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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/ BABY RIDE ON CAR Model No(s): 667/668/668-P/664

Sample obtaining method: Sending by customer

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2024-07-01; 2024-07-04 Testing Period: 2024-07-08 to 2024-07-26

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 (667/668/668-P).

For age of 18-36 months (664).

The appropriate age grade of the item(s): For age of 12-36 months (667/668/668-P).

For age of 18-36 months (664).

The item(s) was/ were tested for the age of 12-36 months (667/668/668-P).

For the age of 18-36 months (664).

(2) Packaging provided: Artwork

(3) Information provided by customer:

Country of Origin: CHINA

(4) The report 168492904a 002 superseded report 168492904a 001 issued on Jul. 26th 2024.

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

Candy He/

Lab. Supervisor

Lucy Wang/ Senior Technical Executive

Date

2024-07-31

Name/Position

Date

2024-07-31

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:

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 BS EN 71-1:2014+A1:2018 Mechanical and physical properties	PASS
6 The Toys (Safety) Regulations 2011 of UK, UKCA mark	PASS
7 The Toys (Safety) Regulations 2011 of UK, labelling requirements	PASS
8 BS EN 71-2:2020 Flammability	PASS
9 EN 71-3:2019+A1:2021 / BS EN 71-3:2019+A1:2021 Migration of 19 Elements - with reference to 2009/48/EC and its amendments	PASS
10 EN IEC 62115:2020+A11:2020 Electric toys - Safety	PASS
11 BS EN IEC 62115:2020+A11:2020 Electric toys - Safety	PASS
12 Cadmium content according to Annex XVII Entry 23 of Regulation (EC) No 1907/2006 and its amendments	PASS
Cadmium content - According to UK REACH regulation (EC) No. 1907/2006 last amended by SI 2021/904 Annex XVII Entry 23	PASS
13 REACH regulation (EC) No. 1907/2006 and its amendment regulations on Annex XVII entry 51 and entry 52 : Phthalates	PASS
Phthalates -According to UK REACH regulation (EC) No. 1907/2006 last amended by SI 2021/904 Annex XVII Entry 51 and entry 52	PASS
14 Polycyclic aromatic hydrocarbons (PAHs) - according to GS Specification - AfPS GS 2019:01 PAK	PASS
15 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
16 According to UK RoHS: The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, Statutory Instrument 2012/3032 and its amendments	PASS



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Material List:

BABY RIDE ON CAR Item:

667/668/668-P/664

Material No.	Material	Color	Location
A001	Plastic	black	refer to photo
A002	Plastic	light grey	refer to photo
A003	Plastic	white	refer to photo
A004	Metal	black	refer to photo
A005	Coating	black	refer to photo
A006	Plastic + adhesive	transparent	refer to photo
A007	Plastic	grey	refer to photo
A008	Plastic	black	refer to photo
A009	Plastic	transparent	refer to photo
A010	Plastic + plating	silver	refer to photo
A011	Coating	silver	refer to photo
A012	Metal	black	refer to photo
A013	Metal	silver	refer to photo
A014	Metal	silver	refer to photo
A015	Metal	silver	refer to photo
A016	Metal	silver	refer to photo
A017	Metal	black	refer to photo
A018	Metal	black	refer to photo
A019	Metal	silver	refer to photo
A020	Metal	silver	refer to photo
A021	Metal	silver	refer to photo
A022	Metal	silver	refer to photo
A023	Metal	silver	refer to photo
A024	Plastic	blue	refer to photo
A025	Metal	silver	refer to photo
A026	Metal	silver	refer to photo
A027	Plastic	dark grey	refer to photo
A028	Metal	silver	refer to photo
A029	Metal	silver	refer to photo



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A030	Metal	silver	refer to photo
A031	PCB board	green	refer to photo
A032	Polymer	black	refer to photo
A033	Plastic + printing	white/black	refer to photo
A034	Plastic	red	refer to photo
A035	Plastic	black	refer to photo
A036	Plastic	blue	refer to photo
A037	Plastic	yellow	refer to photo
A038	Solder	silver	refer to photo
A039	Electronic components	brown	refer to photo
A040	Metal	silver	refer to photo
A041	Solder	silver	refer to photo
A042	Plastic	translucent/black	refer to photo
A043	PCB board	green	refer to photo
A044	Plastic	green	refer to photo
A045	Solder	silver	refer to photo
A046	Solder	silver	refer to photo
A048	PCB board	green	refer to photo
A049	Metal	silver	refer to photo
A050	Magnet	black	refer to photo
A051	Plastic	transparent	refer to photo
A052	Metal	copper	refer to photo
A053	Metal	silver	refer to photo
A054	Plastic	dark grey	refer to photo
A055	Plastic	red	refer to photo
A056	Plastic	pink	refer to photo
A057	Plastic + plating	light grey/silver	refer to photo
A058	Plastic	transparent red	refer to photo
A059	Coating	silver	refer to photo
A060	Metal	silver	refer to photo
A061	Metal	silver	refer to photo
A062	Plastic	dull black	refer to photo



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A063	Metal	silver	refer to photo
A064	Coating	black	refer to photo
A065	Metal	silver	refer to photo
A066	Metal	silver	refer to photo
A067	Textile	black	refer to photo
A068	Textile	blue	refer to photo
A069	Coating	white	refer to photo
A070	Metal	silver	refer to photo
A071	Metal	silver	refer to photo
A072	Metal	silver	refer to photo
A073	Plastic	white	refer to photo
A074	Metal	silver	refer to photo
A075	Metal	silver	refer to photo
A076	Metal	silver	refer to photo
A077	Metal	silver	refer to photo
A078	Plastic	blue	refer to photo
A079	Textile	black	refer to photo
A080	Textile	red	refer to photo
A081	Textile	white	refer to photo
A082	Textile	pink	refer to photo
A083	Coating	multicolor	refer to photo
A084	Paper + adhesive	white	refer to photo
A085	Metal	silver	refer to photo
M001	Whole Product	Multicolor	Baby ride on car
M002	Plastic	black	body, steering wheel, parts (all styles)
M003	Plastic	light grey	steering wheel (all style), wheel (#667, #668, #669-P)
M004	Plastic	white	body (all styles)
M006	Coating	black	sticker (#664)
M007	Plastic + adhesive	transparent	sticker (#664)
M008	Plastic	grey	wheel (#664)
M009	Plastic	black	wheel (all styles)
M010	Plastic	transparent	head light (all styles)



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M011	Plastic + plating	black/silver	head light (all styles), grill (#667, #668, #669-P)
M012	Coating	silver	sticker (#664)
M025	Plastic	dark grey	body (#664)
M026	Plastic	red	body (all styles)
M027	Plastic	pink	body (all styles)
M028	Plastic + plating	light grey/silver	logo ring (#667, #668, #668P)
M029	Plastic	transparent red	rear light (#667, #668, #668P)
M030	Coating	silver	logo pattern (#667, #668, #668P)
M033	Plastic	dull black	handle (#668, #668P)
M035	Coating	black	pole, tube (#668, #668P)
M038	Textile	black	binding of canopy (#668P)
M039	Textile	blue	body of canopy (#668P)
M040	Coating	white	inner wire of canopy (#668P)
M047	Plastic	blue	body (#667, #668, #668P)
M048	Textile	black	body of canopy (#668P)
M049	Textile	red	body of canopy (#668P)
M050	Textile	white	body of canopy (#668P)
M051	Textile	pink	body of canopy (#668P)
M052	Plastic + coating + adhesive	transparent/black/silver	sticker (#664)
M053	Plastic + coating	blue/silver	body & logo pattern (#667, #668, #668P)
M054	Plastic	white	inner canopy holder (#668P)
M055	Plastic	blue	washer of nut (all styles)
M056	Plastic	dark grey	washer of battery cover (all styles)
M057	PCB board	green/black	mian PCB & IC packaging (all styles)
M058	Plastic + printing	white/black	wire covering (all styles)
M059	Plastic	red	wire covering (all styles)
M060	Plastic	black	wire covering (all styles)
M061	Plastic	blue	wire covering (all styles)
M062	Plastic	yellow	wire covering (all styles)
M063	Plastic	translucent/black	button (all styles)
M064	PCB board	green	PCB (all styles)



