

Report No.: **168517159a 001**

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Client: NINGBO PRINCE TOYS CO.,LTD.

Contact Information: No.777 East Taoyuan Road, Guanhaiwei Town, Cixi City, Zhejiang, China

Test item(s): Toys

**Identification/
Model No(s):** BABY RIDE ON CAR
640/641/620

Sample obtaining method: Sending by customer

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2024-12-03, 2024-12-05

Testing Period: 2024-12-09 to 2024-12-23

Place of testing: Chemical laboratory Shenzhen, Toys laboratory Shenzhen

Test Specification:

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

Other information:

- (1) The provided age grade of the item(s) : For age of 12 - 36 months.
The appropriate age grade of the item(s) : For age of 12 - 36 months.
The item(s) was/ were tested for the age of 12 - 36 months.

- (2) Packaging provided: Artwork

- (3) Information provided by customer:
Country of Origin: CHINA

For and on behalf of
TÜV Rheinland (Shenzhen) Co., Ltd.



Candy He/
Lab. Supervisor

2025-01-03

Date

Name/Position



Tocker Jiang/
Senior Project Engineer

2025-01-03

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)	PASS
4 EN 71-2:2020 Flammability	PASS
5 EN 71-3:2019+A1:2021 Migration of 19 Elements	PASS
6 EN IEC 62115:2020+A11:2020 Electric toys - Safety	PASS
7 REACH regulation (EC) No. 1907/2006 and its amendment regulations on Annex XVII entry 51 and entry 52 : Phthalates	PASS
8 Cadmium content according to Annex XVII Entry 23 of Regulation (EC) No 1907/2006 and its amendments	PASS
9 Organotin compounds content according to REACH Regulation (EC) No. 1907/2006 Annex XVII Item 20 and amendment Commission Regulation (EU) No. 276/2010 (formerly known as 2009/425/EC)	PASS
10 Polycyclic aromatic hydrocarbons (PAHs) - according to GS Specification - AfPS GS 2019:01 PAK	PASS
11 Bisphenol A - According to the requirement of Appendix C of Annex II to Directive 2009/48/EC with amendment Council Directive (EU) 2017/898	PASS
12 Risk Assessment of Articles: Screening of substances of very high concern (SVHC) subject to the candidate list by European Chemical Agency (ECHA) according to Regulation (EC) No 1907/2006 and its amendments	PASS
13 According to RoHS (recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU Annex II and its amendment.	PASS

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Material List:

Item: BABY RIDE ON CAR
640/641/620

Material No.	Material	Color	Location
A001	Plastic	black	Refer to photo
A002	Paper + printing + adhesive	multicolor	Refer to photo
A003	Plastic	blue	Refer to photo
A004	Plastic	transparent	Refer to photo
A005	Plastic	white	Refer to photo
A006	Plastic	white	Refer to photo
A007	Coating	silver-grey	Refer to photo
A008	Plastic	black	Refer to photo
A009	Plastic	pearl white	Refer to photo
A010	Plastic	black	Refer to photo
A011	Coating	black	Refer to photo
A012	Plastic	black	Refer to photo
A013	Metal	silvery	Refer to photo
A014	Metal	silvery	Refer to photo
A015	Metal	silvery	Refer to photo
A016	Metal	silvery	Refer to photo
A017	Plastic	ink blue	Refer to photo
A018	Plastic	neon pink	Refer to photo
A019	Plastic	red	Refer to photo
A020	Plastic	pink	Refer to photo
A021	Plastic	white	Refer to photo
A022	Metal	silvery	Refer to photo
A023	Metal	silvery	Refer to photo
A024	Coating	white	Refer to photo
A025	Metal	silvery	Refer to photo
A026	Metal	silvery	Refer to photo
A027	Metal	silvery	Refer to photo
A028	Metal	silvery	Refer to photo

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A029	Metal	silvery	Refer to photo
A030	Metal	silvery	Refer to photo
A031	Metal	silvery	Refer to photo
A032	Metal	silver/black	Refer to photo
A033	Soft plastic	light white/black	Refer to photo
A034	PCB board	clear/green	Refer to photo
A035	Solder	silvery	Refer to photo
A036	Plastic	green	Refer to photo
A037	Magnet	black	Refer to photo
A038	Metal	silvery	Refer to photo
A039	Solder	silvery	Refer to photo
A040	Solder	silvery	Refer to photo
A041	Metal	silvery	Refer to photo
A042	Soft plastic	white	Refer to photo
A043	Soft plastic	black	Refer to photo
A044	Soft plastic	red	Refer to photo
A045	Soft plastic	blue	Refer to photo
A046	Soft plastic	yellow	Refer to photo
A047	PCB board	clera /green	Refer to photo
A048	Electronic components	black	Refer to photo
A049	Solder	silvery	Refer to photo
A050	Metal	silvery	Refer to photo
A051	Metal	silvery	Refer to photo
A052	Plastic	transparent	Refer to photo
A053	Metal	copper	Refer to photo
A054	Electronic components	silvery/light brown	Refer to photo
A055	Solder	silvery	Refer to photo
A056	Plastic	Matt black	Refer to photo
A057	Metal	Silvery	Refer to photo
M001	Whole Product	Multicolor	640 blue car
M003	Whole Product	Multicolor	641 red car
M004	Plastic	Blue	Body/ bar

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M005	Plastic	Transparent	Lamp
M006	Plastic	Black	Seat/back rest /hole/shaft/steering wheel/body
M007	Plastic	Black	Wheel
M008	Plastic	Pearl white	Wheel/steering wheel
M009	Coating	Multicolor	Pattern sticker
M011	Paper + coating + adhesive	Multicolor	Pattern sticker
M012	Plastic	White	Inner lamp-inaccessible
M013	Plastic	Black	Button on bar
M014	Coating	Black	Metal hook/wire
M015	Plastic	Black	Joint on metal hook
M016	Coating	White	Metal pole
M017	Plastic	Matt black	Washer on battery cap-inaccessible
M018	Soft plastic	Light white/black	Button pad inner steering wheel - inaccessible
M019	Plastic	Transparent	Film of speaker-inaccessible
M020	Plastic	Green	Speaker inner steering wheel - inaccessible
M021	Soft plastic	White/black	Cord jacket with lettering inner steering wheel -inaccessible
M022	Soft plastic	Yellow/black	Cord jacket with lettering inner steering wheel -inaccessible
M023	Soft plastic	Red/black	Cord jacket with lettering inner steering wheel -inaccessible
M024	Soft plastic	Black/white	Cord jacket with lettering inner steering wheel -inaccessible
M025	Soft plastic	Blue/black	Cord jacket with lettering inner steering wheel -inaccessible
M026	PCB board	Translucent/green	Long PCB board inner steering wheel - inaccessible
M027	PCB board	Translucent/green	Short PCB board inner steering wheel - inaccessible
M028	Coating	Silvery-grey	Logo on steering wheel
M029	Plastic	White	Logo board exclude coating on steering wheel

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M030	Plastic	Pink	Body of pink car
M031	Plastic	White	Body of white car
M032	Plastic	Red	Body of red car
M033	Plastic	Ink blue	Body-accessory
M034	Plastic	Neon pink	Body -accessory
M035	Metal	Silvery	Cross screw
M036	Metal	Silvery	Screw with flat sheet on head
M037	Metal	Silvery	Rail of rear wheel
M038	Metal	Silvery	Bottom wire exclude coating
M039	Metal	Silvery	Metal hook exclude coating
M040	Metal	Silvery	Metal pole exclude coating
M042	Metal	Silvery	Ring on pin of metal pole
M043	Metal	Silvery	Long screw-accessory
M044	Metal	Silvery	Hex nut on long screw-accessory
M045	Solder	Silvery	On PCB board -inaccessible

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

Test No:	T001
Material No:	M001
4. General requirements	
4.1 Material cleanliness	Pass
4.2 Assembly	Pass
4.7 Edges	Pass
4.8 Points and metallic wires	Pass
4.9 Protruding parts	Pass
4.10 Parts moving against each other	Pass
4.15 Toys intended to bear the mass of a child	Pass
4.20 Acoustics	Pass
5. Toys intended for children under 36 months	
5.1 General requirements	Pass
6. Packaging	
7. Warnings, markings and instructions for use	
7.1 General	Pass
7.10 Roller skates, inline skates, skateboards and certain other ride-on toys	Pass
Test No:	T002
Material No:	M003
4. General requirements	
4.1 Material cleanliness	Pass
4.2 Assembly	Pass
4.7 Edges	Pass
4.8 Points and metallic wires	Pass
4.9 Protruding parts	Pass
4.10 Parts moving against each other	Pass
4.15 Toys intended to bear the mass of a child	Pass
4.20 Acoustics	Pass
5. Toys intended for children under 36 months	
5.1 General requirements	Pass
6. Packaging	
7. Warnings, markings and instructions for use	
7.1 General	Pass
7.10 Roller skates, inline skates, skateboards and certain other ride-on toys	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.

