



CONSUMER PRODUCTS SERVICES DIVISION

CARPENTERS MANUFACTORY LIMITED

Technical Report: (8519)191-0433
Date Received: July 10, 2019

October 16, 2019
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CARPENTERS MANUFACTORY LIMITED
HUANG JIN JI INDUSTRIAL ZONE, SHANG JIE
VILLAGE, QI SHI TOWN, DONG GUAN CITY,
GUANG DONG PROVINCE, P.R.CHINA

| | | | |
|-----------------------------|---|-------------------------|---------|
| Sample Description: | 540L SQUARE LED LIGHT PANEL (COLOUR CHANGING WITH REMOTE CONTROL) | | |
| Vendor: | CARPENTERS MANUFACTORY LIMITED | Sample Size: | 11 |
| Manufacturer: | N/A | Style No(s): | ME13866 |
| Buyer: | N/A | SKN/SKU No.: | N/A |
| Labeled Age Grade: | 3 YEARS + | PO No.: | N/A |
| Appropriate Age Grade: | NOT REQUESTED | Ref #: | N/A |
| Client Specified Age Grade: | NOT SPECIFIED | Country of Origin: | CHINA |
| Tested Age Grade: | OVER 3 YEARS OF AGE | Assortment No.: | N/A |
| UPC Code: | 6955920013866 | Country of Destination: | GLOBAL |
| Test Starting Date: | JULY 10, 2019 | | |
| Test Finished Date: | OCTOBER 16, 2019 | | |

EXECUTIVE SUMMARY:

The sample(s) MEET the following requirement(s):

- Labeling requirements of "CE marking, manufacturer/ Importer name and address, and product identification" under "Directive 2009/48/EC Safety of Toy".
- The labeling requirements of the tested subclauses of the AS/NZS Standard, "Safety of toys", AS/NZS 8124: Part 1: 2016.
- The mechanical and physical properties requirements of the tested subclauses of the AS/NZS Standard, "Safety of toys", AS/NZS 8124: Part 1: 2016.
- The flammability requirements of the AS/NZS Standard, "Safety of toys", AS/NZS 8124: Part 2: 2016.
- The flammability requirement of solids under ASTM F963-17 section 4.2 according to Annex A5, "Flammability testing procedure for solids and soft toys".
- The labeling requirements of ASTM F963-17, "Standard consumer safety specification for toy safety".
- The mechanical hazards requirements of ASTM F963-17, "Standard consumer safety specification for toy safety".
- The mechanical hazards requirements of the tested sections of Canada Consumer Product Safety Act, Toys Regulations, SOR/2011-17 and Schedule 2.
- The tracking label requirement of the Consumer Product Safety Improvement Act (CPSIA) of 2008 section 103 Tracking Labels for Children's Products.
- The flammability requirements of Canada Consumer Product Safety Act, Toys Regulations, SOR/2011-17 section 32.



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EXECUTIVE SUMMARY:

The sample(s) MEET the following requirement(s):

- The cellulose nitrate requirements of Canada Toys Regulations, SOR/2011-17, section 21.
- The mechanical and physical properties requirements of the tested subclauses of the European Standard, "Safety of toys", EN71: Part 1:2014+A1:2018, clauses 1-7.
- The flammability requirements of the European Standard "Safety of Toys", EN 71: Part 2: 2011+ A1: 2014.
- European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)
- The migration of certain elements requirements of the AS/NZS Standard, "Safety of toys", AS/NZS 8124: Part 3: 2012 with Amendment No. 1: 2016.
- The soluble heavy metals content in substrate requirements of ASTM F963-17, "Standard Consumer Safety Specification for Toy Safety," Section 4.3.5.2(2)(b).
- The BBP, DBP and DEHP content requirements of the Canada Consumer Product Safety Act, Phthalate Regulations, SOR/2016-188.
- The DNOP, DINP and DIDP content requirements of the Canada Consumer Product Safety Act, Phthalate Regulations, SOR/2016-188.
- The applicable heavy metals content requirements for surface coatings of the Canada Consumer Product Safety Act, Toys Regulations, SOR/2011-17 Sec. 23 with Amendment in SOR/2016-195.
- The phthalates (BBP, DBP, DEHP, DINP, DIBP, DPENP, DHEXP & DCHP) content requirements of the Consumer Product Safety Improvement Act (CPSIA) of 2008 Sec. 108(a) and 108(c), 16 CFR 1307).
- The total lead content of 100ppm requirements by composite testing in substrate materials (Consumer Products Safety Improvement Act (CPSIA) of 2008).
- The total lead content of 90ppm requirements of 16 CFR 1303, "Ban of lead-containing paint and certain consumer products bearing lead-containing paint" as mandated by Congress in section 101(f) of the Consumer Products Safety Improvement Act (CPSIA) of 2008, Public Law 110-314.
- The heavy metals content / labeling / removal of waste batteries requirement of the European Council Directives 2006/66/EC and its amendments, on batteries and accumulators and waste batteries and accumulators.
- The diisobutyl phthalate (DIBP) content requirement in toys of the European Council Directive 2009/48/EC (and its amendments), Annex II, Part III, Point 3.
- The heavy metals requirements of the European "Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste."
- The listed aromatic amines (azocolourants) 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. 43, Points 1 and 2.



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EXECUTIVE SUMMARY:

The sample(s) MEET the following requirement(s):

- The short chain chlorinated paraffins (SCCPs) content requirement of the European Parliament and Council Regulation (EC) No. 850/2004 on Persistent Organic Pollutants (POPs) with Latest Amendment up to EU No. 2015/2030, Annex I, Part B.
- 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.
- The benzene content requirement in toys or parts of toys 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 5, Point 1.
- 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 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.
- The polycyclic aromatic hydrocarbons (PAHs) content requirement of European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 50, Paragraph 5 and 6 and its amendments.
- The migration of certain elements in Category III - Scraped off toy material requirements of the European Standard, "Safety of Toys", EN 71 Part 3: 2013+A3:2018.
- The migration of certain elements in Category III - Scraped off toy material requirements of the European Standard, "Safety of Toys", EN 71 Part 3: 2019.
- The Polycyclic Aromatic Hydrocarbons (PAHs) Content requirement of German Product Safety Commission GS Specification AfPS GS 2014:01 PAK, "Testing and validation of PAHs in products in the course of GS-Mark Certification".
- The heavy metals content in packaging requirements of Model Toxics Legislation of the Toxics in Packaging Clearinghouse, TPCH (formerly the Coalition of Northeastern Governors, CONEG).
- The total mercury content requirement of State Laws for batteries.
- The 17 phthalates content requirements of the client's specifications.

The sample(s) was tested to the following requirement(s) and the data provided is for informational purposes only:

- The formaldehyde content requirements of the client's specification, when tested according to the method BS EN ISO 14184-1: 2011, "Textiles – Determination of formaldehyde – Part 1: Free and hydrolyzed formaldehyde (water extraction method)".



EXECUTIVE SUMMARY:

Note: The sample(s) was not evaluated to the Normal Use testing requirements specified in ASTM F963-17, Section 8.5. It is the responsibility of the manufacturer, vendor or distributor to conduct tests that will simulate normal use conditions. These tests shall ensure that hazards are not generated through normal wear and deterioration of the sample(s). These tests shall also simulate the normal play mode of the toy and to simulate the expected mode of use of the particular toy. The tests shall be conducted in an expected use environment. These normal use tests shall simulate the intended use of the toy based on its estimated lifetime.

Note: The manufacturer / importer information was present on the packaging only. It has to be noted that, according to TSD 2009/48/EC, the manufacturers/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.

Note: According to the associated documents of Consumer Product Safety Improvement Act (CPSIA) of 2008, exemptions were granted to certain materials or products, such as natural materials / paper and similar materials / CMYK process printing inks / metal & alloys / electronics devices components / ordinary books / dyed & undyed textiles. Therefore, the lead content analysis of some components was not conducted.

Note: According to ASTM F963-17, "Standard consumer safety specification on toy safety", Annex A11.10.1.5, exemption were granted to paper and paperboard. Therefore, the heavy metals content in substrate analysis of some components of ASTM F963-17, Section 4.3.5.2(2)(b) was not conducted.

Note: The received sample(s) contained accessible material(s) of less than 10 milligrams by weight on one single sample, therefore such material(s) was not subject to the heavy metals analysis of ASTM F963-17, "Standard consumer safety specification on toy safety", Section 4.3.5.1(2) and 4.3.5.2, as specified in Section 8.3.3.6(2) and Section 8.3.5.3(2).

| Color / Component | Location | Style |
|-------------------|--------------------------------------|-------|
| A. Black coating | Warning sticker | |
| B. White coating | Words & pattern on remote controller | |

Note: The received sample(s) contained accessible component(s) of less than 10 milligrams by weight on one single sample, therefore such component(s) was not subject to migration of certain elements of European Standard, "Safety of Toys", EN 71 Part 3: 2013+A3:2018, as specified in Clause 7.1 - Selection of test portions.

| Color / Component | Location | Style |
|-------------------|--------------------------------------|-------|
| A. Black coating | Warning sticker | |
| B. White coating | Words & pattern on remote controller | |

Note: The received sample(s) contained accessible component(s) of less than 10 milligrams by weight on one single sample, therefore such component(s) was not subject to migration of certain elements of European Standard, "Safety of Toys", EN 71 Part 3: 2019, as specified in Clause 7.1 - Selection of test portions.

| Color / Component | Location | Style |
|-------------------|--------------------------------------|-------|
| A. Black coating | Warning sticker | |
| B. White coating | Words & pattern on remote controller | |



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EXECUTIVE SUMMARY:

- Note: The received sample(s) contained accessible component(s) of less than 10 milligrams by weight on one single sample, therefore such component(s) was not subject to migration of certain elements requirements of the AS/NZS Standard, "Safety of toys", AS/NZS 8124: Part 3: 2012 with Amendment No. 1: 2016, as specified in Clause 7 – Selection of test portions.
- Note: The sample(s) submitted do not fall within the scope of Australia CCA 2010 DEHP content; EC Directive 2009/48/EC formamide thus the corresponding testing has/have not been conducted.
- Note: The composite test sample(s) of the submitted samples was prepared in the manner requested by the client, when subject to the test performed.
- Note: The received sample(s) contained accessible component(s) of less than 50 milligrams by weight on one single sample, therefore such component(s) was not subject to the Polycyclic Aromatic Hydrocarbons (PAHs) Content requirement of European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 50, Paragraph 5 and 6 / German Product Safety Commission GS Specification AfPS GS 2014:01 PAK, "Testing and validation of PAHs in products in the course of GS-Mark Certification".

BUREAU VERITAS SHENZHEN CO., LTD.

Hon Yin Kan
Manager
Toys And Juvenile Products Department

HK/ ha



RESULTS:

APPROPRIATE AGE GRADE DETERMINATION

The Appropriate Age Grade is determined with reference to the Age Determination Guidelines of the Consumer Product Safety Commission (CPSC); and the ASTM F963-17, "Standard Consumer Safety Specification for Toy Safety". Annex A1

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.

USE AND ABUSE TESTS

The samples were undergo the tests in accordance with section 8.6 through 8.16, whichever is applicable

| Test | Test Parameters | Standard Reference |
|------------------|------------------------|---------------------------|
| Impact Test | 4 x 3 ft | 1500.53(b) |
| Tip Over Test | 3 times | 1500.53(b)(4)(i) |
| Torque Test | 4 in-lbs | 1500.53(e) |
| Tension Test | 15 lbs | 1500.53(f) |
| Compression Test | 30 lbs | 1500.53(g) |



RESULTS:

PHYSICAL AND MECHANICAL HAZARDS (ASTM F963-17)

| Section | Requirement | Result |
|---------|--|--------|
| 4.1 | Material Quality | M |
| 4.3.7 | Stuffing Materials | M |
| 4.5 | Sound-Producing Toys | N/A |
| 4.6 | Small Objects | N/A |
| 4.7 | Accessible Edges | M |
| 4.8 | Projections | N/A |
| 4.9 | Accessible Points | M |
| 4.10 | Wires and Rods | N/A |
| 4.11 | Nails and Fasteners | M |
| 4.12 | Plastic Film | M |
| 4.13 | Folding Mechanisms and Hinges | N/A |
| 4.14 | Cords, Straps and Elastics | N/A |
| 4.15 | Stability and Over-Load Requirements | N/A |
| 4.16 | Confined Spaces | N/A |
| 4.17 | Wheels, Tires, and Axles | N/A |
| 4.18 | Holes, Clearances and Accessibility of Mechanisms | N/A |
| 4.19 | Simulated Protective Devices | N/A |
| 4.20 | Pacifiers | N/A |
| 4.21 | Projectile Toys | N/A |
| 4.22 | Teethers and Teething Toys | N/A |
| 4.23 | Rattles | N/A |
| 4.24 | Squeeze Toys | N/A |
| 4.25 | Battery-Operated Toys (exclude Section 4.25.10 Battery-powered ride-on toys & Section 4.25.11 Toys that Contain Secondary Cells or Secondary Batteries) | M |
| 4.26 | Toys Intended to be Attached to a Crib or Playpen | N/A |
| 4.27 | Stuffed and Beanbag-Type Toys | M |
| 4.30 | Toy Gun Marking | N/A |
| 4.32 | Certain Toys with Nearly Spherical Ends | N/A |
| 4.34 | Small Balls | N/A |
| 4.35 | Pompoms | N/A |
| 4.36 | Hemispheric-Shaped Objects | N/A |
| 4.37 | Yo Yo Elastic Tether Toys | N/A |
| 4.38 | Magnets | N/A |
| 4.39 | Jaw Entrapment in Handles and Steering Wheels | N/A |
| 4.40 | Expanding Materials | N/A |

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



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RESULTS:

LABELING AND INSTRUCTIONAL REQUIREMENT (ASTM F963-17)

| Section | Requirement | Result |
|--------------|---|--------|
| 5.4 & 5.3 | Aquatic Toys | N/A |
| 5.5 & 5.3 | Crib and Playpen Toys | N/A |
| 5.6 & 5.3 | Mobiles | N/A |
| 5.7 & 5.3 | Stroller and Carriage Toys | N/A |
| 5.8 & 5.3 | Toys Intended to be Assembled by an Adult | N/A |
| 5.9 & 5.3 | Simulated Protective Devices | N/A |
| 5.10 & 5.3 | Toys with Functional Sharp Edges or Sharp Points | N/A |
| 5.11 | Small Objects, Small Balls, Marbles and Balloons (16 CFR 1500.19) | N/A |
| 5.12 | Toy Caps (16CFR1500.86) | N/A |
| 5.13 | Art Materials (16 CFR 1500.14(b)(8)) | N/A |
| 5.15 | Battery-Operated Toys (exclude 5.15.1 and 5.15.2) | N/A |
| 5.15.1 & 5.3 | Battery-Powered Ride-On Toys | N/A |
| 5.15.2 & 5.3 | Button or Coin Cell Batteries | M |
| 5.16 | Promotional Materials | M |
| 5.17 & 5.3 | Magnets | N/A |
| 6.1 | Definition and Description | M |
| 6.2 | Crib and Playpen Toys | N/A |
| 6.3 | Mobiles | N/A |
| 6.4 & 5.3 | Toys Intended to be Assembled by an Adult | N/A |
| 6.5 | Battery-Operated Toys | N/A |
| 6.6 | Battery-Powered Ride-On Toys | N/A |
| 6.7 | Toys in Contact with Food | N/A |
| 7.1 | Producer's Name and Address | M |
| 7.2 | Battery-Powered Ride-on Toys | N/A |

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

FLAMMABILITY (ASTM F963-17 section 4.2 according to Annex A5)

| Requirement | Test Method Reference | Findings |
|---|--|--------------------------------|
| Burn rate no greater than 0.1 of an inch per second | ASTM F963-17 section 4.2 according to Annex A5 | Ignited but Self-Extinguished. |



