

Report No.: **168428094b 001**

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Client: **NINGBO PRINCE TOYS CO.,LTD.**

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

Buyer's name: **LANDMARK**

Test item(s): Toys

Identification/  
Model No(s): **BABY RIDE ON CAR  
665**

Sample obtaining method: Sending by customer

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2023-05-21

Testing Period: 2023-05-25 to 2023-06-09

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

2023-06-14

Date

Name/Position



Nina L. H. Li/  
TS Supervisor

2023-06-14

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.*

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**Test Result Summary :**

<i>Test Specification:</i>	<i>Test result:</i>
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 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 Annex XVII entry 51 and entry 52 : Phthalates	PASS
8 Polycyclic aromatic hydrocarbons (PAHs) - REACH regulation (EC) No. 1907/2006 with Amendment No. 552/2009 Annex XVII Item No. 50 and (EU) No.1272/2013	PASS
9 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  
665

Material No.	Material	Color	Location
A001	Plastic	black	Refer to photo
A002	Plastic	brown	Refer to photo
A003	Plastic	light pink	Refer to photo
A004	Coating	black	Refer to photo
A005	Plastic	white	Refer to photo
A006	Plastic	black	Refer to photo
A007	Plastic	brown	Refer to photo
A008	Coating	silver	Refer to photo
A009	Plastic	white	Refer to photo
A010	Coating	black	Refer to photo
A011	Metal	silver	Refer to photo
A012	Metal	silver	Refer to photo
A013	Metal	silver	Refer to photo
A014	Plastic	transparent	Refer to photo
A015	Plastic	black	Refer to photo
A016	Metal	silver	Refer to photo
A017	Metal	silver	Refer to photo
A018	Metal	silver	Refer to photo
A019	Metal	black	Refer to photo
A020	Metal	black	Refer to photo
A021	Plastic	translucent	Refer to photo
A022	Plastic	translucent	Refer to photo
A023	Plastic	white	Refer to photo
A024	Plastic	transparent	Refer to photo
A025	Metal	silver	Refer to photo
A026	Plastic	white	Refer to photo
A027	Plastic	light cyan	Refer to photo
A028	Plastic + adhesive	Transparent	Refer to photo

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M001	Whole Product	Multicolor	BABY RIDE ON CAR 665
M002	Plastic	Black	Steering wheel
M003	Plastic	Brown	Seat
M004	Plastic	Light pink	Body
M005	Coating	Black	On body of all style
M006	Plastic	White	Wheel
M007	Plastic	Black	Tire
M008	Plastic	Brown	Wheel
M009	Coating	Silver	On headstock
M010	Plastic	White	Headstock
M011	Plastic	Black	Tailstock
M012	Coating	Black	On connector of steering wheel
M016	Plastic	Transparent	Lamp of car
M019	Plastic	Translucent	Body of sounder
M020	Plastic	Translucent	Plug of sounder
M021	Plastic	White	Gasket of sounder
M023	Plastic	White	Body
M024	Plastic	Light cyan	Body
M025	Plastic + adhesive	Transparent	Sticker on body of all style
M026	Plastic	Translucent, transparent	Gasket/body of sounder
M027	Coating	Black, silver	On body of all style; connector of steering wheel; headstock
M028	Plastic	Multicolor	Gasket/body of sounder

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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
4.2 Assembly		Pass
4.7 Edges		Pass
4.8 Points and metallic wires		Pass
4.15 Toys intended to bear the mass of a child		Pass
4.20 Acoustics		Pass
<b>5. Toys intended for children under 36 months</b>		
5.1 General requirements		Pass
<b>6. Packaging</b>		
		Pass
<b>7. Warnings, markings and instructions for use</b>		
7.1 General		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

**Remark:**

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

**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 (Package)
Product Identification - type, batch, serial or model number+		Present (Package)
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.