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M065	Plastic	green	speaker (all styles)
M066	PCB board	green/black	PCB of speaker (all styles)
M067	Plastic	transparent	speaker (all styles)
M068	Coating	multicolor	sticker (all styles)
M070	Paper + coating + adhesive	white/multicolor	sticker (all styles)



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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	Pass
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

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



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4. EN 71-2:2020 Flammability

Test result:

	Test No:	T001
	Material No:	M001
4.1 General requirements		Pass
4.4 Toys intended to be entered by a child		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. BS 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	Pass
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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6. The Toys (Safety) Regulations 2011 of UK, UKCA mark

Test result:

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

Remark:

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



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7. The Toys (Safety) Regulations 2011 of UK, labelling requirements

Test Result:

Test No:	T001
Material No:	M001
UK Importer Name and Address	Absent

Remark:

* According to Toys (Safety) Regulations 2011: Guidance (GB) published by Department for Business, Energy and Industrial Strategy in November 2020, starting from 1 January 2021, importers have legal obligations checking that manufacturers have included their (the importer's) name, registered trade name or mark and a postal address on the toy or on its packaging or in accompanying documentation.

To assist with the transition, the UK is applying a transitional period ending on 31 December 2025 to allow that the details being shown on the accompanying documentation or packaging as an alternative to placing them on the toy.

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



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8. BS EN 71-2:2020 Flammability

Test result:

	Test No:	T001
	Material No:	M001
4.1 General requirements		Pass
4.4 Toys intended to be entered by a child		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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9. EN 71-3:2019+A1:2021 / BS EN 71-3:2019+A1:2021 Migration of 19 Elements - with reference to 2009/48/EC and its amendments

Test Method: with reference to EN 71-3:2019+A1:2021 / BS 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:

			T001	T002	T003	
			M002	M003	M004	
Test Parameter	Unit	RL	Regulatory	Result	Result	Result
			Requirement			
Aluminium (Al)	mg/kg		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	17	< 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:

			T004	T005	T006	
			Material No.	M006	M007	M008
Test Parameter	Unit RL		Regulatory	Result	Result	Result
			Requirement			
Aluminium (Al)	mg/kg	10	28,130	-	< RL	< RL
Antimony (Sb)	mg/kg	5	560	-	< RL	< RL
Arsenic (As)	mg/kg	5	47	-	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	-	< RL	< RL
Boron (B)	mg/kg	10	15,000	-	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	-	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	-	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	-	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	-	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	-	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	-	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	-	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	-	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	-	< RL	< RL
Selenium (Se)	mg/kg	10	460	-	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	-	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	-	< RL	< RL
Organic Tin^	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	-	< RL	< RL
Mass of trace amount	mg			<10	-	-

Abbreviation:

< = less than

RL = Reporting Limit

mg/kg denotes milligram per kilogram

mg denotes milligram



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Test Result:

			T007	T008	T009	
			Material No.	M009	M010	M011
Test Parameter	Unit	RL	Regulatory	Result	Result	Result
			Requirement			
Aluminium (AI)	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.			
			T010	T011	T012	
			Material No.	M012	M025	M026
Test Parameter	Unit R		Regulatory	Result	Result	Result
			Requirement			
Aluminium (Al)	mg/kg	10	28,130	-	< RL	< RL
Antimony (Sb)	mg/kg	5	560	-	< RL	< RL
Arsenic (As)	mg/kg	5	47	-	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	-	< RL	< RL
Boron (B)	mg/kg	10	15,000	-	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	-	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	-	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	-	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	-	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	-	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	-	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	-	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	-	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	-	< RL	< RL
Selenium (Se)	mg/kg	10	460	-	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	-	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	-	< RL	< RL
Organic Tin^	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	-	< RL	< RL
Mass of trace amount	mg			<10	-	-

Abbreviation:

< = less than

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mg/kg denotes milligram per kilogram

mg denotes milligram



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Test Result:

			T013	T014	T015	
			Material No.	M027	M028	M029
Test Parameter	Unit	RL	Regulatory	Result	Result	Result
			Requirement			
Aluminium (AI)	mg/kg	10	28,130	< RL	< RL	< RL
Antimony (Sb)	mg/kg		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:

			T016	T017	T018	
			Material No.	M030	M033	M035
Test Parameter	Unit	RL	Regulatory	Result	Result	Result
			Requirement			
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	306
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	4.3
Lead (Pb)	mg/kg	2.5	23	-	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	-	< RL	10
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	9.1
Tin (Sn)	mg/kg		180,000	-	< RL	< RL
Organic Tin^	mg/kg	0.2	12	-	-	-
Zinc (Zn)	mg/kg	10	46,000	-	< RL	8855
Mass of trace amount	mg			<10	-	-

Abbreviation:

< = less than

RL = Reporting Limit

mg/kg denotes milligram per kilogram

mg denotes milligram



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Test Result:

			T019	T020	T021	
			Material No.	M038	M039	M047
Test Parameter	Unit	RL	Regulatory	Result	Result	Result
			Requirement			
Aluminium (AI)	mg/kg	10	28,130	22	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	47	5.4	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	2.7	2.9	< 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	12	84	< 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:

			T022	T023	T024	
			Material No.	M048	M049	M050
Test Parameter	Unit RI		Regulatory	Result	Result	Result
			Requirement			
Aluminium (AI)	mg/kg	10	28,130	50	< RL	< RL
Antimony (Sb)	mg/kg		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	12	< 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:

	T025	T026			
	M051	M070			
Test Parameter	Unit	RL	Regulatory	Result	Result
			Requirement		
Aluminium (AI)	mg/kg	10	28,130	< RL	14
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	4.0
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	3.2
Selenium (Se)	mg/kg	10	460	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	17
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 / BS EN 71-3:2019+A1:2021, cosmetic materials with dry, brittle, powder like or pliable texture such as lipstick and eyeshadow are considered as category I materials. However, as a reminder, it cannot preclude the possibility that some national enforcement authorities might take a more stringent action to treat cosmetic materials as sticky and evaluate according to category II requirement as they are intended to be applied on skin and retained for long time.
- ** For any test portion containing grease, oil, wax or similar material, such materials would has been removed with isooctane by using Soxhlet extraction.
- *** The highlighted result was found to be more than the maximum permissible limit.
- # According to EN 71-3:2019+A1:2021 / BS EN 71-3:2019+A1:2021, if the weight of a test portion of toy material is less than 10mg, the analysis of migration of certain elements would not be required. If the weight of a test portion of toy material is between 10mg and 100mg, the analytical results would be calculated as though 100mg of the test portion had been used.



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10.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(LR03) 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



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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.



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11.BS EN IEC 62115:2020+A11:2020 Electric toys - Safety

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

Power Information:

Component No.	Description	Power Type
T1	RIDE ON CAR	2 X 1.5V(LR03) DURACELL Replaceable Battery

BS 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



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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.



