

**Report No.:** 158267569a 001

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**Client:** ONE FOR FUN LIMITED

**Contact Information:** 3-5 Cambuslang Way, Gateway Office Park, Cambuslang, Glasgow, G32 8ND

**Manufacturer's name:** USD068

**Test item(s):** Toys

**Identification/  
Model No(s):** MICRO FIDGETZ  
Item no.: SV21557

**Sample obtaining method:** Sending by customer

**Condition at delivery:** Test item complete and undamaged.

**Sample Receiving date:** 2023-03-03

**Testing Period:** 2023-03-06 to 2023-03-27

**Place of testing:** Chemical laboratory Hong Kong, Toys laboratory Hong Kong

**Test Specification:**

Please refer to "Test Result Summary List" on page 2 for details

**Other information:**

Country of Origin: China

The provided age grade of the item(s) : 3+

As per client request, the item(s) was/ were tested for the age of over 3 years.

Packaging provided: Artwork

**For and on behalf of  
TÜV Rheinland Hong Kong Ltd.**



Amenda Yung/  
Senior CS Manager

2023-03-28

Date

Name/Position



Wong Yiu Tong , Tommy/  
Senior Lab Manager

2023-03-28

Date

Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.  
This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.  
"Decision Rule" document announced in our website (<https://www.tuv.com/landingpage/en/qm-gcn/>) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

**Test Result Summary :****Test Specification:****Test result:**

1 EN 71-1:2014+A1:2018 Mechanical and physical properties	PASS
2 2009/48/EC CE marking	PASS
3 2009/48/EC Labeling Requirement (Importer/ Manufacturer Mark, Product Identification, Washing/ Cleaning instruction)	Refer to result page
4 EN 71-2:2020 Flammability	PASS
5 EN 71-3:2019+A1:2021 Migration of 19 Elements	PASS
6 Cadmium content according to Annex XVII Entry 23 of Regulation (EC) No 1907/2006 and its amendments	PASS
7 REACH regulation (EC) No. 1907/2006 and its amendment regulations on Annex XVII entry 51 and entry 52 : Phthalates	PASS
8 BS EN 71-1:2014+A1:2018 Mechanical and physical properties	PASS
9 UKCA marking	Refer to result page
10 UK Importer Name and Address	Refer to result page
11 BS EN 71-2:2020 Flammability	PASS
12 BS EN 71-3:2019+A1:2021 Migration of 19 Elements - with reference to 2009/48/EC and its amendments	PASS

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**Material List:**

Item: MICRO FIDGETZ  
Item no.: SV21557

Material No.	Material	Color	Location
M001	Whole Product	Multicolor	Whole product
M002	Coating	Pink	Pattern of twist dice
M003	Coating	Yellow	Pattern of twist dice
M004	Coating	Orange	Pattern of twist dice
M005	Coating	Purple	Pattern of twist dice
M006	Coating	Green	Pattern of twist dice
M007	Coating	Blue	Pattern of twist dice
M008	Coating	Black	Pattern of football
M009	Plastic	Orange	Pad
M010	Plastic	Green	Pad
M011	Plastic	Translucent purple	Ball
M012	Plastic	Translucent blue	Ball
M013	Plastic	Deep purple	Soft strap
M014	Plastic	Blue	Bear
M015	Plastic	Fuchsia	Cat
M016	Plastic	Green	Sound tube
M017	Plastic	Blue	Sound tube
M018	Plastic	Fuchsia	Spring
M019	Plastic	Green	Spring
M020	Plastic	Dull red	Strap
M021	Plastic	Dull yellow	Strap
M022	Plastic	White	Twist dice, Handle of football
M023	Plastic	Yellow	Fidget spinner
M024	Plastic	Orange	Fidget spinner
M025	Plastic	Deep blue	Fidget spinner
M026	Plastic	Dull white	Football
M027	Plastic	Dark blue	Inner fidget spinner, football
M028	Plastic	Transparent	Cover of container

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M029	Plastic	Blue	Body of container
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**1. EN 71-1:2014+A1:2018 Mechanical and physical properties**

Test No:	T001
Material No:	M001
<b>4. General requirements</b>	
4.1 Material cleanliness	PASS
4.7 Edges	PASS
4.8 Points and metallic wires	PASS
4.20 Acoustics	PASS
<b>7. Warnings, markings and instructions for use</b>	
7.1 General	PASS
7.2 Toys not intended for children under 36 months	PASS

The clause and/or sub-clause would be indicated only in the test report whichever applicable. The comprehensive result report is available upon request.