RESULTS:

APPROPRIATE AGE GRADE DETERMINATION

| | |
|--|---|
| The Appropriate Age Grade is recommended with reference to the Toys: Age Classification Guidelines (1998-01-13) of the Product Safety Bureau, Health Canada. | |
| 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. |

CANADA CONSUMER PRODUCT SAFETY ACT, TOYS REGULATIONS, SOR/2011-17

| Section | Parameter / Requirement | Result |
|--|---|--------|
| Mechanical Hazards | | |
| 4 | Flexible film bag used for package | M |
| 7 | Small Toys and Detachable component | NA |
| 8 | Metal edge | M |
| 9 | Wires frames | NA |
| 10 | Plastic Edges | M |
| 11 | Wood | NA |
| 12 | Glass | NA |
| 13 | Nails and fasteners | M |
| 14 | Safety stops/Locking Device for Folding product | NA |
| 15 (a, b) | Moving Mechanism | NA |
| 15 (c) | Non- Detachable Winding Key Clearance | NA |
| 15 (d) | Detachable Key | NA |
| 16 | Projectile Toy | NA |
| 17 | Enclosures | NA |
| 18 | Stability | NA |
| 19 | Auditory hazards | NA |
| Specific Products - Dolls, Plush Toys and Soft Toys | | |
| 28 | Exposed Sharp Points and Edges | M |
| 29. (a) | Stuffing Materials shall be clean and free from vermin | M |
| 29. (b) | Stuffing Materials shall be free from hard and sharp foreign matter | M |
| 30 | Squeaker, Reed and Valve | NA |
| 31 | Eyes and Nose | NA |



RESULTS:

CANADA CONSUMER PRODUCT SAFETY ACT, TOYS REGULATIONS, SOR/2011-17

| Section | Parameter / Requirement | Result |
|--------------------------|---------------------------|--------|
| Specific Products | | |
| 35* & 36* | Plant seeds | M |
| 37 | Pull and Push toys | NA |
| 38* | Toys Steam engine Boilers | NA |
| 39* | Finger Paints | NA |
| 40(a) | Rattles – Sharp wire | NA |
| 40(b, c) | Rattles – Impaction | NA |
| 41 | Elastic | NA |
| 42 | Yo-Yo type balls | NA |

CANADA CONSUMER PRODUCT SAFETY ACT, SCHEDULE 2

| Section | Parameter / Requirement | Result |
|---------------------------|---------------------------------|--------|
| Mechanical Hazards | | |
| 1* | Jequirity Beans | M |
| 8* | Kites | NA |
| 9 | Kite strings | NA |
| 14* | Lawn, darts with elongated tips | NA |

*M = Meet NM = Not Meet NA = Not Applicable R = Refer to Comment Section * = Non-accredited section*



RESULTS:

**FLAMMABILITY OF CELLULOSE NITRATE
 TOY REGULATIONS SOR/2011-17 SECTION 21**

| Requirement Reference | Observation | Flammability Classification |
|-----------------------|-----------------|-----------------------------|
| Section 21 | No Flash Effect | M |

M = Meet NM-See comment = Not Meet - Refer to Comment Section NA = Not Applicable

**CANADA CONSUMER PRODUCT SAFETY ACT – TOYS Regulations
 SOR/2011-17
 FLAMMABILITY OF OUTER COVERING**

| | | |
|--------------------|---|---|
| Test Method | : | CANADA CONSUMER PRODUCT SAFETY ACT – TOYS Regulations SOR/2011-17 FLAMMABILITY OF OUTER COVERING ON DOLL, PLUSH TOY AND SOFT TOY |
|--------------------|---|---|

| Section | Parameter / Requirement | Result |
|---------|-------------------------------------|--------|
| 32 | Flame spread greater than 7 seconds | M |

M = Meet NM = Not Meet NA = Not Applicable R = Refer to Comment Section



RESULTS:

APPROPRIATE AGE GRADE DETERMINATION

| | |
|---|---|
| The Appropriate Age Grade is determined with reference to the EN71: Part 1 : 2014 +A1:2018, CEN ISO/TR 8124-8:2016 Safety of toys - Part 8: Age Determination Guidelines prepared by Technical Committee CEN/TC 52 and Age Grade Determination Guidelines of the Consumer Product Safety Commission (CPSC). | |
| 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 & 6

| Symbol | Explanation | | | | |
|--------|---|--------|--------------------|--------|---------------------|
| NM | The sample(s) DOES NOT MEET the requirement of this Subclause | | | | |
| M | The sample(s) MEET the requirement of this Subclause | | | | |
| N/A | Not Applicable | | | | |
| NR | Not Requested | | | | |
| NE | Not Evaluated | | | | |
| NT | Not Tested | | | | |
| 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 | M |
| 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 |



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RESULTS:

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

| Subclause | Requirement | Result |
|---|---|--------|
| 4.18 & 7.4 | Aquatic toys and inflatable toys | NA |
| 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 |



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RESULTS:

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

| Subclause | Requirement | Result |
|---------------------------------------|---|--------|
| 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 |
| 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 | M |
| WARNINGS, INSTRUCTIONS FOR USE | | |
| 7.1 | General | M |
| 7.2 | Toys not intended for children under 36 months | M |
| 7.5 | Functional toys | NA |

2009/48/EC GENERAL LABELING REQUIREMENT

| Requirement | Result |
|---|--------|
| CE Mark | M |
| Manufacturer/ Importer name and address | M |
| Product Identification | M |

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



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 | M |

REQUIREMENTS & TEST METHODS CROSS REFERENCE TABLE FOR PART 2

| 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:

APPROPRIATE AGE GRADE DETERMINATION

| | |
|---|---|
| The Appropriate Age Grade is determined with reference to the Age-grading guidelines of the Annex A of the AS/NZS Standard, "Safety of toys", AS/NZS 8124: Part 1: 2019 | |
| 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. |

MECHANICAL & PHYSICAL PROPERTIES – (AS/NZS 8124.1:2016)

| Subclause | Requirement | Result |
|-----------|---|--------|
| 4.1 | Normal use | M |
| 4.2 | Reasonably foreseeable abuse | M |
| 4.3 | Material | - |
| 4.3.1 | Material quality | M |
| 4.3.2 | Expanding materials | N/A |
| 4.4 | Small parts | - |
| 4.4.1 | Small parts (under 36 months) | N/A |
| 4.4.2 | Small parts warning (36 months and over but under 72 months) | N/A |
| 4.5 | Shape, size and strength of certain toys | - |
| 4.5.1 | Squeeze toys, rattles, fasteners, and certain other toys and components of toys | N/A |
| 4.5.2a | Small ball (under 36 months) | N/A |
| 4.5.2b | Small ball warning (36 months and over but under 96 months) | N/A |
| 4.5.3 | Pompoms | N/A |
| 4.5.4 | Pre-school play figures | N/A |
| 4.5.5 | Toy pacifiers | N/A |
| 4.5.6 | Balloons Warning | N/A |
| 4.5.7 | Marbles Warning | N/A |
| 4.5.8 | Hemispheric-shaped toys | N/A |
| 4.6 | Edges | - |
| 4.6.1 | Accessible sharp edges of glass or metal | M |
| 4.6.2 | Functional sharp edges warning | N/A |
| 4.6.3 | Edges on metal toys | N/A |
| 4.6.4 | Edges on moulded toys | M |
| 4.6.5 | Edges on exposed bolts or threaded rods | N/A |
| 4.7 | Points | - |
| 4.7.1 | Accessible sharp points | M |
| 4.7.2 | Functional sharp points warning | N/A |
| 4.7.3 | Wooden toys | N/A |
| 4.8 | Projections | - |
| 4.8.1 | General | N/A |



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RESULTS:

MECHANICAL & PHYSICAL PROPERTIES – (AS/NZS 8124.1:2016)

| Subclause | Requirement | Result |
|-----------|--|--------|
| 4.8.2 | Special considerations for bath toy projections | - |
| 4.9 | Metal wires and rods | - |
| 4.9a | Metal wires and rods intended to be bent | N/A |
| 4.9b | Metal wires and rods likely to be bent | N/A |
| 4.9c | End of spokes | N/A |
| 4.10 | Plastic film or plastic bags in packaging and in toys | M |
| 4.11 | Cords and elastics | - |
| 4.11.1 | Cords and elastics (under 18 months) | N/A |
| 4.11.2 | Self-retracting pull cords (under 18 months) | N/A |
| 4.11.3 | Cords for pull toys (under 36 months) | N/A |
| 4.11.4 | Cords on toy bags | N/A |
| 4.11.5 | Crib or playpen toys and mobiles warning & instruction for use | N/A |
| 4.11.6 | Crib gyms and similar toys warning & instruction for use | N/A |
| 4.11.7 | Cords, strings and lines for flying toys | N/A |
| | Warning - Toy kites and other flying toys with cord | N/A |
| 4.12 | Folding mechanisms | - |
| 4.12.1 | Toy pushchairs, perambulators and similar toys | N/A |
| 4.12.2 | Other toys with folding mechanisms | N/A |
| 4.12.3 | Hinge-line clearance | N/A |
| 4.13 | Holes, clearances and accessibility of mechanisms | - |
| 4.13.1 | Circular holes in rigid materials (under 60 months) | N/A |
| 4.13.2 | Accessible clearances for movable segments (under 96 months) | N/A |
| 4.13.3 | Chains or belts in ride-on toys | N/A |
| 4.13.4 | Other driving mechanisms | N/A |
| 4.13.5 | Winding keys (under 36 months) | N/A |
| 4.14 | Springs | N/A |
| 4.15 | Stability and overload requirements | - |
| 4.15.1 | Stability of ride-on toys and seats (under 60 months) | - |
| 4.15.1.1 | Sideways stability, feet available for stabilization | N/A |
| 4.15.1.2 | Sideways stability, feet unavailable for stabilization | N/A |
| 4.15.1.3 | Fore and aft stability | N/A |
| 4.15.2 | Overload requirements for ride-on toys and seats | N/A |
| 4.15.3 | Stability of stationary floor toys | N/A |
| 4.16 | Enclosures | - |
| 4.16.1 | Ventilation | N/A |
| 4.16.2 | Closures | - |
| 4.16.2.1 | Lids, doors and similar devices | N/A |
| 4.16.2.2 | Lid support for toy chests and similar toys | N/A |
| | Instruction for assembly | N/A |
| 4.16.3 | Toys that enclose the head | N/A |



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RESULTS:

MECHANICAL & PHYSICAL PROPERTIES – (AS/NZS 8124.1:2016)

| Subclause | Requirement | Result |
|-----------|---|--------|
| 4.17 | Simulated protective equipment | N/A |
| | Warning | N/A |
| 4.18 | Projectile toys | - |
| 4.18.1 | General | - |
| 4.18.2 | Projectiles | N/A |
| 4.18.3 | Projectile toys with stored energy | N/A |
| | Instruction for use | N/A |
| 4.18.4 | Projectile toys without stored energy | N/A |
| | Instruction for use | N/A |
| 4.19 | Rotors and propellers | N/A |
| 4.20 | Aquatic toys | N/A |
| | Warning | N/A |
| 4.21 | Braking | N/A |
| 4.22 | Toy bicycles | - |
| 4.22.1 | Toy bicycles – Instruction for use | N/A |
| 4.22.2 | Toy bicycles – Maximum saddle height | N/A |
| 4.22.3 | Toy bicycles – Braking requirements | N/A |
| 4.23 | Speed limitation of electrically driven ride-on toys | N/A |
| 4.24 | Toys containing a heat source | N/A |
| 4.25 | Liquid-filled toys | N/A |
| | Warning | N/A |
| 4.26 | Mouth-actuated toys | N/A |
| 4.27 | Toy roller skates, toy inline skates and toy skateboards | N/A |
| | Warning | N/A |
| 4.28 | Percussion caps | N/A |
| | Warning | N/A |
| 4.29 | Acoustic requirement | N/A |
| | Warning | N/A |
| 4.30 | Toy scooters | N/A |
| 4.31 | Magnets and magnetic components | - |
| 4.31.1 | Magnetic/electrical experimental sets (for children 8 years and over) | N/A |
| | Warning | N/A |
| 4.31.2 | All other toys with magnets and magnetic components (under 8 years) | - |
| 4.31.2 a | Loose-as-received magnet(s) and magnetic component(s) | N/A |
| 4.31.2 b | Wooden toys, toys intended in water and mouth pieces of mouth-actuated toys with magnets or magnetic components | N/A |
| 4.31.2 c | Magnet(s) and magnetic component(s) liberated from toy | N/A |

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



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RESULTS:

FLAMMABILITY (AS/NZS 8124.2: 2016)

| Subclause | Requirement | Result |
|------------------|---|---------------|
| 4.1 | Celluloid (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 a 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 | M |

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

RESULTS:

**BATTERIES AND ACCUMULATORS AND WASTE BATTERIES AND ACCUMULATORS – BUTTON CELLS
 (European Council Directives 2006/66/EC and its amendments)**

Heavy metal content and labeling requirement

| Element: | Mercury | | Cadmium | | Lead | |
|---------------------------|------------|------------|------------|------------|------------|------------|
| Maximum allowable limit : | 0.0005 % | | 0.002% | | See remark | |
| Sample Description | Result (%) | Conclusion | Result (%) | Conclusion | Result (%) | Conclusion |
| (A) CR2025 LITHIUM | 0.00014 | Pass | LT 0.0005 | Pass | LT 0.0005 | Pass |

LT = Less than

* = average of duplicate analysis

Remark:

Marking 1: According to 2006/66/EC, all batteries, accumulators and battery packs are appropriately marked with the symbol as below:



Marking 2: When the sample consists of lead exceeding 0.004%, the product is to be labeled heavy metal content with the requirements as below:
 - Marked with the chemical symbol for the metal concerned: Pb
 - Print beneath the symbol
 - Cover an area of at least ¼ of the size of the symbol

Removal of waste batteries

| Requirement: | Can be readily removed or shall be accompanied by instructions |
|--------------------|--|
| Sample | Conclusion |
| (A) CR2025 LITHIUM | Pass |



RESULTS:

STATE LAWS MERCURY-IN BATTERY

Category: Button cell / Batteries

| | | | |
|--------------------------|----------------|--------------|------------|
| Element: | | Mercury | |
| Maximum Allowable Limit: | | None present | |
| Sample Description | | Result (ppm) | Conclusion |
| A. | CR2025 LITHIUM | ND | PASS |

ppm = part per million
The detection limit of Mercury 4 mg /kg

LT = Less Than
ND = Not Detected

TOTAL LEAD CONTENT IN SURFACE COATING BY COMPOSITE TESTING ("Ban of Lead-containing paint and certain consumer products bearing Lead-containing paint", Consumer Product Safety Improvement Act (CPSIA) of 2008)

Test Method: U.S. CPSC-CH-E1003.09.1:2011

| | | | | | |
|---------------------------------------|---|-------|----------------|-----------|------------|
| Element: | | | Lead | | |
| Requirement: Maximum allowable limit: | | | 90 mg/kg | | |
| Sample Description | | | Result (mg/kg) | | Conclusion |
| Color / Component | Location | Style | Overall | Potential | |
| (A) Black coating / White coating | Warning sticker Words & pattern on remote controller | | LT 10 | - | PASS |

LT = Less Than
** = Average of duplicate analyses*

mg/kg = milligrams per kilogram (ppm = parts per million)
Potential = Estimated lead content per component is based on calculation by component individual weight



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RESULTS:

TOTAL LEAD CONTENT IN SUBSTRATE BY COMPOSITE TESTING (100PPM) (Consumer Product Safety Improvement Act (CPSIA) of 2008)