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12.Total Cadmium Content

Test Method: EN 1122:2001 (method B)

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Test Result
	M002 +	Trial 1	mg/kg	10	< RL
T001 M003 +		Trial 2	mg/kg	10	-
	M004	Average	mg/kg	10	-
	M008 +	Trial 1	mg/kg	10	< RL
T002	M009 +	Trial 2	mg/kg	10	-
	M010	Average	mg/kg	10	-
	M011 +	Trial 1	mg/kg	10	< RL
T003	M025 +	Trial 2	mg/kg	10	-
	M026	Average	mg/kg	10	-
	M027 +	Trial 1	mg/kg	10	< RL
T004	M028 +	Trial 2	mg/kg	10	-
	M029	Average	mg/kg	10	-
	M033 +	Trial 1	mg/kg	10	< RL
T005	M052 +	Trial 2	mg/kg	10	-
	M053	Average	mg/kg	10	-
	M054 +	Trial 1	mg/kg	10	< RL
T007	M055 +	Trial 2	mg/kg	10	-
	M056	Average	mg/kg	10	-
	M057 +	Trial 1	mg/kg	10	< RL
T008	M058 +	Trial 2	mg/kg	10	-
	M059	Average	mg/kg	10	-
	M060 +	Trial 1	mg/kg	10	< RL
T009	M061 +	Trial 2	mg/kg	10	-
	M062	Average	mg/kg	10	-
	M063 +	Trial 1	mg/kg	10	< RL
T010	M064 +	Trial 2	mg/kg	10	-
	M065	Average	mg/kg	10	-
	Moco	Trial 1	mg/kg	10	< RL
T011	M066 + M067	Trial 2	mg/kg	10	-
		Average	mg/kg	10	-
	M068 +	Trial 1	mg/kg	10	< RL
T012	M035 +	Trial 2	mg/kg	10	-
	M040	Average	mg/kg	10	-



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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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13.Phthalates content

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

Test Result:

	Test No.					T003
Material No			rial No.	M002 +	M008 +	M011 +
				M003 +	M009 +	M025 +
				M004	M010	M026
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< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Diisononyl phthalate (DINP)	28553-12-0,	%	0.01	< RL	< RL	< RL
	68515-48-0					
Diisodecyl phthalate (DIDP)	26761-40-0,	%	0.005	< RL	< RL	< RL
	68515-49-1					
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP) % 0.00				<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Conclusion: REACH regulation (EC) No. 1907/2006 and its amendment Annex XVII entries 51 and 52			Pass	Pass	Pass	

	T004	T005	T007			
	Material No.				M033 +	M054 +
				M028 +	M052 +	M055 +
				M029	M053	M056
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< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	< RL	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0,	%	0.005	< RL	< RL	< RL
	68515-49-1					
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP) % 0.005				<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Conclusion: REACH regulation (EC) No. amendment Annex XVII entries 51 and 5	Pass	Pass	Pass			



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	T008	T009	T010			
	M057 +	M060 +	M063 +			
				M058 +	M061 +	M064 +
				M059	M062	M065
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< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Diisononyl phthalate (DINP)	28553-12-0,	%	0.01	< RL	< RL	< RL
	68515-48-0					
Diisodecyl phthalate (DIDP)	26761-40-0,	%	0.005	< RL	< RL	< RL
	68515-49-1					
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP) % 0.005				<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Conclusion: REACH regulation (EC) No. amendment Annex XVII entries 51 and 5	Pass	Pass	Pass			

	T011	T012			
	M066 +	M068 +			
				M067	M035 +
					M040
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< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Diisononyl phthalate (DINP)	28553-12-0,	%	0.01	< RL	< RL
	68515-48-0				
Diisodecyl phthalate (DIDP)	26761-40-0,	%	0.005	< RL	< RL
	68515-49-1				
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL
Sum (DINP+ DIDP+ DNOP)		%	0.005	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Conclusion: REACH regulation (EC) No amendment Annex XVII entries 51 and 5	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

- 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;
- 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
- 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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14. 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.			M002	M003	M004	
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< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Sum of 15 PAHs	-	mg/kg	0.2	<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Category*	-		-	1	1	1
Conclusion				PASS	PASS	PASS



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	Test No.			T004(*1)	T005	T006
		Materi	ial No.	M006	M007	M008
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	<u> </u>	< RL	< RL
Indeno[1,2,3-cd]pyrene	193-39-5		0.2	<u> </u>	< RL	< RL
Naphthalene	91-20-3	mg/kg	0.2		< RL	< RL
<u> </u>		mg/kg		-		< RL
Phenanthrene	85-01-8	mg/kg	0.2	-	< RL	
Pyrene Sum of, Anthracene,	129-00-0	mg/kg	0.2	-	< RL	< RL
Fluoranthene,	_	mg/kg	0.2	_	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Phenanthrene, Pyrene		l mg/kg	0.2		I NE	I III
Sum of 15 PAHs	-	mg/kg	0.2	-	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Category*	-		-	1	1	1
Conclusion	•			PASS	PASS	PASS
		Te	st No.	T007	T008	T009
		Materi	ial No.	M009	M010	M011
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	0.2	< RL	0.3
Pyrene	129-00-0	mg/kg	0.2	0.6	< RL	0.5
Sum of, Anthracene,				-		-
Fluoranthene,	-	mg/kg	0.2	0.8	<rl< td=""><td>0.8</td></rl<>	0.8
Phenanthrene, Pyrene						
Sum of 15 PAHs	-	mg/kg	0.2	0.8	<rl< td=""><td>0.8</td></rl<>	0.8
Category*	-		-	1	1	1
Conclusion				PASS	PASS	PASS

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		Te	st No.	T010(*1)	T011	T012
Material No.				M012	M025	M026
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	< 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< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Sum of 15 PAHs	-	mg/kg	0.2	-	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Category*	-		-	1	1	1
Conclusion				PASS	PASS	PASS

Sum of 15 PAHs

Category*

Conclusion



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<RL

PASS

0.3

PASS

		Te	st No.	T013	T014	T015
		Materi	ial No.	M027	M028	M029
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	0.4
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,	-	mg/kg	0.2	<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Phenanthrene, Pyrene						
Sum of 15 PAHs	-	mg/kg	0.2	<rl< td=""><td><rl< td=""><td>0.4</td></rl<></td></rl<>	<rl< td=""><td>0.4</td></rl<>	0.4
Category*	-		-	1	1	1
Conclusion				PASS	PASS	PASS
		Te	st No.	T016(*1)	T017	T018
			ial No.	M030	M033	M035
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	< RL
Phenanthrene	85-01-8	mg/kg	0.2	<u> </u>	< RL	< RL
Pyrene	129-00-0	mg/kg	0.2		0.3	< RL
Sum of, Anthracene, Fluoranthene, Phenanthrene, Pyrene	-	mg/kg	0.2	-	0.3	<rl< td=""></rl<>
Cum of 45 DALIa	ı	I/I			0.0	l Di

0.2

-

PASS

mg/kg



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		Te	st No.	T019	T020
		M047	M068		
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< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Sum of 15 PAHs	-	mg/kg	0.2	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Category*	-		-	1	1
Conclusion		·	PASS	PASS	

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)

		Category 1	Catego	ory 2	Cate	gory 3
Parameter		to be placed into the mouth, or	Materials that do not fall into Category 1 with intended or foreseeable long-term skin		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</p>

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



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15. 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	d.(*1)	BL	BL	n.a.
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	n.a.
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	d.(*1)	BL	BL	n.a.
A017	BL	d.(*1)	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	d.(*1)	BL	BL	n.a.
A022	BL	d.(*1)	BL	BL	n.a.
A023	BL	BL	BL	BL	n.a.
A024	BL	BL	BL	BL	BL
A025	BL	d.(*1)	BL	BL	n.a.
A026	BL	d.(*1)	BL	BL	n.a.
A027	BL	BL	BL	BL	BL
A028	BL	d.(*1)	BL	BL	n.a.
A029	BL	BL	BL	BL	n.a.
A030	BL	d.(*1)	BL	BL	n.a.
A031	BL	BL	BL	BL	BL
A032	BL	BL	BL	BL	BL
A033	BL	BL	BL	BL	BL
A034	BL	BL	BL	BL	BL
A035	BL	BL	BL	BL	BL
A036	BL	BL	BL	BL	BL
A037	BL	BL	BL	BL	BL