**Remark:**

^ The manufacturer/trader/applicant has provided the artwork for assessment in this test report.

\*\* Only the DE,EN version of the marking and instructions were assessed. According to the standard, instruction and other texts required by the standard should be written in the official language(s) of the country in which the product is to be sold.

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**2. 2009/48/EC CE Marking****Test result:**

Test No:	T001
Material No:	M001
CE-marking	PASS

**Remark:**

^ The manufacturer/trader/applicant has provided the artwork for assessment in this test report.

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**3. 2009/48/EC Labeling Requirement (Importer/ Manufacturer Mark, Product Identification, Washing/ Cleaning instruction)****Test result:**

Test No:	T001
Material No:	M001
Importer/ Manufacturer Mark (European Company name and address)+	Present (Packaging)
Product Identification - type, batch, serial or model number+	Present (Packaging)
Washing/ Cleaning instruction ^	Not Applicable

**Remark:**

- \*\* The manufacturer/trader/applicant has provided the artwork for assessment in this test report.
- + These labeling shall be indicated on the toy, or where that is not possible, on its packaging or in documents accompanying the toys.

The correct adherence to all requirements according to directive 2009/48/EC in regards to the marking (name or trademark and contact address of the manufacturer respectively the marking for identification [type, batch, model or serial no.]) of the toy can only be confirmed by the manufacturer, his delegate or the person who brings it onto the market. The marked article were assessed, however, they can not be evaluated in the frame of this test.

- ^ According to Directive 2009/48/EC, a toy intended for use by children under 36 months must be designed and manufactured in such a way that it can be cleaned. A textile toy shall, to this end, be washable, except if it contains a mechanism that may be damaged if soak washed. The toy shall fulfill the safety requirements also after having been cleaned in accordance with this point and the manufacturer's instructions.

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**4. EN 71-2:2020 Flammability****Test result:**

Test No:	T001
Material No.	M001
4.1 General requirements	PASS

The clause and/or sub-clause would be indicated only in the test report whichever applicable. The comprehensive result report is available upon request.



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**5. EN 71-3:2019+A1:2021 Migration of 19 Elements**

Test Method: with reference to EN 71-3:2019+A1:2021, analyzed by ICP-OES / ICP-MS / LC-ICP-MS/IC-UV/GC-MS.

**3) For scraped-off toy materials:**
**Test Result:**

Test No.				T001	T002	T003
Material No.				M002	M003	M004
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	-	-	-
Antimony (Sb)	mg/kg	5	560	-	-	-
Arsenic (As)	mg/kg	5	47	-	-	-
Barium (Ba)	mg/kg	2.5	18,750	-	-	-
Boron (B)	mg/kg	10	15,000	-	-	-
Cadmium (Cd)	mg/kg	1	17	-	-	-
Chromium III (Cr(III))	mg/kg	10	460	-	-	-
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	-	-	-
Cobalt (Co)	mg/kg	2.5	130	-	-	-
Copper (Cu)	mg/kg	2.5	7,700	-	-	-
Lead (Pb)	mg/kg	2.5	23	-	-	-
Manganese (Mn)	mg/kg	2.5	15,000	-	-	-
Mercury (Hg)	mg/kg	2.5	94	-	-	-
Nickel (Ni)	mg/kg	2.5	930	-	-	-
Selenium (Se)	mg/kg	10	460	-	-	-
Strontium (Sr)	mg/kg	2.5	56,000	-	-	-
Tin (Sn)	mg/kg	1.0	180,000	-	-	-
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	-	-	-
Mass of trace amount #	mg	--	--	<10	<10	<10

**Abbreviation:**

- < = less than
- RL = Reporting Limit
- mg/kg denotes milligram per kilogram
- mg denotes milligram
- <sup>^</sup> denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test Parameter	Unit	RL	Test No.	T004	T005	T006
			Material No.	M005	M006	M007
			Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	-	-	-
Antimony (Sb)	mg/kg	5	560	-	-	-
Arsenic (As)	mg/kg	5	47	-	-	-
Barium (Ba)	mg/kg	2.5	18,750	-	-	-
Boron (B)	mg/kg	10	15,000	-	-	-
Cadmium (Cd)	mg/kg	1	17	-	-	-
Chromium III (Cr(III))	mg/kg	10	460	-	-	-
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	-	-	-
Cobalt (Co)	mg/kg	2.5	130	-	-	-
Copper (Cu)	mg/kg	2.5	7,700	-	-	-
Lead (Pb)	mg/kg	2.5	23	-	-	-
Manganese (Mn)	mg/kg	2.5	15,000	-	-	-
Mercury (Hg)	mg/kg	2.5	94	-	-	-
Nickel (Ni)	mg/kg	2.5	930	-	-	-
Selenium (Se)	mg/kg	10	460	-	-	-
Strontium (Sr)	mg/kg	2.5	56,000	-	-	-
Tin (Sn)	mg/kg	1.0	180,000	-	-	-
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	-	-	-
Mass of trace amount #	mg	--	--	<10	<10	<10