Test Method: U.S. CPSC-CH-E1001-08.3:2012 or U.S. CPSC-CH-E1002-08.3:2012

| | |
|---------------------------------------|-----------|
| Analyte | Lead |
| Requirement: Maximum allowable limit: | 100 mg/kg |

| Analyte | | | Lead (Pb) | Conclusion |
|--------------------|--|---|----------------|------------|
| Sample Description | | | Result (mg/kg) | |
| Color / Component | Location | Style | | |
| (A) | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) | LT 10 | PASS |
| (B) | Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | LT 10 | PASS |
| (C) | White plastic (白色塑胶) Black plastic (黑色塑胶) Matt black plastic (哑黑色塑胶) | Big plug of USB cable (USB 电线大插头) Small plug of USB cable (USB 电线小插头) Connector on cable of LED light panel (教学灯板电线连接器) | LT 10 | PASS |
| (D) | Black soft plastic (黑色软塑胶) Transparent plastic (透明塑胶) Translucent plastic (半透明塑胶) | Foot pad (脚垫) LED light panel (教学灯板) LED light panel (教学灯板) | LT 10 | PASS |
| (E) | Bright white plastic (亮白色塑胶) Transparent plastic (透明塑胶) | LED light panel (教学灯板) Remote controller (遥控器) | LT 10 | PASS |
| (F) | Dull black plastic (暗黑色塑胶) Translucent red plastic (半透明红色塑胶) Translucent green plastic (半透明绿色塑胶) | Remote controller (遥控器) Indicator light of remote controller (遥控器指示灯) Zipper teeth of textile bag (布袋拉链牙) | LT 10 | PASS |



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RESULTS:

TOTAL LEAD CONTENT IN SUBSTRATE BY COMPOSITE TESTING (100PPM) (Consumer Product Safety Improvement Act (CPSIA) of 2008)

Test Method: U.S. CPSC-CH-E1001-08.3:2012 or U.S. CPSC-CH-E1002-08.3:2012

| | | |
|---------------------------------------|-----------|--|
| Analyte | Lead | |
| Requirement: Maximum allowable limit: | 100 mg/kg | |

| Analyte | | | Lead (Pb) | Conclusion |
|--------------------|--------------------------|-----------------------------------|----------------|---------------|
| Sample Description | | | Result (mg/kg) | |
| | Color / Component | Location | Style | |
| (G) | Transparent PVC (透明 PVC) | Pocket inner textile bag (布袋里面口袋) | | LT 10 PASS |
| (H) | White paper sticker | Warning sticker | | LT 10 PASS |
| (I) | Silvery metal | Screw on remote controller | | LT 10 PASS |
| (J) | Silvery metal | Zipper tag of bag | | 66 PASS |
| (K) | Silvery metal | Zipper slide of bag | | 40 PASS |

LT = Less Than

* = Average of duplicate analyses

mg/kg = milligrams per kilogram (ppm = parts per million)



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RESULTS:

HEAVY METALS CONTENT IN SURFACE COATING (Canada Consumer Product Safety Act - Toys Regulations, SOR/2011-17 Sec. 23 with Amendment in SOR/2016-195)

| Sample Identity | Color | Location | Style |
|-----------------|----------------------------------|---|-------|
| (A) | Black coating / White coating | Warning sticker Words & pattern on remote controller | |

| Analyte | | As | Ba | Cd | Hg | Pb | Sb | Se |
|-----------------------|-----|------|------|------|----|----|------|------|
| Maximum Limit (mg/kg) | (T) | - | - | - | ND | 90 | - | - |
| | (S) | 1000 | 1000 | 1000 | - | - | 1000 | 1000 |

| Analyte | | As | Ba | Cd | Hg | Pb | Sb | Se | Conclusion |
|---------|--------|----------------|-----|-------|----|-------|----|-------|------------|
| | Method | Result (mg/kg) | | | | | | | |
| (A) | (T) | LT 10 | 120 | LT 10 | ND | LT 10 | 20 | LT 10 | PASS |
| | (S) | - | - | - | - | - | - | - | |

mg/kg = milligrams per kilogram (ppm=parts per million)

*= Average of duplicate analysis

ND = Not detected (Detection Limit = 10 mg/kg)

(T) = Total Analysis (With referenced to ASTM F963-17 Sec. 8.3)

(S) = Soluble analysis (Canada Product Safety Manual Book 5, Part-B, C-03 (2014))

LT = Less Than

As = Arsenic, Ba = Barium, Cd = Cadmium,

Hg = Mercury, Pb = Lead, Sb = Antimony,

Se = Selenium



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RESULTS:

SOLUBLE HEAVY METALS CONTENT IN SUBSTRATE (ASTM F963-17, Section 4.3.5.2(2)(b))

Test Method: ASTM International Standard ASTM F963-17, Section 8.3.5 (Excluding 8.3.5.5(3))

| Sample Identity | Color | Location | Style |
|--|--|--|-------|
| Type I: Substrate other than modeling clay | | | |
| A | Transparent PVC (透明 PVC) | Pocket inner textile bag (布袋里面口袋) | |
| B | White PVC (白色 PVC) | USB cable (USB 电线) | |
| C | Matt white PVC (哑白色 PVC) | Small plug of USB cable (USB 电线小插头) | |
| D | Dull white PVC (暗白色 PVC) | Big plug of USB cable (USB 电线大插头) | |
| E | Soft white PVC (柔白色 PVC) | Cable of LED light panel (教学灯板电线) | |
| F | Snow white PVC (雪白色 PVC) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| G | White plastic (白色塑胶) | Big plug of USB cable (USB 电线大插头) | |
| H | Black plastic (黑色塑胶) | Small plug of USB cable (USB 电线小插头) | |
| I | Matt black plastic (哑黑色塑胶) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| J | Black soft plastic (黑色软塑胶) | Foot pad (脚垫) | |
| K | Transparent plastic (透明塑胶) | LED light panel(教学灯板) | |
| L | Translucent plastic (半透明塑胶) | LED light panel(教学灯板) | |
| M | Bright white plastic (亮白色塑胶) | LED light panel(教学灯板) | |
| N | Transparent plastic (透明塑胶) | Remote controller (遥控器) | |
| O | Dull black plastic (暗黑色塑胶) | Remote controller(遥控器) | |
| P | Translucent red plastic (半透明红色塑胶) | Indicator light of remote controller (遥控器指示灯) | |
| Q | Translucent green plastic (半透明绿色塑胶) | Zipper teeth of textile bag (布袋拉链牙) | |
| R | Blue embroidery /khaki fabric /khaki PVC backing (蓝色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |



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RESULTS:

SOLUBLE HEAVY METALS CONTENT IN SUBSTRATE (ASTM F963-17, Section 4.3.5.2(2)(b))

Test Method: ASTM International Standard ASTM F963-17, Section 8.3.5 (Excluding 8.3.5.5(3))

| Sample Identity | Color | Location | Style |
|--|--|------------------------------------|-------|
| Type I: Substrate other than modeling clay | | | |
| S | Green embroidery/ khaki fabric/khaki PVC backing (绿色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| T | Red embroidery /khaki fabric/khaki PVC backing (红色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| U | Khaki thread /red fabric /red PVC backing (卡其色线 /红色布料/红色 PVC 衬垫) | Textile bag (布袋) | |
| V | Green thread /green strap (绿色线 /绿色带子) | Handle of textile bag (布袋提手) | |
| W | Matt green thread /matt green fabric (哑绿色线 /哑绿色布料) | Zipper band of textile bag (布袋拉链带) | |
| X | Matt red fabric (哑红色布料) | Rim inner textile bag (布袋内包边) | |
| Y | Red thread /bright red fabric (红色线 /亮红色布料) | Lining of textile bag (布袋内衬) | |



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RESULTS:

SOLUBLE HEAVY METALS CONTENT IN SUBSTRATE (ASTM F963-17, Section 4.3.5.2(2)(b))

Test Method: ASTM International Standard ASTM F963-17, Section 8.3.5 (Excluding 8.3.5.5(3))

| Analyte | As | Ba | Cd | Cr | Hg | Pb | Sb | Se |
|----------------------------|-----|------|-----|-----|-----|-----|-----|-----|
| Max. Limit Type I (mg/kg) | 25 | 1000 | 75 | 60 | 60 | 90 | 60 | 500 |
| Max. Limit Type II (mg/kg) | 25 | 250 | 50 | 25 | 25 | 90 | 60 | 500 |
| Analytical Correction | 60% | 30% | 30% | 30% | 50% | 30% | 60% | 60% |

| Analyte | As | Ba | Cd | Cr | Hg | Pb | Sb | Se | Mass of Trace Amount (g) | Conclusion |
|---------|----------------|------|------|------|------|------|------|------|--------------------------|------------|
| Sample | Result (mg/kg) | | | | | | | | (g) | |
| A | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| B | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| C | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| D | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| E | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| F | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| G | LT 2 | 20 | LT 2 | | PASS |
| H | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0606 | PASS |
| I | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0780 | PASS |
| J | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| K | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| L | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0690 | PASS |
| M | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| N | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0673 | PASS |
| O | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| P | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0320 | PASS |
| Q | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0722 | PASS |



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RESULTS:

SOLUBLE HEAVY METALS CONTENT IN SUBSTRATE (ASTM F963-17, Section 4.3.5.2(2)(b))

Test Method: ASTM International Standard ASTM F963-17, Section 8.3.5 (Excluding 8.3.5.5(3))

| | | | | | | | | | |
|----------------------------|-----|------|-----|-----|-----|-----|-----|-----|--|
| Analyte | As | Ba | Cd | Cr | Hg | Pb | Sb | Se | |
| Max. Limit Type I (mg/kg) | 25 | 1000 | 75 | 60 | 60 | 90 | 60 | 500 | |
| Max. Limit Type II (mg/kg) | 25 | 250 | 50 | 25 | 25 | 90 | 60 | 500 | |
| Analytical Correction | 60% | 30% | 30% | 30% | 50% | 30% | 60% | 60% | |

| Analyte | As | Ba | Cd | Cr | Hg | Pb | Sb | Se | Mass of Trace Amount (g) | Conclusion |
|---------|----------------|------|------|------|------|------|------|------|--------------------------|------------|
| Sample | Result (mg/kg) | | | | | | | | | |
| R | LT 2 | 4 | LT 2 | | PASS |
| S | LT 2 | 7 | LT 2 | | PASS |
| T | LT 2 | 4 | LT 2 | | PASS |
| U | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| V | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 5 | LT 2 | LT 2 | | PASS |
| W | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| X | LT 2 | 7 | LT 2 | | PASS |
| Y | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |

mg/kg = milligrams per kilogram (ppm=parts per million)

CR = adjusted analytical result

LT = Less Than

ND = None Detected

As = Arsenic, Ba = Barium, Cd = Cadmium,

Cr = Chromium, Hg = Mercury, Pb = Lead,

Sb = Antimony, Se = Selenium

Detection limit (mg/kg): Each element 2

Remark:

Textiles (natural or synthetic) are exempted for lead content requirement according to clarification of Toy Industry Association for ASTM F963-17. The lead content analysis result of corresponding material herein is for client's reference only.



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RESULTS:

Heavy Metals Content In Packaging – Model Toxics Legislation Of The Toxics In Packaging Clearinghouse (TPCH)

| | | |
|---------------------------------------|---------------------------|--|
| Analyte | Sum of Pb, Cd, Hg & Cr VI | |
| Requirement: Maximum allowable limit: | 100 mg/kg | |

| Analyte | | | | Sum of Pb, Cd, Hg & Cr VI | Conclusion |
|--------------------|---|---------------------------------------|---------|---------------------------|------------|
| Sample Description | | | | Result | |
| Color / Component | Location | Style | (mg/kg) | | |
| (A) | Red /black coating | Paper sticker on carton | | LT 20 | PASS |
| (B) | Light red coating | Paper sticker on carton | | LT 20 | PASS |
| (C) | All coating | Instruction | | LT 20 | PASS |
| (D) | Black coating | Polybag | | 24 | PASS |
| (E) | Transparent plastic | Polybag | | LT 20 | PASS |
| (F) | Translucent plastic | Plastic fixture on corner | | LT 20 | PASS |
| (G) | Transparent plastic sticker | Adhesive tape | | LT 20 | PASS |
| (H) | White foam | Fixture | | LT 20 | PASS |
| (I) | Bright white foam /glue | Fixture | | LT 20 | PASS |
| (J) | Clear plastic | Insulation sheet of remote controller | | LT 20 | PASS |
| (K) | Transparent plastic | Protective film of remote controller | | LT 20 | PASS |
| (L) | White non –woven | Bag of desiccant | | LT 20 | PASS |
| (M) | Black /blue /red printed white soft plastic | Bag of desiccant | | LT 20 | PASS |
| (N) | Transparent plastic | Bag of desiccant | | LT 20 | PASS |
| (O) | Bright white plastic | Bag of desiccant | | LT 20 | PASS |
| (P) | White soft plastic | Plastic tie of USB cable | | LT 20 | PASS |
| (Q) | Silvery metal | Plastic tie of USB cable | | 61 | PASS |
| (R) | White paper sticker | Paper sticker on carton | | LT 20 | PASS |
| (S) | Bright white paper | Instruction | | LT 20 | PASS |
| (T) | Black printed brown paper board | Carton | | LT 20 | PASS |
| (U) | Light brown paper board | Paper board inner carton | | LT 20 | PASS |
| (V) | Soft brown paper board | Fixture on corner | | LT 20 | PASS |
| (W) | White /brown paper board | Paper box | | LT 20 | PASS |
| (X) | Translucent yellow desiccant | Desiccant | | LT 20 | PASS |

LT = Less Than

* = Average of duplicate analysis

mg/kg = milligrams per kilogram (ppm=parts per million)

Pb = Lead, Cd = Cadmium, Hg = Mercury, Cr VI = Hexavalent chromium

Remark:

The former name of the working group of this legislation was Coalition of Northeastern Governors (CONEG).