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A038 BL BL BL BL BL BL BL B						
A040	A038	BL	BL	BL	BL	n.a.
A041 BL BL BL BL BL BL BL B	A039	BL	BL	d.(*1)	BL	BL
A042 BL BL BL BL BL BL A043 BL BL BL BL BL BL BL A044 BL BL BL BL BL BL BL	A040	BL	BL	BL	BL	n.a.
A043 BL BL BL BL BL BL BL B	A041	BL	BL	BL	BL	n.a.
A044 BL BL BL BL BL BL A045 BL BL BL BL BL BL BL A046 BL BL BL BL BL BL BL A048 BL BL BL BL BL BL A049 BL BL BL BL BL BL BL B	A042	BL	BL	BL	BL	BL
A045 BL BL BL BL BL n.a.	A043	BL	BL	BL	BL	d.(*1)
A046 BL BL BL BL BL n.a. A048 BL BL BL BL d.(*1) A049 BL d.(*1) BL BL BL n.a. A050 BL d.(*1) BL BL BL n.a. A051 BL BL <td< td=""><td>A044</td><td>BL</td><td>BL</td><td>BL</td><td>BL</td><td>BL</td></td<>	A044	BL	BL	BL	BL	BL
A048	A045	BL	BL	BL	BL	n.a.
A049	A046	BL	BL	BL	BL	n.a.
A050 BL d.(*1) BL BL BL n.a.	A048	BL	BL	BL	BL	d.(*1)
A051 BL BL BL BL BL BL BL An.a. A052 BL BL BL BL BL n.a. A053 BL	A049	BL	d.(*1)	BL	BL	n.a.
A052 BL BL BL BL BL n.a.	A050	BL	d.(*1)	BL	BL	n.a.
A053 BL d.(*1) BL BL n.a. A054 BL	A051	BL	BL	BL	BL	BL
A054 BL B	A052	BL	BL	BL	BL	n.a.
A055 BL B	A053	BL	d.(*1)	BL	BL	n.a.
A056 BL B	A054	BL	BL	BL	BL	BL
A057 BL B	A055	BL	BL	BL	BL	BL
A058 BL DL D	A056	BL	BL	BL	BL	BL
A059 BL RL R	A057	BL	BL	BL	BL	BL
A060 BL BL BL BL n.a. A061 BL BL BL BL n.a. A062 BL BL BL BL BL BL A063 BL d.(*1) BL BL BL n.a. A064 BL n.a. A.a.	A058	BL	BL	BL	BL	BL
A061 BL DL D	A059	BL	BL	BL	BL	BL
A062 BL BL BL BL BL BL BL ADA	A060	BL	BL	BL	BL	n.a.
A063 BL d.(*1) BL BL n.a. A064 BL n.a. n.a.	A061	BL	BL	BL	BL	n.a.
A064 BL BL BL BL BL BL BL ADA BL	A062	BL	BL	BL	BL	BL
A065 BL d.(*1) BL BL n.a. A066 BL d.(*1) BL BL n.a. A067 BL BL BL BL BL BL BL A068 BL DL DL <td>A063</td> <td>BL</td> <td>d.(*1)</td> <td>BL</td> <td>BL</td> <td>n.a.</td>	A063	BL	d.(*1)	BL	BL	n.a.
A066 BL d.(*1) BL BL n.a. A067 BL DL	A064	BL	BL	BL	BL	BL
A067 BL B	A065	BL	d.(*1)	BL	BL	n.a.
A068 BL DL D	A066	BL	d.(*1)	BL	BL	n.a.
A069 BL BL BL BL BL BL BL BL BL RL R	A067	BL	BL	BL	BL	BL
A070 BL BL BL BL n.a. A071 BL BL BL BL n.a. A072 BL d.(*1) BL BL n.a. A073 BL BL BL BL BL A074 BL d.(*1) BL BL n.a. A075 BL d.(*1) BL BL n.a. A076 BL d.(*1) BL BL n.a. A077 BL d.(*1) BL BL BL n.a. A078 BL BL BL BL BL BL A079 BL BL BL BL BL BL A080 BL BL BL BL BL BL	A068	BL	BL	BL	BL	BL
A071 BL BL BL BL n.a. A072 BL d.(*1) BL BL n.a. A073 BL BL BL BL BL A074 BL d.(*1) BL BL n.a. A075 BL d.(*1) BL BL n.a. A076 BL d.(*1) BL BL n.a. A077 BL d.(*1) BL BL n.a. A078 BL BL BL BL BL A079 BL BL BL BL BL A080 BL BL BL BL BL	A069	BL	BL	BL	BL	BL
A072 BL d.(*1) BL BL n.a. A073 BL BL BL BL BL BL BL BL ABL BL DL	A070	BL	BL	BL	BL	n.a.
A073 BL BL BL BL BL BL BL AD BL BL BL BL BL DL D	A071	BL	BL	BL	BL	n.a.
A074 BL d.(*1) BL BL n.a. A075 BL d.(*1) BL BL n.a. A076 BL d.(*1) BL BL n.a. A077 BL d.(*1) BL BL BL n.a. A078 BL BL BL BL BL BL A079 BL BL BL BL BL BL A080 BL BL BL BL BL BL	A072	BL	d.(*1)	BL	BL	n.a.
A075 BL d.(*1) BL BL n.a. A076 BL d.(*1) BL BL n.a. A077 BL d.(*1) BL BL n.a. A078 BL BL BL BL BL A079 BL BL BL BL BL A080 BL BL BL BL BL BL	A073	BL	BL	BL	BL	BL
A076 BL d.(*1) BL BL n.a. A077 BL d.(*1) BL BL n.a. A078 BL BL BL BL BL A079 BL BL BL BL BL BL A080 BL BL BL BL BL BL	A074	BL	d.(*1)	BL	BL	n.a.
A077 BL d.(*1) BL BL n.a. A078 BL	A075	BL	d.(*1)	BL	BL	n.a.
A078 BL BL BL BL BL A079 BL BL BL BL BL A080 BL BL BL BL BL	A076	BL	d.(*1)	BL	BL	n.a.
A079 BL BL BL BL BL BL A080 BL BL BL BL BL	A077	BL	d.(*1)	BL	BL	n.a.
A080 BL BL BL BL	A078	BL	BL	BL	BL	BL
	A079	BL	BL	BL	BL	BL
A081 BL BL BL BL	A080	BL	BL	BL	BL	BL
	A081	BL	BL	BL	BL	BL



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A082	BL	BL	BL	BL	BL
A083	BL	BL	BL	BL	BL
A084	BL	BL	BL	BL	BL
A085	BL	d.(*1)	BL	BL	n.a.

Abbreviation: Pb = Lead

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

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:

		Concentration (%)					
Material	Cd	Cr	Pb	Hg	Br		
Polymeric	BL≤0.006 <x<0.014≤ OL</x<0.014≤ 	BL≤0.064 <x< th=""><th>BL≤0.067<x<0.133≤ OL</x<0.133≤ </th><th>BL≤0.066<x< 0.134≤OL</x< </th><th>BL≤0.029<x< th=""></x<></th></x<>	BL≤0.067 <x<0.133≤ OL</x<0.133≤ 	BL≤0.066 <x< 0.134≤OL</x< 	BL≤0.029 <x< th=""></x<>		
Metallic	BL≤0.006 <x<0.014≤ OL</x<0.014≤ 	BL≤0.064 <x< th=""><th>BL≤0.067<x<0.133≤ OL</x<0.133≤ </th><th>BL≤0.066<x< 0.134≤OL</x< </th><th>n.a.</th></x<>	BL≤0.067 <x<0.133≤ OL</x<0.133≤ 	BL≤0.066 <x< 0.134≤OL</x< 	n.a.		
Composite materials	BL≤0.004 <x<0.016≤ OL</x<0.016≤ 	BL≤0.044 <x< th=""><th>BL≤0.047<x<0.153≤ OL</x<0.153≤ </th><th>BL≤0.046<x< 0.154≤OL</x< </th><th>BL≤0.024<x< th=""></x<></th></x<>	BL≤0.047 <x<0.153≤ OL</x<0.153≤ 	BL≤0.046 <x< 0.154≤OL</x< 	BL≤0.024 <x< th=""></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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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^	Pb	Hg	PBBs	PBDEs	
Wateriai NO.		RL (%)					
	0.001	0.001	0.001	0.001	0.01	0.01	
A039	n.a.	n.a.	3.19(*2)	n.a.	n.a.	n.a.	
A043	n.a.	n.a.	n.a.	n.a.	< RL	< RL	
A048	n.a.	n.a.	n.a.	n.a.	< RL	< RL	