**Abbreviation:**

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- mg denotes milligram
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**Test Result:**

Test No.				T007	T008	T009
Material No.				M008	M009	M010
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	-	< RL	< RL
Antimony (Sb)	mg/kg	5	560	-	< RL	< RL
Arsenic (As)	mg/kg	5	47	-	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	-	< RL	< RL
Boron (B)	mg/kg	10	15,000	-	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	-	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	-	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	-	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	-	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	-	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	-	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	-	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	-	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	-	< RL	< RL
Selenium (Se)	mg/kg	10	460	-	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	-	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	-	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	-	< RL	< RL
Mass of trace amount #	mg	--	--	<10	-	-

**Abbreviation:**

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- RL = Reporting Limit
- mg/kg denotes milligram per kilogram
- mg denotes milligram
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**Test Result:**

Test No.				T010	T011	T012
Material No.				M011	M012	M013
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:**

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- RL = Reporting Limit
- mg/kg denotes milligram per kilogram
- mg denotes milligram
- <sup>^</sup> denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test No.				T013	T014	T015
Material No.				M014	M015	M016
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:**

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- RL = Reporting Limit
- mg/kg denotes milligram per kilogram
- mg denotes milligram
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**Test Result:**

Test No.				T016	T017	T018
Material No.				M017	M018	M019
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	3.4	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:**

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- mg/kg denotes milligram per kilogram
- mg denotes milligram
- <sup>^</sup> denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test No.				T019	T020	T021
Material No.				M020	M021	M022
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

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**Test Result:**

Test No.				T022	T023	T024
Material No.				M023	M024	M025
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

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- mg denotes milligram
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**Test Result:**

Test Parameter	Unit	RL	Test No.	T025	T026	T027
			Material No.	M026	M028	M029
			Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	3.7	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:**

- < = less than
- RL = Reporting Limit
- mg/kg denotes milligram per kilogram
- mg denotes milligram
- <sup>^</sup> denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

**Remark:**

- \* Categorization of toys materials is based on the material texture. According to point H.11 of Annex H to EN 71-3:2019+A1:2021 / BS EN 71-3:2019+A1:2021, cosmetic materials with dry, brittle, powder like or pliable texture such as lipstick and eyeshadow are considered as category I materials. However, as a reminder, it cannot preclude the possibility that some national enforcement authorities might take a more stringent action to treat cosmetic materials as sticky and evaluate according to category II requirement as they are intended to be applied on skin and retained for long time.
- \*\* For any test portion containing grease, oil, wax or similar material, such materials would have been removed with isooctane by using Soxhlet extraction.
- \*\*\*\* The highlighted result was found to be more than the maximum permissible limit.
- # According to EN 71-3:2019+A1:2021, if the weight of a test portion of toy material is less than 10mg, the analysis of migration of certain elements would not be required. If the weight of a test portion of toy material is between 10mg and 100mg, the analytical results would be calculated as though 100mg of the test portion had been used.

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**6.Total Cadmium Content**

Test Method: EN 1122:2001 (method B)

**Test Result:**

Test No.	Material No.	Test Parameter	Unit	RL	Test Result
T001	M002	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T002	M003	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T003	M004	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T004	M005	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T005	M006	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T006	M007	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T007	M008	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T008	M009 + M010 + M011	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T009	M012 + M013	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T010	M014 + M015	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T011	M016 + M017	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T012	M018 + M019 + M020	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-

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Test No.	Material No.	Test Parameter	Unit	RL	Test Result
T013	M021 + M022 + M023	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T014	M024 + M025 + M026	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T015	M027	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T016	M028 + M029	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-

