

**TEST REPORT**

Applicant: PARKLON YANGJU BRANCH CO LTD  
28 HWAHAP RO- 788 BEON-GIL  
EUNHYEON-MYEON GYEONGGI DO 11426  
REPUBLIC OF KOREA  
  
Attn: WENDY NOH

Number: HKGH02738459  
  
Date: Jun 16, 2021

Submitted sample said to be :  
Item Name : **PVC MAT.**  
Country of Origin : Republic of Korea.  
Quantity : 4 Pieces.  
Labelled Age Group : Not specified  
Packaging Provided : Yes.  
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For and on behalf of :  
Intertek Testing Services HK Ltd.



Cindy I.K. Chan  
Vice President



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**Conclusion:**

The submitted sample was tested under the following requirements requested by the applicant, subject to the information stated in the remark and attached page(s) for details :

| <u>Requirement</u>  | <u>Result</u> |
|---|---------------|
| (1) EN 71-1:2014 + A1:2018<br>- Mechanical and physical properties  | Pass          |
| (2) EN 71-2:2011 + A1:2014<br>- Flammability Test   | Pass          |
| (3) EN 71-2:2020<br>- Flammability Test   | Pass          |
| (4) EN 71-3:2019 and Directive (EU) 2019/1922 amending 2009/48/EC effective from 20 May 2021<br>- Migration of certain elements                       | Pass          |
| (5) EN 71-3 : 2019 + A1 : 2021<br>- Migration of certain elements   | Pass          |
| (6) Directive (EU) 2019/1922 amending 2009/48/EC effective from 20 May 2021<br>- Soluble Aluminium (Al) Content                                       | Pass          |
| (7) EU Commission Directive 2014/79/EU amending Appendix C of Annex II to Directive 2009/48/EC on the safety of toys<br>- TCEP, TCPP and TDCP content | Pass          |

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| <u>Requirement</u>  | <u>Result</u> |
|---|---------------|
| (8) EU Commission Directive 2017/898 amending Appendix C of Annex II to Directive 2009/48/EC on the safety of toys<br>- Bisphenol A migration content | Pass          |
| (9) EU Commission Directive 2017/774 amending Appendix C of Annex II to Directive 2009/48/EC on the safety of toys<br>- Phenol migration content      | Pass          |
| (10) REACH Regulation (EC) No.1907/2006 , Annex XVII Item 23 & amendment No. 2016/217<br>- Cadmium content requirement                                | Pass          |
| (11) REACH Regulation (EC) no. 1907/2006 & amendment (EU) no. 1272/2013 Annex XVII<br>Item 50<br>- Polycyclic aromatic hydrocarbons content           | Pass          |
| (12) REACH Regulation (EC) no. 1907/2006, Annex XVII Items 51 & 52, amendment no.<br>552/2009 & 2018/2005<br>- Phthalates content                     | Pass          |
| (13) Regulation (EC) No. 2019/1021 on persistent organic pollutants (POPs)<br>- Short Chain Chlorinated Paraffin (C10 - C13) (SCCP) content           | Pass          |
| (14) REACH Regulation (EC) No. 1907/2006, Annex XVII item 20 & amendment (EU) No.<br>276/2010<br>- Organotin content requirement                      | Pass          |

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| <u>Requirement</u>   | <u>Result</u> |
|--|---------------|
| (15) EU Commission Directive 2019/1929 amending Appendix C of Annex II to Directive 2009/48/EC on the safety of toys<br>- Formaldehyde migration content in polymeric toy material with effect from 21 May 2021  | Pass          |
| (16) Australian/New Zealand Standard AS/NZS 8124.2: 2016<br>- Flammability test  | Pass          |
| (17) AS/NZS ISO 8124-3:2003<br>(Australian Trade Practice Act 1974 with Consumer Protection Notice no. 1, 2009 - Consumer Product Safety Standard for Lead and certain elements in children's toys.)<br>- Toxic elements test ∞  | Pass          |
| AS/NZS ISO 8124-3:2021<br>-Toxic elements test ∞   | Pass          |
| (18) Consumer Product Safety Standard: Toys for children up to and including 36 months of age (in force under section 65E(1) of the Trade Practices Act 1974) as commenced by Consumer Protection Notice No. 14 of 2003 and as amended by Consumer Protection No. 1 of 2005. | Pass          |
| (19) Australian / New Zealand standard AS/NZS ISO 8124-1:2019 + Amd 1:2020 + Amd 2:2020<br>- Safety aspects related to mechanical and physical properties  | Pass          |
| (20) Australian Competition and Consumer Act 2010 with Consumer Protection Notice No. 11, 2011<br>- Permanent ban on children's products with Diethylhexyl Phthalate (DEHP)  | Pass          |

