer / manufacturer mark	Pass
(name, address), product identification)	
European Standard on Safety of Toys	р
- EN 71-3:2019+A1:2021: Migration of Certain Elements (Al, Sb, As, Ba, B, Cd, Cr(III),	Pass
Cr(VI), Co, Cu, Pb, Mn, Hg, Ni, Se, Sr, Sn, Zn)	
European Standard on Safety of Toys	Pass
- EN 71-3:2019+A1:2021: Migration of Certain Elements (Organic Tin)	
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 50	Pass
-Polycyclic-aromatic Hydrocarbons (PAHs) Content	
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 51&52 - Phthalates Content	Pass
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 5 - Benzene Content	Pass
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 23 -Cadmium(Cd) Content	Pass
As specified by client, to determine the Formaldehyde Release content in the submitted	
sample(s).	Pass
contract).	



The photo of the sample



The photo of AGC03778221002-001S1 is for use only with the original report.

Test Point Description

Test point	Test point description
1-1	Yellow coating
1-2	Pink coating
1-3	Green coating
1-4	Orange coating
1-5	Yellow refill
1-6	Pink refill
1-7	Green refill
1-8	Orange refill
1-9	Wood
1-10	Yellow coating+Pink coating
1-11	Green coating+Orange coating
1-12	Yellow refill+pink refill
1-13	Green refill+orange refill



European Standard on Safety of Toys

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

Clause	Description	Result
4.1	Material cleanliness	Pass
4.2	Assembly	N/A
4.3	Flexible plastics sheeting	N/A
4.4	Toy bags	N/A
4.5	Glass	N/A
4.6	Expanding materials	N/A
4.7	Edges	Pass
4.8	Points and metallic wires	Pass
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 a child or by other means	N/A
4.15.1.1	General	N/A
4.15.1.2	Warnings and instructions for use	N/A
4.15.1.3	Strength	N/A
4.15.1.4	Stability	N/A
4.15.1.5	Braking	N/A
4.15.1.6	Transmission and wheel arrangement	N/A
4.15.1.7	Adjustable seat pillar and handlebar stem minimum insertion marks	N/A
4.15.1.8	Electrically-driven ride-on toys	N/A
4.15.2	Toy bicycles	N/A
4.15.2.1	General	N/A
4.15.2.2	Warnings and instructions for use	N/A
4.15.2.3	Braking requirements	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	Toy scooters	N/A
4.15.5.1	General	/
4.15.5.2	Warnings and instructions for use	N/A
4.15.5.3	Strength	N/A
4.15.5.4	Adjustable and folding steering tubes	N/A
4.15.5.5	Braking	N/A
4.15.5.6	Wheel size	N/A
4.15.5.7	Protruding parts	N/A
4.16	Heavy immobile toys	N/A

