CONSUMER PRODUCTS SERVICES DIVISION

COS - Complete Office Supplies

Technical Report: **(9119)210-0118** JUL.29, 2019
Date Received: JUL.29, 2019

SANDY ZHU
COS - Complete Office Supplies
25, NYRANG STREET, LIDCOMBE,NSW, AUSTRALIA, 2141

Sample Description:	SCHOOL CRAYONS		
Vendor:	N/A	Sample Quantity:	2PCS
Manufacturer:	N/A	Style No(s):	EC20403
Buyer:	N/A	SKN/SKU No.:	N/A
Labeled Age Grade:	NOT PRESENT	PO No.:	N/A
Appropriate Age Grade:	N/A	Ref #:	N/A
Client Specified Age Grade:	OVER 3 YEARS OF AGE	Country of Origin:	CHINA
Tested Age Grade:	OVER 3 YEARS OF AGE	Assortment No.:	N/A
UPC Code:	N/A	Country of Destination:	EU

EXECUTIVE SUMMARY:

The test component(s) MEETS the following requirement(s):

- The mechanical and physical properties requirements of the tested subclauses of the European Standard, “Safety of toys”, EN71: Part 1:2014+A1:2018, clauses 1-6.
- The flammability requirements of the European Standard "Safety of Toys”, EN 71: Part 2: 2011+ A1: 2014.
- The migration of certain tested elements in Category I - Dry, brittle, powder-like or pliable toy material requirements of the European Standard, “Safety of Toys”, EN 71 Part 3: 2013+A3:2018.
- The cadmium content requirement of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 23 (amended up to EU No. 2016/217).
- The total lead content in consumer articles requirement of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 63, Point 7.
- The polycyclic aromatic hydrocarbons (PAHs) content requirement of European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 50, Paragraph 5 and 6.
- The BBP, DBP and DEHP content requirements of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 51.

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RESULTS:

- The DNOP, DINP and DIDP content requirements of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 52.

NOTE:

1. According to Toy Safety Directive 2009/48/EC, toys made available on the market must bear the CE marking. Manufacturers/importers shall indicate their name, registered trade name or registered trade mark and the address at which they can be contracted on the toy, packaging or document accompanying the toy and must ensure their toys bear a type, batch, serial or model number or other element allowing their identification.
2. No relevant packaging was provided with the submitted sample(s), consequently, evaluation of the labeling requirements of this European Standard, "Safety of toys", EN71: Part 1:2014+A1:2018, Clause 7, was not conducted.
3. The package was not submitted, so labeling requirements under 2009/48/EC were not evaluated. (i.e. CE Marking, Manufacturer/Importer name and address, Product Identification).
   Labeling requirements under 2009/48/EC shall be following content:
   - Toys made available on the market shall bear the CE marking. The CE marking is subject to the general principles set out in Article 30 of Regulation (EC) No 76512008.
   -Manufacturers shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on the toy or, where that is not possible, on its packaging or in a document accompanying the toy. The address shall indicate a single point at which the manufacturer can be contacted.
   -Importer shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on the toy or, where that is not possible, on its packaging or in a document accompanying the toy. The purpose of this document is to establish a procedure for the evaluation or such cleaning instruction.
   -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.
4. The sample is tested for "OVER 3 YEARS OF AGE" as the client's request.
5. As per client request, the tests were conducted on specified components only.
6. This is a documentary report only. All test results & data has been transferred from Technical Report No. (9119) 197-0112dated JUL.26, 2019.

RESULTS:

BVCPS (Shanghai) Nanjing branch contact information for this report

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BUREAU VERITAS
CONSUMER PRODUCTS SERVICES (SHANGHAI)
NANJING BRANCH

Nick Qi

NICK QI
MANAGER (TOYS DIVISION)

RESULTS:

APPROPRIATE AGE GRADE DETERMINATION

The Appropriate Age Grade is determined with reference to the EN71 :Part 1:2014, European Union Guidance Documents, CEN ISO/TR 8124-8:2016 Safety of toys - Part 8: Age determination guidelines and Age Determination Guidelines: Relating Children's Ages to Toy Characteristics and Play Behavior, September, 2002
Note : The most stringent age grade from the Labeled Age Grade and the Appropriate Age Grade will be used for testing. Note : If the client does not specify an age grade for testing or request Bureau Veritas Consumer Products Services, Inc. to determine an appropriate age grade, the labeled age grade will be used for testing.