Decision Rule(s):

When a statement of conformity to a specification or standard is provided on test report, the decision rule shall be applied. For details, please refer to Intertek's "Decision Rule Document" and is available on Intertek's website. <https://intertekhk.grd.by/decision-rule-doc>.  
If decision rule already inlined in the requested specification or standard, Intertek's "Decision Rule Document" is not applicable and indication of "∞" was shown as above table.



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Number : HKGH02738459

(1) Mechanical and Physical Test

Test Standard : European Standard on Safety of toys EN 71-1:2014 + A1:2018

Age group for testing : For All Ages

| Clause  | Testing Items               |
|---------|-----------------------------|
| 8.3     | Torque test (0.34 Nm)       |
| 8.4.2.1 | Tension test (90 N)         |
| 8.6     | Tip over test (Three times) |
| 8.7     | Impact test (1 kg)          |
| 8.8     | Compression test (110 N)    |

| Clause | Requirement  | Assessment |
|--------|--|------------|
| 4      | General requirements   |            |
| 4.1    | Material cleanliness   | P          |
| 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    | Edges  | P          |
| 4.8    | Points and Metallic wires  | P          |
| 4.9    | Protruding parts   | NA         |
| 4.10   | Parts moving against each other  | NA         |
| 4.11   | Mouth actuated toys and other toys intended to be put into mouth                     | NA         |
| 4.12   | Balloons   | NA         |
| 4.13   | Cords of toy kites and other flying toys   | NA         |
| 4.14   | Enclosures   | NA         |
| 4.15   | Toys intended to bear the mass of a child  | NA         |
| 4.16   | Heavy immobile toys  | NA         |
| 4.17   | Projectiles  | NA         |
| 4.18   | Aquatic toys and inflatable toys   | NA         |
| 4.19   | Percussion caps specifically designed for use in toys and toys using percussion caps | NA         |
| 4.20   | Acoustics  | NA         |
| 4.21   | Toys containing non -electrical heat source  | NA         |
| 4.22   | Small balls  | NA         |
| 4.23   | Magnets  | NA         |
| 4.24   | Yo-yo balls  | NA         |
| 4.25   | Toys attached to food  | NA         |
| 4.26   | Toy Disguise Costumes  | NA         |
| 4.27   | Flying toys  | NA         |

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| Clause | Requirement   | Assessment |
|--------|---|------------|
| 5      | Toys intended for children under 36 months  |            |
| 5.1    | General requirements for toys intended for children under 36 months                       | P          |
| 5.2    | Soft-filled toys and soft-filled parts of a toy   | NA         |
| 5.3    | Plastic sheeting  | NA         |
| 5.4    | Cords, chains and electrical cables in toys   | NA         |
| 5.5    | Liquid filled toys  | NA         |
| 5.6    | Speed limitation of electrically driven ride-on toys                                      | NA         |
| 5.7    | Glass and porcelain   | NA         |
| 5.8    | Shape and size of certain toys  | NA         |
| 5.9    | Toys comprising 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   | Sledges with cords for pulling (7.24)   | NA         |
| 6      | Packaging   | NA         |
| 7      | Warnings, markings and instructions for use   |            |
| 7.1    | General   | P          |
| 7.2    | Toys not intended for children under 36 months  | NA         |
| 7.3    | Latex balloons  | NA         |
| 7.4    | Aquatic toys  | NA         |
| 7.5    | Functional toys   | NA         |
| 7.6    | Hazardous sharp functional edges and points   | NA         |
| 7.7    | Projectile Toys   | NA         |
| 7.8    | Imitation protective masks and helmets  | NA         |
| 7.9    | Toy kites   | NA         |
| 7.10   | Roller skates, inline skates, skateboards and certain other ride-on toys                  | NA         |
| 7.11   | Toys intended to be attached to or strung across a cradle, cot, or perambulator           | NA         |
| 7.12   | Liquid-filled teethingers   | NA         |
| 7.13   | Percussion caps specifically designed for use in toys                                     | NA         |
| 7.14   | Acoustics   | NA         |
| 7.15   | Toy bicycles  | NA         |
| 7.16   | Toys intended to bear the mass of a child   | NA         |
| 7.17   | Toys comprising monofilament fibres   | NA         |
| 7.18   | Toy scooters  | NA         |
| 7.19   | Rocking horses and similar toys   | NA         |
| 7.20   | Magnetic / electrical experimental sets   | NA         |
| 7.21   | Toys with electrical cables exceeding 300 mm in length                                    | NA         |
| 7.22   | Toys with cords or chains intended for children of 18 months and over but under 36 months | NA         |
| 7.23   | Toys intended to be attached to a cradle, cot or perambulator                             | NA         |
| 7.24   | Sledges with cords for pulling  | NA         |
| 7.25   | Flying toys   | NA         |
| 7.26   | Improvised projectiles  | NA         |