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4.17	Projectiles	N/A
4.17.1	General	/
4.17.2	All projectiles	N/A
4.17.2.1	Leading parts	N/A
4.17.2.2	Foam shaft projectiles with a suction cup as a leading part	N/A
4.17.2.3	Other types of projectile with a suction cup as a leading part	N/A
4.17.3	Projectile toys with stored energy	N/A
4.17.3.1	Energy limitation	N/A
4.17.3.2	Edges	N/A
4.17.3.3	Projectiles with a protective cap, cover or tip	N/A
4.17.3.4	Impact resistance	N/A
4.17.3.5	Improvised projectiles	N/A
4.17.4	Certain projectile toys without stored energy	N/A
4.17.4.1	Darts	N/A
4.17.4.2	Bows and arrows	N/A
4.17.4.3	Toy catapults and projectiles propelled by an elastic band	N/A
	Projectile toys without stored energy where the discharge mechanism can store	
4.17.4.4	energy, only when held in place by the user	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
4.21	Toys containing a non-electrical heat source	N/A
4.22	Small balls	N/A
4.23	Magnets	N/A
4.23.1	General	/
	Toys other than magnetic/electrical experimental sets intended for children over 8	
4.23.2	vears	N/A
4.23.3	Magnetic/electrical experimental sets intended for children over 8 years	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	N/A
5.1	General requirements	N/A
5.2	Filling materials	N/A
5.3	Plastic sheeting	N/A
5.4	Cords, chains and electrical cables in toys	N/A
5.4.1	General	/
5.4.2	Cords and chains in toys intended for children under 18 months	/ N/A
5.4.2.1	Cords and chains with the potential to tangle	N/A
5.4.2.2	Two cords or chains with the potential to tangle	N/A
5.4.2.3	Separated cords and chains	N/A
5.4.2.4	Free length of cords and chains	N/A
5.4.3	Cords and chains in toys intended for children of 18 months or over but under 36 months	N/A
5.4.3.1	Cords and chains with the potential to tangle	N/A
5.4.3.2	Two cords or chains with the potential to tangle	N/A N/A
5.4.3.3	Separated cords and chains	N/A N/A
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5 4 2 4	Free langth of condensed allows	NT/A
5.4.3.4	Free length of cords and chains	N/A
5.4.3.5	Cords and chains not suitable for children under 18 months	N/A
5.4.4	Fixed loops, tangled loops and nooses	N/A
5.4.5	Cords and chains on pull along toys	N/A
5.4.6	Electrical cables	N/A
5.4.7	Cross-sectional dimension of certain cords	N/A
5.4.8	Self-retracting cords	N/A
5.4.9	Toys attached to or intended to be strung across a cradle, cot or perambulator	N/A
5.4.9.1	Toys intended to be strung across a cradle, cot or perambulator	N/A
5.4.9.2	Toys otherwise intended to be attached to a cradle, cot or perambulator	N/A
5.5	Liquid-filled toys	N/A
5.6	Speed limitation of electrically driven 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	N/A
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	Projectile 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
7.10.1	Roller skates, inline skates and skateboards	N/A
7.10.2	Ride-on toys without a braking device	N/A
7.10.2	Electrically-driven ride-on toys	N/A
7.10.3	Instructions for use	N/A
7.11	Toys intended to be strung across a cradle, cot, or perambulator	N/A
7.12	Liquid-filled teethers	N/A N/A
7.12	Percussion caps specifically designed for use in toys	N/A N/A
7.13	Acoustics	N/A
7.14	Toy bicycles	N/A N/A
7.15	Toys intended to bear the mass of a child	N/A N/A
7.10	Toys comprising monofilament fibres	N/A N/A
7.17	Toy scooters	N/A N/A
7.18	Rocking horses and similar toys	N/A N/A
		N/A N/A
7.20	Magnetic/electrical experimental sets	N/A N/A
7.21	Toys with electrical cables exceeding 300 mm in length	IN/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

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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

European Standard on Safety of Toys

Clause	Requirements	Result
4	Requirements	Pass
4.1	General	Pass
4.2	Toys to be worn on the head	N/A
4.2.1	General	/
4.2.2	Beards, moustaches, wigs, etc, made from hair, pile or material with similar features (e.g. freehanging ribbons, paper or cloth strands), which protrude more than or equal to 50 mm from the surface of the toy	N/A
4.2.3	Beards, moustaches, wigs etc. made from hair, pile or material with similar features (e.g. freehanging ribbons, paper or cloth strands etc.), which protrude less than 50 mm from the surface of the toy	N/A
4.2.4	Full or partial moulded head masks	N/A
4.2.5	Flowing elements of toys to be worn on the head (except those covered by 4.2.2 and 4.2.3), hoods, head-dresses etc. and fabric masks which partially or fully cover the head, but excluding those items covered by 4.3	N/A
4.3	Toys disguise costumes and other 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 (animals and dolls, etc) with a piled or textile surface	N/A

The Directive 2009/48/EC-Safety of Toys

- Labeling requirement (Washing/Cleaning Label, CE mark, importer / manufacturer mark (name, address), product identification)

Content	On product	On packaging
Washing/Cleaning instruction	N/A	N/A
CE marking	Absent	Present
Manufacturer's name	Absent	Absent
Manufacturer's address	Absent	Absent
Importer's name	Absent	Present
Importer's address	Absent	Present
Sample ID	Absent	Present
Remark 1:		

Washing/Cleaning label: According to Directive 2009/48/EC the following safety requirements apply regarding cleaning and washing: A toy intended for use by children under 36 months must be designed and manufactured in such a way that it can be cleaned. A textile toy must, to this end, be washable, except if it contains a mechanism that may be damaged if soak washed. The toy must fulfill the safety requirements also after having been cleaned in accordance with this point and the manufacturer's instructions. The manufacturer should, if applicable, provide instructions on how the toy has to be cleaned.