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RESULTS:

HEAVY METALS PRESENT IN PACKAGING (European Council Directive 94/62/EC on Packaging and Packaging Waste)

| Parameter: | | The sum of lead, cadmium, mercury and hexavalent chromium | | | Conclusion |
|--------------------------|---|---|--|-------|------------|
| Maximum Allowable Limit: | | - 600 ppm by weight after June 30, 1998 - 250 ppm by weight after June 30, 1999 - 100 ppm by weight after June 30, 2001 | | | |
| Sample Description | | Result (mg/kg (ppm)) | | | |
| Color/Component | Location | Style | | | |
| (A) | Red /black coating | Paper sticker on carton | | LT 20 | PASS |
| (B) | Light red coating | Paper sticker on carton | | LT 20 | PASS |
| (C) | All coating | Instruction | | LT 20 | PASS |
| (D) | Black coating | Polybag | | 24 | PASS |
| (E) | Transparent plastic | Polybag | | LT 20 | PASS |
| (F) | Translucent plastic | Plastic fixture on corner | | LT 20 | PASS |
| (G) | Transparent plastic sticker | Adhesive tape | | LT 20 | PASS |
| (H) | White foam | Fixture | | LT 20 | PASS |
| (I) | Bright white foam /glue | Fixture | | LT 20 | PASS |
| (J) | Clear plastic | Insulation sheet of remote controller | | LT 20 | PASS |
| (K) | Transparent plastic | Protective film of remote controller | | LT 20 | PASS |
| (L) | White non –woven | Bag of desiccant | | LT 20 | PASS |
| (M) | Black /blue /red printed white soft plastic | Bag of desiccant | | LT 20 | PASS |
| (N) | Transparent plastic | Bag of desiccant | | LT 20 | PASS |
| (O) | Bright white plastic | Bag of desiccant | | LT 20 | PASS |
| (P) | White soft plastic | Plastic tie of USB cable | | LT 20 | PASS |
| (Q) | Silvery metal | Plastic tie of USB cable | | 61 | PASS |
| (R) | White paper sticker | Paper sticker on carton | | LT 20 | PASS |
| (S) | Bright white paper | Instruction | | LT 20 | PASS |
| (T) | Black printed brown paper board | Carton | | LT 20 | PASS |
| (U) | Light brown paper board | Paper board inner carton | | LT 20 | PASS |
| (V) | Soft brown paper board | Fixture on corner | | LT 20 | PASS |
| (W) | White /brown paper board | Paper box | | LT 20 | PASS |
| (X) | Translucent yellow desiccant | Desiccant | | LT 20 | PASS |

LT = Less Than

* = Average of duplicate analyses

mg/kg = milligrams per kilogram (ppm = parts per million)



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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 III - Scraped off toy material

| Sample Identity | Color | Location | Style |
|-----------------|---|--|-------|
| A. | Transparent PVC (透明 PVC) | Pocket inner textile bag (布袋里面口袋) | |
| B. | White PVC (白色 PVC) | USB cable (USB 电线) | |
| C. | Matt white PVC (哑白色 PVC) | Small plug of USB cable (USB 电线小插头) | |
| D. | Dull white PVC (暗白色 PVC) | Big plug of USB cable (USB 电线大插头) | |
| E. | Soft white PVC (柔白色 PVC) | Cable of LED light panel (教学灯板电线) | |
| F. | Snow white PVC (雪白色 PVC) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| G. | White plastic (白色塑胶) | Big plug of USB cable (USB 电线大插头) | |
| H. | Black plastic (黑色塑胶) | Small plug of USB cable (USB 电线小插头) | |
| I. | Matt black plastic (哑黑色塑胶) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| J. | Black soft plastic (黑色软塑胶) | Foot pad (脚垫) | |
| K. | Transparent plastic (透明塑胶) | LED light panel(教学灯板) | |
| L. | Translucent plastic (半透明塑胶) | LED light panel(教学灯板) | |
| M. | Bright white plastic (亮白色塑胶) | LED light panel(教学灯板) | |
| N. | Transparent plastic (透明塑胶) | Remote controller (遥控器) | |
| O. | Dull black plastic (暗黑色塑胶) | Remote controller(遥控器) | |
| P. | Translucent red plastic (半透明红色塑胶) | Indicator light of remote controller (遥控器指示灯) | |
| Q. | Translucent green plastic (半透明绿色塑胶) | Zipper teeth of textile bag (布袋拉链牙) | |
| R. | Black printed white paper sticker (黑色印刷白色纸贴) | Warning sticker (警告贴) | |



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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 III - Scraped off toy material

| Sample Identity | Color | Location | Style |
|-----------------|---|---------------------------------------|-------|
| S. | Blue embroidery /khaki fabric /khaki PVC backing (蓝色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| T. | Green embroidery/ khaki fabric/khaki PVC backing (绿色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| U. | Red embroidery /khaki fabric/khaki PVC backing (红色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| V. | Khaki thread /red fabric /red PVC backing (卡其色线 /红色布料/红色 PVC 衬垫) | Textile bag (布袋) | |
| W. | Green thread /green strap (绿色线 /绿色带子) | Handle of textile bag (布袋提手) | |
| X. | Matt green thread /matt green fabric (哑绿色线 /哑绿色布料) | Zipper band of textile bag (布袋拉链带) | |
| Y. | Matt red fabric (哑红色布料) | Rim inner textile bag (布袋内包边) | |
| Z. | Red thread /bright red fabric (红色线 /亮红色布料) | Lining of textile bag (布袋内衬) | |



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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 III - Scraped off toy material

| Analyte | Requirement (mg/kg) | Result (mg/kg) | | | | | |
|-----------------------------|---------------------|----------------|----------|--|--|--|--|
| | | Sample ID | | | | | |
| | | Y. | Z. | | | | |
| Aluminium (Al) | 70000 | LT 2 | 10 | | | | |
| Arsenic (As) | 47 | LT 2 | LT 2 | | | | |
| Boron (B) | 15000 | LT 2 | LT 2 | | | | |
| Barium (Ba) | 18750 | 7 | LT 2 | | | | |
| Cadmium (Cd) | 17 | LT 2 | LT 2 | | | | |
| Cobalt (Co) | 130 | LT 2 | LT 2 | | | | |
| Chromium III (Cr III) | 460 | LT 0.050 | LT 0.050 | | | | |
| Chromium VI (Cr VI) | 0.2 | | | | | | |
| Copper (Cu) | 7700 | LT 2 | LT 2 | | | | |
| Mercury (Hg) | 94 | LT 2 | LT 2 | | | | |
| Manganese (Mn) | 15000 | LT 2 | LT 2 | | | | |
| Nickel (Ni) | 930 | LT 2 | LT 2 | | | | |
| Lead (Pb) | 23 | LT 2 | LT 2 | | | | |
| Antimony (Sb) | 560 | LT 2 | LT 2 | | | | |
| Selenium (Se) | 460 | LT 2 | LT 2 | | | | |
| Tin (Sn) | 180000 | LT 2 | 4 | | | | |
| Organic tin | 12 | LT 2 | 10 | | | | |
| Strontium (Sr) | 56000 | LT 2 | LT 2 | | | | |
| Zinc (Zn) | 46000 | LT 2 | LT 2 | | | | |
| Mass of trace amount (gram) | | | | | | | |
| Conclusion | | Pass | 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)

Remark: - Results of Cr III and Cr VI were reported as sum of soluble Chromium content unless specified.
 - 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.



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RESULTS:

MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method : European Standard EN 71 Part 3: 2019, Section 9.

Class: Category III - Scraped off toy material

| Sample Identity | Color | Location | Style |
|-----------------|---|--|-------|
| A. | Transparent PVC (透明 PVC) | Pocket inner textile bag (布袋里面口袋) | |
| B. | White PVC (白色 PVC) | USB cable (USB 电线) | |
| C. | Matt white PVC (哑白色 PVC) | Small plug of USB cable (USB 电线小插头) | |
| D. | Dull white PVC (暗白色 PVC) | Big plug of USB cable (USB 电线大插头) | |
| E. | Soft white PVC (柔白色 PVC) | Cable of LED light panel (教学灯板电线) | |
| F. | Snow white PVC (雪白色 PVC) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| G. | White plastic (白色塑胶) | Big plug of USB cable (USB 电线大插头) | |
| H. | Black plastic (黑色塑胶) | Small plug of USB cable (USB 电线小插头) | |
| I. | Matt black plastic (哑黑色塑胶) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| J. | Black soft plastic (黑色软塑胶) | Foot pad (脚垫) | |
| K. | Transparent plastic (透明塑胶) | LED light panel(教学灯板) | |
| L. | Translucent plastic (半透明塑胶) | LED light panel(教学灯板) | |
| M. | Bright white plastic (亮白色塑胶) | LED light panel(教学灯板) | |
| N. | Transparent plastic (透明塑胶) | Remote controller (遥控器) | |
| O. | Dull black plastic (暗黑色塑胶) | Remote controller(遥控器) | |
| P. | Translucent red plastic (半透明红色塑胶) | Indicator light of remote controller (遥控器指示灯) | |
| Q. | Translucent green plastic (半透明绿色塑胶) | Zipper teeth of textile bag (布袋拉链牙) | |
| R. | Black printed white paper sticker (黑色印刷白色纸贴) | Warning sticker (警告贴) | |



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RESULTS:

MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method : European Standard EN 71 Part 3: 2019, Section 9.

Class: Category III - Scraped off toy material

| Sample Identity | Color | Location | Style |
|-----------------|---|---------------------------------------|-------|
| S. | Blue embroidery /khaki fabric /khaki PVC backing (蓝色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| T. | Green embroidery/ khaki fabric/khaki PVC backing (绿色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| U. | Red embroidery /khaki fabric/khaki PVC backing (红色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| V. | Khaki thread /red fabric /red PVC backing (卡其色线 /红色布料/红色 PVC 衬垫) | Textile bag (布袋) | |
| W. | Green thread /green strap (绿色线 /绿色带子) | Handle of textile bag (布袋提手) | |
| X. | Matt green thread /matt green fabric (哑绿色线 /哑绿色布料) | Zipper band of textile bag (布袋拉链带) | |
| Y. | Matt red fabric (哑红色布料) | Rim inner textile bag (布袋内包边) | |
| Z. | Red thread /bright red fabric (红色线 /亮红色布料) | Lining of textile bag (布袋内衬) | |



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RESULTS:

MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method : European Standard EN 71 Part 3: 2019, Section 9.

Class: Category III - Scraped off toy material

| Analyte | Requirement (mg/kg) | Result (mg/kg) | | | | | |
|-----------------------------|---------------------|----------------|----------|--|--|--|--|
| | | Sample ID | | | | | |
| | | Y. | Z. | | | | |
| Aluminium (Al) | 70000 | LT 2 | 10 | | | | |
| Arsenic (As) | 47 | LT 2 | LT 2 | | | | |
| Boron (B) | 15000 | LT 2 | LT 2 | | | | |
| Barium (Ba) | 18750 | 7 | LT 2 | | | | |
| Cadmium (Cd) | 17 | LT 2 | LT 2 | | | | |
| Cobalt (Co) | 130 | LT 2 | LT 2 | | | | |
| Chromium III (Cr III) | 460 | LT 0.050 | LT 0.050 | | | | |
| Chromium VI (Cr VI) | 0.053 | | | | | | |
| Copper (Cu) | 7700 | LT 2 | LT 2 | | | | |
| Mercury (Hg) | 94 | LT 2 | LT 2 | | | | |
| Manganese (Mn) | 15000 | LT 2 | LT 2 | | | | |
| Nickel (Ni) | 930 | LT 2 | LT 2 | | | | |
| Lead (Pb) | 23 | LT 2 | LT 2 | | | | |
| Antimony (Sb) | 560 | LT 2 | LT 2 | | | | |
| Selenium (Se) | 460 | LT 2 | LT 2 | | | | |
| Tin (Sn) | 180000 | LT 2 | 4 | | | | |
| Organic tin | 12 | LT 2 | 10 | | | | |
| Strontium (Sr) | 56000 | LT 2 | LT 2 | | | | |
| Zinc (Zn) | 46000 | LT 2 | LT 2 | | | | |
| Mass of trace amount (gram) | | | | | | | |
| Conclusion | | Pass | 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)

Remark: - Results of Cr III and Cr VI were reported as sum of soluble Chromium content unless specified.
 - 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 3:2019, Annex G by Gas Chromatography – Mass Spectroscopy analysis.



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RESULTS:

MIGRATION OF CERTAIN ELEMENTS (AS/NZS 8124 Part 3: 2012 with Amendment No. 1: 2016)

Test Method: Soluble heavy metals content analysis was determined by Inductively Coupled Plasma Spectrometry.

| Sample Identity | Color / Component | Location | Style |
|--|---|--|-------|
| Type II: Polymeric Materials | | | |
| A. | Transparent PVC (透明 PVC) | Pocket inner textile bag (布袋里面口袋) | |
| B. | White PVC (白色 PVC) | USB cable (USB 电线) | |
| C. | Matt white PVC (哑白色 PVC) | Small plug of USB cable (USB 电线小插头) | |
| D. | Dull white PVC (暗白色 PVC) | Big plug of USB cable (USB 电线大插头) | |
| E. | Soft white PVC (柔白色 PVC) | Cable of LED light panel (教学灯板电线) | |
| F. | Snow white PVC (雪白色 PVC) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| G. | White plastic (白色塑胶) | Big plug of USB cable (USB 电线大插头) | |
| H. | Black plastic (黑色塑胶) | Small plug of USB cable (USB 电线小插头) | |
| I. | Matt black plastic (哑黑色塑胶) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| J. | Black soft plastic (黑色软塑胶) | Foot pad (脚垫) | |
| K. | Transparent plastic (透明塑胶) | LED light panel(教学灯板) | |
| L. | Translucent plastic (半透明塑胶) | LED light panel(教学灯板) | |
| M. | Bright white plastic (亮白色塑胶) | LED light panel(教学灯板) | |
| N. | Transparent plastic (透明塑胶) | Remote controller (遥控器) | |
| O. | Dull black plastic (暗黑色塑胶) | Remote controller(遥控器) | |
| P. | Translucent red plastic (半透明红色塑胶) | Indicator light of remote controller (遥控器指示灯) | |
| Q. | Translucent green plastic (半透明绿色塑胶) | Zipper teeth of textile bag (布袋拉链牙) | |
| Type III: Paper And Paper Board | | | |
| R. | Black printed white paper sticker (黑色印刷白色纸贴) | Warning sticker (警告贴) | |



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RESULTS:

MIGRATION OF CERTAIN ELEMENTS (AS/NZS 8124 Part 3: 2012 with Amendment No. 1: 2016)

Test Method: Soluble heavy metals content analysis was determined by Inductively Coupled Plasma Spectrometry.

| Sample Identity | Color / Component | Location | Style |
|-------------------|---|---------------------------------------|-------|
| Type IV: Textiles | | | |
| S. | Blue embroidery /khaki fabric /khaki PVC backing (蓝色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| T. | Green embroidery/ khaki fabric/khaki PVC backing (绿色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| U. | Red embroidery /khaki fabric/khaki PVC backing (红色刺绣/卡其色布料/卡其色 PVC 衬垫) | Textile bag (布袋) | |
| V. | Khaki thread /red fabric /red PVC backing (卡其色线 /红色布料/红色 PVC 衬垫) | Textile bag (布袋) | |
| W. | Green thread /green strap (绿色线 /绿色带子) | Handle of textile bag (布袋提手) | |
| X. | Matt green thread /matt green fabric (哑绿色线 /哑绿色布料) | Zipper band of textile bag (布袋拉链带) | |
| Y. | Matt red fabric (哑红色布料) | Rim inner textile bag (布袋内包边) | |
| Z. | Red thread /bright red fabric (红色线 /亮红色布料) | Lining of textile bag (布袋内衬) | |



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RESULTS:

MIGRATION OF CERTAIN ELEMENTS (AS/NZS 8124 Part 3: 2012 with Amendment No. 1: 2016)

Test Method: Soluble heavy metals content analysis was determined by Inductively Coupled Plasma Spectrometry.

| Analyte | As | Ba | Cd | Cr | Hg | Pb | Sb | Se |
|--|-----|------|-----|-----|-----|-----|-----|-----|
| Max. Limit All except Type VIII (mg/kg) | 25 | 1000 | 75 | 60 | 60 | 90 | 60 | 500 |
| Max. Limit Type VIII (mg/kg) | 25 | 250 | 50 | 25 | 25 | 90 | 60 | 500 |
| Analytical Correction | 60% | 30% | 30% | 30% | 50% | 30% | 60% | 60% |

| Analyte | As | Ba | Cd | Cr | Hg | Pb | Sb | Se | Mass of Trace Amount (g) | Conclusion |
|---------|----------------|------|------|------|------|------|------|------|-----------------------------------|------------|
| Sample | Result (mg/kg) | | | | | | | | | |
| A. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| B. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| C. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| D. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| E. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| F. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| G. | LT 2 | 20 | LT 2 | | PASS |
| H. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0606 | PASS |
| I. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0780 | PASS |
| J. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| K. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| L. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0690 | PASS |
| M. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| N. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0673 | PASS |
| O. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| P. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0320 | PASS |
| Q. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 0.0722 | PASS |



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RESULTS:

MIGRATION OF CERTAIN ELEMENTS (AS/NZS 8124 Part 3: 2012 with Amendment No. 1: 2016)

Test Method: Soluble heavy metals content analysis was determined by Inductively Coupled Plasma Spectrometry.