Abbreviation : P = Pass NA = Not Applicable

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Below are additional information according to the Toy Safety Directive 2009/48/EC requirement. These information also appears as a note within the EN71 but are not standard requirements and not accredited:

Marking

The manufacturer's and importer's name, registered trade name or registered trade mark, the address and type, batch, serial or model number or other element allowing their identification shall be indicated on the product itself. In addition, toys or packagings shall also bear the CE-marking. After checking, it was found that

|                             | Toy    | Packaging |
|-----------------------------|--------|-----------|
| Manufacturer's name         | Absent | Present   |
| Manufacturer's address      | Absent | Present   |
| Importer's name             | Absent | Absent    |
| Importer's address          | Absent | Absent    |
| Product identification code | Absent | Present   |
| CE-marking                  | Absent | Absent    |

The submitted samples were undergone the abuse tests for Clause 5.1 in according to 8.3 (Torque test), 8.4 (Tension test), 8.5 (Drop test), 8.7 (Impact test), 8.8 (Compression test) and specific tests for different types of toys whichever applicable.

Cleaning instruction

A toy intended for use by children under 36 months must be designed and manufactured in such a way that it can be cleaned. The toy shall fulfill the safety requirements also after having been cleaned in accordance with this point and the manufacturer's instructions. The manufacturer should, if applicable, provided instructions on how the toy has to be cleaned.

After checking, the cleaning instruction was not found on the submitted samples.

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 11, 2021

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Number : HKGH02738459

(2) Flammability Test

Test Standard : European Standard on Safety of Toys EN 71-2:2011 + A1:2014

| Clause | Requirement   | Assessment |
|--------|---|------------|
| 4.1    | General   | P          |
| 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         |
| 4.4    | Toys intended to be entered by a child                                | NA         |
| 4.5    | Soft filled toys  | NA         |

Abbreviation : P = Pass NA = Not Applicable

Date sample received : Jun 04, 2021  
Test Period : Jun 04, 2021 to Jun 11, 2021

(3) Flammability Test

Test Standard : European Standard on Safety of Toys EN 71-2:2020

| Clause | Requirement   | Assessment |
|--------|---|------------|
| 4.1    | General requirements  | P          |
| 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         |
| 4.4    | Toys intended to be entered by a child                                | NA         |
| 4.5    | Soft filled toys  | NA         |

Abbreviation : P = Pass NA = Not Applicable

Date sample received : Jun 04, 2021  
Test Period : Jun 04, 2021 to Jun 11, 2021

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(4) 19 Toxic Element Migration Test

Test Method : EN 71-3:2019. Acid extraction method was used and toxic elements content were determined by Inductively Coupled Argon Plasma Spectrometry and Ion Chromatography- Inductively Coupled Plasma-Mass Spectrometry and/or Gas Chromatographic - Mass Spectrometry