Remark 2:

Toys made available on the market must bear the CE marking. The CE marking must be subject to the general principles set out in Article 30 of Regulation (EC) No 765/2008. The CE marking must be affixed visibly, legibly and indelibly to the toy, to an affixed label or to the packaging. In the case of small toys and toys consisting of small parts, the CE marking may alternatively be affixed to a label or an accompanying leaflet.



Where, in the case of toys sold in counter displays, that is not technically possible, and on condition that the counter display was originally used as packaging for the toy, the CE marking may be affixed to the counter display. Where the CE marking is not visible from outside the packaging, if any, it shall as a minimum be affixed to the packaging. Where specific legislation does not impose specific dimensions, the CE marking must be at least 5 mm high.

Remark 3:

The manufacturer'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. This requirement applies also to the name and address etc. of any importer

Remark 4:

Manufacturers must 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.

Note

Per the client's requirement, the testing age grading is 3+ N/A=Not Applicable; N/T=Not Tested; DNI = Did Not Ignite; IBSE = Ignite But Self-Extinguished

European Standard on Safety of Toys

- EN 71-3:2019+A1:2021: Migration of Certain Elements (Al, Sb, As, Ba, B, Cd, Cr(III), Cr(VI), Co, Cu, Pb, Mn, Hg, Ni, Se, Sr, Sn, Zn)

Test Methods and Equipment: EN 71-3:2019+A1:2021; ICP-OES

Test Item(s)	I Init	T insit	MDL	Test Result(s)		
Test Item(s)	Unit	Limit		1-1	1-2	1-3
Aluminium(Al)	mg/kg	28130	50	371	N.D.	N.D.
Antimony(Sb)	mg/kg	560	2.0	N.D.	N.D.	N.D.
Arsenic(As)	mg/kg	47	0.5	N.D.	N.D.	N.D.
Barium(Ba)	mg/kg	18750	50	280	N.D.	55
Boron(B)	mg/kg	15000	50	N.D.	N.D.	N.D.
Cadmium(Cd)	mg/kg	17	0.3	N.D.	N.D.	N.D.
Chromium (III) (Cr(III))	mg/kg	460	0.2	N.D.	N.D.	N.D.
Chromium (VI) (Cr(VI))	mg/kg	0.053	0.005	N.D.	N.D.	N.D.
Cobalt(Co)	mg/kg	130	2.5	N.D.	N.D.	N.D.
Copper(Cu)	mg/kg	7700	50	N.D.	N.D.	N.D.
Lead(Pb)	mg/kg	23	0.25	N.D.	N.D.	N.D.
Manganese(Mn)	mg/kg	15000	50	N.D.	N.D.	N.D.
Mercury(Hg)	mg/kg	94	1.0	N.D.	N.D.	N.D.
Nickel(Ni)	mg/kg	930	10	N.D.	N.D.	N.D.
Selenium(Se)	mg/kg	460	5	N.D.	N.D.	N.D.
Strontium(Sr)	mg/kg	56000	50	N.D.	N.D.	N.D.
Tin(Sn)	mg/kg	180000	50	N.D.	N.D.	N.D.
Zinc(Zn)	mg/kg	46000	50	N.D.	N.D.	N.D.
Cor	Conformity	Conformity	Conformity			



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Test Item(s)	Linit	Limit	MDL	Test Res	ult(s)
Test Item(s)	Unit	Lillin	MDL	1-4	1-9
Aluminium(Al)	mg/kg	28130	50	N.D.	N.D.
Antimony(Sb)	mg/kg	560	2.0	N.D.	N.D.
Arsenic(As)	mg/kg	47	0.5	N.D.	N.D.
Barium(Ba)	mg/kg	18750	50	N.D.	N.D.
Boron(B)	mg/kg	15000	50	N.D.	N.D.
Cadmium(Cd)	mg/kg	17	0.3	N.D.	N.D.
Chromium (III) (Cr(III))	mg/kg	460	0.2	N.D.	N.D.
Chromium (VI) (Cr(VI))	mg/kg	0.053	0.005	N.D.	N.D.
Cobalt(Co)	mg/kg	130	2.5	N.D.	N.D.
Copper(Cu)	mg/kg	7700	50	N.D.	N.D.
Lead(Pb)	mg/kg	23	0.25	N.D.	N.D.
Manganese(Mn)	mg/kg	15000	50	N.D.	N.D.
Mercury(Hg)	mg/kg	94	1.0	N.D.	N.D.
Nickel(Ni)	mg/kg	930	10	N.D.	N.D.
Selenium(Se)	mg/kg	460	5	N.D.	N.D.
Strontium(Sr)	mg/kg	56000	50	N.D.	N.D.
Tin(Sn)	mg/kg	180000	50	N.D.	N.D.
Zinc(Zn)	mg/kg	46000	50	N.D.	N.D.
Co	Conformity	Conformity			