EXPLANATION OF THE ABBREVIATIONS FOR PART 1, 2

Symbol	Explanation				
NM	The samples are NOT IN COMPLIANCE WITH the requirement of this Subclause				
M	The samples are IN COMPLIANCE WITH the requirement of this Subclause				
N/A	Not Applicable				
NR	Not Requested				
NE	Not Evaluated				
NP	None Present				
P	Present				
R	Refer to Comment Section of this report				
Symbol	Language Present	Symbol	Language Present	Symbol	Language Present
B	Belgian language	G	German language	PR	Portuguese language
D	Danish language	GR	Greek language	S	Spanish language
E	English language	H	Dutch language	SD	Swedish language
F	Finnish language	I	Italian language	SZ	Swiss language
FR	French language	N	Norwegian language		

RESULTS:

MECHANICAL & PHYSICAL PROPERTIES
(EN 71: PART 1 – 2014+A1: 2018)

Subclause	Requirement	Result
4.1	Material cleanliness	M
4.2	Assembly	NA
4.3	Flexible plastic sheeting	NA
4.4	Toy Bags	NA
4.5	Glass	NA
4.6	Expanding materials	NA
4.7 & 7.6	Edges	M
4.8 & 7.6	Points and metallic wires	M
4.8e	Splinters	NA
4.9	Protruding parts	NA
4.10.1	Folding and sliding mechanisms	NA
4.10.2	Driving mechanisms	NA
4.10.3	Hinges	NA
4.10.4	Springs	NA
4.11	Mouth actuated toys and other toys intended to be put in the mouth	NA
4.12 & 7.3	Balloons	NA
4.13 & 7.9	Cord of toy kites and other flying toys	NA
4.14.1	Toys which a child can enter	NA
4.14.2 & 7.8	Masks and helmets	NA
4.15.1	Toys propelled by child	
4.15.1.2 & 7.10.1 & 7.10.2 & 7.10.3 & 7.10.4 & 7.16	Toys propelled by child – Instructions for use	NA
4.15.1.3	Toys propelled by child – Strength	NA
4.15.1.4	Toys propelled by child – Stability	NA
4.15.1.5	Toys propelled by child – Braking	NA
4.15.1.6	Toys propelled by child - Transmission	NA
4.15.1.7	Toys propelled by child – insertion mark	NA
4.15.1.8	Electrically-driven ride-on toys	NA
4.15.2	Toy bicycles	
4.15.2.2 & 7.15	Toy bicycles – Warnings and instructions for use	NA
4.15.2.3	Toy bicycles – Braking	NA
4.15.3 & 7.16 & 7.19	Rocking horses and similar toys	NA
4.15.4 & 7.16	Toys not propelled by child	NA
4.15.5 & 7.18	Toy scooters	NA
4.16	Heavy immobile toys	NA
4.17.2	All projectiles	NA
4.17.3 & 7.7	Projectile toys with stored energy	NA
4.17.4 & 7.26	Certain projectiles toys without stored energy	NA
4.18 & 7.4	Aquatic toys and inflatable toys	NA

RESULTS:

MECHANICAL & PHYSICAL PROPERTIES
(EN 71: PART 1 – 2014+A1: 2018)

Subclause	Requirement	Result
4.19 & 7.13 & 7.14	Percussion caps	NA
*4.20.2.1-4.20.2.8, 4.20.2.10, 4.20.2.12	Acoustics	NA
4.20.2.9, 4.20.2.11 & 7.14	Acoustics – percussion toys & cap-firing toys	NA
4.21	Toys containing a non-electrical heat source	NA
4.22 & 7.2	Small balls	NA
4.23	Magnet	
4.23.2 a, b & c	Toy other than magnetic / electrical experimental sets intended for children over 8 years	NA
4.23.3 & 7.20	Magnetic / electrical experimental sets intended for children over 8 years	NA
4.24	Yo-yo ball	NA
4.25	Toys attached to food	NA
4.26	Toy Disguise Costumes	NA
4.27.1	Flying toys – General	NA
4.27.2 & 7.25.1	Rotors and propellers on flying toys	NA
4.27.3 & 7.25.2	Rotors and propellers on remote controlled flying toys	NA
	FOR TOYS INTENDED FOR CHILDREN UNDER 36 MONTHS	
5.1	General	NA
5.1a	Small parts – as received	NA
5.1b	Small parts, sharp points, sharp edges – after tests	NA
5.1c	Cross section <2mm metal points & wires	NA
5.1e	Toys contain glue	NA
5.1f	Casing of toys	NA
5.2	Fillings, coverings and seams	NA
5.3	Adhesion of plastic sheeting	NA
5.4.2	Cords and chains in toys intended for children under 18 months	NA
5.4.3 & 7.22	Cords and chains in toys intended for children of 18 months or over but under 36 months	NA
5.4.4	Fixed loops, tangled loops and nooses	NA
5.4.5	Cords and chains on pull along toys	NA
5.4.6 & 7.21	Electrical cables	NA
5.4.7	Cross-sectional dimension of certain cords	NA
5.4.8	Self-retracting cords	NA
5.4.9 & 7.11 & 7.23	Toys attached to or intended to be strung across a cradle, cot or perambulator	NA
5.5 & 7.12	Liquid filled toys	NA
5.6	Electrically driven toys	NA
5.7	Glass and porcelain	NA
5.8	Shape and size	NA
5.9 & 7.17	Monofilament fibres	NA