Category (III): Scraped-off toy material:

|                                 | Result (mg/kg) | Limit (mg/kg)  |
|---------------------------------|----------------|----------------|
|                                 | (1)            |                |
| Soluble Aluminium (Al)          | <300           | 70000 / 28130^ |
| Soluble Antimony (Sb)           | <10            | 560            |
| Soluble Arsenic (As)            | <10            | 47             |
| Soluble Barium (Ba)             | <10            | 18750          |
| Soluble Boron (B)               | <50            | 15000          |
| Soluble Cadmium (Cd)            | <5             | 17             |
| Soluble Chromium (III) (Cr III) | <10            | 460            |
| Soluble Chromium (VI) (Cr VI)   | <0.025         | 0.053          |
| Soluble Cobalt (Co)             | <10            | 130            |
| Soluble Copper (Cu)             | <10            | 7700           |
| Soluble Lead (Pb)               | <10            | 23             |
| Soluble Manganese (Mn)          | <10            | 15000          |
| Soluble Mercury (Hg)            | <10            | 94             |
| Soluble Nickel (Ni)             | <10            | 930            |
| Soluble Selenium (Se)           | <10            | 460            |
| Soluble Strontium (Sr)          | <100           | 56000          |
| Soluble Tin (Sn)                | <10            | 180000         |
| Soluble Organic tin ++          | <2.0           | 12             |
| Soluble Zinc (Zn)               | <100           | 46000          |

mg/kg = milligram per kilogram

++ : Unless the test result was marked with "Δ", Organic tin content was not directly determined and was derived from migration result of total tin.

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Organic tin test result was expressed as tributyl tin.

Chromium (III) value was calculated as difference between migration results of total Chromium and Chromium (VI) .

^ : The new aluminium migration limit [2250mg/kg for Category (I), 560mg/kg for category (II) and 28130mg/kg for Category (III)] was quoted from directive (EU) 2019/1922 amending 2009/48/EC effective from 20 May 2021.

Tested Component:

(1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 16, 2021

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# TEST REPORT

Number : HKGH02738459

(5) 19 Toxic Element Migration Test

Test Method : EN 71-3 : 2019 + A1 : 2021. Acid extraction method was used and toxic elements content were determined by Inductively Coupled Argon Plasma Spectrometry and Ion Chromatography- Inductively Coupled Plasma-Mass Spectrometry and/or Gas Chromatographic - Mass Spectrometry

Category (III): Scraped-off toy material:

|                                 | Result (mg/kg) | Limit   |
|---------------------------------|----------------|---------|
|                                 | (1)            | (mg/kg) |
| Soluble Aluminium (Al)          | <300           | 28130   |
| Soluble Antimony (Sb)           | <10            | 560     |
| Soluble Arsenic (As)            | <10            | 47      |
| Soluble Barium (Ba)             | <10            | 18750   |
| Soluble Boron (B)               | <50            | 15000   |
| Soluble Cadmium (Cd)            | <5             | 17      |
| Soluble Chromium (III) (Cr III) | <10            | 460     |
| Soluble Chromium (VI) (Cr VI)   | <0.025         | 0.053   |
| Soluble Cobalt (Co)             | <10            | 130     |
| Soluble Copper (Cu)             | <10            | 7700    |
| Soluble Lead (Pb)               | <10            | 23      |
| Soluble Manganese (Mn)          | <10            | 15000   |
| Soluble Mercury (Hg)            | <10            | 94      |
| Soluble Nickel (Ni)             | <10            | 930     |
| Soluble Selenium (Se)           | <10            | 460     |
| Soluble Strontium (Sr)          | <100           | 56000   |
| Soluble Tin (Sn)                | <10            | 180000  |
| Soluble Organic tin ++          | <2.0           | 12      |
| Soluble Zinc (Zn)               | <100           | 46000   |

mg/kg = milligram per kilogram

++ : Unless the test result was marked with "Δ", Organic tin content was not directly determined and was derived from migration result of total tin.

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# TEST REPORT

Number : HKGH02738459

Organic tin test result was expressed as tributyl tin.

Chromium (III) value was calculated as difference between migration results of total Chromium and Chromium (VI) .