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

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

Test No:	T002
Material No:	M003
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 (Product and Package)
Product Identification - type, batch, serial or model number+	Present (Product and Package)
Washing/ Cleaning instruction ^	Not Applicable

Test No:	T002
Material No:	M003
Importer/ Manufacturer Mark (European Company name and address)+	Present (Product and Package)
Product Identification - type, batch, serial or model number+	Present (Product and Package)
Washing/ Cleaning instruction ^	Not Applicable

Remark:

- + 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.

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

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

	Test No:	T001
	Material No.	M001
4.1 General requirements		Pass
	Test No:	T002
	Material No.	M003
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.				M004	M005	M006
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.				T004	T005	T007
Material No.				M007	M008	M011
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	14
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	3.8
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	3.0
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	22
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.				T008	T009	T010
Material No.				M013	M014	M015
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	11	< 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	3.7	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	2.3	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	28	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	3.7	< 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	283	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	140	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	7.3	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	1.2	< RL
Organic Tin^	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	15680	24
Mass of trace amount	mg	--	--	-	-	-

Abbreviation:

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- 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.				T011	T013	T014
Material No.				M016	M028	M029
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	28	2198	< 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	429	6.0	4.5
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	22	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	2.8	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	3.6	< 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	1110	20	< RL
Mass of trace amount	mg	--	--	-	10.3	-

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Test Result:

Test No.				T015	T016	T017
Material No.				M030	M031	M032
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
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Test Result:

Test No.				T018	T019
Material No.				M033	M034
Test Parameter	Unit	RL	Regulatory Requirement	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	--	--	-	-

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

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, 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 has been removed with isooctane by using Soxhlet extraction.
- *** 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.EN IEC 62115:2020+A11:2020 Electric toys - Safety

Test Method: EN IEC 62115:2020+A11:2020

Power Information :

Component No.	Description	Power Type
T1	RIDE ON CAR	2X1.5V(LR6) DURACELL Replaceable Battery

EN IEC 62115:2020+A11:2020 Electric toys - Safety

Clause	Assessment
1 Scope	--
2 Normative references	--
3 Definitions	--
4 General requirement	--
5 General conditions for the tests	--
6 Criteria for reduced testing	--
7 Marking and Instructions	PASS (*1)
8 Power input	N.A.
9 Heating and abnormal operation	PASS
10 Electric strength	PASS
11 Electric toys used in water, electric toys used with liquid and electric toys cleaned with liquid	N.A.
12 Mechanical strength	PASS
13 Construction	PASS
14 Protection of cords and wires	PASS
15 Components	PASS (*2)
16 Screws and connections	PASS
17 Clearances and creepage distances	PASS
18 Resistance to heat and fire	PASS
19 Radiation and similar hazards	--
19.2 Optical radiation	N.A.
19.3 Other electromagnetic radiation	N.A.

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

N.A. = Not Applicable; N.C. = Not conducted

Remark:

- *1 Only the English 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.
- *2 Components shall comply with the safety requirements specified in the relevant IEC standards as far as they reasonably apply.
- *3 As requested by the applicant, only test for 641 red car

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7. Phthalates content

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

Test Result:

Test No. Material No.				T001	T002	T003
				M004 + M005 + M006	M007 + M008 + M013	M015 + M017 + M029
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.01	< RL	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.01	< RL	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.01	< RL	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.01	< RL	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.01	<RL	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	< RL	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.01	< RL	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.01	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.01	<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	T005	T006
				M030 + M031 + M032	M033 + M034	M012 + M018 + M019
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.01	< RL	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.01	< RL	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.01	< RL	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.01	< RL	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.01	<RL	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	< RL	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.01	< RL	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.01	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.01	<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 M020 + M021 + M022	T008 M023 + M024 + M025	T009 M026 + M027
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.01	< RL	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.01	< RL	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.01	< RL	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.01	< RL	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.01	<RL	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	< RL	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.01	< RL	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.01	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.01	<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 M011	T011 M014 + M016 + M028
Test Parameter	CAS NO	Unit	RL	Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.01	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.01	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.01	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.01	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.01	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.01	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.01	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.01	<RL	<RL
Conclusion: REACH regulation (EC) No. 1907/2006 and its amendment Annex XVII entries 51 and 52				Pass	Pass

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

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Remark:

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

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.

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8.Total Cadmium Content

Test Method: EN 1122:2001 (method B)

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Test Result
T001	M004 + M005 + M006	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T002	M007 + M008 + M013	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T003	M030 + M031 + M032	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T004	M012 + M018 + M019	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T005	M020 + M021 + M022	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T006	M023 + M024 + M025	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T007	M026 + M027	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T008	M011	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T009	M014	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T010	M015 + M029	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T011	M033 + M034	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T012	M017	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	M016	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
T014	M028	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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9.Organotin compounds content

Test Method: Organic solvent extraction, GCMS
 Ref. to ISO/TS 16179:2012

Test No.				T001	T002	T003
Material No.				M030 + M029 + M005	M006 + M007 + M008	M011
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
TBT(Tributyltin) by weight of tin	%	0.01	--	< RL	< RL	< RL
TPT(Triphenyltin) by weight of tin	%	0.01	--	< RL	< RL	< RL
TOT(Trioctyltin) by weight of tin	%	0.01	--	< RL	< RL	< RL
TCyT(Tricyclohexyltin) by weight of tin	%	0.01	--	< RL	< RL	< RL
TPrT(Tripopyltin) by weight of tin	%	0.01	--	< RL	< RL	< RL
Sum of Tin of tri-substituted organotins	%	NA	0.1	< RL	< RL	< RL
DBT(Dibutyltin) by weight of tin	%	0.01	0.1	< RL	< RL	< RL
DOT(Dioctyltin) by weight of tin	%	0.01	0.1	< RL	< RL	< RL

Abbreviation: < = less than
 RL = Reporting Limit
 % = percentage
 NA = Not Applicable

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Remark:

- * Single components with an amount of <0.01% were not considered in the calculation of the sum. In the case of all five tri-substituted organotins were not detected, the result is stated < RL
- ** The assessment for tri-substituted organotins is based on the sum of TBT, TPT, TOT, TCyT and TPrT by weight of tin only.
- *** According to REACH Regulation (EC) No. 1907/2006 Annex XVII Entry 20 and amendment Commission Regulation (EU) No. 276/2010 (formerly known as 2009/425/EC), organostannic compounds shall not be used or be placed on the market.

Type of organostannic compounds	Maximum Permissible Limit	Implementation date
Tri-substituted organostannic compounds, e.g. tributyltin (TBT) compounds and triphenyltin (TPT) compounds	0.1 % by weight of tin	1 July 2010
Dibutyltin (DBT) compounds in mixtures and articles for supply to the general public	0.1 % by weight of tin	1 January 2012 The below products will not be applicable until 1 January 2015: - one-component and two-component room temperature vulcanisation sealants (RTV-1 and RTV-2 sealants) and adhesives, - paints and coatings containing DBT compounds as catalysts when applied on articles, - soft polyvinyl chloride (PVC) profiles whether by themselves or coextruded with hard PVC, - fabrics coated with PVC containing DBT compounds as stabilisers when intended for outdoor applications, - outdoor rainwater pipes, gutters and fittings, as well as covering material for roofing and facades
Diocetyl tin (DOT) compounds - textile articles intended to come into contact with the skin, - gloves, - footwear or part of footwear intended to come into contact with the skin, - wall and floor coverings - childcare articles, - female hygiene products, - nappies, - two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	0.1 % by weight of tin	1 January 2012

**** As requested by the applicant, only the appointed material(s) was (were) tested.

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10. Polycyclic aromatic hydrocarbons (PAHs) according to GS Specification - AfPS GS 2019:01 PAK