Material No.	Chromium VI content for metal materials (μg/cm²) (*1) RL: 0.10 μg/cm²
A004	Negative
A013	Negative
A014	Negative
A015	Negative
A016	Negative
A017	Negative
A018	Negative
A019	Negative
A020	Negative
A021	Negative
A022	Negative
A025	Negative
A026	Negative
A028	Negative
A030	Negative
A049	Negative
A050	Negative



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A053	Negative
A063	Negative
A065	Negative
A066	Negative
A072	Negative
A074	Negative
A075	Negative
A076	Negative
A077	Negative
A085	Negative

Abbreviation: Pb = Lead

Cd = Cadmium
Hg = Mercury
Cr = Chromium
Cr (VI) = Chromium (VI)

PBBs = Total Polybrominated Biphenyls
PBDEs = Total Polybrominated Diphenyl Ethers

= Less thanRL = Reporting Limitn.a. = Not Applicable

^ = The total Chromium have been determined

% = Percentage

Abbreviation: Pb = Lead

Cd = Cadmium
Hg = Mercury
Cr = Chromium
Cr (VI) = Chromium (VI)

PBBs = Total Polybrominated Biphenyls
PBDEs = Total Polybrominated Diphenyl Ethers

= Less thanRL = Reporting Limitn.a. = Not Applicable

^ = The total Chromium have been determined

% = percentage



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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	<0.1µg/cm²	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	≥0.1µg/cm² and ≤0.13 µg/cm²	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 trails for the final determination.
Positive	>0.13 μg/cm²	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).

- (*2) According to Annex of 2011/65/EU and its amendments, "Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound." is exempt from the requirements of Article 4(1). This exemption applies to material No. A039.
- (*3) As requested by the applicant, only the appointed material(s) was (were) tested.



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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.	BBP	DBP	DEHP	DIBP	
rest No.	Material No.		RL (%)			
		0.005	0.005	0.005	0.005	
T001	M002 + M003 + M004	< RL	< RL	< RL	< RL	
T002	M008 + M009 + M010	< RL	< RL	< RL	< RL	
T003	M011 + M025 + M026	< RL	< RL	< RL	< RL	
T004	M027 + M028 + M029	< RL	< RL	< RL	< RL	
T005	M033 + M052 + M053	< RL	< RL	< RL	< RL	
T007	M054 + M055 + M056	< RL	< RL	< RL	< RL	
T008	M057 + M058 + M059	< RL	< RL	< RL	< RL	
T009	M060 + M061 + M062	< RL	< RL	< RL	< RL	
T010	M063 + M064 + M065	< RL	< RL	< RL	< RL	
T011	M066 + M067	< RL	< RL	< RL	< RL	
T012	M068 + M035 + M040	< 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.



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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	d.(*1)	BL	BL	n.a.
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	n.a.
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	d.(*1)	BL	BL	n.a.
A017	BL	d.(*1)	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	d.(*1)	BL	BL	n.a.
A022	BL	d.(*1)	BL	BL	n.a.
A023	BL	BL	BL	BL	n.a.
A024	BL	BL	BL	BL	BL
A025	BL	d.(*1)	BL	BL	n.a.
A026	BL	d.(*1)	BL	BL	n.a.
A027	BL	BL	BL	BL	BL
A028	BL	d.(*1)	BL	BL	n.a.
A029	BL	BL	BL	BL	n.a.
A030	BL	d.(*1)	BL	BL	n.a.



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A031	BL	BL	BL	BL	BL
A032	BL	BL	BL	BL	BL
A033	BL	BL	BL	BL	BL
A034	BL	BL	BL	BL	BL
A035	BL	BL	BL	BL	BL
A036	BL	BL	BL	BL	BL
A037	BL	BL	BL	BL	BL
A038	BL	BL	BL	BL	n.a.
A039	BL	BL	d.(*1)	BL	BL
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	d.(*1)
A044	BL	BL	BL	BL	BL
A045	BL	BL	BL	BL	n.a.
A046	BL	BL	BL	BL	n.a.
A048	BL	BL	BL	BL	d.(*1)
A049	BL	d.(*1)	BL	BL	n.a.
A050	BL	d.(*1)	BL	BL	n.a.
A051	BL	BL	BL	BL	BL
A052	BL	BL	BL	BL	n.a.
A053	BL	d.(*1)	BL	BL	n.a.
A054	BL	BL	BL	BL	BL
A055	BL	BL	BL	BL	BL
A056	BL	BL	BL	BL	BL
A057	BL	BL	BL	BL	BL
A058	BL	BL	BL	BL	BL
A059	BL	BL	BL	BL	BL
A060	BL	BL	BL	BL	n.a.
A061	BL	BL	BL	BL	n.a.
A062	BL	BL	BL	BL	BL
A063	BL	d.(*1)	BL	BL	n.a.
A064	BL	BL	BL	BL	BL
A065	BL	d.(*1)	BL	BL	n.a.
A066	BL	d.(*1)	BL	BL	n.a.
A067	BL	BL	BL	BL	BL



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A068	BL	BL	BL	BL	BL
A069	BL	BL	BL	BL	BL
A070	BL	BL	BL	BL	n.a.
A071	BL	BL	BL	BL	n.a.
A072	BL	d.(*1)	BL	BL	n.a.
A073	BL	BL	BL	BL	BL
A074	BL	d.(*1)	BL	BL	n.a.
A075	BL	d.(*1)	BL	BL	n.a.
A076	BL	d.(*1)	BL	BL	n.a.
A077	BL	d.(*1)	BL	BL	n.a.
A078	BL	BL	BL	BL	BL
A079	BL	BL	BL	BL	BL
A080	BL	BL	BL	BL	BL
A081	BL	BL	BL	BL	BL
A082	BL	BL	BL	BL	BL
A083	BL	BL	BL	BL	BL
A084	BL	BL	BL	BL	BL
A085	BL	d.(*1)	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 :

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

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



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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^	Pb	Hg	PBBs	PBDEs
Material NO.		RL (%)				
	0.001	0.001	0.001	0.001	0.01	0.01
A039	n.a.	n.a.	3.19(*2)	n.a.	n.a.	n.a.
A043	n.a.	n.a.	n.a.	n.a.	< RL	< RL
A048	n.a.	n.a.	n.a.	n.a.	< RL	< RL



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Material No.	Hexavalent Chromium Content (μg/cm²) (*1) RL: 0.10 μg/cm²
A004	Negative
A013	Negative
A014	Negative
A015	Negative
A016	Negative
A017	Negative
A018	Negative
A019	Negative
A020	Negative
A021	Negative
A022	Negative
A025	Negative
A026	Negative
A028	Negative
A030	Negative
A049	Negative
A050	Negative
A053	Negative
A063	Negative
A065	Negative
A066	Negative
A072	Negative
A074	Negative
A075	Negative
A076	Negative
A077	Negative
A085	Negative

Abbreviation: Pb = Lead

 $\begin{array}{lll} \text{Cd} &= \text{Cadmium} \\ \text{Hg} &= \text{Mercury} \\ \text{Cr} &= \text{Chromium} \\ \text{Cr}\left(\text{VI}\right) &= \text{Chromium}\left(\text{VI}\right) \end{array}$

PBBs = Total Polybrominated Biphenyls PBDEs = Total Polybrominated Diphenyl Ethers

< = less than
RL = Reporting Limit
n.a. = Not Applicable

^ = The total Chromium have been determined

% = Percentage



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Remark:

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

	Chromium (VI) concentration	Qualitative result
Negative	<0.1μg/cm²	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	≥0.1µg/cm² and ≤0.13 µg/cm²	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 trails for the final determination.
Positive	>0.13 μg/cm²	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).