Tested Component:

- (1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021  
Test Period : Jun 04, 2021 to Jun 16, 2021

(6) Soluble Aluminium Content

Test Method : Acid extraction method was used and toxic elements content were determined by Inductively Coupled Argon Plasma Spectrometry.

Category (III): Scraped-off toy material:

|                        | Result (mg/kg) | Limit   |
|------------------------|----------------|---------|
|                        | (1)            | (mg/kg) |
| Soluble Aluminium (Al) | <300           | 28130   |

mg/kg = milligram per kilogram

Tested Component:

- (1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021  
Test Period : Jun 04, 2021 to Jun 16, 2021

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(7) Flame retardants (TCEP, TCPP, TDCP) Content

Test Method : By solvent extraction and determined by Gas Chromatographic-Mass Spectrometry (GC-MS).

| Compound  | Result (mg/kg) | Limit (mg/kg) |
|---|----------------|---------------|
|   | (1)            |               |
| Tris(2-chloroethyl) phosphate (TCEP)                  | <1             | 5             |
| Tris(1-chloro-2-propyl) phosphate (TCPP)              | <1             | 5             |
| Tris(2-chloro-1-(chloromethyl)ethyl) phosphate (TDCP) | <1             | 5             |

The above limit was quoted according to EU Commission Directive 2014/79/EU amending Appendix C of Annex II to Directive 2009/48/EC of the European Parliament and of the Council on the safety of toys, as regards TCEP, TCPP and TDCP

mg/kg = milligram per kilogram

Tested Component:

- (1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 16, 2021

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(8) Bisphenol A (BPA) Migration Content

Test Standard : EN71 Part 10 and 11 : 2005.

| Tested Component | Result in mg/l | Limit in mg/l |
|------------------|----------------|---------------|
| (1)              | <0.01          | 0.04          |

The above limit was quoted according to EU Commission Directive 2017/898 amending Appendix C of Annex II to Directive 2009/48/EC of the European Parliament and of the Council on the safety of toys, as regards Bisphenol A with effective date on 26 Novemeber 2018.

mg/l = milligram per litre

Tested Component:

- (1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021  
Test Period : Jun 04, 2021 to Jun 16, 2021

(9) Phenol Migration Content

Test Standard : EN71 Part 10 and 11 : 2005.

| Tested Component | Result in mg/l | Limit in mg/l |
|------------------|----------------|---------------|
| (1)              | <1             | 5             |

The above limit was quoted according to EU Commision Directive 2017/774 amending Appendix C of Annex II to Directive 2009/48/EC of the European Parliament and of the Council on the safety of toys, as regards Phenol with effective date on 4 November 2018.

mg/l = milligram per litre

Tested Component:

- (1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021  
Test Period : Jun 04, 2021 to Jun 16, 2021

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(10) Cadmium (Cd) Content

Test Method : Acid digestion method was used and total Cadmium content was determined by Inductively Coupled Argon Plasma Spectrometry.

| Tested Component | Result in %, w/w | Limit in %, w/w |
|------------------|------------------|-----------------|
| (1)              | ND               | 0.01            |

ND : Not detected (< 0.0005%)

The above limit was quoted according to REACH Regulation (EC) No. 1907/2006, Annex XVII Item 23 & amendment No. 2016/217.

Tested Component:

(1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 16, 2021

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Number : HKGH02738459

(11) Polycyclic Aromatic Hydrocarbons (PAH) Content

Test Method : The document AfPS GS 2019:01 PAK issued by the Federal Institute for Occupational Safety and Health, solvent extraction and determined by Gas Chromatographic - Mass Spectrometry (GC/MS).

| Compound               | Result (ppm) | Limit (ppm) |
|------------------------|--------------|-------------|
|                        | (1)          |             |
| Benzo(a)pyrene         | <0.20        | 0.5         |
| Benzo(e)pyrene         | <0.20        | 0.5         |
| Benzo(a)anthracene     | <0.20        | 0.5         |
| Chrysene               | <0.20        | 0.5         |
| Benzo(b)fluoranthene   | <0.20        | 0.5         |
| Benzo(j)fluoranthene   | <0.20        | 0.5         |
| Benzo(k)fluoranthene   | <0.20        | 0.5         |
| Dibenzo(a,h)anthracene | <0.20        | 0.5         |