**Abbreviation:** < = less than  
 RL = Reporting Limit  
 mg/kg = milligram per kilogram

**Remark:**

- \* Requirements for Cadmium content according to Annex XVII Entry 23 of Regulation (EC) No 1907/2006 (REACH) and its amendments
  - Mixtures and articles produced from plastic material < 0.01 % (100 mg/kg)
  - Coated / painted articles < 0.1 % (1000 mg/kg)
  - Jewellery components < 0.01 % (100 mg/kg)
  - Paints and varnishes (excluding the applicable exemptions) < 0.01 % (100 mg/kg)
- \*\* Swiss requirements for cadmium content according to the Switzerland Chemikalien-Risikoreduktions-Verordnung- ChemRRV, 814.81
  - Mixtures and articles produced from plastic material < 0.01 % (100 mg/kg)
  - Articles / objects treated with paints / coating with cadmium is prohibited
  - Paints and varnishes < 0.01 % (100 mg/kg)

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**7. Phthalates content**

Test Method: Ref. to CPSC-CH-C1001-09.4

**Test Result:**

Test No. Material No.				T001 M002 + M003 + M004	T002 M005 + M006	T003 M007 + M008
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	< RL	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.005	< RL	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	< RL	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	< RL	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.005	<RL	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	< RL	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	< RL	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.005	<RL	<RL	<RL
Conclusion: REACH regulation (EC) No. 1907/2006 and its amendment Annex XVII entries 51 and 52				Pass	Pass	Pass

  

Test No. Material No.				T004 M009 + M010 + M011	T005 M012 + M013	T006 M014 + M015
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	< RL	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.005	< RL	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	< RL	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	< RL	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.005	<RL	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	< RL	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	< RL	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.005	<RL	<RL	<RL
Conclusion: REACH regulation (EC) No. 1907/2006 and its amendment Annex XVII entries 51 and 52				Pass	Pass	Pass

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Test No. Material No.				T007 M016 + M017	T008 M018 + M019 + M020	T009 M021 + M022 + M023
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	< RL	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.005	< RL	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	< RL	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	< RL	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.005	<RL	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	< RL	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	< RL	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.005	<RL	<RL	<RL
Conclusion: REACH regulation (EC) No. 1907/2006 and its amendment Annex XVII entries 51 and 52				Pass	Pass	Pass

Test No. Material No.				T010 M024 + M025 + M026	T011 M027	T012 M028 + M029
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	< RL	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.005	< RL	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	< RL	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	< RL	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.005	<RL	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	< RL	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	< RL	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.005	<RL	<RL	<RL
Conclusion: REACH regulation (EC) No. 1907/2006 and its amendment Annex XVII entries 51 and 52				Pass	Pass	Pass

**Abbreviation:** < = less than  
 RL = Reporting Limit  
 % = percentage

**Remark:**

- Requirement of REACH regulation (EC) No. 1907/2006 and its amendment Annex XVII entries 51 and 52:

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Parameter	Unit	Maximum Permissible Limit
Plasticised materials in toys and childcare articles, or other articles# place on the market;		
Diethylhexyl phthalate (DEHP) Dibutyl phthalate (DBP) Benzylbutyl phthalate (BBP) Diisobutyl phthalate (DIBP)	%	0.1 (individually or sum of the four phthalates) Effective after 7 July 2020.
Plasticised materials in children's toy and childcare articles which can be placed in the mouth by children:		
Di-n-octyl phthalate (DNOP) Diisodecyl phthalate (DIDP) Diisononyl phthalate (DINP)	%	0.1 (sum of the three phthalates)

Denote:

# Examples of articles that are excluded from the restriction

- 1) Articles exclusively for industrial / agricultural use / use in open air, provided that no plasticised material comes into contact with human mucous membranes or into prolonged contact with human skin (i.e. Continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day.)
  - 2) Aircraft and motor vehicles (Directive 2007/46/EC) placed on the market before 7 January 2024, or articles for use exclusively in the maintenance or repair of them
  - 3) Measuring devices for laboratory use;
  - 4) Food contact material and articles within the scope of Regulation (EC) No 1935/2004 or Commission Regulation (EU) No 10/2011
  - 5) Medical devices (Directive 90/385/EEC, 93/42/EEC or 98/79/EC)
  - 6) Electrical and electronic equipment within the scope of Directive 2011/65/EU
  - 7) Immediate packaging of medicinal products (Regulation (EC) No 726/2004, Directive 2001/82/EC or Directive 2001/83/EC)
- Single component with an amount below reporting limit was not considered by the calculation of the sum. In the case of all phthalates were not detected, the result is stated <RL.