- (*2) According to Annex of 2011/65/EU and its amendments, "Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound." is exempt from the requirements of Article 4(1). This exemption applies to material No. A039.
- (*3) As requested by the applicant, only the appointed material(s) was (were) tested.



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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.	(%)				
		BBP	DBP	DEHP	DIBP	
		RL (%)				
		0.005	0.005	0.005	0.005	
T001	M002 + M003 + M004	< RL	< RL	< RL	< RL	
T002	M008 + M009 + M010	< RL	< RL	< RL	< RL	
T003	M011 + M025 + M026	< RL	< RL	< RL	< RL	
T004	M027 + M028 + M029	< RL	< RL	< RL	< RL	
T005	M033 + M052 + M053	< RL	< RL	< RL	< RL	
T006	M054 + M055 + M056	< RL	< RL	< RL	< RL	
T007	M057 + M058 + M059	< RL	< RL	< RL	< RL	
T008	M060 + M061 + M062	< RL	< RL	< RL	< RL	
T009	M063 + M064 + M065	< RL	< RL	< RL	< RL	
T010	M066 + M067	< RL	< RL	< RL	< RL	
T011	M068 + M035 + M040	< 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.



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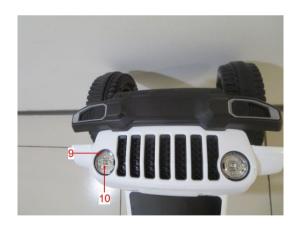








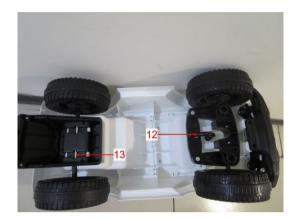






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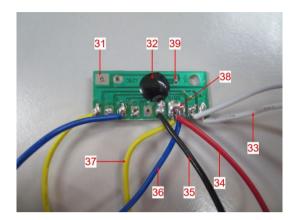


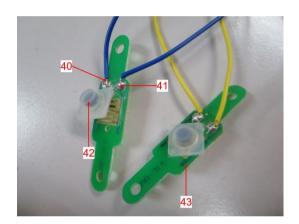


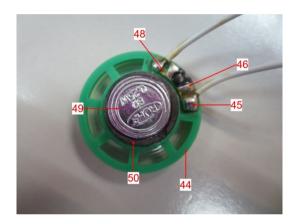


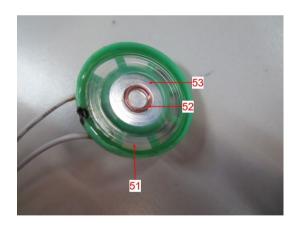
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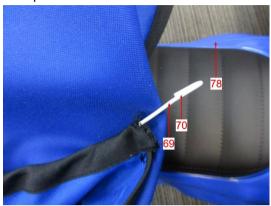


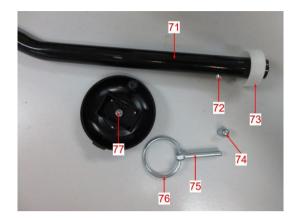






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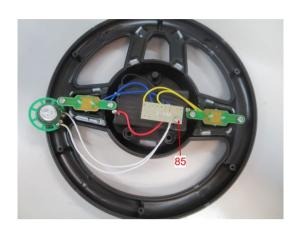






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General Terms and Conditions of Business of TÜV Rheinland in Greater China

- Scope
 These General Terms and Conditions of Business of TUV Rheinland in Greater China ("GTCB") is made between the client and one or more member entities of TUV Rheinland in Greater China is applicable as the case may be ("I'UV Rheinland"). The Greater China hereof refers to the regions within the territories of China. The Client hereof includes:

 a natural person capable to form laggly binding contracts under the applicable laws who concludes the contract not for the purpose of a daily use.

 The following terms and conditions of proceedings of the contract under the applicable law. The following terms and conditions of provisions the vision and conditions of the contract under the applicable two. The following terms and conditions of the client daily strip calcillary services and similar services as well as an activate services information, deliveries and similar services as well as an activate services information, deliveries and similar services as well as an activate services and services and services are services as well as an activate services and services and services are services as well as an activate services and services and services are services as well as an activate services and services and services and services are services as well as an activate services and services are activated to the contract even if TUV Rheinland does not explainly object to them. In the context of an orgoging business relationship with the client, this CTGB shall also apply to future contracts with the client without TUV Rheinland having to refer to them separately in each individual case.
- (ii)
- 13

Unless otherwise agreed, all quotations submitted by TÜV Rheinland can be changed by TÜV Rheinland without notice prior to its acceptance and confirmation by the other party.

Coming into effect and duration of contracts

- Coming into effect and duration of contracts

 The contract shall come into effect for the agreed terms upon the quotation letter of TÜV.

 Rhenland or a separate contractual document being signed by both contracting parties, or upon the works requested by the client being carried out by TÜV. Rheinland if the client instructs TÜV.

 Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland si, in its sole discretion, erfeitled to accept the order by giving written notice of such acceptance (including notice sent via efectronic means) or by performing the requested services.

 The contract term starts upon the coming into effect of the contract in sociodance with article 3.1 and shall continue for the term agreed in the contract.

 If the contract provides for an existention of the coloration term, the contract term will be extended the contract in the contract term.
- 3.3

- The scope and type of the services to be provided by TÜV Rheinland shall be specified in the contractually agreed service scope of TÜV Rheinland by both parties. If no such separate service scope of TÜV Rheinland ostaits, hen the written confirmation of order by TÜV Rheinland ostaits, hen the written confirmation of order by TÜV Rheinland ostaits, hen the written confirmation of order by TÜV Rheinland ostaits, hen the service description (e.g., checking the correctness and functionality of partie, products, proprocesses, installations, organizations not Island in the service description, as well as the intended use and application of such) are not owed. In particular, no responsibility is assumed for the design, selection of materials, construction or intended use of an examined part product, process or plant, unless this is expressly stated in the order.
- 4.3
- The agreed services shall be performed in compliance with the regulature is in a contract is entered into.

 TÜV Rheinland is entitled to determine, in its sole discretion, the method and nature of the assessment unbest scherwise agreed in writing or if mandatory provisions require a specific procedure to be followed.

 On execution of the Nette shall be no simultaneous assumption of any guarantee of the On execution of the willy) and working order of either tested or exemined parts nor of the installation as a whole and its upstream and/or downstream processes, organisations, use and application in accordance with regulations, nor of the systems on which the installation is based in particular. TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of installations examined, nor for the use and application in accordance with regulations, unless these questions are expressly covered by the contract.

- in particular, TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of installations examined, not for their use and application in accordance with requisitions, unless these questions are expressly covered by the contract.

 In the case of inspection work, TÜV Rheinland shall not be responsible for the accuracy or checking of the safety programmes or safety regulations on which the inspections are based, responsible to the safety programmes or safety regulations on which the inspections are based, responsible to the safety programmes or safety regulations on which the inspections are based, responsible to the contract, with a written notice to the client, TÜV Rheinland shall be entitled to additional renumeration for resulting additional expenses.

 The services to be provided by TÜV Rheinland under the contract are agreed exclusively with the contract are services to be provided by TÜV Rheinland under the contract are agreed exclusively with the contract and the safety of t

- 5.5
- Performance periods/dates of performance are based on estimates of the work involved which are prepared in line with the details provided by the client. They shall only be binding fleeing confirmed as binding by TUV Rehination to writing, shall not commence until the Archies S1 and S2. Sale sapply, even whost express periods shall not commence until the Archies S1 and S2. Sale sapply, even whost express approval by the client, to all extensions of a greed periods/dates of performance not caused by TUV Rheinland. TUV Rheinland on the reportable for a delay in performance, in particular if the client has not inparticular, has not provided TUV Rheinland as delay in performance, in particular if the client has not inparticular, has not provided TUV Rheinland with all documents and information nequired for the performance of the service as specified in the contract.