The above limit was quoted according to Annex XVII Items 50 of the REACH Regulation (EC) no. 1907/2006 & amendment (EU) no. 1272/2013 for polycyclic aromatic hydrocarbons (PAH).

ppm = parts per million = mg/kg

Tested Component:

(1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 15, 2021

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(12) Phthalate Content Test

Test Method : ISO 8124-6 : 2018 method A with internal standard calibration, by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

Seven Phthalates content:

| Compound                       | Result (%, w/w) | Limit (%,<br>w/w) |
|--------------------------------|-----------------|-------------------|
|                                | (1)             |                   |
| Dibutyl phthalate (DBP)        | <0.01           | --                |
| Diethyl hexyl phthalate (DEHP) | <0.01           | --                |
| Benzyl butyl phthalate (BBP)   | <0.01           | --                |
| Diisobutyl phthalate (DIBP)    | <0.01           | --                |
| Sum of DBP, DEHP, BBP & DIBP   | <0.01           | 0.1               |
| Diisononyl phthalate (DINP)    | <0.01           | --                |
| Di-n-octyl phthalate (DnOP)    | <0.01           | --                |
| Diisodecyl phthalate (DIDP)    | <0.01           | --                |
| Sum of DINP, DnOP & DIDP       | <0.01           | 0.1               |

The above limit was quoted according to Annex XVII Items 51 & 52 of the REACH Regulation (EC) no. 1907/2006, amendment no. 552/2009 taking into account the (EU) regulation 2018/2005 modifying entry 51 for which the DIBP shall not be placed on the market after 7 July 2020 in toys or childcare articles, individually or in any combination with the first three phthalates which already exist in the entry 51, in a concentration equal to or greater than 0,1 % by weight of the plasticised material.

Tested Component:

(1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 13, 2021

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(13) Short Chain Chlorinated Paraffin (C10 - C13) (SCCP) Content

Test Method : Solvent extraction and followed by Gas Chromatographic - Negative Chemical Ionization - Mass Spectrometry (GC-NCI-MS) Analysis.

| Tested Component | Result in %, w/w |
|------------------|------------------|
| (1)              | <0.01            |

Requirement: 0.15% (w/w)

Detection limit = 0.01% (w/w)

Tested Component:

(1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 16, 2021

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Number : HKGH02738459

(14) Organotin Content

Test Method : By solvent extraction, followed by Gas Chromatography Mass Spectrometric (GC/MS) analysis.

| Compound                               | Result (% w/w) | Limit (% w/w) |
|--|----------------|---------------|
|  | (1)            |               |
| Tri-substituted Organotin <sup>^</sup> | <0.005         | 0.1           |
| Dibutyltin (DBT)                       | <0.005         | 0.1           |
| Diocetyl tin (DOT)                     | <0.005         | 0.1           |

The above limit was quoted according to Annex XVII Item 20 of the REACH Regulation (EC) no. 1907/2006 & amendment (EU) No. 276/2010 (formerly known as Decision 2009/425/EC) for organotin content.

<sup>^</sup> = The reported value was calculated by summation of the values of Tri-butyltin, Tri-phenyltin, Tri-methyltin, Tri-octyltin, Tri-cyclohexyltin

Detection limit = 0.005% (w/w) of tin

Tested Component:

(1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 16, 2021

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Number : HKGH02738459

(15) Formaldehyde Migration Content

Test Standard : EN71 Part 10 and 11 : 2005.

| Tested Component | Result in mg/l | Limit mg/l |
|------------------|----------------|------------|
| (1)              | <0.5           | 1.5        |

The above limit was quoted according to EU Commission Directive 2019/1929 amending Appendix C of Annex II to Directive 2009/48/EC of the European Parliament and of the Council on the safety of toys, as regards Formaldehyde with effective date on 21 May 2021.

mg/l = milligram per litre

Tested Component:

(1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 16, 2021

(16) Flammability Test

Test Standard : Australian/New Zealand Standard AS/NZS 8124.2: 2016

| Clause | Requirement   | Assessment |
|--------|---|------------|
| 4.1    | General   | P          |
| 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 a play | NA         |
| 4.4    | Toys intended to be entered by a child                                  | NA         |
| 4.5    | Soft filled toys with a piled or textile surface                        | NA         |

Abbreviation : P = Pass NA = Not Applicable

Additional Information: Butane gas was used in the test burner.