**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 Parameter	Unit	RL	Test No.	T001	T002	T003
			Material No.	M002	M003	M004
			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 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	11	< 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	4.2	< 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	22	< RL	32
Mass of trace amount #	mg	--	--	17.1	-	-

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 mg denotes milligram  
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**Test Result:**

Test Parameter	Unit	RL	Test No.	T007	T008	T009
			Material No.	M008	M009	M010
			Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	4052	< 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	3.8	< 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	14	< 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.	T010	T011	T012
			Material No.	M011	M012	M016
			Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	56	< 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	7.3	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	1.9	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	36	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	6.6	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	4.8	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	147	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	109	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	11	< RL
Tin (Sn)	mg/kg	1.0	180,000	< RL	1.3	< RL
Organic Tin <sup>^</sup>	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	14830	< RL
Mass of trace amount #	mg	--	--	-	-	-

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- 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.	T013	T014	T015
			Material No.	M023	M024	M025
			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 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.
- # 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	M005 + M009 + M012	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	--
		Average	mg/kg	10	--
T002	M002 + M003 + M004	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	--
		Average	mg/kg	10	--
T003	M006 + M007 + M008	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	--
		Average	mg/kg	10	--
T004	M010 + M011 + M016	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	--
		Average	mg/kg	10	--
T005	M023 + M024 + M025	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	--
		Average	mg/kg	10	--
T006	M020 + 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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**7. Phthalates content**

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

**Test Result:**

				Test No.	T001	T002	T003
				Material No.	M002 + M003 + M004	M006 + M007 + M008	M010 + M011 + M016
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.	T004	T005
				Material No.	M019 + M020 + M021	M023 + M024 + M025
Test Parameter	CAS NO	Unit	RL	Result	Result	
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	< RL	< RL	
Dibutyl phthalate (DBP)	84-74-2	%	0.005	< RL	< RL	
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	< RL	< RL	
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	< RL	< RL	
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.005	<RL	<RL	
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	< RL	< RL	
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	< RL	< RL	
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	
Sum (DINP+ DIDP+ DNOP)	--	%	0.005	<RL	<RL	
Conclusion: REACH regulation (EC) No. 1907/2006 and its amendment Annex XVII entries 51 and 52				Pass	Pass	

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				Test No.	T006	T007
				Material No.	M026	M005 + M009 + M012
Test Parameter	CAS NO	Unit	RL	Result	Result	
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	< RL	< RL	
Dibutyl phthalate (DBP)	84-74-2	%	0.005	< RL	< RL	
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	< RL	< RL	
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	< RL	< RL	
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.005	<RL	<RL	
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	< RL	< RL	
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	< RL	< RL	
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	
Sum (DINP+ DIDP+ DNOP)	--	%	0.005	<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. Polycyclic aromatic hydrocarbons (PAHs)**

Test Method: Organic solvent extraction, GCMS

Test No.				T001	T002	T003
Material No.				M002 + M003 + M004	M006 + M007 + M008	M010 + M011 + M016
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Benzo[a]anthracene (BaA)	56-55-3	mg/kg	0.1	< RL	< RL	< RL
Benzo[a]pyrene (BaP)	50-32-8	mg/kg	0.1	< RL	< RL	< RL
Benzo[b]fluoranthene (BbFA)	205-99-2	mg/kg	0.1	< RL	< RL	< RL
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.1	< RL	< RL	< RL
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.1	< RL	< RL	< RL
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	< RL	< RL	< RL
Chrysene (CHR)	218-01-9	mg/kg	0.1	< RL	< RL	< RL
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.1	< RL	< RL	< RL

Test No.				T004	T005
Material No.				M023 + M024 + M025	M027
Test Parameter	CAS NO	Unit	RL	Result	Result
Benzo[a]anthracene (BaA)	56-55-3	mg/kg	0.1	< RL	< RL
Benzo[a]pyrene (BaP)	50-32-8	mg/kg	0.1	< RL	< RL
Benzo[b]fluoranthene (BbFA)	205-99-2	mg/kg	0.1	< RL	< RL
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.1	< RL	< RL
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.1	< RL	< RL
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	< RL	< RL
Chrysene (CHR)	218-01-9	mg/kg	0.1	< RL	< RL
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.1	< RL	< RL

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

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**Remark:**

- \* Requirement according to REACH regulation (EC) No. 1907/2006 with Amendment No. 552/2009 Annex XVII Item No. 50 and (EU) No.1272/2013, are summarized as below:

Scope	Parameter	Unit	Maximum permissible limit
Articles with direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use ,made of plastic and rubber shall follow below limit:			
Such articles include amongst others: ---sport equipment such as bicycles, golf clubs, racquets ---household utensils, trolleys, walking frames --- tools for domestic use --- clothing, footwear, gloves and sportswear ---watch-straps, wrist-bands, masks, head-bands	Each of 8 listed PAHs	mg/kg	1
Toys, including activity toys, and childcare articles	Each of 8 listed PAHs	mg/kg	0.5