 If the performance of TUV Rheinland is delayed due to unforeseeable circumstances such as force maginar, shirts, business damptions, powermental regulations, transport chalactes, etc., corresponds at least to the duration of the informance plus any time period which may be required to resume performance.
- to resume performance.

 The client is obliged to comply with legal, officially prescribed and/or by the accreditor prescribed deadlines, it is the client's obliged to comply with legal, afficially prescribed and/or by the accreditor prescribed deadlines. It is the client's responsibility to agree on performance dates with TUV Rheinland, which enable the client to comply with the legal and/or officially prescribed deadlines. TUV Rheinland assumes no responsibility in this respect unless TUV Rheinland expressly agreed in writing specifically stating that enumpting the deadlines is the contractual obligation of TUV.

- The client shall guarantee that all cooperation required on its part, its agents or third parties will be provided in good time and at no cost to $T\bar{U}V$ Rheinland. 6.1
- Design documents, supplies, suxiliary staff, etc. necessary for performance of the services shall be made available free of charge by the client. Moreover, collaborative action of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions. And the client represents and variants that:

- b) the product, service or management system to be certified complies with applicable laws and regulations; and
- it doesn't have any illegal and dishonest behaviours or is not included in the list of Enterprises with Serious Illegal and Dishonest Acts of People's Republic of China.
- If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to i) immediately terminate the contract/order without prior notice; and ii) withdraw the issued testing report/centificates
- The client shall bear any additional cost incurred on account of work having to be redone or being delayed as a result of late, incorrect or incomplete information provided by or lack of proper cooperation from the client. Even where a fixed or maximum price is agreed, TÜV Rheinland shall be entitled to charge extra fees for such additional expense.

- 7.1
- If the scope of performance is not laid down in writing when the order is placed, invoicing shall be based on costs actually incurred. If no price is sagreed in writing, invoicing shall be made in accordance with the price list of TUV Phenianda valid at the time of performance. Unless otherwise agreed, work shall be invoiced according to the progress of the work. If the execution of an order actuation over more than one month and the value of the contract or the agreed fixed price exceeds £2,500.00 or equivalent value in local currency. TUV Rheinland may demand payments on account or in installments.

- All invoice amounts shall be due for payment within 30 days of the invoice date without deduction on receipt of the invoice. No discounts and rebates shall be granted. Payments shall be made to the basis, account of TUV Rhenland as indicated on the invoice, stating the invoice and client numbers. Stating the invoice and client numbers. Stating the invoice and client numbers. Stating the invoice and client numbers of the properties of the properties of the properties of the properties of the publicy amounted by a reputable commercial bank in the country where TUV Rheinland is located. At the same time, TUV Rheinland reserves the right to claim further demanges.
- applicable short term loan interest fave puocus prince courty where TVV Rheisland is located. At the same time, TVV Rheinland reserves the right the country where TVV Rheisland is located. At the same time, TVV Rheinland reserves the right Should the client default in payment of the invoice despite being granted a reasonable grace period, TVV Rheinland shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-performance and refuse to continue performance of the contract. The provisions set forth in article & I shall also apply in cases involving returned cheques, cessation of payment, commencement of insolvency proceedings against the claimst sasets or cessation of payment, commencement of insolvency proceedings against the claimst sasets or commencement or insolvency proceedings against the claimst cased on the contract.
- ets.
 ections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of epit of the invoice.

TÜV Rheinland shall be entitled to demand appropriate advance payments. TÜV Rheinland shall be entitled to raise its fees at the beginning of a month if overheads and/or purchase costs have heroteader. In this case, TÜV Rheinland shall notify the client in writing of the upper purchase to the proper purchase the propered purchase the proper purchase the proper purchase the proper pu

Only legally established and undisputed claims may be offset against claims by TÜV Rheinland. TÜV Rheinland shall have the right at all times to setoff any amount due or payable by the client including but not limited to setoff against any less goal by the client under any contracts agreement and or orders/quotations reached with TÜV Rheinland.

- 9.1
- Any part of the work result ordered which is complete in itself may be presented by TÜV Rheniand for acceptance as an instalment. The client shall be obliged to accept it immediately. If acceptance is required or contractually agreed in an individual case, this shall be deemed to have taken place two (2) weeks after completion and handover of the work, unless the client retures acceptance within this period stating at least one unfundental breach of contract by TÜV.
- Rheinland.

 The client is not entitled to refuse acceptance due to insignificant breach of contract by TÜV
 Rheinland. 9.3
- Rheinland. If acceptance is excluded according to the nature of the work performance of TÜV Rheinland, the completion of the work shall take its place. During the Follow-Audit stage, if the client was unable to make use of the time windows provided for within the scope of a certification procedure for auditing/performance by TÜV Rheinland and the certificate is therefore to be withdraw (e.g. performance of surveillance audits), or if the client certification promoted the procedure of surveillance audits), or if the client certification shrinked to be withdrawn (e.g. performance of surveillance audits), or if the client certification is therefore to be withdrawn (e.g. performance of surveillance audits), or if the crief certification is sufficient to the contraction of the crief certification of the certification of the crief certification of the crief certification of the crief certification of the crief certification of the
- Rhehland has incurred no damage whatsoever or usy a wannounce, ..., above lump sum, ar as the client has undertaken in the contract to accept services, TUV Rheinland shall also be entitled to charge lump-sum damages in the amount of 10% of the order amount as compensation for expenses if the service is not called within one year after the order has been placed. The client reserves the right to prove that the TUV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above mentioned lump sum.

- dentiality

 For the purpose of these terms and conditions, "confidential information" means all know-how, trade secrets, documents, images, drawings, expertise, information, dais, test results, sports, and secrets, documents, images, drawings, expertise, information, dais, test results, sports, and marketing techniques and materials, tangible or intangible, that are supplied, transferred or indevise disclosed by one Party (the "disclosing party") to the other Party (the "receiving party"), in writing or orally, in printed or electronic format. Confidential information is expressly not the data and know-how collected, complete or otherwise disclosined by TD (Febrahard flore)-personal confidential information is expressly not the data and know-how collected, complete or otherwise disclosined by TD (Febrahard flore)-personal confidential information is expressly not the data and know-how collected, complete or otherwise disclosined by TD (Febrahard flore)-personal confidential information is disclosed party in the provision of services 10.2. The disclosing party shall mark all confidential information is disclosed orally, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidential information is disclosed orally, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidential information to make the client child and any confidential information to TDV Rheinland. Instead, the client shall associate in the party shall confirm in uniting the confidential information to TDV Rheinland. Instead, the client shall associate into any confidential information to TDV Rheinland. Instead, the client shall associate into any confidential information to TDV Rheinland. Instead, the client shall associate and party transmits or otherwise discloses to the client shall associated and party transmits or otherwise discloses to the creating party and which is created during performance of work by TDV R
- 10.3
- 10.5 a)
- 10.7

11.1

- TÜV Rheinland shall retain all exclusive copyrights in the reports, expert reports/opinions, test reports/results, results, calculations, presentations etc. prepared by TÜV Rheinland, unless otherwise agreed by the parties in a separate agreement. As the owner of the copyrights, TÜV Rheinland is free to grant others the right to use the work results for individual or all types of use
- Rhehinal is free to grant others the right to use the work results for individual or all types of use (right of use). The client receives a simple, unlimited, non-transferable, non-sublicensable right of use to the contents of the work results produced within the scope of the contract, unless otherwise agreed by the parties in a separate agreement. The client may only use such reports, export reports/opinions, test apports/results, results calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose. subject to Mil proyment of the renumeration agreed in tenuous left of clause 11.2 of the GTCB is subject to Mil proyment of the renumeration agreed in tenuous left of the Client may only pass on the work results in Unless TUV Rheinland has given its provivation correct to the partial passing on of work results.
- 11.4
- work results in full unless 1UV Rhenland has given its pror written consent to the partial passing on I work results in Societies and public exploration of work results for schedinging purposes or any further use of Arry publication the explosition of the simbodation of 1UV Rhenland need the prior written approval of 1UV Rhenland need the prior written approval of 1UV Rhenland need the prior written approval of 1UV Rhenland and and certification rules, etc.).