Test Item(s)	Unit	Limit	MDL	Test Result(s)	
Test ttem(s)	Unit	LIIIII	IVIDL	1-5	1-6
Aluminium(Al)	mg/kg	2250	50	82	84
Antimony(Sb)	mg/kg	45	2.0	N.D.	N.D.
Arsenic(As)	mg/kg	3.8	0.5	N.D.	N.D.
Barium(Ba)	mg/kg	1500	50	N.D.	N.D.
Boron(B)	mg/kg	1200	50	N.D.	N.D.
Cadmium(Cd)	mg/kg	1.3	0.3	N.D.	N.D.
Chromium (III) (Cr(III))	mg/kg	37.5	0.2	N.D.	N.D.
Chromium (VI) (Cr(VI))	mg/kg	0.02	0.005	N.D.	N.D.
Cobalt(Co)	mg/kg	10.5	2.5	N.D.	N.D.
Copper(Cu)	mg/kg	622.5	50	N.D.	N.D.
Lead(Pb)	mg/kg	2.0	0.25	N.D.	N.D.
Manganese(Mn)	mg/kg	1200	50	N.D.	N.D.
Mercury(Hg)	mg/kg	7.5	1.0	N.D.	N.D.
Nickel(Ni)	mg/kg	75	10	N.D.	N.D.
Selenium(Se)	mg/kg	37.5	5	N.D.	N.D.
Strontium(Sr)	mg/kg	4500	50	N.D.	N.D.
Tin(Sn)	mg/kg	15000	50	N.D.	N.D.
Zinc(Zn)	mg/kg	3750	50	N.D.	N.D.
Con	Conformity	Conformity			

Test Item(s)	Unit	Limit	MDL	Test Result(s)		
				1-7	1-8	
Aluminium(Al)	mg/kg	2250	50	90	89	
Antimony(Sb)	mg/kg	45	2.0	N.D.	N.D.	
Arsenic(As)	mg/kg	3.8	0.5	N.D.	N.D.	
Barium(Ba)	mg/kg	1500	50	N.D.	N.D.	



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Test Item(s)	Unit	Limit	MDL	Test Res	sult(s)
Test Item(s)	Unit	Liiiit	WIDL	1-7	1-8
Boron(B)	mg/kg	1200	50	N.D.	N.D.
Cadmium(Cd)	mg/kg	1.3	0.3	N.D.	N.D.
Chromium (III) (Cr(III))	mg/kg	37.5	0.2	N.D.	N.D.
Chromium (VI) (Cr(VI))	mg/kg	0.02	0.005	N.D.	N.D.
Cobalt(Co)	mg/kg	10.5	2.5	N.D.	N.D.
Copper(Cu)	mg/kg	622.5	50	N.D.	N.D.
Lead(Pb)	mg/kg	2.0	0.25	N.D.	N.D.
Manganese(Mn)	mg/kg	1200	50	N.D.	N.D.
Mercury(Hg)	mg/kg	7.5	1.0	N.D.	N.D.
Nickel(Ni)	mg/kg	75	10	N.D.	N.D.
Selenium(Se)	mg/kg	37.5	5	N.D.	N.D.
Strontium(Sr)	mg/kg	4500	50	N.D.	N.D.
Tin(Sn)	mg/kg	15000	50	N.D.	N.D.
Zinc(Zn)	mg/kg	3750	50	N.D.	N.D.
Cor	Conformity	Conformity			

Migration of Certain Elements: Permissible Limit for Different Materials (Unit: mg/kg)

Item	Category III In scraped-off toy material	Category II In liquid or sticky toy material	Category I In dry, brittle, powder-like or pliable toy material
Aluminium (Al)	28130	560	2250
Antimony (Sb)	560	11.3	45
Arsenic (As)	47	0.9	3.8
Barium (Ba)	18750	375	1500
Boron (B)	15000	300	1200
Cadmium (Cd)	17	0.3	1.3
Chromium III(Cr(III))	460	9.4	37.5
Chromium VI (Cr(VI))	0.053	0.005	0.02
Cobalt (Co)	130	2.6	10.5
Copper (Cu)	7700	156	622.5
Lead (Pb)	23	0.5	2.0
Manganese (Mn)	15000	300	1200
Mercury (Hg)	94	1.9	7.5
Nickel (Ni)	930	18.8	75
Selenium (Se)	460	9.4	37.5
Strontium (Sr)	56000	1125	4500
Tin (Sn)	180000	3750	15000