| | | | | | | | | | |
|--|-----|------|-----|-----|-----|-----|-----|-----|--|
| Analyte | As | Ba | Cd | Cr | Hg | Pb | Sb | Se | |
| Max. Limit All except Type VIII (mg/kg) | 25 | 1000 | 75 | 60 | 60 | 90 | 60 | 500 | |
| Max. Limit Type VIII (mg/kg) | 25 | 250 | 50 | 25 | 25 | 90 | 60 | 500 | |
| Analytical Correction | 60% | 30% | 30% | 30% | 50% | 30% | 60% | 60% | |

| Analyte | As | Ba | Cd | Cr | Hg | Pb | Sb | Se | Mass of Trace Amount (g) | Conclusion |
|---------|----------------|------|------|------|------|------|------|------|-----------------------------------|------------|
| Sample | Result (mg/kg) | | | | | | | | | |
| R. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| S. | LT 2 | 4 | LT 2 | | PASS |
| T. | LT 2 | 7 | LT 2 | | PASS |
| U. | LT 2 | 4 | LT 2 | | PASS |
| V. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| W. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | 5 | LT 2 | LT 2 | | PASS |
| X. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |
| Y. | LT 2 | 7 | LT 2 | | PASS |
| Z. | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | LT 2 | | PASS |

mg/kg = milligrams per kilogram (ppm=parts per million)

CR = adjusted analytical result

LT = Less Than

* = Average of duplicate analysis

As = Arsenic, Ba = Barium, Cd = Cadmium,

Cr = Chromium, Hg = Mercury, Pb = Lead,

Sb = Antimony, Se = Selenium

RESULTS:

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

| Category: | | | Plastics | | | |
|--------------------------|---|--|-----------------------------|-----------|---------|------------|
| Element: | | | Cadmium | | | |
| Test Method | | | BS EN 1122: 2001, Method B | | | |
| Maximum Allowable Limit: | | | 100 mg/kg (0.01% by weight) | | | |
| Sample Description | | | Reading 1 | Reading 2 | Average | Conclusion |
| Color / Component | Location | Style | Result (mg/kg) | | | |
| A. | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) Dull white PVC (暗白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) Big plug of USB cable (USB 电线大插头) | LT 10 | # | - | PASS |
| B. | Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | LT 10 | LT 10 | LT 10 | PASS |
| C. | White plastic (白色 塑胶) Black plastic (黑色 塑胶) Matt black plastic (哑黑色 塑胶) Black soft plastic (黑色软塑胶) | Big plug of USB cable (USB 电线大插头) Small plug of USB cable (USB 电线小插头) Connector on cable of LED light panel (教学灯板电线连接器) Foot pad (脚垫) | LT 10 | # | - | PASS |

RESULTS:

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

| Category: | | | Plastics | | | |
|--------------------------|-------------------------------------|---|-----------------------------|-----------|---------|------------|
| Element: | | | Cadmium | | | |
| Test Method | | | BS EN 1122: 2001, Method B | | | |
| Maximum Allowable Limit: | | | 100 mg/kg (0.01% by weight) | | | |
| Sample Description | | | Reading 1 | Reading 2 | Average | Conclusion |
| Color / Component | Location | Style | Result (mg/kg) | | | |
| D. | Transparent plastic (透明塑胶) | LED light panel(教学灯板) | LT 10 | # | - | PASS |
| | Translucent plastic (半透明塑胶) | LED light panel(教学灯板) | | | | |
| | Bright white plastic (亮白色塑胶) | LED light panel(教学灯板) | | | | |
| E. | Transparent plastic (透明塑胶) | Remote controller (遥控器) | LT 10 | # | - | PASS |
| | Dull black plastic (暗黑色塑胶) | Remote controller(遥控器) | | | | |
| | Translucent red plastic (半透明红色塑胶) | Indicator light of remote controller (遥控器指示灯) | | | | |
| | Translucent green plastic (半透明绿色塑胶) | Zipper teeth of textile bag (布袋拉链牙) | | | | |
| F. | Black PVC | Wire inner USB cable | LT 10 | # | - | PASS |
| | | Wire inner cable of LED light panel | | | | |
| | Red PVC | Wire inner USB cable | | | | |
| | | Wire inner cable of LED light panel | | | | |
| | Soft black PVC | Wire inner LED light panel | | | | |
| | Wire inner LED light panel | | | | | |



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RESULTS:

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

| Category: | | | Plastics | | | |
|--------------------------|-----------------------------|--|-----------------------------|-----------|---------|------------|
| Element: | | | Cadmium | | | |
| Test Method | | | BS EN 1122: 2001, Method B | | | |
| Maximum Allowable Limit: | | | 100 mg/kg (0.01% by weight) | | | |
| Sample Description | | | Reading 1 | Reading 2 | Average | Conclusion |
| Color / Component | Location | Style | Result (mg/kg) | | | |
| G. | White foam | Inner textile bag | LT 10 | # | - | PASS |
| | Translucent plastic | Inner big plug of USB cable | | | | |
| | Translucent plastic sticker | Inner connector on cable of LED light panel | | | | |
| | | Double side adhesive tape on backing of control panel of remote controller | | | | |

LT = Less than

= Insufficient sample for duplicate analyses

mg/kg = milligrams per kilogram (ppm = parts per million)

Operator: Zhang Shao Zheng, Ryan

| Category: | | | Paints on Painted Article | | |
|--------------------------|-------------------------------|--|-----------------------------|------------|--|
| Element: | | | Cadmium | | |
| Test Method: | | | In house acid digestion | | |
| Maximum Allowable Limit: | | | 1000 mg/kg (0.1% by weight) | | |
| Test Component | | | Result (mg/kg) | Conclusion | |
| Colour/Component | Location | Style | | | |
| A | Black coating / White coating | Warning sticker Words & pattern on remote controller | LT 10 | PASS | |
| B | All coating /white coating | Backing of control panel of remote controller | LT 10 | PASS | |
| C | Silver /white coating | Inner LED light panel | LT 10 | PASS | |
| D | Bright red coating | Bright red paint (A1Y) | LT 10 | PASS | |
| E | Dark green coating | Dark green paint (A5Y) | LT 10 | PASS | |
| F | Dark blue coating | Dark blue paint (A7Y) | LT 10 | PASS | |

LT = Less than

* = Average of duplicate analyses

mg/kg = milligrams per kilogram (ppm = parts per million)



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RESULTS:

SHORT CHAIN CHLORINATED PARAFFINS (SCCPs) CONTENT (European Parliament and Council Regulation (EC) No. 850/2004 on Persistent Organic Pollutants (POPs) with Latest Amendment up to EU No. 2015/2030, Annex I, Part B)

| | |
|---------|---|
| Analyte | Short Chain Chlorinated Paraffins (SCCPs) |
| Limit | 1500 mg/kg (0.15 %) |

| Analyte | | | | SCCPs | Conclusion |
|--------------------|---|---|-------|---------|------------|
| Sample Description | | | | Result | |
| | Color / Component | Location | Style | (mg/kg) | |
| (A) | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) | | LT 30 | PASS |
| (B) | Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | | 107.41 | PASS |
| (C) | White plastic (白色塑胶)/ Black plastic (黑色塑胶)/ Matt black plastic (哑黑色塑胶) | Big plug of USB cable (USB 电线大插头) Small plug of USB cable (USB 电线小插头) Connector on cable of LED light panel (教学灯板电线连接器) | | LT 30 | PASS |
| (D) | Black soft plastic (黑色软塑胶) Transparent plastic (透明塑胶) Translucent plastic (半透明塑胶) | Foot pad (脚垫) LED light panel(教学灯板) LED light panel(教学灯板) | | LT 30 | PASS |
| (E) | Bright white plastic (亮白色塑胶) Transparent plastic (透明塑胶) | LED light panel(教学灯板) Remote controller (遥控器) | | LT 30 | PASS |



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RESULTS:

SHORT CHAIN CHLORINATED PARAFFINS (SCCPs) CONTENT (European Parliament and Council Regulation (EC) No. 850/2004 on Persistent Organic Pollutants (POPs) with Latest Amendment up to EU No. 2015/2030, Annex I, Part B)

| | |
|---------|---|
| Analyte | Short Chain Chlorinated Paraffins (SCCPs) |
| Limit | 1500 mg/kg (0.15 %) |

| Analyte | | | | SCCPs | Conclusion |
|--------------------|--|--|-------|---------|------------|
| Sample Description | | | | Result | |
| | Color / Component | Location | Style | (mg/kg) | |
| (F) | Dull black plastic (暗黑色塑胶) / Translucent red plastic (半透明红色塑胶) Translucent green plastic (半透明绿色塑胶) | Remote controller(遥控器) Indicator light of remote controller (遥控器指示灯) Zipper teeth of textile bag (布袋拉链牙) | | LT 30 | PASS |
| (G) | Black PVC Red PVC | Wire inner USB cable Wire inner cable of LED light panel Wire inner USB cable Wire inner cable of LED light panel | | LT 30 | PASS |
| (H) | Soft black PVC Soft red PVC / White printed bright black PVC | Wire inner LED light panel Wire inner LED light panel Sleeves of capacitor | | LT 30 | PASS |
| (I) | White foam / Matt black soft plastic Translucent plastic Translucent plastic sticker | Inner textile bag Inner capacitor Inner big plug of USB cable Inner connector on cable of LED light panel Double side adhesive tape on backing of control panel of remote controller | | 81.26 | PASS |
| (J) | White /translucent body Black body / White /green printed light brown PCB /EC | LED on PCB inner LED light panel SMD IC on PCB PCB | | LT 30 | PASS |

LT = Less Than

* = Average of duplicate analyses

mg/kg = milligrams per kilogram (ppm=parts per million)

ND = None Detected (detection limit = 30 mg/kg)

Remark:

Short chain chlorinated paraffins (SCCPs) is also known as alkanes C10-C13, chloro.

Plastics, textiles and leather of product(s) are applicable to be tested only.



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RESULTS:

AROMATIC AMINES (AZOCOLOURANTS) CONTENT (European Regulation (EC) No. 1907/2006 REACH, Annex XVII, Item no. 43, Points 1 and 2)

Test Method: Quantification by Gas Chromatography/Mass Spectrometry (GC/MS)
Additional chromatographic technique employed to confirm positive result by HPLC/TLC

| Sample ID | Color / Component | Location | Style |
|-----------|--|----------------------------|-------|
| A. * | Composite of Blue embroidery /khaki fabric | Textile bag | |
| B. | Green embroidery/ khaki fabric Red embroidery /khaki fabric | Textile bag Textile bag | |
| C. | Khaki fabric Red fabric | Textile bag Textile bag | |
| D. | Green strap | Handle of textile bag | |

| Test Parameter: | | Aromatic Amines (Azocolourants) | | |
|-----------------|-------------|---------------------------------|-----------------------------|------------|
| Requirement: | | 30 mg/kg | | |
| Sample ID | Test Method | Detected Amine Number | Concentration (mg/kg (ppm)) | Conclusion |
| A. * | II | - | LT 10 | PASS |
| B. | II | - | LT 10 | PASS |
| C. | I+II | - | LT 10 | PASS |
| D. | I | - | LT 10 | PASS |

ND = Not Detected (Detection Limit = 10 mg/kg (ppm))

mg/kg = milligrams per kilogram

* = The specimen is a minor component. As only a reduced mass (< 0.5 g) could be used for the test the result may have a greater uncertainty due to lower material homogeneity

ppm = parts per million

NR = Not Requested

Amine No. = Refer to List of Banned Amines for the description of the detected Amine.

Test Method I = European Standard EN 14362-1: 2017, Clauses 9, 10.2 and afterwards.

Test Method II = European Standard EN 14362-1: 2017, Clauses 9, 10.1, 10.3 and afterwards.

Test Method III = International Standard ISO 17234-1: 2015.

Remark:

The list of aromatic amines in azo colorants is summarized in table of Appendix.

The CAS-number 97-56-3 (no. 5) and 99-55-8 (no. 6) are further reduced to CAS-number 95-53-4 (no. 18) and 95-80-7 (no. 19), respectively.

The colorant(s) of Test Item(s), that are able to form 4-aminoazobenzene, is (are) able to generate aniline and 1,4-phenylenediamine under the condition of Test Method.

The absence of 4-aminoazobenzene is inferred by the absence of aniline and 1,4-phenylenediamine under the condition of Test Method.



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RESULTS:

| LIST OF BANNED AMINES Specified Amines | | |
|---|---------------------------------------|------------|
| Number | Chemical Name | CAS Number |
| 1. | 4-aminobiphenyl | 92-67-1 |
| 2. | Benzidine | 92-87-5 |
| 3. | 4-chloro-o-toluidine | 95-69-2 |
| 4. | 2-naphthylamine | 91-59-8 |
| 5. | o-aminoazotoluene | 97-56-3 |
| 6. | 5-nitro-o-toluidine | 99-55-8 |
| 7. | 4-chloroaniline | 106-47-8 |
| 8. | 4-methoxy-m-phenylenediamine | 615-05-4 |
| 9. | 4,4'-diaminodiphenylmethane | 101-77-9 |
| 10. | 3,3'-dichlorobenzidine | 91-94-1 |
| 11. | 3,3'-dimethoxybenzidine | 119-90-4 |
| 12. | 3,3'-dimethylbenzidine | 119-93-7 |
| 13. | 4,4'-methylenedi-o-toluidine | 838-88-0 |
| 14. | p-cresidine | 120-71-8 |
| 15. | 4,4'-methylene-bis-(2-chloro-aniline) | 101-14-4 |
| 16. | 4,4'-oxydianiline | 101-80-4 |
| 17. | 4,4'-thiodianiline | 139-65-1 |
| 18. | o-toluidine | 95-53-4 |
| 19. | 4-methyl-m-phenylenediamine | 95-80-7 |
| 20. | 2,4,5-trimethylaniline | 137-17-7 |
| 21. | o-anisidine | 90-04-0 |
| 22. | 4-amino azobenzene | 60-09-3 |



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RESULTS:

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

Test Method : With reference to test method mentioned in German AfPS GS 2014:01 PAK

| Sample Identity | Test Component | Location | Style |
|-----------------|--|--|-------|
| A. | Composite of Transparent PVC (透明 PVC) | Pocket inner textile bag (布袋里面口袋) | |
| B. | White PVC (白色 PVC) | USB cable (USB 电线) | |
| C. | Matt white PVC (哑白色 PVC) | Small plug of USB cable (USB 电线小插头) | |
| D. | Dull white PVC (暗白色 PVC) | Big plug of USB cable (USB 电线大插头) | |
| E. | Soft white PVC (柔白色 PVC) | Cable of LED light panel (教学灯板电线) | |
| F. | Snow white PVC (雪白色 PVC) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| G. | White plastic (白色塑胶) | Big plug of USB cable (USB 电线大插头) | |
| H. | Black plastic (黑色塑胶) | Small plug of USB cable (USB 电线小插头) | |
| I. | Matt black plastic (哑黑色塑胶) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| J. | Black soft plastic (黑色软塑胶) | Foot pad (脚垫) | |
| K. | Transparent plastic (透明塑胶) | LED light panel(教学灯板) | |
| L. | Translucent plastic (半透明塑胶) | LED light panel(教学灯板) | |
| M. | Bright white plastic (亮白色塑胶) | LED light panel(教学灯板) | |
| N. | Transparent plastic (透明塑胶) | Remote controller (遥控器) | |
| O. | Dull black plastic (暗黑色塑胶) | Remote controller(遥控器) | |
| P. | Translucent green plastic (半透明绿色塑胶) | Zipper teeth of textile bag (布袋拉链牙) | |



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RESULTS:

Polycyclic Aromatic Hydrocarbons (PAHs) Content - German Product Safety Commission GS Specification AfPS GS 2014:01 PAK