RESULTS:

MECHANICAL & PHYSICAL PROPERTIES
(EN 71: PART 1 – 2014+A1: 2018)

Subclause	Requirement	Result
5.10	Small balls	NA
5.11	Play figures	NA
5.12	Hemispheric shaped toys	NA
5.13	Suction cups	NA
5.14	Straps intended to be worn fully or partially around the neck	NA
5.15 & 7.24	Sledges with cords for pulling	NA
6	Packaging	NA
	WARNINGS, INSTRUCTIONS FOR USE	
7.1	General	SEE NOTE 2
7.2	Toys not intended for children under 36 months	SEE NOTE 2
7.5	Functional toys	SEE NOTE 2

M = Meet NM = Not Meet N/A = Not Applicable R = Refer to Comment Section

2009/48/EC General Labeling Requirement

Requirement	Result
CE Mark	SEE NOTE 3
Manufacturer/ Importer name and address	SEE NOTE 3
Product Identification	SEE NOTE 3

M = Meet NM = Not Meet N/A = Not Applicable R = Refer to Comment Section

RESULTS:

REQUIREMENTS & TEST METHODS CROSS REFERENCE TABLE FOR PART 1

Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method
4.3	8.25.1	4.15.1.5	8.26.1	4.22	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.32	5.4.5	8.40
4.5	8.5, 8.7, 8.11, 8.12	4.15.1.8	8.29	4.23	8.2, 8.3, 8.4.2.1, 8.4.2.2, 8.5, 8.6, 8.7, 8.8, 8.34, 8.35	5.4.6	8.40
4.6	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.14	4.15.2.4	8.26.2	4.24	8.37	5.4.7	8.20
4.7	8.11	4.15.3	8.21, 8.23.1	4.25	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.32.1	5.7.8	8.39
4.8	8.12, 8.13	4.15.4	8.21, 8.23.1	4.26	8.38	5.5	8.15
4.9	8.4.2.3, 8.11, 8.12	4.15.5	8.11, 8.12, 8.21, 8.22, 8.26.3, 8.27	4.27.1	8.43	5.6	8.29
4.10.1	8.18.2, 8.18.3	4.16	8.23.2	4.27.2	8.4.2.6	5.8	8.16
4.10.2	8.5, 8.6, 8.7, 8.11, 8.12	4.17.1	8.3, 8.4.2.1, 8.7, 8.8, 8.42	4.27.3	8.4.2.6	5.10	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.9, 8.32
4.11	8.2, 8.3, 8.4.2.1, 8.9, 8.17	4.17.2	8.3, 8.4.2.4,8.7, 8.8, 8.32.1, 8.43, 8.44	5.1	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.9, 8.11, 8.12	5.11	8.33
4.13	8.19	4.17.3	8.3, 8.4.2.3, 8.4.2.5, 8.11, 8.12, 8.24, 8.42	5.3	8.4.2.1, 8.25	5.12	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.9,
4.14.1	8.31.1, 8.31.2	4.17.4	8.3, 8.4.2.3, 8.4.2.5, 8.11, 8.12, 8.24, 8.42	5.4.1	8.40	5.13	8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.32
4.14.2	8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.11, 8.12	4.18	8.2, 8.3, 8.4.2.1	5.4.2	8.38, 8.40, 8.41	5.14	8.38
4.15.1.3	8.11, 8.12, 8.21, 8.22	4.20	8.28	5.4.3	8.38, 8.40, 8.41	6	8.3, 8.4.2.1, 8.25.1, 8.32.1
4.15.1.4	8.23.1	4.21	8.30	5.4.4	8.36, 8.38		

RESULTS:

FLAMMABILITY (EN 71 PART 2: 2011 + A1: 2014)

Subclause	Requirement	Result
4.1	Cellulose nitrate	NP
4.1	Surface flash on a piled surface	NA
*4.1	Flammable gases	NA
*4.1	Extremely flammable liquids, highly flammable liquids, flammable liquids and flammable gels	NA
4.2	Toys to be worn on the head	NA
4.3	Toy disguise costumes and toys intended to be worn by child in play	NA
4.3	warning on product and packaging (10 - 30 mm/s)	NA
4.4	Toys intended to be entered by a child	NA
4.4	warning on product and packaging (10 – 30 mm/s)	NA
4.5	Soft-filled toys	NA

REQUIREMENTS & TEST METHODS CROSS REFERENCE TABLE FOR PART 2

Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method
4.2.2	5.2	4.2.4	5.3	4.3	5.4	4.5	5.5
4.2.3	5.3	4.2.5	5.4	4.4	5.4	-	-

RESULTS:

TEST COMPONENTS BREAKDOWN LIST

Sample Identity	Color	Location	Style
A.	Pink crayon	/	/
B.	Blue crayon	/	/
C.	Light green crayon	/	/
D.	Purple crayon	/	/
E.	Black crayon	/	/
F.	Red crayon	/	/
G.	Orange crayon	/	/
H.	Brown crayon	/	/
I.	Light pink crayon	/	/
J.	Yellow crayon	/	/
K.	Deep green crayon	/	/
L.	Light blue crayon	/	/
M.	Pink plastic	Shell	/
N.	Deep blue plastic	Shell	/
O.	Green plastic	Shell	/
P.	Purple plastic	Shell	/
Q.	Black plastic	Shell	/
R.	Red plastic	Shell	/
S.	Orange plastic	Shell	/
T.	Brown plastic	Shell	/
U.	Pink plastic	Shell	/
V.	Yellow plastic	Shell	/
W.	Deep green plastic	Shell	/
X.	Light blue plastic	Shell	/

RESULTS:

MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2013+A3:2018)

Test Method : European Standard EN 71 Part 3: 2013+A3:2018, Annex E.

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

Analyte	Requirement (mg/kg)	Result (mg/kg)					
		Sample ID					
	Category I	A.	B.	C.	D.	E.	F.
Aluminium (Al)	5625	<562.5	<562.5	<562.5	<562.5	<562.5	<562.5
Arsenic (As)	3.8	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
Boron (B)	1200	<120	<120	<120	<120	<120	<120
Barium (Ba)	1500	<150	<150	<150	<150	<150	<150
Cadmium (Cd)	1.3	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13
Cobalt (Co)	10.5	<1.05	<1.05	<1.05	<1.05	<1.05	<1.05
Chromium III (Cr III)	37.5	Combined Cr: 0.074	Combined Cr: 0.028	Combined Cr: 0.023	Combined Cr: 0.038	Combined Cr: 0.032	Combined Cr: 0.027
Chromium VI (Cr VI)	0.02	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005
Copper (Cu)	622.5	<62.25	<62.25	<62.25	<62.25	<62.25	<62.25
Mercury (Hg)	7.5	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75
Manganese (Mn)	1200	<120	<120	<120	<120	<120	<120
Nickel (Ni)	75	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5
Lead (Pb)	2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Antimony (Sb)	45	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5
Selenium (Se)	37.5	<3.75	<3.75	<3.75	<3.75	<3.75	<3.75
Tin (Sn)	15000	<1500	<1500	<1500	<1500	<1500	<1500
Organic tin	0.9	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9
Strontium (Sr)	4500	<450	<450	<450	<450	<450	<450
Zinc (Zn)	3750	<375	<375	<375	<375	<375	<375
Mass of trace amount (gram)		-	-	-	-	-	-
Conclusion		Pass	Pass	Pass	Pass	Pass	Pass

RESULTS:

Analyte	Requirement (mg/kg)	Result (mg/kg)					
		Sample ID					
	Category I	G.	H.	I.	J.	K.	L.
Aluminium (Al)	5625	<562.5	<562.5	<562.5	<562.5	<562.5	<562.5
Arsenic (As)	3.8	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
Boron (B)	1200	<120	<120	<120	<120	<120	<120
Barium (Ba)	1500	<150	<150	<150	<150	<150	<150
Cadmium (Cd)	1.3	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13
Cobalt (Co)	10.5	<1.05	<1.05	<1.05	<1.05	<1.05	<1.05
Chromium III (Cr III)	37.5	Combined Cr: 0.035	Combined Cr: 0.033	Combined Cr: 0.020	Combined Cr: 0.016	Combined Cr: 0.017	Combined Cr: 0.027
Chromium VI (Cr VI)	0.02	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005	Cr(III): <3.75 Cr(VI): <0.005
Copper (Cu)	622.5	<62.25	<62.25	<62.25	<62.25	<62.25	<62.25
Mercury (Hg)	7.5	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75
Manganese (Mn)	1200	<120	<120	<120	<120	<120	<120
Nickel (Ni)	75	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5
Lead (Pb)	2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Antimony (Sb)	45	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5
Selenium (Se)	37.5	<3.75	<3.75	<3.75	<3.75	<3.75	<3.75
Tin (Sn)	15000	<1500	<1500	<1500	<1500	<1500	<1500
Organic tin	0.9	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9
Strontium (Sr)	4500	<450	<450	<450	<450	<450	<450
Zinc (Zn)	3750	<375	<375	<375	<375	<375	<375
Mass of trace amount (gram)		-	-	-	-	-	-
Conclusion		Pass	Pass	Pass	Pass	Pass	Pass

RESULTS:

Analyte	Requirement (mg/kg)	Result (mg/kg)					
		Sample ID					
	Category I	P	/	/	/	/	/
Aluminium (Al)	5625	<562.5	/	/	/	/	/
Arsenic (As)	3.8	<0.38	/	/	/	/	/
Boron (B)	1200	<120	/	/	/	/	/
Barium (Ba)	1500	<150	/	/	/	/	/
Cadmium (Cd)	1.3	<0.13	/	/	/	/	/
Cobalt (Co)	10.5	<1.05	/	/	/	/	/
Chromium III (Cr III)	37.5	Combined Cr: 0.033	/	/	/	/	/
Chromium VI (Cr VI)	0.02						
Copper (Cu)	622.5	<62.25	/	/	/	/	/
Mercury (Hg)	7.5	<0.75	/	/	/	/	/
Manganese (Mn)	1200	<120	/	/	/	/	/
Nickel (Ni)	75	<7.5	/	/	/	/	/
Lead (Pb)	2.0	<0.2	/	/	/	/	/
Antimony (Sb)	45	<4.5	/	/	/	/	/
Selenium (Se)	37.5	<3.75	/	/	/	/	/
Tin (Sn)	15000	<1500	/	/	/	/	/
Organic tin	0.9	<0.9	/	/	/	/	/
Strontium (Sr)	4500	<450	/	/	/	/	/
Zinc (Zn)	3750	<375	/	/	/	/	/
Mass of trace amount (gram)		-	/	/	/	/	/
Conclusion		Pass	/	/	/	/	/

mg/kg = milligrams per kilogram (ppm=parts per million) *LT = Less Than*
** = Average of duplicate analysis* *FR = Failed Result*
Organic tin = migration of total organic tin is expressed as tributyl tin cation content in mg/kg
 # = Verified results (see note)

RESULTS:

Remark:

-If combined Cr content exceeds 0.02mg/kg in I mat., 0.005 mg/kg in II mat., or 0.2mg/kg in III mat., confirmation Cr(VI) by LC-ICP-MS or IC and Cr(III) by LC-ICP-MS. If confirmation with IC, Cr(III)=Combined Cr – Cr(VI).
- Result(s) of organic tin was (were) calculated while assuming the tin content wholly contributed from tributyltin cation unless specified.

Note:

If soluble chromium content or soluble tin content exceeded the screening limits of soluble chromium (VI) or organic tin content, the results were verified by below method

- Chromium VI: In house Ion-chromatography analysis
- Organic tin: EN71 part 3:2013+A3:2018, Annex G by Gas Chromatography – Mass Spectroscopy analysis.
- Result(s) of organic tin was (were) calculated by assuming the soluble tin content was wholly contributed from tributyltin (TBT) cation unless further specified.
- If total tin content in sample exceeds 0.369mg/kg in I mat., 0.082mg/kg in II mat., or 4.915mg/kg in III mat., the sample is required for organic tin analysis.