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**9.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	n.a.
A012	BL	d.(*1)	BL	BL	n.a.
A013	BL	BL	BL	BL	n.a.
A014	BL	BL	BL	BL	BL
A015	BL	BL	BL	BL	BL
A016	BL	d.(*1)	BL	BL	n.a.
A017	BL	BL	BL	BL	n.a.
A018	BL	d.(*1)	BL	BL	n.a.
A019	BL	d.(*1)	BL	BL	n.a.
A020	BL	d.(*1)	BL	BL	n.a.
A021	BL	BL	BL	BL	BL
A022	BL	BL	BL	BL	BL
A023	BL	BL	BL	BL	BL
A024	BL	BL	BL	BL	BL
A025	BL	d.(*1)	BL	BL	n.a.
A026	BL	BL	BL	BL	BL
A027	BL	BL	BL	BL	BL
A028	BL	BL	BL	BL	BL

**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:**

XRF Screening limits for different matrices :

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

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

	Cd	Cr(VI)	Pb	Hg	PBBs	PBDEs
<b>Maximum permissible Limit (%)</b>	0.01	0.1	0.1	0.1	0.1	0.1

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**(HM) 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 Plastic or Electronic material – Ref. to IEC 62321-7-2:2017  
 - For Leather material - # Ref. to EN ISO 17075-1:2017

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

**Test Result:**

	<b>Cd</b>	<b>Cr(VI)</b>	<b>Pb</b>	<b>Hg</b>	<b>PBBs</b>	<b>PBDEs</b>
<b>Maximum Permissible Limit (%)</b>	0.01	0.1	0.1	0.1	0.1	0.1

<b>Material No.</b>	<b>(%)</b>					
	<b>Cd</b>	<b>Cr<sup>^</sup></b>	<b>Pb</b>	<b>Hg</b>	<b>PBBs</b>	<b>PBDEs</b>
	<b>RL (%)</b>					
	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.01</b>	<b>0.01</b>

<b>Material No.</b>	<b>Chromium VI content for metal materials (µg/cm²) (*1)</b> <b>RL: 0.10 µg/cm²</b>
A012	Negative
A016	Negative
A018	Negative
A019	Negative
A020	Negative
A025	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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**BBP, DBP, DEHP, DIBP content**

Test Method: IEC 62321-8:2017

**Test Result:**

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

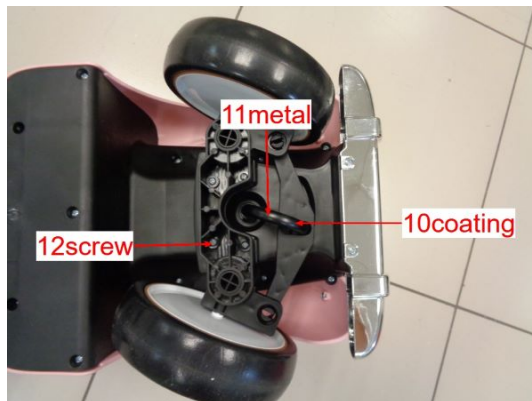
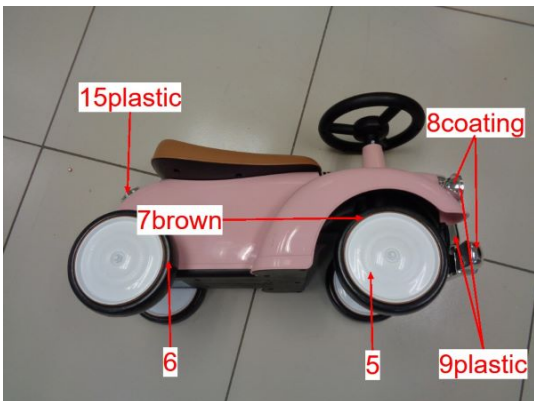
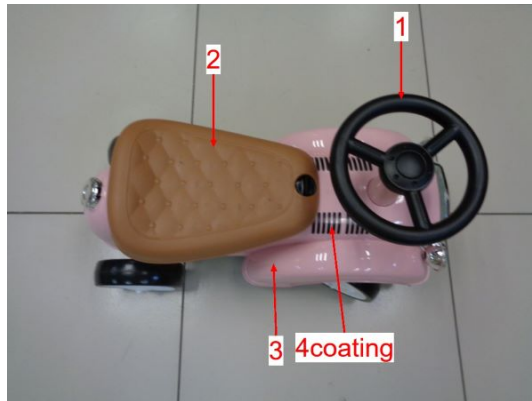
Test No.	Material No.	RL (%)			
		RL (%)			
		0.005	0.005	0.005	0.005
		0.005	0.005	0.005	0.005
T001	M002 + M003 + M004	< RL	< RL	< RL	< RL
T002	M006 + M007 + M008	< RL	< RL	< RL	< RL
T003	M010 + M011 + M016	< RL	< RL	< RL	< RL
T004	M019 + M020 + M021	< RL	< RL	< RL	< RL
T005	M023 + M024 + M025	< RL	< RL	< RL	< RL
T006	M026	< RL	< RL	< RL	< RL
T007	M005 + M009 + M012	< 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:**