Zinc (Zn)	46000	938	3750

Note:

- 1. "-" = If less than 0,010 g of toy material can be obtained, it is not required to analyse.
- 2. "*" = For accessible glass, metal and ceramic toys or toy parts, if they are not small parts, the soluble test is not required.

European Standard on Safety of Toys

- EN 71-3:2019+A1:2021: Migration of Certain Elements (Organic Tin)

Test Methods and Equipment: EN 71-3:2019+A1:2021; GC-MS

Tost Itom(s)	Unit	Limit	MDL	Test Result(s)			
Test Item(s)	Unit Linit	NIDL	1-1	1-2	1-3		
Organic Tin	mg/kg	12	0.15	N.D.	N.D.	N.D.	
Conclusion			Conformity	Conformity	Conformity		

Test Item(s) U	Linit	Limit	MDL	Test Result(s)			
	Unit	Unit Limit		1-4	1-5	1-6	
Organic Tin	mg/kg	12	0.15	N.D.	N.D.	N.D.	
С	onclusion			Conformity	Conformity	Conformity	

Test Item(s)	Unit	Limit	MDL	Test Result(s)		
	Unit Limit	IVIDL	1-7	1-8	1-9	
Organic Tin	mg/kg	12	0.15	N.D.	N.D.	N.D.
Conclusion			Conformity	Conformity	Conformity	

Migration of Certain Elements: Permissible Limit for Different Materials (Unit: mg/kg)

Item	Category III	Category II	Category I
	In scraped-off toy	In liquid or sticky toy	In dry, brittle, powder-like or
	material	material	pliable toy material
Organic Tin	12	0.2	0.9

Note:

- 1. "-" = If less than 0,010 g of toy material can be obtained, it is not required to analyse.
- 2. "*" = For accessible glass, metal and ceramic toys or toy parts, if they are not small parts, the soluble test is not required.
- 3. Migration of organic tin is expressed as tributyl tin cation content in mg/kg.



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-Polycyclic-aromatic Hydrocarbons (PAHs) Content

Test Methods and Equipment: Afps GS 2019:01 PAK; GC-MS

Test Item(s)	Unit	Limit	MDL	Test Res	ult(s)
Test Item(s)	Unit	Limit	MDL	1-1	1-2
Benzo[a]pyrene(BaP)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[e]pyrene(BeP)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[a]anthracene(BaA)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[b]fluoranthene(BbF)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[j]fluoranthene(BjFA)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[k]fluoranthene(BkF)	mg/kg	0.5	0.1	N.D.	N.D.
Chrysene(CHR)	mg/kg	0.5	0.1	N.D.	N.D.
Dibenzo[a,h]anthracene(DBA)	mg/kg	0.5	0.1	N.D.	N.D.
Con	Conformity	Conformity			

Test Item(s)	Unit	Limit	MDL	Test Result(s)	
rest item(s)	Omt	Lillin	WIDL	1-3	1-4
Benzo[a]pyrene(BaP)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[e]pyrene(BeP)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[a]anthracene(BaA)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[b]fluoranthene(BbF)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[j]fluoranthene(BjFA)	mg/kg	0.5	0.1	N.D.	N.D.
Benzo[k]fluoranthene(BkF)	mg/kg	0.5	0.1	N.D.	N.D.
Chrysene(CHR)	mg/kg	0.5	0.1	N.D.	N.D.
Dibenzo[a,h]anthracene(DBA)	mg/kg	0.5	0.1	N.D.	N.D.
Со	nclusion			Conformity	Conformity

Limit requirements of Polycyclic-aromatic Hydrocarbons (PAHs) (Unit: mg/kg)

Items	CAS No.	Extender oils or used for the production of tyres or parts of tyres	Any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity	Toys, including activity toys, and childcare articles, any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity
Benzo[a]pyrene(BaP)	50-32-8	≤ 1	≤ 1	≤ 0.5
Benzo[e]pyrene(BeP)	192-97-2	/	≤ 1	≤ 0.5
Benzo[a]anthracene(BaA)	56-55-3	/	≤ 1	≤ 0.5
Benzo[b]fluoranthene(BbF)	205-99-2	/	≤ 1	≤ 0.5
Benzo[j]fluoranthene(BjFA)	205-82-3	/	≤ 1	≤ 0.5