Test Method: AfPS GS 2019:01 PAK

Test Result:

Test No.				T001	T002	T003
Material No.				M004	M005	M006
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Anthracene	120-12-7	mg/kg	0.2	< RL	< RL	< RL
Benzo[a]anthracene	56-55-3	mg/kg	0.2	< RL	< RL	< RL
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.2	< RL	< RL	< RL
Benzo[b]fluoranthene	205-99-2	mg/kg	0.2	< RL	< RL	< RL
Benzo[k]fluoranthene	207-08-9	mg/kg	0.2	< RL	< RL	< RL
Benzo[j]fluoranthene	205-82-3	mg/kg	0.2	< RL	< RL	< RL
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.2	< RL	< RL	< RL
Benzo[e]pyrene	192-97-2	mg/kg	0.2	< RL	< RL	< RL
Chrysene	218-01-9	mg/kg	0.2	< RL	< RL	< RL
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.2	< RL	< RL	< RL
Fluoranthene	206-44-0	mg/kg	0.2	< RL	< RL	< RL
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.2	< RL	< RL	< RL
Naphthalene	91-20-3	mg/kg	0.2	< RL	0.5	< RL
Phenanthrene	85-01-8	mg/kg	0.2	< RL	< RL	< RL
Pyrene	129-00-0	mg/kg	0.2	< RL	< RL	< RL
Sum of, Anthracene, Fluoranthene, Phenanthrene, Pyrene	-	mg/kg	0.2	<RL	<RL	<RL
Sum of 15 PAHs	-	mg/kg	0.2	<RL	0.5	<RL
Category*	-	--	-	1	1	1

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Test No.				T004	T005	T006
Material No.				M007	M008	M009
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Anthracene	120-12-7	mg/kg	0.2	< RL	< RL	< RL
Benzo[a]anthracene	56-55-3	mg/kg	0.2	< RL	< RL	< RL
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.2	< RL	< RL	< RL
Benzo[b]fluoranthene	205-99-2	mg/kg	0.2	< RL	< RL	< RL
Benzo[k]fluoranthene	207-08-9	mg/kg	0.2	< RL	< RL	< RL
Benzo[j]fluoranthene	205-82-3	mg/kg	0.2	< RL	< RL	< RL
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.2	< RL	< RL	< RL
Benzo[e]pyrene	192-97-2	mg/kg	0.2	< RL	< RL	< RL
Chrysene	218-01-9	mg/kg	0.2	< RL	< RL	< RL
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.2	< RL	< RL	< RL
Fluoranthene	206-44-0	mg/kg	0.2	< RL	< RL	< RL
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.2	< RL	< RL	< RL
Naphthalene	91-20-3	mg/kg	0.2	< RL	< RL	< RL
Phenanthrene	85-01-8	mg/kg	0.2	< RL	< RL	< RL
Pyrene	129-00-0	mg/kg	0.2	< RL	< RL	< RL
Sum of, Anthracene, Fluoranthene, Phenanthrene, Pyrene	-	mg/kg	0.2	<RL	<RL	<RL
Sum of 15 PAHs	-	mg/kg	0.2	<RL	<RL	<RL
Category*	-	--	-	1	1	1

Test No.				T007	T008	T009
Material No.				M013	M014	M015
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Anthracene	120-12-7	mg/kg	0.2	< RL	< RL	< RL
Benzo[a]anthracene	56-55-3	mg/kg	0.2	< RL	< RL	< RL
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.2	< RL	< RL	< RL
Benzo[b]fluoranthene	205-99-2	mg/kg	0.2	< RL	< RL	< RL
Benzo[k]fluoranthene	207-08-9	mg/kg	0.2	< RL	< RL	< RL
Benzo[j]fluoranthene	205-82-3	mg/kg	0.2	< RL	< RL	< RL
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.2	< RL	< RL	< RL
Benzo[e]pyrene	192-97-2	mg/kg	0.2	< RL	< RL	< RL
Chrysene	218-01-9	mg/kg	0.2	< RL	< RL	< RL
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.2	< RL	< RL	< RL
Fluoranthene	206-44-0	mg/kg	0.2	< RL	< RL	< RL
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.2	< RL	< RL	< RL
Naphthalene	91-20-3	mg/kg	0.2	< RL	0.3	< RL
Phenanthrene	85-01-8	mg/kg	0.2	< RL	< RL	< RL
Pyrene	129-00-0	mg/kg	0.2	< RL	< RL	0.2
Sum of, Anthracene, Fluoranthene, Phenanthrene, Pyrene	-	mg/kg	0.2	<RL	<RL	0.2
Sum of 15 PAHs	-	mg/kg	0.2	<RL	0.3	0.2
Category*	-	--	-	1	1	1

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Test No.				T010	T012	T013
Material No.				M016	M028(*1)	M029
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Anthracene	120-12-7	mg/kg	0.2	< RL	-	< RL
Benzo[a]anthracene	56-55-3	mg/kg	0.2	< RL	-	< RL
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.2	< RL	-	< RL
Benzo[b]fluoranthene	205-99-2	mg/kg	0.2	< RL	-	< RL
Benzo[k]fluoranthene	207-08-9	mg/kg	0.2	< RL	-	< RL
Benzo[j]fluoranthene	205-82-3	mg/kg	0.2	< RL	-	< RL
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.2	< RL	-	< RL
Benzo[e]pyrene	192-97-2	mg/kg	0.2	< RL	-	< RL
Chrysene	218-01-9	mg/kg	0.2	< RL	-	< RL
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.2	< RL	-	< RL
Fluoranthene	206-44-0	mg/kg	0.2	< RL	-	< RL
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.2	< RL	-	< RL
Naphthalene	91-20-3	mg/kg	0.2	< RL	-	0.5
Phenanthrene	85-01-8	mg/kg	0.2	< RL	-	< RL
Pyrene	129-00-0	mg/kg	0.2	< RL	-	< RL
Sum of, Anthracene, Fluoranthene, Phenanthrene, Pyrene	-	mg/kg	0.2	<RL	-	<RL
Sum of 15 PAHs	-	mg/kg	0.2	<RL	-	0.5
Category*	-	--	-	1	1	1

Test No.				T014	T015	T016
Material No.				M030	M031	M032
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Anthracene	120-12-7	mg/kg	0.2	< RL	< RL	< RL
Benzo[a]anthracene	56-55-3	mg/kg	0.2	< RL	< RL	< RL
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.2	< RL	< RL	< RL
Benzo[b]fluoranthene	205-99-2	mg/kg	0.2	< RL	< RL	< RL
Benzo[k]fluoranthene	207-08-9	mg/kg	0.2	< RL	< RL	< RL
Benzo[j]fluoranthene	205-82-3	mg/kg	0.2	< RL	< RL	< RL
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.2	< RL	< RL	< RL
Benzo[e]pyrene	192-97-2	mg/kg	0.2	< RL	< RL	< RL
Chrysene	218-01-9	mg/kg	0.2	< RL	< RL	< RL
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.2	< RL	< RL	< RL
Fluoranthene	206-44-0	mg/kg	0.2	< RL	< RL	< RL
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.2	< RL	< RL	< RL
Naphthalene	91-20-3	mg/kg	0.2	< RL	< RL	< RL
Phenanthrene	85-01-8	mg/kg	0.2	< RL	< RL	< RL
Pyrene	129-00-0	mg/kg	0.2	< RL	< RL	< RL
Sum of, Anthracene, Fluoranthene, Phenanthrene, Pyrene	-	mg/kg	0.2	<RL	<RL	<RL
Sum of 15 PAHs	-	mg/kg	0.2	<RL	<RL	<RL
Category*	-	--	-	1	1	1