**8. BS EN 71-1:2014+A1:2018 Mechanical and physical properties**

Test No:	T001
Material No:	M001
<b>4. General requirements</b>	
4.1 Material cleanliness	PASS
4.7 Edges	PASS
4.8 Points and metallic wires	PASS
4.20 Acoustics	PASS
<b>7. Warnings, markings and instructions for use</b>	
7.1 General	PASS
7.2 Toys not intended for children under 36 months	PASS

The clause and/or sub-clause would be indicated only in the test report whichever applicable. The comprehensive result report is available upon request.

**Remark:**

<sup>^</sup> The manufacturer/trader/applicant has provided the artwork for assessment in this test report.

<sup>\*\*</sup> Only the DE,EN version of the marking and instructions were assessed. According to the standard, instruction and other texts required by the standard should be written in the official language(s) of the country in which the product is to be sold.

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**9. UKCA marking****Test result:**

Test No:	T001
Material No:	M001
UKCA-marking	Present (Packaging)

**Remark:**

- § The assessment was made in accordance to the "Guidance - Using the UKCA mark from 1 January 2021" as published on 1 September, 2020.
- ^ The manufacturer/trader/applicant has provided the artwork for assessment in this test report.



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**10.UK Importer Name and Address****Test Result:**

Test No:	T001
Material No:	M001
UK Importer Name and Address	Present (Packaging)

**Remark:**

- § According to Toys (Safety) Regulations 2011: Guidance (GB) published by Department for Business, Energy and Industrial Strategy in November 2020, starting from 1 January 2021, importers have legal obligations checking that manufacturers have included their (the importer's) name, registered trade name or mark and a postal address on the toy or on its packaging or in accompanying documentation.  
To assist with the transition, the UK is applying a transitional period ending on 31 December 2025 to allow that the details being shown on the accompanying documentation or packaging as an alternative to placing them on the toy.
- ^ The manufacturer/trader/applicant has provided the artwork for assessment in this test report.

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**11. BS EN 71-2:2020 Flammability****Test result:**

	Test No:	T001
	Material No:	M001
4.1 General requirements		PASS

The clause and/or sub-clause would be indicated only in the test report whichever applicable. The comprehensive result report is available upon request.

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**12. BS EN 71-3:2019+A1:2021 Migration of 19 Elements – with reference to 2009/48/EC and its amendments**

Test Method: with reference to BS EN 71-3:2019+A1:2021, analyzed by ICP-OES / ICP-MS / LC-ICP-MS.

**3) For scraped-off toy materials:**
**Test Result:**

Test No.				T001	T002	T003
Material No.				M002	M003	M004
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	-	-	-
Antimony (Sb)	mg/kg	5	560	-	-	-
Arsenic (As)	mg/kg	5	47	-	-	-
Barium (Ba)	mg/kg	2.5	18,750	-	-	-
Boron (B)	mg/kg	10	15,000	-	-	-
Cadmium (Cd)	mg/kg	1	17	-	-	-
Chromium III (Cr(III))	mg/kg	10	460	-	-	-
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	-	-	-
Cobalt (Co)	mg/kg	2.5	130	-	-	-
Copper (Cu)	mg/kg	2.5	7,700	-	-	-
Lead (Pb)	mg/kg	2.5	23	-	-	-
Manganese (Mn)	mg/kg	2.5	15,000	-	-	-
Mercury (Hg)	mg/kg	2.5	94	-	-	-
Nickel (Ni)	mg/kg	2.5	930	-	-	-
Selenium (Se)	mg/kg	10	460	-	-	-
Strontium (Sr)	mg/kg	2.5	56,000	-	-	-
Tin (Sn)	mg/kg	1.0	180,000	-	-	-
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	-	-	-
Mass of trace amount #	mg	--	--	<10	<10	<10