 TUV Rhenland may revoke a conce given approval according to clause 11.5 at any time without stating reasons. In this case, the client is obliged to stop the transfer of the work results immediately afth own expense and, as first any possible, on which we will be sufficient to see the corporate logo, corporate logo,

Liability of TÜV Rheinland

12.1

- Liability of TÜV Rheinland

 Irraspective of the legal basis, to the fullest extent permitted by applicable law, in the event of a breach of contractual obligations or lord, the liability of TÜV Rheinland for all damages, bases and reimbursament of expenses caused by TÜV Rheinland, its legal representatives and/or employees that be limited to: (i) in the case of a contract with a fleed overall feet, these times the representatives and the results of the case of a contract expressly charged on a time and material basis, a maximum of 20,000 Euror or squivalent amount in local currency; and (by) in the case of a familieror day of the case of a contract expressly charged on a time and material basis, a maximum of 20,000 Euror or squivalent amount in local currency. The contract is contracted according to the foregoing provisions exceeds 2.5 Million Euro or equivalent amount in local currency, the total and accomulated is ability of TÜV Rheinland shall be only limited to and shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.

 In the contract the contract is a contract expense of the contract and the contract that the total contract expense and/or bases caused by malicion, there or gross reading the contract and the contract of the contract of the contract of the contract and the contract of t

When passing on the services provided by TÜV Rheinland or parts thereof to third parties in Greater China or other regions, the client must comply with the respectively applicable regulations of national and international export control law. The performance of a contract with the client is subject to the provisio that there are no obstacles to performance due to national or international foreign trade legislations or embargos and/or the performance due to national or international foreign trade legislations or embargos and/or the performance due to national or international foreign trade legislations or embargos and/or the performance of the national or international foreign trade legislations or embargos and/or the performance of the national or the performance of the performance of the national performance of the national performance of the performance of the national performance of the national performance of the performance of 13.1

sanctions. In the event of a violation, TÜV Rheinland shall be entitled to terminate the contract with immediate effect and the client shall compensate for the losses incured thereof by TÜV Rheinland.

Data protection notice

The client understands and agrees that TÜV Rheinland processes personal data (including but not limited to penceal information) of the client and its related parties (including but not limited to the client and its related parties (including but not limited to the client and its related parties (including but not limited to the client client or process the personal data that the client collected or processes day itself and transferred to TÜV Rheinland. For certain services, we may also process sensitive personal data. TÜV Rheinland villus and process the data in accordance with the relavant legal basis. It amy personal data has to be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed to the data has been any tendence of the data has been any least any observable of the data security related laws and protect the data in compliance with the privacy and personal data. The personal subjects may exercise the following rights: right of information, right of desiction, right of desiction right of desiction right of desiction right of desiction, right

- 15.2
- tion of test material and documentation

 The test samples submitted by the client to TÜV Rheinland for testing will be scrapped following testing or will be returned to the client at the client's experies. The only exceptions are test stating requirement with the client.

 In storage or the basis of sistutions requirement with the client in storage on the basis of sistutions regulations or of another agreement with the client.

 Charges apply if the test samples are stored at the premises of TÜV Rheinland. The cost of placing a test sample into storage will be disclosed to the client in the quotation. If reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples ander documentation, any liability claims for material and pecuniary damage resulting from the respective testing and certification that is brought forward by the client against TUV Rheinland as allow olded.

 The retention period for the documentation shall be 10 (ten) years after the expiry of the test mark and GS mat contributions. The cost of the handover and dispatch of the test samples for storage on the client's premises are more by the client against will be liable for the loss of test samples or reference samples from the laboratories or warehouses of TUV Rheinland only in case of gross negligence.

- Ination of the contract

 Nowthstanding clause 3.3 of the GTCB, TÜV Rheinland and the client are entitled to terminate the contract in set entitley or, in the case of services combined in one contract, each of the combined parts of the contract in set entitley or, in the case of services combined in one contract, each of the combined parts of the contract individually and independently of the contract individually and individual cases.

 In the overt of any serious missinguesentation, be it by intentional finand or grootsy negligent in contract does not belong to the insurance coverage applicable to TÜV Rheinland and TÜV Rheinland and TÜV Rheinland and the entities or alumps and consideration or officer. In the event of term

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- hip The Parties are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the conclusion of the

- The Parties are bound to perform their contractual duties even if events have rendered performance more ones than could reasonably have been anticipated at the time of the conclusion of the Monthitstanding paragraph 1 of this Clause, where a Party proves that:

 (a) the continued performance of its contractual duties has become excessively onerous due to an event beyond its reasonable control which it could not reasonably have been expected to have taken into account at the time of the conclusion of the contract and that its corresponders, the Parties are (b) it could not reasonably here aexided or overcome the event or its engolistic elementate contractual terms which reasonably allow to overcome the consequences of the event.

 Where Clause 182 applies, but where the Parties have been unable to agree alternative contractual terms as provided in that paragraph, the Party mixed pits Clause is entitled to terminate the contract, but cannot request adaptation by the judge or arbitrator without the agreement of the other.

- invalidity, written form, place of jurisdiction and dispute resolution.

 All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 17.1. Should one or several of the provisions under the contract and/or less terms and conditions be Should one or several of the provisions under the contract and/or less terms and conditions to the state of the several orders of the several orders and the content of the results provision in legal and commercial terms.

 Unless otherwise stipulated in the contract, the governing law of the contract and these terms and conditions shall be chosen following the rules as below.

 Unless otherwise stipulated in the contract, the governing law of the contract and the settlems and conditions shall be chosen following the rules as below.

 It is not the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of the People's Republic of China.

 It TUV Rheeland in question is legally registered and existing in Taiwan, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of the People's Republic of China. 19.2 19.3

- ITUV Rheritiand in question is legally registered and existing in 1-mm.

 The hereby agree that the contract and these terms and conditions shall be governed by the laws of Takwar.

 It TOV Rheritind in question is legally registered and existing in Hong Kong, the contracting is TOV Rheritind in the contract and these terms and conditions shall be governed by the laws of Hong Kong.

 Any dispute in connection with the contract and these terms and conditions or the execution thereof shall be settled friendly through negotiations.

 Unless otherwise seputated in the contract, if no cellement or no agreement in respect of the Unless otherwise seputated in the contract, and the contract and the settled friendly through negotiations.

 The contract is the contract, if no cellement or no agreement in respect of the Unless otherwise seputated in the contract, if no existence is the contract of the streng of the dispute, the dispute shall be submitted:

 In the case of TUV Rheritand in question being legally registered and existing in the People's Republic of China; to China international Economic and Trada Arbitration Commission (CETRAC) submitted. The arbitration shall take place in Beijing, Shenghai, Shenchen or Chongqing as appropriately chosen by the claiming party, in the case of TUV Rheritand to fluestion being legally registered and existing in Takwan, to Chinaes Arbitration Association, Tages to be arbitrated in accordance with is then current Rules in the case of TUV Rheritand to large lots be arbitrated in accordance with is then current Rules in the case of TUV Rheritand to large lots of arbitration as bouthined in accordance with in the case of TUV Rheritand to Rules force when the Nicitor of Arbitration is submitted in accordance with in the case of TUV Rheritand to Rules force when the Nicitor of Arbitration submitted in accordance with in the case of TUV Rheritand to Rules force when the Nicitor of Arbitration s