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Test No.				T017	T018
Material No.				M033	M034
Test Parameter	CAS NO	Unit	RL	Result	Result
Anthracene	120-12-7	mg/kg	0.2	< RL	< RL
Benzo[a]anthracene	56-55-3	mg/kg	0.2	< RL	< RL
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.2	< RL	< RL
Benzo[b]fluoranthene	205-99-2	mg/kg	0.2	< RL	< RL
Benzo[k]fluoranthene	207-08-9	mg/kg	0.2	< RL	< RL
Benzo[j]fluoranthene	205-82-3	mg/kg	0.2	< RL	< RL
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.2	< RL	< RL
Benzo[e]pyrene	192-97-2	mg/kg	0.2	< RL	< RL
Chrysene	218-01-9	mg/kg	0.2	< RL	< RL
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.2	< RL	< RL
Fluoranthene	206-44-0	mg/kg	0.2	< RL	< RL
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.2	< RL	< RL
Naphthalene	91-20-3	mg/kg	0.2	< RL	< RL
Phenanthrene	85-01-8	mg/kg	0.2	< RL	< RL
Pyrene	129-00-0	mg/kg	0.2	< RL	< RL
Sum of, Anthracene, Fluoranthene, Phenanthrene, Pyrene	-	mg/kg	0.2	<RL	<RL
Sum of 15 PAHs	-	mg/kg	0.2	<RL	<RL
Category*	-	--	-	1	1

Abbreviation: < = less than
 RL = Reporting Limit
 NA = Not Applicable
 mg/kg = milligram per kilogram

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Remark:

- * PAH maximum permissible limits requirement from the GS-Mark Approval published by the German Federal Institute for Occupational Safety and Health (BAuA)

Parameter	Unit	Category 1	Category 2		Category 3	
		Materials intended to be placed into the mouth, or Materials in toys or articles for children up to 3 years of age with intended long-term skin contact (more than 30 s)	Materials that do not fall into Category 1 with intended or foreseeable long-term skin contact (more than 30 s) or repeated short-term skin contact		Materials not covered by category 1 or 2, with foreseeable short term contact (shorter than 30 s)	
		-	Cat. 2a Use by children	Cat. 2b Other consumer products	Cat. 3a Use by children	Cat. 3b Other consumer products
Benzo[a]pyrene(BaP)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[e]pyrene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[a]anthracene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[b]fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[j]fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[k]fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Chrysene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Dibenzo[a,h]anthracene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[g,h,i]perylene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Indeno[1,2,3-cd]pyrene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Naphthalene	mg/kg	<1	<2	<2	<10	<10
Sum of Anthracene Fluoranthene Phenanthrene Pyrene	mg/kg	<1	<5	<10	<20	<50
Sum of 15 PAHs	mg/kg	<1	<5	<10	<20	<50

Limit: Specific evaluation required according to type of foreseeable use.

The definition of "child" means persons before the age of 14 years. "Use by children" includes both active and passive direct contact by children.

- ** Single components with an amount of <0.2 mg/kg were not considered by the calculation of the sum. In the case of all 15 PAHs were not detected, the result is stated < RL

- *1 The weight of test portion was less than 50mg, so the test was not performed.

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11.Bisphenol A

Test Method: EN 71-10 and -11:2005 for Monomers (migration)

Test result

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Test Result
T001	M005 + M006 + M007	Bisphenol A	mg/l	0.01	0.04	<RL
T002	M008 + M013 + M015	Bisphenol A	mg/l	0.01	0.04	<RL

Abbreviation: < = less than
RL = Reporting Limit
mg/l = milligram per litre

Remark:

- * The requirement is following Appendix C of Annex II to Directive 2009/48/EC with Commission Directive amendment (EU) 2017/898, migration limit of Bisphenol A shall not exceed 0.04 mg/l in toys intended for use by children under 36 months or in other toys intended to be placed in the mouth adopted in accordance with Article 46(2).
- ** As requested by the applicant, only the appointed material(s) was (were) tested.

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12. Screening of Substances of Very High Concern (SVHC) subject to the Candidate List by European Chemical Agency (ECHA) according to Regulation (EC) No 1907/2006 and its amendments.

Obligation of Importer is necessary if the detected SVHC concentration in article level is >0.1%:
 To communicate information down the supply chain according to article. 33 of Regulation(EC) No 1907/2006. OR

1. Notification to ECHA, if the quantities of SVHC in the produced/imported articles are above 1 ton in total per year per company.
2. Provide sufficient information to ensure safe use of the article and, as a minimum, include the name of the substance, to their customers and on request to consumers within 45 days of the receipt of this request.

Test Method: 1) SVOC: organic solvent extraction, determination by GC-MS/ECD
 2) VOC: organic solvent extraction, determination by GC-MS
 3) VVOC: headspace-GC/MS analysis
 4) non-VOC: organic solvent extraction, determination by LC-MS/MS.
 5) inorganics: acid digestion, determination by ICP-OES

Test Result:

Test No.	Material No.	Result (%)
T001	M005 + M006 + M007 + M008 + M018 + M020 + M021 + M022 + M023 + M024	<RL
T012	M035 + M037 + M038 + M040 + M042 + M043 + M044 + M045 + M039 + M036	<RL

Abbreviation: < = Less than
 RL =Reporting Limit
 % =Percentage

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Remark:

(*1) The reporting limit for each individual SVHC in Candidate List by ECHA:

	Substance	CAS No.	Reporting Limit
1	4,4'- Diaminodiphenylmethane (A9)	101-77-9	0.01%
2	Benzyl butyl phthalate (BBP)	85-68-7	0.01%
3	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	0.01%
4	Dibutyl phthalate (DBP)	84-74-2	0.01%
5	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	25637-99-4 / 3194-55-6 / 134237-50-6 / 134237-51-7 / 134237-52-8	0.01%
6	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	81-15-2	0.01%
7	2,4-Dinitrotoluene (2,4-DNT)	121-14-2	0.01%
8	Diisobutyl phthalate (DIBP)	84-69-5	0.01%
9	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	0.01%
10	Diarsenic pentaoxide (*2)	1303-28-2	0.01%
11	Diarsenic trioxide (*2)	1327-53-3	0.01%
12	Lead chromate (*2)(*3)	7758-97-6	0.01%
13	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) (*2)(*3)	12656-85-8	0.01%
14	Lead sulfochromate yellow (C.I. Pigment Yellow 34) (*2)	1344-37-2	0.01%
15	Trichloroethylene	79-01-6	0.01%
16	Chromium trioxide (*2)	1333-82-0	0.01%
17	Acids generated from chromium trioxide and their oligomers: Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid. (*2)	7738-94-5 / 13530-68-2	0.01%
18	Sodium dichromate (*2)(*3)	7789-12-0 / 10588-01-9	0.01%
19	Potassium dichromate (*2)(*3)	7778-50-9	0.01%
20	Ammonium dichromate (*2)(*3)	7789-09-5	0.01%
21	Potassium chromate (*2)(*3)	7789-00-6	0.01%
22	Sodium chromate (*2)(*3)	7775-11-3	0.01%
23	Formaldehyde, oligomeric reaction products with aniline (technical MDA) (*10)	25214-70-4	0.01%
24	1,2-Dichloroethane (1,2-DCE)	107-06-2	0.01%
25	Bis(2-methoxyethyl) ether (DEGDB)	111-96-6	0.01%
26	Arsenic acid (*2)	7778-39-4	0.01%
27	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	0.01%
28	Dichromium tris(chromate) (*2)(*3)	24613-89-6	0.01%
29	Strontium chromate (*2)(*3)	7789-06-2	0.01%
30	Potassium hydroxyoctaoxodizincatedichromate (*2)(*3)	11103-86-9	0.01%
31	Pentazinc chromate octahydroxide (*2)(*3)	49663-84-5	0.01%
32	1-bromopropane (n-propyl bromide)	106-94-5	0.01%
33	Diisopentylphthalate	605-50-5	0.01%
34	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	0.01%
35	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	0.01%