**Abbreviation:** < less than  
 RL = Reporting Limit  
 mg/kg denotes milligram per kilogram  
 mg denotes milligram  
<sup>^</sup> denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test No.				T004	T005	T006
Material No.				M005	M006	M007
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	-	-	-
Antimony (Sb)	mg/kg	5	560	-	-	-
Arsenic (As)	mg/kg	5	47	-	-	-
Barium (Ba)	mg/kg	2.5	18,750	-	-	-
Boron (B)	mg/kg	10	15,000	-	-	-
Cadmium (Cd)	mg/kg	1	17	-	-	-
Chromium III (Cr(III))	mg/kg	10	460	-	-	-
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	-	-	-
Cobalt (Co)	mg/kg	2.5	130	-	-	-
Copper (Cu)	mg/kg	2.5	7,700	-	-	-
Lead (Pb)	mg/kg	2.5	23	-	-	-
Manganese (Mn)	mg/kg	2.5	15,000	-	-	-
Mercury (Hg)	mg/kg	2.5	94	-	-	-
Nickel (Ni)	mg/kg	2.5	930	-	-	-
Selenium (Se)	mg/kg	10	460	-	-	-
Strontium (Sr)	mg/kg	2.5	56,000	-	-	-
Tin (Sn)	mg/kg	1.0	180,000	-	-	-
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	-	-	-
Mass of trace amount #	mg	--	--	<10	<10	<10

**Abbreviation:** < less than  
 RL = Reporting Limit  
 mg/kg denotes milligram per kilogram  
 mg denotes milligram  
<sup>^</sup> denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test No.				T007	T008	T009
Material No.				M008	M009	M010
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	-	< RL	< RL
Antimony (Sb)	mg/kg	5	560	-	< RL	< RL
Arsenic (As)	mg/kg	5	47	-	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	-	< RL	< RL
Boron (B)	mg/kg	10	15,000	-	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	-	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	-	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	-	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	-	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	-	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	-	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	-	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	-	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	-	< RL	< RL
Selenium (Se)	mg/kg	10	460	-	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	-	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	-	< RL	< RL
Organic Tin^	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	-	< RL	< RL
Mass of trace amount #	mg	--	--	<10	-	-

**Abbreviation:** < less than  
 RL = Reporting Limit  
 mg/kg denotes milligram per kilogram  
 mg denotes milligram  
 ^ denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test No.				T010	T011	T012
Material No.				M011	M012	M013
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:** < less than  
 RL = Reporting Limit  
 mg/kg denotes milligram per kilogram  
 mg denotes milligram  
<sup>^</sup> denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test No.				T013	T014	T015
Material No.				M014	M015	M016
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin^	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:** < less than  
 RL = Reporting Limit  
 mg/kg denotes milligram per kilogram  
 mg denotes milligram  
 ^ denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test No.				T016	T017	T018
Material No.				M017	M018	M019
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	3.4	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin^	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:** < less than  
 RL = Reporting Limit  
 mg/kg denotes milligram per kilogram  
 mg denotes milligram  
 ^ denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal



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**Test Result:**

Test No.				T019	T020	T021
Material No.				M020	M021	M022
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:** < less than  
 RL = Reporting Limit  
 mg/kg denotes milligram per kilogram  
 mg denotes milligram  
 ^ denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test No.				T022	T023	T024
Material No.				M023	M024	M025
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin^	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:** < less than  
 RL = Reporting Limit  
 mg/kg denotes milligram per kilogram  
 mg denotes milligram  
 ^ denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

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**Test Result:**

Test No.				T025	T026	T027
Material No.				M026	M028	M029
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	< RL	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	< RL
Mass of trace amount #	mg	--	--	-	-	-

**Abbreviation:** < less than  
 RL = Reporting Limit  
 mg/kg denotes milligram per kilogram  
 mg denotes milligram  
<sup>^</sup> denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.6 mg/kg) or the components were confirmed to be pure metal

**Remark:**

- \* Categorization of toys materials is based on the material texture. According to point H.11 of Annex H to BS EN 71-3:2019+A1:2021, cosmetic materials with dry, brittle, powder like or pliable texture such as lipstick and eyeshadow are considered as category I materials. However, as a reminder, it cannot preclude the possibility that some national enforcement authorities might take a more stringent action to treat cosmetic materials as sticky and evaluate according to category II requirement as they are intended to be applied on skin and retained for long time.
- \*\* For any test portion containing grease, oil, wax or similar material, such materials would have been removed with isooctane by using Soxhlet extraction.
- \*\*\*\* The highlighted result was found to be more than the maximum permissible limit.
- # According to BS EN 71-3:2019+A1:2021, if the weight of a test portion of toy material is less than 10mg, the analysis of migration of certain elements would not be required. If the weight of a test portion of toy material is between 10mg and 100mg, the analytical results would be calculated as though 100mg of the test portion had been used.

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Sample Photos



- END -

This GTCB is only used for TÜV Rheinland Business Stream Product  
Version 5.0/February 2023