Test Method : With reference to test method mentioned in German AfPS GS 2014:01 PAK

| Sample Identity | Test Component | Location | Style |
|-----------------|--|--|-------|
| A. | Composite of Transparent PVC (透明 PVC) | Pocket inner textile bag (布袋里面口袋) | |
| B. | White PVC (白色 PVC) | USB cable (USB 电线) | |
| C. | Matt white PVC (哑白色 PVC) | Small plug of USB cable (USB 电线小插头) | |
| D. | Dull white PVC (暗白色 PVC) | Big plug of USB cable (USB 电线大插头) | |
| E. | Soft white PVC (柔白色 PVC) | Cable of LED light panel (教学灯板电线) | |
| F. | Snow white PVC (雪白色 PVC) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| G. | White plastic (白色塑胶) | Big plug of USB cable (USB 电线大插头) | |
| H. | Black plastic (黑色塑胶) | Small plug of USB cable (USB 电线小插头) | |
| I. | Matt black plastic (哑黑色塑胶) | Connector on cable of LED light panel (教学灯板电线连接器) | |
| J. | Black soft plastic (黑色软塑胶) | Foot pad (脚垫) | |
| K. | Transparent plastic (透明塑胶) | LED light panel(教学灯板) | |
| L. | Translucent plastic (半透明塑胶) | LED light panel(教学灯板) | |
| M. | Bright white plastic (亮白色塑胶) | LED light panel(教学灯板) | |
| N. | Transparent plastic (透明塑胶) | Remote controller (遥控器) | |
| O. | Dull black plastic (暗黑色塑胶) | Remote controller(遥控器) | |
| P. | Translucent green plastic (半透明绿色塑胶) | Zipper teeth of textile bag (布袋拉链牙) | |



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RESULTS:

Polycyclic Aromatic Hydrocarbons (PAHs) Content - German Product Safety Commission GS Specification AfPS GS 2014:01 PAK

Test Method : With reference to test method mentioned in German AfPS GS 2014:01 PAK

| Type (See Comment for the List of Types) | I | Ila | Ilb | IIla | IIlb |
|---|--------------------------------|-------|-------|-------|------|
| Test Parameter(s) | Limit ^[a] (mg/kg) | | | | |
| Each of Benzo (a) pyrene, Benzo (e) pyrene, Benzo (a) anthracene, Benzo (b) fluoranthene, Benzo (j) fluoranthene, Benzo (k) fluoranthene, Chrysene, Dibenzo (a,h) anthracene, Benzo (g,h,i) perylene and Indeno (1,2,3-cd) pyrene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Naphthalene | < 1 | < 2 | <2 | < 10 | < 10 |
| Sum of Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Pyrene, Anthracene and Fluoranthene (Sum of No. 11to No. 17 of listed PAHs) | < 1 | < 5 | < 10 | < 20 | < 50 |
| Sum of all listed PAHs | < 1 | < 5 | < 10 | < 20 | < 50 |

| Tested Item(s) | Type | Result | | Conclusion |
|----------------|------|--|--------------------------------|------------|
| | | Detected Analyte(s) | Conc. (mg/Kg) | |
| A. | Ila | Naphthalene Fluorene Phenanthrene Sum of PAHs | 0.787 0.546 1.82 3.15 | PASS |
| B. | Ila | Naphthalene Sum of PAHs | 0.973 0.973 | PASS |
| C. | Ila | Naphthalene Sum of PAHs | 0.712 0.712 | PASS |
| D. | Ila | Naphthalene Sum of PAHs | 0.672 0.672 | PASS |
| E. | Ila | Naphthalene Sum of PAHs | 1.63 1.63 | PASS |
| F. | Ila | Naphthalene Sum of PAHs | 0.667 0.667 | PASS |
| G. | Ila | ND | ND | PASS |
| H. | Ila | ND | ND | PASS |
| I. | Ila | ND | ND | PASS |
| J. | IIla | ND | ND | PASS |
| K. | I | ND | ND | PASS |
| L. | Ila | ND | ND | PASS |
| M. | Ila | ND | ND | PASS |
| N. | I | ND | ND | PASS |
| O. | I | Naphthalene Pyrene Sum of PAHs | 0.418 0.350 0.768 | PASS |
| P. | Ila | ND | ND | PASS |



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RESULTS:

ND = Not detected

mg/kg = milligram per kilogram

Detection Limit : Each PAHs 0.2 mg/kg; Sum of all PAHs:0.2 mg/kg

">" = More than

"<" = Less than

Conc. = Concentration

Remark:

- The list of polycyclic aromatic hydrocarbons is summarized in table of Appendix.
- Plasticized and rubberized prints, coatings and plastic materials of product are applicable to be tested.
- Denotes as this (these) limit(s) applies to product(s) with GS-Mark dated on or after July 01, 2015.

| List of Types [Categories defined in German AfPS GS 2014:01 PAK] : | | |
|--|--|--|
| Category | Category Description(s) | Type |
| 1 | Category 1: Materials intended for mouth contact or materials in toys with intended long-term skin contact for more than 30 seconds | I |
| 2 | Category 2: Materials which are not covered in Category 1 with foreseeable contact to skin longer than 30 seconds (Long-term skin contact) or repeated short-term skin contact | IIa ^[a] or IIb ^[b] |
| 3 | Category 3: Materials which are not covered in Category 1 or Category 2 with foreseeable skin contact up to 30 seconds (Short-term skin contact) | IIIa ^[a] or IIIb ^[b] |
| <p>^[a] denotes as toys according to European Parliament and Council Directive 2009/48/EC</p> <p>^[b] denotes as other products according to German ProdSG</p> | | |

APPENDIX

| List of Polycyclic Aromatic Hydrocarbons (PAHs) [German AfPS GS 2014:01 PAK] : | | | | | |
|--|--------------------------|----------|-----|--------------------------|----------|
| No. | Name of Analyte(s) | CAS-No. | No. | Name of Analyte(s) | CAS-No. |
| 1 | Benzo (a) pyrene | 50-32-8 | 10 | Indeno (1,2,3-cd) pyrene | 193-39-5 |
| 2 | Benzo (e) pyrene | 192-97-2 | 11 | Acenaphthylene | 208-96-8 |
| 3 | Benzo (a) anthracene | 56-55-3 | 12 | Acenaphthene | 83-32-9 |
| 4 | Benzo (b) fluoranthene | 205-99-2 | 13 | Fluorene | 86-73-7 |
| 5 | Benzo (j) fluoranthene | 205-82-3 | 14 | Phenanthrene | 85-01-8 |
| 6 | Benzo (k) fluoranthene | 207-08-9 | 15 | Pyrene | 129-00-0 |
| 7 | Chrysene | 218-01-9 | 16 | Anthracene | 120-12-7 |
| 8 | Dibenzo (a,h) anthracene | 53-70-3 | 17 | Fluoranthene | 206-44-0 |
| 9 | Benzo (g,h,i) perylene | 191-24-2 | 18 | Naphthalene | 91-20-3 |
| CAS-No. = Chemical Abstracts Service registry number | | | | | |



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RESULTS:

PHTHALATES CONTENT IN CHILDREN'S TOYS AND CHILD CARE ARTICLES (Consumer Product Safety Improvement Act (CPSIA) of 2008, Section 108(a) and 108(c), 16 CFR 1307)

Test Method: With reference to U. S. CPSC-CH-C1001-09.3 (April 1, 2010) / CPSC-CH-C1001-09.4 (January 17, 2018).

| Sample Identity | Color / Component | Location | Style |
|-----------------|--|--|-------|
| A. | Black coating / White coating | Warning sticker Words & pattern on remote controller | |
| B. | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) | |
| C. | Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | |
| D. | White plastic (白色塑胶) Black plastic (黑色塑胶) Matt black plastic (哑黑色塑胶) | Big plug of USB cable (USB 电线大插头) Small plug of USB cable (USB 电线小插头) Connector on cable of LED light panel (教学灯板电线连接器) | |
| E. | Black soft plastic (黑色软塑胶) Transparent plastic (透明塑胶) Translucent plastic (半透明塑胶) | Foot pad (脚垫) LED light panel(教学灯板) LED light panel(教学灯板) | |
| F. | Bright white plastic (亮白色塑胶) Transparent plastic (透明塑胶) | LED light panel(教学灯板) Remote controller (遥控器) | |
| G. | Dull black plastic (暗黑色塑胶) Translucent red plastic (半透明红色塑胶) Translucent green plastic (半透明绿色塑胶) | Remote controller(遥控器) Indicator light of remote controller (遥控器指示灯) Zipper teeth of textile bag (布袋拉链牙) | |



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RESULTS:

PHTHALATES CONTENT IN CHILDREN'S TOYS AND CHILD CARE ARTICLES (Consumer Product Safety Improvement Act (CPSIA) of 2008, Section 108(a) and 108(c), 16 CFR 1307)

Test Method: With reference to U. S. CPSC-CH-C1001-09.3 (April 1, 2010) / CPSC-CH-C1001-09.4 (January 17, 2018).

| Test Parameter: | Listed Phthalates (See Remark) | | |
|-----------------|--------------------------------|-------------------|------------|
| Requirement: | Each 0.1% | | |
| Sample ID | Detected Analyte | Concentration (%) | Conclusion |
| A. | ND | ND | PASS |
| B. | ND | ND | PASS |
| C. | DBP | 0.018 | PASS |
| D. | ND | ND | PASS |
| E. | ND | ND | PASS |
| F. | DBP | 0.034 | PASS |
| G. | ND | ND | PASS |

Results reported in percentage

ND = None detected

Detection Limit: Each Phthalate (0.005%)

| LIST OF RESTRICTED PHTHALATES | | |
|-------------------------------|---------------------------------------|-------------------------|
| Number | Chemical Name | CAS Number |
| 1. | Butyl benzyl phthalate (BBP) | 85-68-7 |
| 2. | Dibutyl phthalate (DBP) | 84-74-2 |
| 3. | Di(2-ethylhexyl) phthalate (DEHP) | 117-81-7 |
| 4. | Di-iso-nonyl phthalate (DINP) | 28553-12-0 & 68515-48-0 |
| 5. | Di-iso-butyl phthalate (DIBP) | 84-69-5 |
| 6. | Di-n-pentyl phthalate (DPENP or DnPP) | 131-18-0 |
| 7. | Di-n-hexyl phthalate (DHEXP or DnHP) | 84-75-3 |
| 8. | Dicyclohexyl phthalate (DCHP) | 84-61-7 |



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RESULTS:

PHTHALATES CONTENT IN CHILDREN'S TOYS AND CHILDCARE ARTICLES (Canada Consumer Product Safety Act, Phthalate Regulations, SOR/2016-188 - BBP / DBP / DEHP CONTENT)

| Sample Identity | Test Component | Location | Style |
|-----------------|--|---|-------|
| A. | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) | |
| B. | Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | |

| | | | | |
|------------|-----|-----|------|--|
| Analyte: | BBP | DBP | DEHP | |
| Limit (%): | 0.1 | 0.1 | 0.1 | |

| Analyte | BBP | DBP | DEHP | |
|---------|------------|----------|----------|------------|
| Sample | Result (%) | | | Conclusion |
| A. | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| B. | LT 0.005 | 0.018 | LT 0.005 | 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



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RESULTS:

PHTHALATES CONTENT IN CHILDREN'S TOYS AND CHILDCARE ARTICLES (Canada Consumer Product Safety Act, Phthalate Regulations, SOR/2016-188 - DNOP / DINP / DIDP CONTENT)

| Sample Identity | Test Component | Location | Style |
|-----------------|--|---|-------|
| A. | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) | |
| B. | Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | |

| Analyte: | DNOP | DINP | DIDP | |
|------------|------|------|------|--|
| Limit (%): | 0.1 | 0.1 | 0.1 | |

| Analyte | DNOP | DINP | DIDP | |
|---------|------------|----------|----------|------------|
| Sample | Result (%) | | | Conclusion |
| A. | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| B. | LT 0.005 | LT 0.005 | LT 0.005 | 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:

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

| Sample Identity | Test Component | Location | Style |
|-----------------|--|--|-------|
| A. | Black coating / White coating | Warning sticker Words & pattern on remote controller | |
| B. | All coating /white coating Silver /white coating | Backing of control panel of remote controller Inner LED light panel | |
| C. | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) | |
| D. | Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | |
| E. | White plastic (白色塑胶) Black plastic (黑色塑胶) Matt black plastic (哑黑色塑胶) | Big plug of USB cable (USB 电线大插头) Small plug of USB cable (USB 电线小插头) Connector on cable of LED light panel (教学灯板电线连接器) | |
| F. | Black soft plastic (黑色软塑胶) Transparent plastic (透明塑胶) Translucent plastic (半透明塑胶) | Foot pad (脚垫) LED light panel(教学灯板) LED light panel(教学灯板) | |
| G. | Bright white plastic (亮白色塑胶) Transparent plastic (透明塑胶) | LED light panel(教学灯板) Remote controller (遥控器) | |
| H. | Dull black plastic (暗黑色塑胶) Translucent red plastic (半透明红色塑胶) Translucent green plastic (半透明绿色塑胶) | Remote controller(遥控器) Indicator light of remote controller (遥控器指示灯) Zipper teeth of textile bag (布袋拉链牙) | |



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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

| Sample Identity | Test Component | Location | Style |
|-----------------|--|--|-------|
| I. | Black PVC Red PVC | Wire inner USB cable Wire inner cable of LED light panel Wire inner USB cable Wire inner cable of LED light panel | |
| J. | Soft black PVC Soft red PVC White printed bright black PVC | Wire inner LED light panel Wire inner LED light panel Sleeves of capacitor | |
| K. | White foam Translucent plastic | Inner textile bag Inner big plug of USB cable Inner connector on cable of LED light panel | |
| L. | Translucent plastic sticker Matt black soft plastic | Double side adhesive tape on backing of control panel of remote controller Inner capacitor | |
| M. | White /translucent body Black body | LED on PCB inner LED light panel SMD IC on PCB | |
| N. | White /green printed light brown PCB /EC | PCB | |
| O. | Bright red coating | Bright red paint (A1Y) | |
| P. | Dark green coating | Dark green paint (A5Y) | |
| Q. | Dark blue coating | Dark blue paint (A7Y) | |



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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. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| B. | 0.013 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| C. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| D. | LT 0.005 | 0.018 | LT 0.005 | 0.018 | PASS |
| E. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| F. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| G. | LT 0.005 | 0.034 | LT 0.005 | 0.034 | PASS |
| H. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| I. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| J. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| K. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| L. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| M. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| N. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| O. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| P. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| Q. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | 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

RESULTS:

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

| Sample Identity | Test Component | Location | Style |
|-----------------|--|--|-------|
| A. | Black coating / White coating | Warning sticker Words & pattern on remote controller | |
| B. | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) | |
| C. | Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | |
| D. | White plastic (白色塑胶) Black plastic (黑色塑胶) Matt black plastic (哑黑色塑胶) | Big plug of USB cable (USB 电线大插头) Small plug of USB cable (USB 电线小插头) Connector on cable of LED light panel (教学灯板电线连接器) | |
| E. | Black soft plastic (黑色软塑胶) Transparent plastic (透明塑胶) Translucent plastic (半透明塑胶) | Foot pad (脚垫) LED light panel(教学灯板) LED light panel(教学灯板) | |
| F. | Bright white plastic (亮白色塑胶) Transparent plastic (透明塑胶) | LED light panel(教学灯板) Remote controller (遥控器) | |
| G. | Dull black plastic (暗黑色塑胶) Translucent red plastic (半透明红色塑胶) Translucent green plastic (半透明绿色塑胶) | Remote controller(遥控器) Indicator light of remote controller (遥控器指示灯) Zipper teeth of textile bag (布袋拉链牙) | |