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36	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	0.01%
37	Bis(2-methoxyethyl) phthalate	117-82-8	0.01%
38	Dipentyl phthalate (DPP)	131-18-0	0.01%
39	N-pentyl-isopentylphthalate	776297-69-9	0.01%
40	Anthracene oil (*6)	90640-80-5	0.01%(*7)
41	Pitch, coal tar, high temperature (*6)	65996-93-2	0.01%(*7)
42	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (OPEO) [covering well-defined substances and UVCB substances, polymers and homologues]	-	0.01%
43	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	0.01%
44	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	0.01%
45	Dihexyl phthalate	84-75-3	0.01%
46	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 (EC No. 201-559-5)	68515-51-5 / 68648-93-1	0.01%
47	Trixylyl phosphate	25155-23-1	0.01%
48	Sodium perborate, perboric acid, sodium salt (*2) (*5)	-	0.01%
49	Sodium peroxometaborate (*2) (*5)	7632-04-4	0.01%
50	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]	-	0.01%
51	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	0.01%
52	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	0.01%
53	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	0.01%
54	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	0.01%
55	Anthracene	120-12-7	0.01%
56	Bis(tributyltin) oxide (TBTO) (*4)	56-35-9	0.01%
57	Triethyl arsenate (*2)	15606-95-8	0.01%
58	Lead hydrogen arsenate (*2)	7784-40-9	0.01%
59	Cobalt dichloride (*2)	7646-79-9	0.01%
60	Acrylamide	79-06-1	0.01%
61	Anthracene oil, anthracene paste, distn. lights (*6)	91995-17-4	0.01% (*7)
62	Anthracene oil, anthracene paste, anthracene fraction (*6)	91995-15-2	
63	Anthracene oil, anthracene-low (*6)	90640-82-7	
64	Anthracene oil, anthracene paste (*6)	90640-81-6	
65	Boric acid (*2) (*5)	10043-35-3 / 11113-50-1	0.01%
66	Disodium tetraborate, anhydrous (*2) (*5)	1303-96-4 / 1330-43-4 / 12179-04-3	0.01%
67	Tetraboron disodium heptaoxide, hydrate (*2) (*5)	12267-73-1	0.01%

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68	2-Methoxyethanol	109-86-4	0.01%
69	2-Ethoxyethanol	110-80-5	0.01%
70	Cobalt(II) sulphate (*2)	10124-43-3	0.01%
71	Cobalt(II) dinitrate (*2)	10141-05-6	0.01%
72	Cobalt(II) carbonate (*2)	513-79-1	0.01%
73	Cobalt(II) diacetate (*2)	71-48-7	0.01%
74	Alkanes C10-C13, chloro (Short Chain Chlorinated Paraffins) (SCCP)	85535-84-8	0.01%
75	2-Ethoxyethyl acetate	111-15-9	0.01%
76	Hydrazine	302-01-2 / 7803-57-8	0.01%
77	1-Methyl-2-pyrrolidone (NMP)	872-50-4	0.01%
78	1,2,3-Trichloropropane	96-18-4	0.01%
79	Aluminosilicate Refractory Ceramic Fibres (RCF) (*8)	-	0.01%
80	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) (*8)	-	0.01%
81	2-Methoxyaniline,o-Anisidine	90-04-0	0.01%
82	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	0.01%
83	Calcium arsenate (*2)	7778-44-1	0.01%
84	Trilead diarsenate (*2)	3687-31-8	0.01%
85	N,N-dimethylacetamide (DMAC)	127-19-5	0.01%
86	Phenolphthalein	77-09-8	0.01%
87	Lead dipicrate (*2)	6477-64-1	0.01%
88	Lead diazide, Lead azide (*2)	13424-46-9	0.01%
89	Lead styphnate (*2)	15245-44-0	0.01%
90	1,2-bis(2-methoxyethoxy)ethane (TEGDME,triglyme)	112-49-2	0.01%
91	1,2-dimethoxyethane,ethylene glycol dimethyl ether (EGDME)	110-71-4	0.01%
92	Diboron trioxide (*2) (*5)	1303-86-2	0.01%
93	Formamide (FOR)	75-12-7	0.01%
94	Lead(II) bis(methanesulfonate) (*2)	17570-76-2	0.01%
95	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazine-2,4,6-trione (TGIC)	2451-62-9	0.01%
96	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6	0.01%
97	4,4'-bis(dimethylamino)benzophenone (Michler's ketone), MK	90-94-8	0.01%
98	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base), RMK	101-61-1	0.01%
99	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*2)	2580-56-5	0.01%
100	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*9)	548-62-9	
101	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*9)	561-41-1	
102	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*9)	6786-83-0	
103	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	1163-19-5	0.01%

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104	Pentacosfluorotridecanoic acid	72629-94-8	0.01%
105	Tricosfluorododecanoic acid	307-55-1	0.01%
106	Henicosfluoroundecanoic acid	2058-94-8	0.01%
107	Heptacosfluorotetradecanoic acid	376-06-7	0.01%
108	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA) (*11)	123-77-3	0.05%
109	Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry]	85-42-7 / 13149-00-3 / 14166-21-3	0.01%
110	Hexahydromethylphthalic anhydride (MHHPA) [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	25550-51-0 / 19438-60-9 / 48122-14-1 / 57110-29-9	0.01%
111	N,N-dimethylformamide (DMF)	68-12-2	0.01%
112	1,2-Diethoxyethane	629-14-1	0.01%
113	Diethyl sulphate	64-67-5	0.01%
114	Methoxyacetic acid (MAA)	625-45-6	0.01%
115	Dimethyl sulphate	77-78-1	0.01%
116	N-methylacetamide	79-16-3	0.01%
117	Furan	110-00-9	0.01%
118	Methyloxirane (Propylene oxide)	75-56-9	0.01%
119	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	0.01%
120	Dibutyltin dichloride (DBTC) (*15)	683-18-1	0.01%
121	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	0.01%
122	4,4'-methylenedi-o-toluidine	838-88-0	0.01%
123	4,4'-oxydianiline and its salts	101-80-4	0.01%
124	4-Aminoazobenzene	60-09-3	0.01%
125	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	0.01%
126	6-methoxy-m-toluidine (p-cresidine)	120-71-8	0.01%
127	Biphenyl-4-ylamine	92-67-1	0.01%
128	o-aminoazotoluene	97-56-3	0.01%
129	o-Toluidine	95-53-4	0.01%
130	Acetic acid, lead salt, basic (*2)	51404-69-4	0.01%
131	Trilead bis(carbonate) dihydroxide (*2)	1319-46-6	0.01%
132	Lead oxide sulfate (*2)	12036-76-9	0.01%
133	[Phthalato(2-)]dioxotrilead (*2)	69011-06-9	0.01%
134	Dioxobis(stearato)trilead (*2)	12578-12-0	0.01%
135	Fatty acids, C16-18, lead salts (*2)	91031-62-8	0.01%
136	Lead bis(tetrafluoroborate) (*2)	13814-96-5	0.01%
137	Lead cyanamidate (*2)	20837-86-9	0.01%
138	Lead dinitrate (*2)	10099-74-8	0.01%
139	Lead monoxide (lead oxide) (*2)	1317-36-8	0.01%
140	Orange lead (lead tetroxide) (*2)	1314-41-6	0.01%
141	Lead titanium trioxide (*2)	12060-00-3	0.01%

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142	Lead titanium zirconium oxide (*2)	12626-81-2	0.01%
143	Pyrochlore, antimony lead yellow (*2)	8012-00-8	0.01%
144	Pentalead tetraoxide sulphate (*2)	12065-90-6	0.01%
145	Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD), the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008] (*2)	68784-75-8	0.01%
146	Silicic acid, lead salt (*2)	11120-22-2	0.01%
147	Sulfurous acid, lead salt, dibasic (*2)	62229-08-7	0.01%
148	Tetraethyllead (*2)	78-00-2	0.01%
149	Tetralead trioxide sulphate (*2)	12202-17-4	0.01%
150	Trilead dioxide phosphonate (*2)	12141-20-7	0.01%
151	Ammonium pentadecafluorooctanoate (APFO) (*12)	3825-26-1	0.01%
152	Pentadecafluorooctanoic acid (PFOA)	335-67-1	0.01%
153	Cadmium (*2)	7440-43-9	0.01%
154	Cadmium oxide (*2)	1306-19-0	0.01%
155	4-Nonylphenol, branched and linear, ethoxylated (NPEO) [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	-	0.01%
156	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	0.01%
157	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	0.01%
158	Disodium 4-amino-3'-[[4'-[(2,4-diaminophenyl)azo]]1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	0.01%
159	Lead di(acetate) (*2)	301-04-2	0.01%
160	Cadmium sulphide (*2)	1306-23-6	0.01%
161	Cadmium chloride (*2)	10108-64-2	0.01%
162	Cadmium fluoride (*2)	7790-79-6	0.01%
163	Cadmium sulphate (*2)	10124-36-4 / 31119-53-6	0.01%
164	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE) (*13)	15571-58-1	0.01%
165	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE) (*14)	-	0.01%
166	1,3-propanesultone (1,3-PS)	1120-71-4	0.01%
167	Nitrobenzene	98-95-3	0.01%
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	0.01%
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	0.01%
170	4,4'-isopropylidenediphenol (bisphenol A) (BPA)	80-05-7	0.01%
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2 3830-45-3 3108-42-7	0.01%
172	4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	0.01%
173	p-(1,1-dimethylpropyl)phenol	80-46-6	0.01%