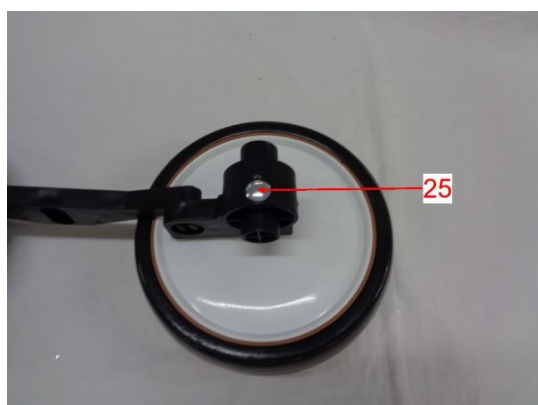
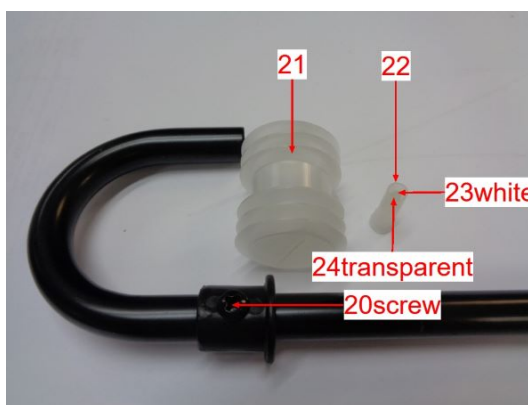
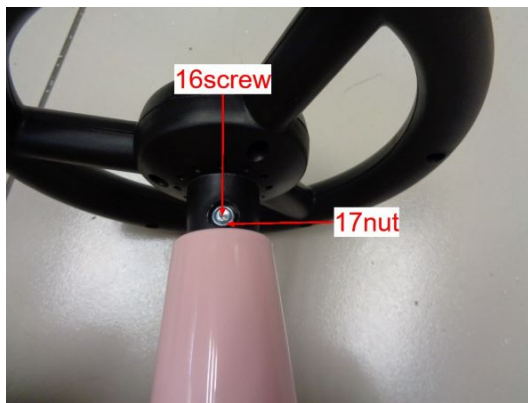
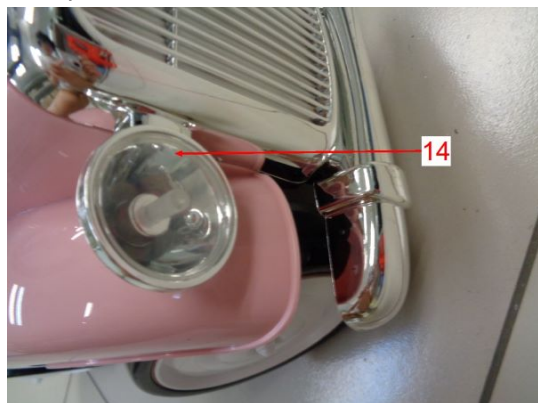
- \* The maximum permissible limit is required from the amendment (EU) 2015/863 of RoHS Directive 2011/65/EU.

Sample Photos





Sample Photos



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Sample Photos



- END -