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RESULTS:

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. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| B. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| C. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| D. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| E. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| F. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | PASS |
| G. | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.015 | 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:

DIBP CONTENT IN TOYS (2009/48/EC and its amendments, Annex II, Part III, Point 3)

| Test Parameter: | | | DIBP | | |
|-----------------|--|---|-------|------------|------------|
| Limit (%): | | | 0.3 | | |
| | Color / Component | Location | Style | Result (%) | Conclusion |
| A. | Black coating / White coating | Warning sticker Words & pattern on remote controller | | LT 0.005 | PASS |
| B. | All coating /white coating Silver /white coating | Backing of control panel of remote controller Inner LED light panel | | LT 0.005 | PASS |
| C. | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) | | LT 0.005 | PASS |
| D. | Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | | LT 0.005 | PASS |
| E. | White plastic (白色塑胶) Black plastic (黑色塑胶) Matt black plastic (哑黑色塑胶) | Big plug of USB cable (USB 电线大插头) Small plug of USB cable (USB 电线小插头) Connector on cable of LED light panel (教学灯板电线连接器) | | LT 0.005 | PASS |
| F. | Black soft plastic (黑色软塑胶) Transparent plastic (透明塑胶) Translucent plastic (半透明塑胶) | Foot pad (脚垫) LED light panel(教学灯板) LED light panel(教学灯板) | | LT 0.005 | PASS |
| G. | Bright white plastic (亮白色塑胶) Transparent plastic (透明塑胶) | LED light panel(教学灯板) Remote controller (遥控器) | | LT 0.005 | PASS |
| H. | Dull black plastic (暗黑色塑胶) Translucent red plastic (半透明红色塑胶) Translucent green plastic (半透明绿色塑胶) | Remote controller(遥控器) Indicator light of remote controller (遥控器指示灯) Zipper teeth of textile bag (布袋拉链牙) | | LT 0.005 | PASS |



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RESULTS:

DIBP CONTENT IN TOYS (2009/48/EC and its amendments, Annex II, Part III, Point 3)

| Test Parameter: | | | DIBP | | |
|-----------------|--|--|-------|------------|------------|
| Limit (%): | | | 0.3 | | |
| | Color / Component | Location | Style | Result (%) | Conclusion |
| I. | Black PVC Red PVC | Wire inner USB cable Wire inner cable of LED light panel Wire inner USB cable Wire inner cable of LED light panel | | LT 0.005 | PASS |
| J. | Soft black PVC Soft red PVC White printed bright black PVC | Wire inner LED light panel Wire inner LED light panel Sleeves of capacitor | | LT 0.005 | PASS |
| K. | White foam Translucent plastic | Inner textile bag Inner big plug of USB cable Inner connector on cable of LED light panel | | LT 0.005 | PASS |
| L. | Translucent plastic sticker Matt black soft plastic | Double side adhesive tape on backing of control panel of remote controller Inner capacitor | | LT 0.005 | PASS |
| M. | White /translucent body Black body | LED on PCB inner LED light panel SMD IC on PCB | | LT 0.005 | PASS |
| N. | White /green printed light brown PCB /EC | PCB | | LT 0.005 | PASS |
| O. | Bright red coating | Bright red paint (A1Y) | | LT 0.005 | PASS |
| P. | Dark green coating | Dark green paint (A5Y) | | LT 0.005 | PASS |
| Q. | Dark blue coating | Dark blue paint (A7Y) | | LT 0.005 | PASS |

Remark:

DIBP (CAS No: 84-69-5) = Diisobutyl phthalate

Results reported in percentage

ND = None detected

Detection Limit: Each Phthalate (0.005%)

RESULTS:

CLIENT'S 17 PHTHALATES CONTENT SPECIFICATION

• **BBP/DBP/DEHP/DNOP/DINP/DIDP Content**

| Color / Component | Location | Style |
|---|--|-------|
| A. Composite of Black coating / White coating | Warning sticker Words & pattern on remote controller | |
| B. All coating /white coating Silver /white coating | Backing of control panel of remote controller Inner LED light panel | |
| C. Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) | |
| D. Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) Snow white PVC (雪白色 PVC) | Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) Connector on cable of LED light panel (教学灯板电线连接器) | |
| E. White plastic (白色塑胶) Black plastic (黑色塑胶) Matt black plastic (哑黑色塑胶) | Big plug of USB cable (USB 电线大插头) Small plug of USB cable (USB 电线小插头) Connector on cable of LED light panel (教学灯板电线连接器) | |
| F. Black soft plastic (黑色软塑胶) Transparent plastic (透明塑胶) Translucent plastic (半透明塑胶) | Foot pad (脚垫) LED light panel(教学灯板) LED light panel(教学灯板) | |
| G. Bright white plastic (亮白色塑胶) Transparent plastic (透明塑胶) | LED light panel(教学灯板) Remote controller (遥控器) | |
| H. Dull black plastic (暗黑色塑胶) Translucent red plastic (半透明红色塑胶) Translucent green plastic (半透明绿色塑胶) | Remote controller(遥控器) Indicator light of remote controller (遥控器指示灯) Zipper teeth of textile bag (布袋拉链牙) | |



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RESULTS:

CLIENT'S 17 PHTHALATES CONTENT SPECIFICATION

- **BBP/DBP/DEHP/DNOP/DINP/DIDP Content**

| | Color / Component | Location | Style |
|----|--|--|-------|
| | Composite of | | |
| I. | Black PVC | Wire inner USB cable | |
| | Red PVC | Wire inner cable of LED light panel | |
| | | Wire inner USB cable | |
| | | Wire inner cable of LED light panel | |
| J. | Soft black PVC | Wire inner LED light panel | |
| | Soft red PVC | Wire inner LED light panel | |
| | White printed bright black PVC | Sleeves of capacitor | |
| K. | White foam | Inner textile bag | |
| | Translucent plastic | Inner big plug of USB cable | |
| | | Inner connector on cable of LED light panel | |
| L. | Translucent plastic sticker | Double side adhesive tape on backing of control panel of remote controller | |
| | Matt black soft plastic | Inner capacitor | |
| M. | White /translucent body | LED on PCB inner LED light panel | |
| | Black body | SMD IC on PCB | |
| N. | White /green printed light brown PCB /EC | PCB | |
| O. | Bright red coating | Bright red paint (A1Y) | |
| P. | Dark green coating | Dark green paint (A5Y) | |
| Q. | Dark blue coating | Dark blue paint (A7Y) | |



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RESULTS:

CLIENT'S 17 PHTHALATES CONTENT SPECIFICATION

- **BBP/DBP/DEHP/DNOP/DINP/DIDP Content**

| Test Parameter | BBP | DBP | DEHP | DNOP | DINP | DIDP | |
|----------------|------------|----------|----------|----------|----------|----------|------------|
| Limit (%) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| Sample | Result (%) | | | | | | Conclusion |
| A | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| B | 0.013 | LT 0.005 | PASS |
| C | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| D | LT 0.005 | 0.018 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| E | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| F | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| G | LT 0.005 | 0.034 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| H | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| I | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| J | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| K | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| L | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| M | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| N | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| O | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| P | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |
| Q | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | LT 0.005 | PASS |

Detection Limit :

DNOP = Di-n-octyl phthalate (0.005%) 117-84-0
 DINP = p
 DIDP = Di-iso-decyl phthalate (0.005%) 26761-40-0 / 68515-49-1
 BBP = Butyl benzyl phthalate (0.005%) 85-68-7
 DBP = Dibutyl phthalate (0.005%) 84-74-2
 DEHP = Di(2-ethylhexyl) phthalate (0.005%) 117-81-7

Results reported in percentage

LT = Less than
 ND = None detected



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RESULTS:

CLIENT'S 17 PHTHALATES CONTENT SPECIFICATION

- **EC No. 201-559-5 / DiBP / DHNUP / DIHP / DMEP / DIPP / DnPP / DPP / PiPP / DHP / 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear Content**

| Test Parameter | DnPP | DPP | PiPP | DHP | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear | |
|----------------|----------|----------|----------|----------|--|------------|
| Limit (%) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| Sample | | | | | | Conclusion |
| A | LT 0.005 | PASS |
| B | LT 0.005 | PASS |
| C | LT 0.005 | PASS |
| D | LT 0.005 | PASS |
| E | LT 0.005 | PASS |
| F | LT 0.005 | PASS |
| G | LT 0.005 | PASS |
| H | LT 0.005 | PASS |
| I | LT 0.005 | PASS |
| J | LT 0.005 | PASS |
| K | LT 0.005 | PASS |
| L | LT 0.005 | PASS |
| M | LT 0.005 | PASS |
| N | LT 0.005 | PASS |
| O | LT 0.005 | PASS |
| P | LT 0.005 | PASS |
| Q | LT 0.005 | PASS |

Results reported in percentage

LT = Less than

ND = None detected



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RESULTS:

Detection Limit:

DiBP = Diisobutylphthalate 84-69-5

DHNUP = 1,2-Benzenedicarboxylic acid, di-C7, 11-branched and linear alkyl esters 68515-42-4

DIHP = 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich 71888-89-6

DMEP = Dimethoxyethyl phthalate 117-82-8

DIPP = Diisopentylphthalate 605-50-5

DnPP = Dipentylphthalate 131-18-0

DPP = 1,2-benzenedicarboxylic acid dipentylester, branched and linear 84777-06-0

PiPP = n-Pentyl-Isopentylphthalate 776297-69-9

DHP = Dihexylphthalate 84-75-3

1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear 68515-50-4

EC No. 201-559-5 = 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with \geq 0.3% of dihexyl phthalate 68515-51-5 / 68648-93-1



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RESULTS:

FORMALDEHYDE CONTENT IN TEXTILES (Client's specifications)

Test Method: BS EN ISO 14184-1: 2011, Textiles - Determination of formaldehyde - Part 1: Free and hydrolyzed formaldehyde (water extraction method).

Method of sample packaged when received: In retail packaging

Range of calibration graph: From 0.15 to 4.5 mg/L CH₂O standard solutions

| Parameter: | | | | | Formaldehyde | | |
|--------------------------|---|---------------------------------------|-------|-------|----------------------|------------|---------------|
| Maximum allowable limit: | | | | | Data | | |
| Color/Component | | Test Component | | | *Result | Conclusion | |
| | | Location | Style | Trial | Mass of Specimen (g) | | (mg/kg (ppm)) |
| A. | Blue embroidery /khaki fabric (蓝色刺绣/卡其色布料) | Textile bag (布袋) | | 1 | 0.5027 | LT 16 | DATA |
| | | | | 2 | 0.5020 | LT 16 | |
| B. | Green embroidery/ khaki fabric (绿色刺绣/卡其色布料) | Textile bag (布袋) | | 1 | 0.5093 | LT 16 | DATA |
| | | | | 2 | 0.5093 | LT 16 | |
| C. | Red embroidery /khaki fabric (红色刺绣/卡其色布料) | Textile bag (布袋) | | 1 | 0.5032 | LT 16 | DATA |
| | | | | 2 | 0.5067 | LT 16 | |
| D. | Khaki thread /red fabric (卡其色线 /红色布料) | Textile bag (布袋) | | 1 | 1.0026 | LT 16 | DATA |
| | | | | 2 | 1.0093 | LT 16 | |
| E. | Green thread /green strap (绿色线 /绿色带子) | Handle of textile bag (布袋提手) | | 1 | 1.0097 | LT 16 | DATA |
| | | | | 2 | 1.0049 | LT 16 | |
| F. | Matt green thread /matt green fabric (哑绿色线 /哑绿色布料) | Zipper band of textile bag (布袋拉链带) | | 1 | 0.5092 | LT 16 | DATA |
| | | | | 2 | 0.5007 | LT 16 | |
| G. | Matt red fabric (哑红色布料) | Rim inner textile bag (布袋内包边) | | 1 | 0.5071 | LT 16 | DATA |
| | | | | 2 | 0.5032 | LT 16 | |
| H. | Red thread /bright red fabric (红色线 /亮红色布料) | Lining of textile bag (布袋内衬) | | 1 | 0.5037 | 20.04 | DATA |
| | | | | 2 | 0.5002 | 20.17 | |

mg/kg (ppm) = milligrams per kilogram (ppm = parts per million)
 ND = Not Detected (Detection Limit = 16 mg/kg (ppm))

LT = Less than
 * = Average the duplicate analyses



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RESULTS:

BENZENE CONTENT IN TOYS OR PARTS OF TOYS (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 5, Point 1)

| Test Parameter | | | Benzene | |
|--|--|---|---------|------------|
| Maximum concentration in the free state: | | | 5 mg/kg | |
| Test Component | | | Result | Conclusion |
| Color / Component | Location | Style No. | (mg/kg) | |
| A. | Transparent PVC (透明 PVC) White PVC (白色 PVC) Matt white PVC (哑白色 PVC) Dull white PVC (暗白色 PVC) Soft white PVC (柔白色 PVC) | Pocket inner textile bag (布袋里面口袋) USB cable (USB 电线) Small plug of USB cable (USB 电线小插头) Big plug of USB cable (USB 电线大插头) Cable of LED light panel (教学灯板电线) | LT 1 | PASS |
| B. | Snow white PVC (雪白色 PVC) White plastic (白色塑胶) Black plastic (黑色塑胶) Matt black plastic (哑黑色塑胶) Black soft plastic (黑色软塑胶) | Connector on cable of LED light panel (教学灯板电线连接器) Big plug of USB cable (USB 电线大插头) Small plug of USB cable (USB 电线小插头) Connector on cable of LED light panel (教学灯板电线连接器) Foot pad (脚垫) | LT 1 | PASS |
| C. | Silver /white printed transparent plastic Translucent plastic (半透明塑胶) Bright white plastic (亮白色塑胶) Multicolor printed transparent plastic White printed dull black plastic / Translucent red plastic | LED light panel(教学灯板) LED light panel(教学灯板) LED light panel(教学灯板) Remote controller (遥控器) Remote controller Indicator light of remote controller | LT 1 | PASS |
| D. | Translucent green plastic (半透明绿色塑胶) Black printed white paper sticker (黑色印刷白色纸贴) | Zipper teeth of textile bag (布袋拉链牙) Warning sticker (警告贴) | LT 1 | PASS |

RESULTS:

BENZENE CONTENT IN TOYS OR PARTS OF TOYS (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 5, Point 1)

| Test Parameter | | | Benzene | |
|--|---|--|----------------|------------|
| Maximum concentration in the free state: | | | 5 mg/kg | |
| Test Component | | | Result (mg/kg) | Conclusion |
| Color / Component | Location | Style No. | | |
| E. | Blue embroidery /khaki fabric (蓝色刺绣/卡其色布料) | Textile bag (布袋) | LT 1 | PASS |
| | Green embroidery/ khaki fabric (绿色刺绣/卡其色布料) | Textile bag (布袋) | | |
| | Red embroidery /khaki fabric (红色刺绣/卡其色布料) | Textile bag (布袋) | | |
| | Khaki thread /red fabric (卡其色线 /红色布料) | Textile bag (布袋) | | |
| F. | Green thread /green strap (绿色线 /绿色带子) | Handle of textile bag (布袋提手) | LT 1 | PASS |
| | Matt green thread /matt green fabric (哑绿色线 /哑绿色布料) | Zipper band of textile bag (布袋拉链带) | | |
| | Matt red fabric (哑红色布料) | Rim inner textile bag (布袋内包边) | | |
| | Red thread /bright red fabric (红色线 /亮红色布料) | Lining of textile bag (布袋内衬) | | |
| G. | Black PVC | Wire inner USB cable | LT 1 | PASS |
| | | Wire inner cable of LED light panel | | |
| | Red PVC | Wire inner USB cable | | |
| | | Wire inner cable of LED light panel | | |
| | Soft black PVC | Wire inner LED light panel | | |
| | Soft red PVC / White printed bright black PVC White foam / Matt black soft plastic | Wire inner LED light panel Sleeves of capacitor Inner textile bag Inner capacitor | | |
| H. | Translucent plastic | Inner big plug of USB cable | LT 1 | PASS |
| | | Inner connector on cable of LED light panel | | |
| | Translucent plastic sticker | Double side adhesive tape on backing of control panel of remote controller | | |
| | White /translucent body | LED on PCB inner LED light panel | | |
| | Black body / White /green printed light brown PCB /EC | SMD IC on PCB PCB | | |