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174	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	-	0.01%
175	Chrysene	218-01-9	0.01%
176	Benzo[a]anthracene	56-55-3	0.01%
177	Cadmium nitrate(*2)	10325-94-7	0.01%
178	Cadmium hydroxide(*2)	21041-95-2	0.01%
179	Cadmium carbonate(*2)	513-78-0	0.01%
180	1,6,7,8,9,14,15,16,17,17,18,18- Dodecachloropentacyclo [12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	0.01%
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	-	0.01%
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride, TMA)	552-30-7	0.01%
183	Dicyclohexyl phthalate (DCHP)	84-61-7	0.01%
184	Terphenyl, hydrogenated	61788-32-7	0.01%
185	Octamethylcyclotetrasiloxane (D4)	556-67-2	0.01%
186	Decamethylcyclopentasiloxane (D5)	541-02-6	0.01%
187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	0.01%
188	Ethylenediamine (EDA)	107-15-3	0.01%
189	Lead(*2)	7439-92-1	0.01%
190	Disodium octaborate (*2)(*5)	12008-41-2	0.01%
191	Benzo[ghi]perylene	191-24-2	0.01%
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	0.01%
193	Benzo[k]fluoranthene	207-08-9	0.01%
194	Fluoranthene	206-44-0	0.01%
195	Phenanthrene	85-01-8	0.01%
196	Pyrene	129-00-0	0.01%
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan- 2-one	15087-24-8	0.01%
198	2-methoxyethyl acetate	110-49-6	0.01%
199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	0.01%
200	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	0.01%
201	4-tert-butylphenol (PTBP)	98-54-4	0.01%
202	Diisohexyl phthalate (DiHexP)	71850-09-4	0.01%
203	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	0.01%
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	0.01%
205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	0.01%
206	1-vinylimidazole	1072-63-5	0.01%
207	2-methylimidazole	693-98-1	0.01%
208	Butyl 4-hydroxybenzoate	94-26-8	0.01%
209	Dibutylbis(pentane-2,4-dionato-O,O')tin(*15)	22673-19-4	0.01%
210	Bis(2-(2-methoxyethoxy)ethyl)ether	143-24-8	0.01%
211	Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety (*13)	-	0.01%
212	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	-	0.01%
213	Orthoboric acid, sodium salt (*2) (*5)	13840-56-7	0.01%

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214	2,2-bis(bromomethyl)propane1,3-diol (BMP) 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) 2,3-dibromo-1-propanol (2,3-DBPA)	3296-90-0 / 36483-57-5 / 1522-92-5 / 96-13-9	0.01%
215	Glutaral	111-30-8	0.01%
216	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	-	0.01%
217	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	-	0.01%
218	1,4-dioxane	123-91-1	0.01%
219	4,4'-(1-methylpropylidene)bisphenol	77-40-7	0.01%
220	tris(2-methoxyethoxy)vinylsilane	1067-53-4	0.01%
221	S-(tricyclo(5.2.1.0'2,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	255881-94-8	0.01%
222	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC)	119-47-1	0.01%
223	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC) (3E)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (1R,3E,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (1S,3Z,4R)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one (1R,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (1S,3E,4R)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (1R,3Z,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one	- 1782069-81-1 95342-41-9 852541-25-4 36861-47-9 741687-98-9 852541-30-1 852541-21-0	0.01%
224	N-(hydroxymethyl)acrylamide	924-42-5	0.01%
225	1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene]	37853-59-1	0.01%
226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol (TBBPA)	79-94-7	0.01%
227	4,4'-sulphonyldiphenol	80-09-1	0.01%
228	Barium diboron tetraoxide(*2) (*5)	13701-59-2	0.01%
229	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	-	0.01%
230	Isobutyl 4-hydroxybenzoate	4247-02-3	0.01%
231	Melamine	108-78-1	0.01%
232	Perfluoroheptanoic acid and its salts	-	0.01%
233	reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine	-	0.01%
234	bis(4-chlorophenyl) sulphone	80-07-9	0.01%
235	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO)	75980-60-8	0.01%
236	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol Phenol, methylstyrenated EC / List no: 270-966-8 CAS no: 68512-30-1	-	0.01%
237	Bumetrizole	3896-11-5	0.01%
238	2-(dimethylamino)-2-[[4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	119344-86-4	0.01%
239	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)	3147-75-9	0.01%
240	2,4,6-tri-tert-butylphenol	732-26-3	0.01%
241	Bis(α,α-dimethylbenzyl) peroxide	80-43-3	0.01%
242	Triphenyl phosphate(TPP)	115-86-6	0.01%

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Screening of proposals for identification as substances of very high concern (SVHC) published by the European Chemical Agency (ECHA)

	Substance	CAS No.	Reporting Limit
1	Octamethyltrisiloxane	107-51-7	0.01%
2	1,1,1,3,5,5,5-heptamethyl-3-[(trimethylsilyl)oxy]trisiloxane	17928-28-8	0.01%
3	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	0.01%
4	Decamethyltetrasiloxane	141-62-8	0.01%
5	Dodecamethylpentasiloxane	141-63-9	0.01%
6	Hexamethyldisiloxane	107-46-0	0.01%
7	Perfluamine	338-83-0	0.01%
8	tris(4-nonylphenyl, branched) phosphite	-	0.01%
9	O,O,O-triphenyl phosphorothioate	597-82-0	0.01%
10	6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid (*30)	2156592-54-8	0.01%
11	reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	192268-65-8	0.01%
12	Barium chromate	10294-40-3	0.01%

Remark:

- (*2) The substances are tested and calculated in terms of its respective elements and to the worst-case scenario. The report states the theoretical value of SVHC substances without consideration of the actual occurrence in the article.
- (*3) The substances are tested and calculated in terms of Cr (VI).
- (*4) The substance is tested and calculated in terms of Tributyl tin.
- (*5) The substances are tested and calculated in terms of boron element and the boron element may come from the compounds other than SVHCs.
- (*6) The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological materials), which are identified by its main constituents.
- (*7) Individual concentrations to the constituent of UVCB with an amount of < 0.01% were not considered by the calculation of the sum.
- (*8) The test results are based on microscopic and chemical evaluation.
- (*9) The substances are quantified in terms of Michler's ketone and Michler's base by LC-MS, as Michler's ketone or Michler's base was found exceeds 0.01%.
- (*10) The content oligomer is determined by Py-GC/MS.
- (*11) The content of diazene-1,2-dicarboxamide is analyzed in terms of its breakdown product.
- (*12) The substance is tested in terms of pentadecafluorooctanoate.
- (*13) The substance is tested and calculated in terms of Dioctyl tin.
- (*14) The substance is tested and calculated in terms of Monoctyl tin and Dioctyl tin.
- (*15) The substance is tested and calculated in terms of Dibutyl tin
- (*16) The tested material(s) was screened only for selected SVHCs. Selection of tests refers to the material type and application and the possibility of contamination during production & material specific contamination of the product.
- (*17) The other SVHCs which are not mentioned in test result were either not subject to testing according to remark *16 or less than report limit.
- (*18) The theoretical content of SVHC substances is calculated in terms of its respective elements. This material may contains the mentioned SVHCs, it is suggested to check the respective recipe if the theoretical content of the respective substance >0.1% in each article
- ^ As requested by the applicant, only the appointed material(s) was (were) tested.