CADMIUM CONTENT (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 23)

Category:			/	
Element:			Cadmium	
Test Method:			In house acid digestion	
Maximum Allowable Limit:			100 mg/kg (0.01% by weight)	
Test Component			Result (mg/kg)	Conclusion
Colour/Component	Location	Style		
G+H+I	/	/	LT 10	Pass
J+K+L	/	/	LT 10	Pass
S+T+U	/	/	LT 10	Pass
V+W+X	/	/	LT 10	Pass

LT = Less than *mg/kg = milligrams per kilogram (ppm = parts per million)*
** = Average of duplicate analyses*

RESULTS:

TOTAL LEAD CONTENT IN CONSUMER ARTICLES (European Regulation (EC) No. 1907/2006 REACH, Annex XVII, Item no. 63, Point 7)

Test Method: Acid digestion followed by Atomic Absorption Spectrophotometry or Inductively Coupled Plasma Spectrometry.

Analyte	Lead	
Requirement: Maximum allowable limit:	500 mg/kg	

Analyte			Lead (Pb)	Conclusion
Sample Description			Result (mg/kg)	
Color / Component	Location	Style		
A+B+C	/	/	LT 10	Pass
D+E+F	/	/	LT 10	Pass
M+N+O	/	/	LT 10	Pass
P+Q+R	/	/	LT 10	Pass

LT = Less than
** = Average of duplicate analyses*
mg/kg = milligrams per kilogram (ppm = parts per million)
ND = None detected with detection limit 10mg/kg

RESULTS:

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) CONTENT (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 50, Paragraph 5 and 6)

Maximum Allowable Limit:	**Type I**	Articles includes amongst others: - sport equipment such as bicycles, golf clubs, racquets - household utensils, trolleys, walking frames tools for domestic use - clothing, footwear, gloves and sportswear - watch-straps, wrist-bands, masks, head-bands **1 mg/kg (Each of all listed PAHs)**
	Type II	Toys, including activity toys, and childcare articles **0.5 mg/kg (Each of all listed PAHs)**

Tested Item(s)	**Type**	**Result**		**Conclusion**
		Detected Analyte(s)	**Conc. (mg/kg)**	
D+E+F	II	ND	ND	PASS

mg/kg = milligram per kilogram
LT = Less than
ND = Not detected (Detection Limit : Each PAHs 0.2 mg/kg)
Conc. = Concentration

Remark:

- The list of polycyclic aromatic hydrocarbons is summarized in table of Appendix.

APPENDIX

List of Polynuclear Aromatic Hydrocarbons:					
No.	**Name of Analytes**	**CAS-No.**	**No.**	**Name of Analytes**	**CAS-No.**
1	Benzo[a]pyrene (BaP)	50-32-8	5	Benzo[b]fluoranthene (BbFA)	205-99-2
2	Benzo[e]pyrene (BeP)	192-97-2	6	Benzo[j]fluoranthene (BjFA)	205-82-3
3	Benzo[a]anthracene (BaA)	56-55-3	7	Benzo[k]fluoranthene (BkFA)	207-08-9
4	Chrysene (CHR)	218-01-9	8	Dibenzo[a,h]anthracene (DBAhA)	53-70-3

RESULTS:

BBP/DBP/DEHP CONTENTS IN TOYS AND CHILDCARE ARTICLES (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 51)

Test Method: With referenced to EN 14372:2004 Section 6.3.2, sample was extracted with organic solvent and then analyzed by Gas Chromatograph Mass Spectrometer

Test Parameter:	BBP	DBP	DEHP	Sum of three phthalates	
Limit (%):	0.1	0.1	0.1	0.1	
Sample	Result (%)				Conclusion
A+B+C	ND	ND	ND	ND	Pass

Detection Limit :
BBP = Butyl benzyl phthalate (0.005%)
DBP = Dibutyl phthalate (0.005%)
DEHP = Di(2-ethylhexyl) phthalate (0.005%)

Results reported in percentage
LT = Less than
ND = None detected

DNOP/DINP/DIDP CONTENTS IN TOYS AND CHILDCARE ARTICLES WHICH CAN BE PLACED IN MOUTH BY THE CHILDREN (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 52)

Test Method: With referenced to EN 14372:2004 Section 6.3.2, sample was extracted with organic solvent and then analyzed by Gas Chromatograph Mass Spectrometer

Test Parameter:	DNOP	DINP	DIDP	Sum of three phthalates	
Limit (%):	0.1	0.1	0.1	0.1	
Sample	Result (%)				Conclusion
A+B+C	ND	ND	ND	ND	Pass

Detection Limit :
DNOP = Di-n-octyl phthalate (0.005%)
DINP = Di-iso-nonyl phthalate (0.005%)
DIDP = Di-iso-decyl phthalate (0.005%)

Results reported in percentage
LT = Less than
ND = None detected

RESULTS:

EXHIBIT

---------- End The Report----------