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 11, 2021

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## TEST REPORT

Number : HKGH02738459

(17) Toxic Elements Analysis

Test Method : Acid extraction method was used and toxic elements content were determined by Inductively Coupled Plasma Optical Emission Spectrometry.

Materials other than modelling clay:

|                       | Result (mg/kg) | Limit (mg/kg) |
|-----------------------|----------------|---------------|
|                       | (1)            |               |
| Soluble Barium (Ba)   | <5             | 1000          |
| Soluble Lead (Pb)     | <5             | 90            |
| Soluble Cadmium (Cd)  | <5             | 75            |
| Soluble Antimony (Sb) | <5             | 60            |
| Soluble Selenium (Se) | <5             | 500           |
| Soluble Chromium (Cr) | <5             | 60            |
| Soluble Mercury (Hg)  | <5             | 60            |
| Soluble Arsenic (As)  | <2.5           | 25            |

mg/kg = milligram per kilogram

Tested Component:

- (1) White plastic sheet with inaccessible printing and foam backing (mat).

Decision Rule:

∞ : Materials are deemed to comply with the requirements if the adjusted analytical result is less than or equal to the limit of this table.

The analytical result of materials shall be adjusted by subtracting the analytical correction in below table to obtain an adjusted analytical of result.

| Elements                 | Sb | As | Ba | Cd | Cr | Pb | Hg | Se |
|--------------------------|----|----|----|----|----|----|----|----|
| Analytical Correction(%) | 60 | 60 | 30 | 30 | 30 | 30 | 50 | 60 |

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 16, 2021

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# TEST REPORT

Number : HKGH02738459

(18) Physical and Mechanical Test

Test Standard : Consumer Product Safety Standard: Toys for children up to and including 36 months of age (in force under section 65E(1) of the Trade Practices Act 1974) as commenced by Consumer Protection Notice No. 14 of 2003 and as amended by Consumer Protection No. 1 of 2005.

Age group for testing : For All Ages

The submitted samples were undergone the normal use and the following reasonable foreseeable abuse tests in accordance with the Clause 5.24 OF AS/NZS ISO 8124.1 : 2002 before the assessment of the relevant requirement in Clause 4 and Annex A :

| Section | Testing Items    | Parameter       |
|---------|------------------|-----------------|
| 5.24.3  | Tip-over test    | 3 times         |
| 5.24.5  | Torque test      | 0.45 +/- 0.02Nm |
| 5.24.6  | Tension test     | 70 +/- 2N       |
| 5.24.7  | Compression test | 114 +/- 2N      |

| Clause | Requirement  | Assessment |
|--------|--|------------|
| 4.1    | Normal use   | P          |
| 4.2    | Reasonably foreseeable abuse   | P          |
| 4.4    | Small Parts  |            |
| 4.4.1  | Small parts for children under 36 months                             | P          |
| 4.5    | Shape, size and strength of certain toys                             | NA         |
| 4.5.1  | Squeeze toys, rattles and certain other toys                         | NA         |
| 4.5.2  | Small balls  | NA         |
| 4.5.3  | Pompoms  | NA         |
| 4.5.4  | Preschool play figures   | NA         |
| 4.5.5  | Toy pacifiers  | NA         |
| 4.25   | Mouth-actuated toys  |            |
| 4.25.a | Mouth-actuated toys and removable mouthpieces of mouth-actuated toys | NA         |
| 4.25.b | Non-detachable mouthpieces of mouth-actuated toys                    | NA         |
| 4.25.c | Mouth-actuated toys which contain loose components                   | NA         |
| A.2.3  | Battery-operated toy   | NA         |

Abbreviation : P = Pass NA = Not Applicable

Date sample received : Jun 04, 2021  
 Test Period : Jun 04, 2021 to Jun 11, 2021

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# TEST REPORT

Number : HKGH02738459

(19) Physical and Mechanical Tests

Test Standard : Australian / New Zealand standard AS/NZS ISO 8124-1:2019 + Amd 1:2020 + Amd 2:2020 - safety aspects related to mechanical and physical properties.