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16.Screening Test by XRF spectroscopy

Test Method: Cadmium, Lead, Mercury, Chromium, Bromine
 -- With reference to IEC 62321-3-1:2013

Test Result:

Material No.	Cd	Cr	Pb	Hg	Br
A001	BL	BL	BL	BL	BL
A002	BL	BL	BL	BL	BL
A003	BL	BL	BL	BL	BL
A004	BL	BL	BL	BL	BL
A005	BL	BL	BL	BL	BL
A006	BL	BL	BL	BL	BL
A007	BL	BL	BL	BL	BL
A008	BL	BL	BL	BL	BL
A009	BL	BL	BL	BL	BL
A010	BL	BL	BL	BL	BL
A011	BL	BL	BL	BL	BL
A012	BL	BL	BL	BL	BL
A013	BL	d.(*1)	BL	BL	n.a.
A014	BL	d.(*1)	BL	BL	n.a.
A015	BL	d.(*1)	BL	BL	n.a.
A016	BL	BL	BL	BL	n.a.
A017	BL	BL	BL	BL	BL
A018	BL	BL	BL	BL	BL
A019	BL	BL	BL	BL	BL
A020	BL	BL	BL	BL	BL
A021	BL	BL	BL	BL	BL
A022	BL	BL	BL	BL	n.a.
A023	BL	d.(*1)	BL	BL	n.a.
A024	BL	BL	BL	BL	BL
A025	BL	BL	BL	BL	n.a.
A026	BL	d.(*1)	BL	BL	n.a.
A027	BL	d.(*1)	BL	BL	n.a.
A028	BL	d.(*1)	BL	BL	n.a.
A029	BL	d.(*1)	BL	BL	n.a.
A030	BL	BL	BL	BL	n.a.
A031	BL	d.(*1)	BL	BL	n.a.
A032	BL	d.(*1)	BL	BL	n.a.
A033	BL	BL	BL	BL	BL
A034	BL	BL	BL	BL	BL
A035	BL	BL	BL	BL	n.a.
A036	BL	BL	BL	BL	BL
A037	BL	BL	BL	BL	n.a.

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A038	BL	d.(*1)	BL	BL	n.a.
A039	BL	BL	BL	BL	n.a.
A040	BL	BL	BL	BL	n.a.
A041	BL	BL	BL	BL	n.a.
A042	BL	BL	BL	BL	BL
A043	BL	BL	BL	BL	BL
A044	BL	BL	BL	BL	BL
A045	BL	BL	BL	BL	BL
A046	BL	BL	BL	BL	BL
A047	BL	BL	BL	BL	BL
A048	BL	BL	BL	BL	BL
A049	BL	BL	BL	BL	n.a.
A050	BL	BL	BL	BL	n.a.
A051	BL	BL	BL	BL	n.a.
A052	BL	BL	BL	BL	BL
A053	BL	BL	BL	BL	n.a.
A054	BL	BL	BL	BL	BL
A055	BL	BL	BL	BL	n.a.
A056	BL	BL	BL	BL	BL
A057	BL	BL	BL	BL	n.a.

Abbreviation: Pb = Lead
 Cd = Cadmium
 Hg = Mercury
 Cr = Chromium
 Br = Bromine
 n.a. = Not applicable
 BL = Below limit
 OL = Over limit
 d. = Detected

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Remark:

- (*1) The screening result was detected in the inconclusive region or over limits, thus the further wet chemistry tests are suggested.
- (*2) Component(s)/ materials(s) with an area of less than 2 mm x 2 mm will not be selected for testing according to RoHS Directive 2011/65/EU due to technical reason.
 For the test sample does not have detail materials information provided by client, visually identical materials (e.g. wire insulation, solder points, etc.) will be considered as the same material.
 Solder points on a printing circuit board will be examined several times based on optical anomalies or discoloration of the solder point(s) unless the solder point(s) is obviously generated automatically during production.
 All other materials will be sampled and tested at one test point representatively.

XRF Screening limits for different matrices :

Material	Concentration (%)				
	Cd	Cr	Pb	Hg	Br
Polymeric	$BL \leq 0.006 < X < 0.014 \leq OL$	$BL \leq 0.064 < X$	$BL \leq 0.067 < X < 0.133 \leq OL$	$BL \leq 0.066 < X < 0.134 \leq OL$	$BL \leq 0.029 < X$
Metallic	$BL \leq 0.006 < X < 0.014 \leq OL$	$BL \leq 0.064 < X$	$BL \leq 0.067 < X < 0.133 \leq OL$	$BL \leq 0.066 < X < 0.134 \leq OL$	n.a.
Composite materials	$BL \leq 0.004 < X < 0.016 \leq OL$	$BL \leq 0.044 < X$	$BL \leq 0.047 < X < 0.153 \leq OL$	$BL \leq 0.046 < X < 0.154 \leq OL$	$BL \leq 0.024 < X$

Remark: The symbol "X" marks the region where further investigation is necessary.

	Cd	Cr(VI)	Pb	Hg	PBBs	PBDEs
Maximum permissible Limit (%)	0.01	0.1	0.1	0.1	0.1	0.1

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17.Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE)

Test Method: Total Cadmium, Lead, Mercury, Chromium
 - Ref. to IEC 62321-4:2013+AMD1:2017 and IEC 62321-5:2013

Chromium (VI)
 - For Metal material - Ref. to IEC 62321-7-1:2015
 - For Polymer, Electronic material or others materials – Ref. to IEC 62321-7-2:2017

PBBs, PBDEs – Ref. to IEC 62321-6:2015

Test Result:

	Cd	Cr(VI)	Pb	Hg	PBBs	PBDEs
Maximum Permissible Limit (%)	0.01	0.1	0.1	0.1	0.1	0.1

Material No.	(%)					
	Cd	Cr^{VI}	Pb	Hg	PBBs	PBDEs
	RL (%)					
	0.001	0.001	0.001	0.001	0.01	0.01

Material No.	Chromium VI content for metal materials (µg/cm²) (*1) RL: 0.10 µg/cm²
A013	Negative
A014	Negative
A015	Negative
A023	Negative
A026	Negative
A027	Negative
A028	Negative
A029	Negative
A031	Negative
A032	Negative
A038	Negative

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Remark:

- (*1) The Chromium (VI) content of metal sample in surface layer have been confirmed with reference to IEC 62321-7-1:2015 Annex.

	Chromium (VI) concentration	Qualitative result
Negative	$<0.1\mu\text{g}/\text{cm}^2$	The sample is negative (-ve) for Cr(VI). The Cr(VI) concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating
Inconclusive	$\geq 0.1\mu\text{g}/\text{cm}^2$ and $\leq 0.13\mu\text{g}/\text{cm}^2$	The result is considered to be inconclusive. Unavoidable coating variations may influence the determination. Recommendation: if additional samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trials for the final determination.
Positive	$>0.13\mu\text{g}/\text{cm}^2$	The sample is positive (+ve) for Cr(VI). Concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI).

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18. BBP, DBP, DEHP, DIBP content

Test Method: ref. to IEC 62321-8:2017

Test Result:

	BBP	DBP	DEHP	DIBP
Maximum permissible Limit (%)	0.1	0.1	0.1	0.1

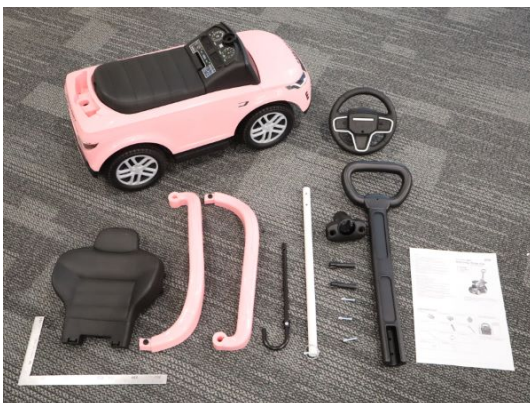
Test No.	Material No.	RL (%)			
		BBP	DBP	DEHP	DIBP
		RL (%)			
		0.005	0.005	0.005	0.005
T001	M004 + M005 + M006	< RL	< RL	< RL	< RL
T002	M007 + M008 + M013	< RL	< RL	< RL	< RL
T003	M015 + M017 + M029	< RL	< RL	< RL	< RL
T004	M030 + M031 + M032	< RL	< RL	< RL	< RL
T005	M033 + M034	< RL	< RL	< RL	< RL
T006	M012 + M018 + M019	< RL	< RL	< RL	< RL
T007	M020 + M021 + M022	< RL	< RL	< RL	< RL
T008	M023 + M024 + M025	< RL	< RL	< RL	< RL
T009	M026 + M027	< RL	< RL	< RL	< RL
T012	M014 + M016 + M028	< RL	< RL	< RL	< RL
T013	M011	< RL	< RL	< RL	< RL

Abbreviation: BBP= Benzylbutyl phthalate
 DBP= Dibutyl phthalate
 DEHP= Bis(2-ethylhexyl) phthalate
 DIBP= Diisobutyl phthalate
 < = less than
 RL = Reporting Limit
 %= percentage

Remark:

- * The maximum permissible limit is required from the amendment (EU) 2015/863 of RoHS Directive 2011/65/EU.