Items	CAS No.	Extender oils or used for the production of tyres or parts of tyres	Any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity	Toys, including activity toys, and childcare articles, any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity
Benzo[k]fluoranthene(BkF)	207-08-9	/	≤ 1	≤ 0.5
Chrysene(CHR)	218-01-9	/	≤ 1	≤ 0.5
Dibenzo[a,h]anthracene(DBA)	53-70-3	/	≤ 1	≤ 0.5
Sum of BaP+ BeP+ BaA+ BbF+ BjFA+ BkF+ CHR+ DBA	/	≤ 10	/	/

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- Phthalates Content

Test Methods and Equipment: EN 14372:2004; GC-MS

T (U ())		Test Result(s)			
Test Item(s)	Unit	Limit	MDL	$110^{ riangle}$	$1-11^{\triangle}$
Diisobutyl phthalate (DIBP) CAS:84-69-5	%	0.1	0.01	N.D.	N.D.
Dibutyl phthalate (DBP) CAS:84-74-2	%	0.1	0.01	N.D.	N.D.
Butylbenzyl phthalate (BBP) CAS:85-68-7	%	0.1	0.01	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate (DEHP) CAS:117-81-7	%	0.1	0.01	N.D.	N.D.
Di-n-octyl phthalate (DNOP) CAS:117-84-0	%	/	0.01	N.D.	N.D.
Di-isononyl phthalate (DINP) CAS:28553-12-0, 68515-48-0	%	/	0.01	N.D.	N.D.
Di-isodecyl phthalate(DIDP) CAS:26761-40-0, 68515-49-1	%	/	0.01	N.D.	N.D.
Sum of DIBP +DBP+BBP+DEHP	%	0.1	/	N.D.	N.D.
Sum of DNOP+DINP+DIDP	%	0.1	/	N.D.	N.D.
Cor	nclusion			Conformity	Conformity

Limit requirements of Phthalates

Toys and childcare articles	Each of DEHP, DBP, BBP, DIBP is less than 0.1% or the sum of DEHP+DBP+BBP+DIBP is less than 0.1%
Toys and childcare articles which can be placed in the mouth by children	DINP, DIDP, DNOP each less than 0.1%



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- Benzene Content

Test Methods and Equipment: EPA 3550C:2007 & EPA 8260D:2018; GC-FID

T	TT:4	T :	MDI	Test Result(s)	
Test Item(s)	Unit	Limit	MDL	$110^{ riangle}$	$1-11^{\triangle}$
Benzene	mg/kg	5	5	N.D.	N.D.
Cor	nclusion			Conformity	Conformity

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-Cadmium(Cd) Content

Test Methods and Equipment: IEC 62321-5:2013; ICP-OES

	TT '4	T · ·/	Test Res	ult(s)	
Test Item(s)	Unit	Limit	MDL	$110^{ riangle}$	1-11 [△]
Cadmium(Cd)	mg/kg	100	10	N.D.	N.D.
Conclusion			Conformity	Conformity	

	T.L.: A	T :	MDI	Test Result(s)	
Test Item(s)	Unit	Limit	MDL	$1\text{-}12^{ riangle}$	$1-13^{\bigtriangleup}$
Cadmium(Cd)	mg/kg	100	10	N.D.	N.D.
Con	nclusion			Conformity	Conformity

Test Result of Formaldehyde Release

Test Item(s)	Formaldehyde Release				
Limit (Client's Requirement) (mg/kg)	80				
MDL (mg/kg)	1				
Test Method/ Equipment	EN717-3:1996/ UV-Vis				

Test point	Test result (mg/kg)	Conclusion
Test point	Formaldehyde Release	Conclusion
19	40	Conformity





Test Flow Chart of Migration of Certain Elements





Test Flow Chart of Migration of Certain Elements (Organic Tin)



Test Flow Chart of Polycyclic-aromatic Hydrocarbons (PAHs)





Test Flow Chart of Phthalates







Test Flow Chart of Monoaromatic Hydrocarbons





Test Flow Chart of Heavy Metal Content

*** End of Report ***



Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Std & Tech Co., Ltd. (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.