LT = Less than

mg/kg = milligram per kilogram



RESULTS:

DIBP CONTENT (European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments)

Test method: IEC 62321-8:2017

| Test Parameter: | | | DIBP | | |
|-----------------|------------------------------|--------------|-------|------------|------------|
| Limit (%): | | | 0.1 | | |
| | Color / Component | Location | Style | Result (%) | Conclusion |
| A. | Silvery metal | Zipper slide | | ND | PASS |
| B. | Bright silvery metal | Zipper tag | | ND | PASS |
| C. | White foam | Foam | | ND | PASS |
| D. | White plastic | Board, panel | | ND | PASS |
| E. | Clear glue | Glue | | ND | PASS |
| F. | Silver printed clear plastic | Board, panel | | ND | PASS |

Remark:
 DIBP (CAS No: 84-69-5) = Diisobutyl phthalate

Results reported in percentage
 ND = None detected
 Detection Limit: Each Phthalate (0.005%)



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RESULTS:

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

Test Method : See Appendix.

| Test Item(s) | Item / Component Description(s) | Location(s) | Style(s) |
|--------------|--|-------------------------|----------|
| 1. | Bright green fabric | Handle | |
| 2. | Red fabric | Textile bag | |
| 3. | Clear green plastic | Zipper teeth | |
| 4. | Light green fabric | Zipper band | |
| 5. | Red fabric | Lining | |
| 6. | Clear PVC | Lining | |
| 7. | Khaki fabric / Green / red / blue embroidery | Textile bag | |
| 8. | White paper | Film | |
| 9. | Black paper | Film | |
| 10. | Silvery metal | Zipper slide | |
| 11. | Bright silvery metal | Zipper tag | |
| 12. | White foam | Foam | |
| 13. | White plastic | Board, panel | |
| 14. | Clear glue | Glue | |
| 15. | Silver printed clear plastic | Board, panel | |
| 16. | Transparent plastic | Board, panel | |
| 17. | Multicolor printed clear plastic sticker | Sticker | |
| 18. | White printed black plastic | Case, remote control | |
| 19. | White soft plastic | Cord | |
| 20. | Light white soft plastic | Frame | |
| 21. | Translucent plastic | Base inner frame | |
| 22. | Red soft plastic | Wire jacket | |
| 23. | Black soft plastic | Wire jacket | |
| 24. | Coppery metal | Wire | |
| 25. | Silvery metal | Case, USB plug | |
| 26. | Matt white plastic | Base, USB plug | |
| 27. | Golden metal | Pin, USB plug | |
| 28. | Silvery solder | Pin, USB plug | |
| 29. | Light black plastic | Base, mini USB | |
| 30. | Silvery metal | Case, mini USB | |
| 31. | Silvery metal | Plate, mini USB | |
| 32. | Silver plated golden metal | Pin, mini USB | |
| 33. | Silvery solder | Pin, mini USB | |
| 34. | Black plastic | Case, USB plug | |
| 35. | White body | LED, LED board | |
| 36. | Black / white body | SMD resistor, LED board | |
| 37. | White coated translucent plastic / coppery metal | LED board | |
| 38. | Silvery solder | LED board | |
| 39. | White printed black plastic | Sleeve, capacitor, PCB | |
| 40. | Silvery body | Capacitor, PCB | |



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RESULTS:

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

Test Method : See Appendix.

| Test Item(s) | Item / Component Description(s) | Location(s) | Style(s) |
|--------------|--|------------------------------------|----------|
| 41. | Silvery metal | Pin, capacitor, PCB | |
| 42. | Black body | IC, PCB | |
| 43. | Silvery body | Crystal, PCB | |
| 44. | Brown body | SMD capacitor, PCB | |
| 45. | Black / white body | SMD resistor, PCB | |
| 46. | Black body | SMD transistor, PCB | |
| 47. | Black body | SMD IC, PCB | |
| 48. | White printed green coated translucent plastic / coppery metal | PCB | |
| 49. | Silvery solder | PCB | |
| 50. | Clear red / silvery body | LED, PCB "HY872" | |
| 51. | Silvery metal | Battery spring, PCB "HY872" | |
| 52. | Silvery metal | Battery contact plate, PCB "HY872" | |
| 53. | Black body | IC, PCB "HY872" | |
| 54. | Brown body | SMD capacitor, PCB "HY872" | |
| 55. | Black / white body | SMD resistor, PCB "HY872" | |
| 56. | Silvery body | Crystal, PCB "HY872" | |
| 57. | White printed green coated translucent plastic / coppery metal | PCB "HY872" | |
| 58. | Silvery solder | PCB "HY872" | |
| 59. | Black soft plastic | Pad | |
| 60. | Silvery metal | Screw | |
| 61. | Black plated silvery metal | Screw | |



RESULTS:

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

Test Method : See Appendix.

See Analytes and their corresponding Maximum Allowable Limit in Appendix

| Parameter | Result | | | | | | Conclusion |
|--------------|-----------|--------------|--------------|-----------------------|-------|-------|------------|
| | Lead (Pb) | Cadmium (Cd) | Mercury (Hg) | Chromium VI (Cr VI) | PBBs | PBDEs | |
| Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | - |
| Test Item(s) | - | - | - | - | - | - | - |
| 1. | ND | ND | ND | ND | ND | ND | PASS |
| 2. | ND | ND | ND | ND | ND | ND | PASS |
| 3. | ND | ND | ND | ND | ND | ND | PASS |
| 4. | ND | ND | ND | ND | ND | ND | PASS |
| 5. | ND | ND | ND | ND | ND | ND | PASS |
| 6. | ND | ND | ND | ND | ND | ND | PASS |
| 7. | ND | ND | ND | ND | ND | ND | PASS |
| 8. | ND | ND | ND | ND | ND | ND | PASS |
| 9. | ND | ND | ND | ND | ND | ND | PASS |
| 10. | ND | ND | ND | ND | NA | NA | PASS |
| 11. | ND | ND | ND | Negative [#] | NA | NA | PASS |
| 12. | ND | ND | ND | ND | ND | ND | PASS |
| 13. | ND | ND | ND | ND | ND | ND | PASS |
| 14. | ND | ND | ND | ND | ND | ND | PASS |
| 15. | ND | ND | ND | ND | ND | ND | PASS |
| 16. | ND | ND | ND | ND | ND | ND | PASS |
| 17. | ND | ND | ND | ND | ND | ND | PASS |
| 18. | ND | ND | ND | ND | ND | ND | PASS |
| 19. | ND | ND | ND | ND | ND | ND | PASS |
| 20. | ND | ND | ND | ND | ND | ND | PASS |
| 21. | ND | ND | ND | ND | ND | ND | PASS |
| 22. | ND | ND | ND | ND | ND | ND | PASS |
| 23. | ND | ND | ND | ND | ND | ND | PASS |
| 24. | ND | ND | ND | ND | NA | NA | PASS |
| 25. | ND | ND | ND | Negative [#] | NA | NA | PASS |
| 26. | ND | ND | ND | ND | ND | ND | PASS |
| 27. | ND | ND | ND | ND | NA | NA | PASS |
| 28. | ND | ND | ND | ND | NA | NA | PASS |
| 29. | ND | ND | ND | ND | ND | ND | PASS |
| 30. | ND | ND | ND | Negative [#] | NA | NA | PASS |
| 31. | ND | ND | ND | ND | NA | NA | PASS |
| 32. | ND | ND | ND | ND | NA | NA | PASS |
| 33. | ND | ND | ND | ND | NA | NA | PASS |



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RESULTS:

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

Test Method : See Appendix.

See Analytes and their corresponding Maximum Allowable Limit in Appendix

| Parameter | Result | | | | | | Conclusion |
|--------------|-----------|--------------|--------------|-----------------------|-----------------|-----------------|------------|
| | Lead (Pb) | Cadmium (Cd) | Mercury (Hg) | Chromium VI (Cr VI) | PBBs | PBDEs | |
| Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | - |
| Test Item(s) | - | - | - | - | - | - | - |
| 34. | ND | ND | ND | ND | ND [#] | ND [#] | PASS |
| 35. | ND | ND | ND | ND | ND [#] | ND [#] | PASS |
| 36. | ND | ND | ND | ND | ND | ND | PASS |
| 37. | ND | ND | ND | ND | ND | ND | PASS |
| 38. | ND | ND | ND | ND | NA | NA | PASS |
| 39. | ND | ND | ND | ND | ND | ND | PASS |
| 40. | ND | ND | ND | ND | ND | ND | PASS |
| 41. | ND | ND | ND | ND | NA | NA | PASS |
| 42. | ND | ND | ND | ND | ND | ND | PASS |
| 43. | ND | ND | ND | ND | ND | ND | PASS |
| 44. | ND | ND | ND | ND | ND | ND | PASS |
| 45. | ND | ND | ND | ND | ND | ND | PASS |
| 46. | ND | ND | ND | ND | ND | ND | PASS |
| 47. | ND | ND | ND | ND | ND | ND | PASS |
| 48. | ND | ND | ND | ND | ND [#] | ND [#] | PASS |
| 49. | ND | ND | ND | ND | NA | NA | PASS |
| 50. | ND | ND | ND | ND | ND [#] | ND [#] | PASS |
| 51. | ND | ND | ND | ND | NA | NA | PASS |
| 52. | ND | ND | ND | ND | NA | NA | PASS |
| 53. | ND | ND | ND | ND | ND | ND | PASS |
| 54. | ND | ND | ND | ND | ND | ND | PASS |
| 55. | ND | ND | ND | ND | ND | ND | PASS |
| 56. | ND | ND | ND | ND | ND | ND | PASS |
| 57. | ND | ND | ND | ND | ND | ND | PASS |
| 58. | ND | ND | ND | ND | NA | NA | PASS |
| 59. | ND | ND | ND | ND | ND | ND | PASS |
| 60. | ND | ND | ND | Negative [#] | NA | NA | PASS |
| 61. | ND | ND | ND | Negative [#] | NA | NA | PASS |

Note / Key :

ND = Not detected

NR = Not requested

% = percent

Detection Limit : See Appendix.

“>” = Greater than

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

10 000 mg/kg = 1 %



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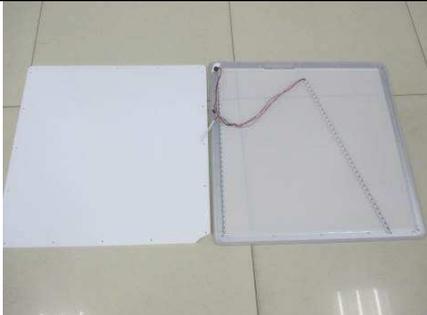
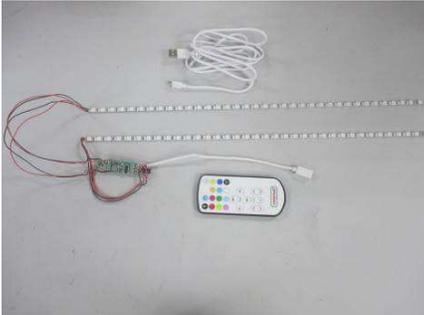
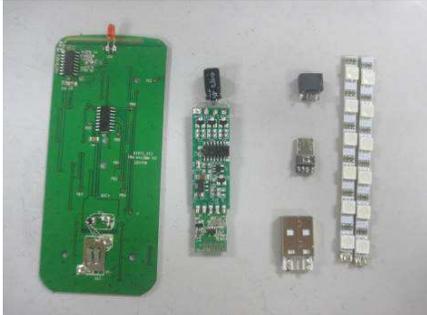
RESULTS:

Remark :

- The testing approach is listed in table of Appendix.
- # denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness.
- Only selected example(s) is (are) indicated on the photograph(s) in Comment.
- According to European Parliament and Council Directive 2011/65/EU, Article 5 “Adaptation of the Annexes to scientific and technical progress”, exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.

RESULTS:

Comment :

| Photograph(s) [Compliance Test for European Parliament and Council Directive 2011/65/EU] : | |
|--|--|
| Photograph of Test Item(s) | |
|  |  |
|  |  |
|  |  |

END

RESULTS:

APPENDIX

| List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit [Compliance Test for European Parliament and Council Directive 2011/65/EU] : | | | | | | | |
|--|--|---|----------------------------|--------|---|---------------------------------|---------------------------------|
| No. | Name of Analytes | Detection Limit (mg/kg) | | | | Wet Chemistry | Maximum Allowable Limit (mg/kg) |
| | | X-ray fluorescence (XRF) ^[a] | | | | | |
| | | Plastic | Metallic / glass / ceramic | Others | | | |
| 1 | Lead (Pb) | 100 | 200 | 200 | 10 ^[b] | 1 000 | |
| 2 | Cadmium (Cd) | 50 | 50 | 50 | 10 ^[b] | 100 | |
| 3 | Mercury (Hg) | 100 | 200 | 200 | 10 ^[c] | 1 000 | |
| 4 | Chromium (Cr) | 100 | 200 | 200 | NA | NA | |
| 5 | Chromium VI (Cr VI) | NA | NA | NA | 10 ^[d] / See ^[e, j] | 1 000 / Negative ^[j] | |
| 6 | Bromine (Br) | 200 | NA | 200 | NA | NA | |
| 7 | Polybromobiphenyls (PBBs) - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB) | NA | NA | NA | Each 50 ^[f] | Sum 1 000 | |
| 8 | Polybromodiphenyl ethers (PBDEs) - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE) | NA | NA | NA | Each 50 ^[f] | Sum 1 000 | |



RESULTS:

APPENDIX

| | |
|-----|---|
| | NA = Not applicable |
| [a] | Test method with reference to International Standard IEC 62321-3-1: 2013. |
| [b] | Test method with reference to International Standard IEC 62321-5: 2013. |
| [c] | Test method with reference to International Standard IEC 62321-4: 2017. |
| [d] | Polymers and Electronics - Test method with reference to International Standard IEC 62321-7-2: 2017. |
| [e] | Metal - Test method with reference to International Standard IEC 62321-7-1: 2015 ^[i] . |
| [f] | Test method with reference to International Standard IEC 62321-6: 2015. |
| [i] | The principle of this method was evaluated and supported by two studies organized by IEC TC 111 WG3. These studies were focused on detecting the presence of Cr VI in the corrosion protection coatings on metallic samples. Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Parliament and Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 2011/65/EU, Article 4(1). |

| | |
|--|---|
| Testing Approach [Compliance Test for European Parliament and Council Directive 2011/65/EU] : | |
| The testing approach was with reference to the following document(s). | |
| 1 | International Standards IEC 62321-1: 2013 and IEC 62321-2: 2013 |
| 2 | “RoHS Enforcement Guidance Document Version 1” by EU RoHS Enforcement Authorities Informal Network. (May 2006) |
| 3 | “RoHS Regulations - Government Guidance Notes” by United Kingdom Department for Business Innovation & Skills. (February 2011) |
| 4 | “Final Report to RoHS substances (Hg, Pb, Cr(VI), Cd, PBB and PBDE) in electrical and electronic equipment in Belgium” by Belgium Federal Public Service Health, Food Chain Safety and Environment. (November 2005) |

RESULTS:



END OF REPORT