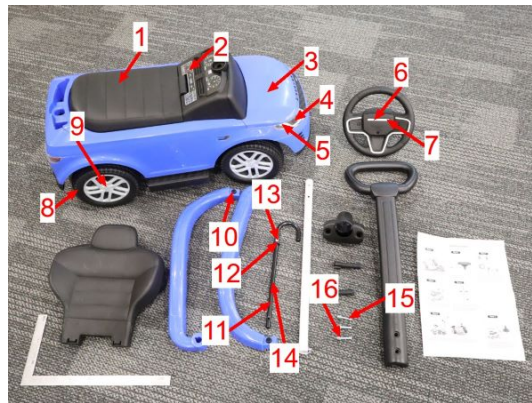
Sample Photos



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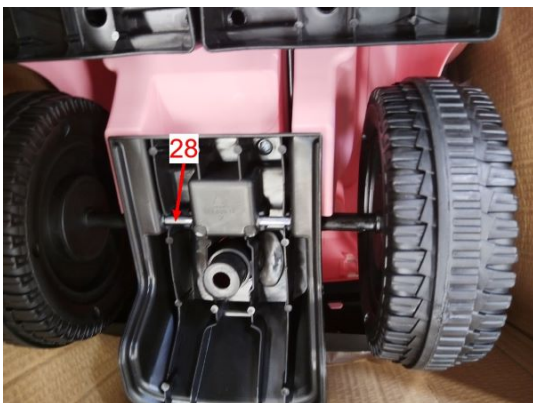
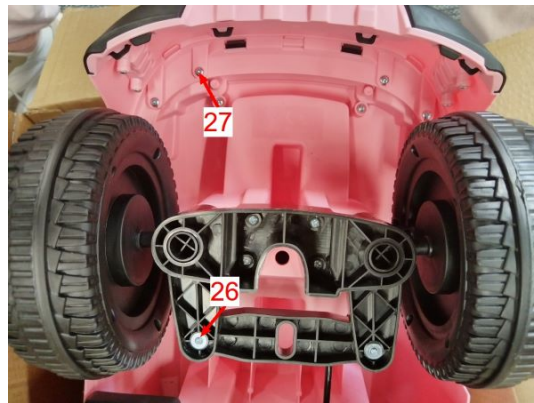
Sample Photos



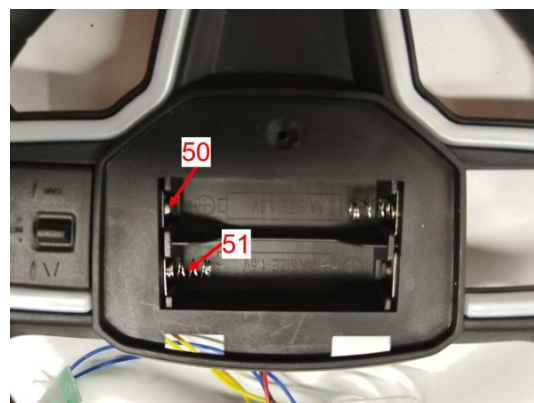
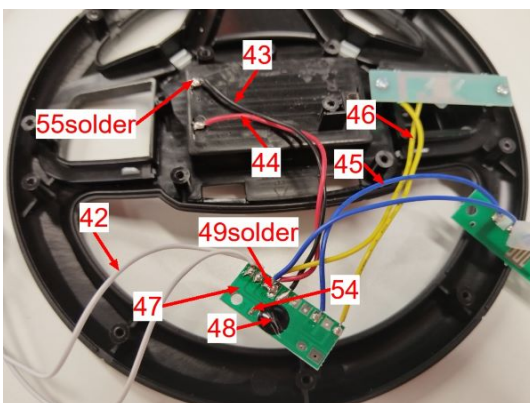
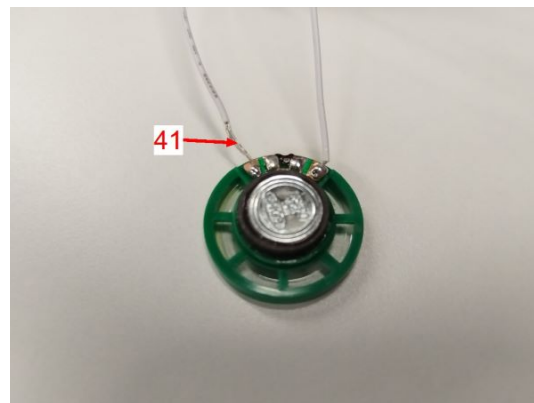
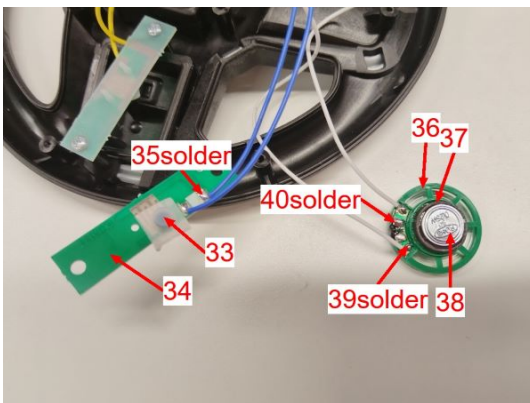
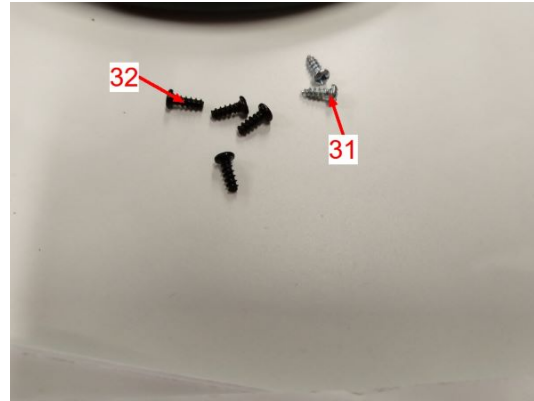
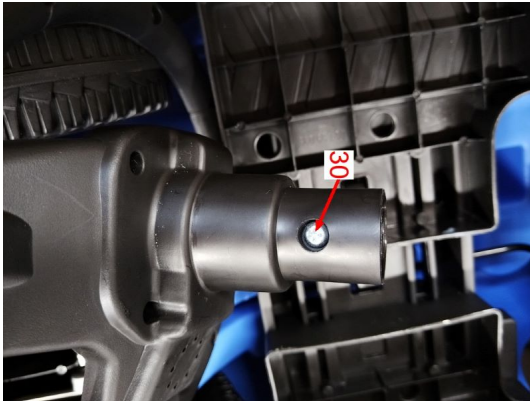
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Sample Photos



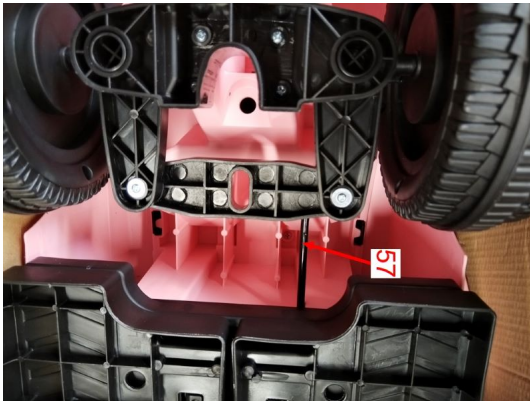
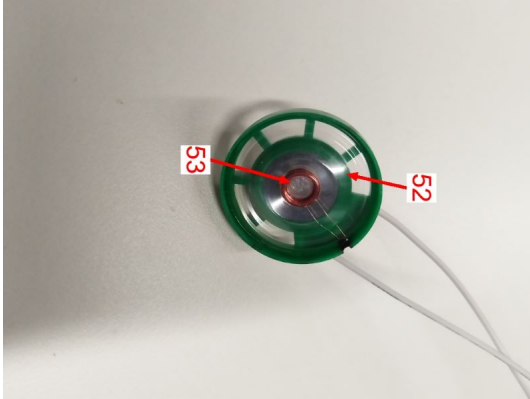
Sample Photos



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