Age group for testing : For All Ages

The submitted samples were undergone the normal use and the following reasonable foreseeable abuse tests in accordance with the Clause 5.24 of AS/NZS ISO 8124-1:2019+Amd 1:2020+Amd 2:2020 before the assessment of the relevant requirement in Clause 4 :

| Clause   | Test             | Parameter   |
|----------|------------------|-------------|
| 5.24.3   | Tip-over test    | 3 times     |
| 5.24.5   | Torque test      | 0.45±0.02Nm |
| 5.24.6.1 | Tension test     | 70±2N       |
| 5.24.7   | Compression test | 136±2N      |

| Clause | Requirement   | Assessment |
|--------|---|------------|
| 4.1    | Normal use  | P          |
| 4.2    | Reasonably foreseeable abuse                                      | P          |
| 4.3    | Material  | P          |
| 4.4    | Small parts   | P          |
| 4.5    | Shape, size and strength of certain toys                          | NA         |
| 4.6    | Edges   | P          |
| 4.7    | Points  | P          |
| 4.8    | Projections   | NA         |
| 4.9    | Metal wires and rods  | NA         |
| 4.10   | Plastic film or plastic bags in packaging and in toys             | NA         |
| 4.11   | Cords and elastic   | NA         |
| 4.12   | Folding mechanisms  | NA         |
| 4.13   | Holes, clearances and accessibility of mechanisms                 | NA         |
| 4.14   | Springs   | NA         |
| 4.15   | Stability and overload requirement                                | NA         |
| 4.16   | Enclosures  | NA         |
| 4.17   | Simulated protective equipment, such as helmets, hats and goggles | NA         |
| 4.18   | Projectile toys   | NA         |
| 4.19   | Flying toys   | NA         |
| 4.20   | Aquatic toys  | NA         |

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# TEST REPORT

Number : HKGH02738459

| Clause  | Requirement   | Assessment |
|---------|---|------------|
| 4.21.   | Braking   | NA         |
| 4.22    | Toy bicycles  | NA         |
| 4.23.   | Speed limitation of electrically driven ride-on toys          | NA         |
| 4.24.   | Toys containing a heat source                                 | NA         |
| 4.25    | Liquid-filled toys  | NA         |
| 4.26    | Mouth-actuated toys   | NA         |
| 4.27    | Toy roller skates and toy skateboards                         | NA         |
| 4.28    | Percussion caps   | NA         |
| 4.29.   | Acoustic requirements   | NA         |
| 4.30.   | Toy scooters  | NA         |
| 4.31.   | Magnets and magnetic components                               | NA         |
| 4.32    | Yo-yo balls   | NA         |
| 4.33    | Straps intended to be worn fully or partially around the neck | NA         |
| 4.34    | Sledges and toboggans with cords for pulling                  | NA         |
| 4.35    | Jaw entrapment in handles and steering wheels                 | NA         |
| 4.36    | Assembly  | NA         |
| ANNEX B | Safety labelling guidelines and manufacturer's markings       | P          |
| ANNEX D | Toy gun marking   | NA         |

Abbreviation : P = Pass NA = Not Applicable

Date sample received : Jun 04, 2021  
Test Period : Jun 04, 2021 to Jun 11, 2021

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# TEST REPORT

Number : HKGH02738459

(20) Diethylhexyl Phthalate (DEHP) Content

Test Method : Australian Competition and Consumer Act 2010 with Consumer Protection Notice No. 11, 2011, by solvent extraction and followed by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

| Tested Component | Result in %, w/w | Limit in %, w/w |
|------------------|------------------|-----------------|
| (1)              | <0.01            | 1               |

The above limit was quoted according to Australian Competition and Consumer Act 2010 with Consumer Protection Notice No. 11, 2011 on Diethylhexyl Phthalate (DEHP) for children's products

Tested Component:

- (1) White plastic sheet with inaccessible printing and foam backing (mat).

Date sample received : Jun 04, 2021

Test Period : Jun 04, 2021 to Jun 13, 2021

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## TEST REPORT

Number : HKGH02738459



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End of report

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