

Report No.: **168430659a 001**

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Client: CRAZE GMBH
Contact Information: Herrenstraße, 9 – 76133 Karlsruhe – Germany
Test item(s): Toys and materials for said item
**Identification/
Model No(s):** 18378 INKEE Surprise Unicorn
18378

Sample obtaining method: Sending by customer

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2023-06-07; 2023-06-28; 2023-06-30

Testing Period: 2023-06-14 to 2023-07-04

Place of testing: Chemical laboratory Shenzhen, Toys laboratory Shenzhen

Test Specification:

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

Other information:

- (1) The provided age grade of the item(s) : For age of over 3 years.
The appropriate age grade of the item(s) : For age of over 3 years.
The item(s) was/ were tested for the age of over 3 years.
- (2) Packaging provided: No
- (3) Information provided by customer:
Country of Origin: China
Sales Destination: EU, Switzerland, Norway, UK, Northern Ireland, Middle East

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



Candy He/
Lab. Supervisor

2023-07-10

Date

Name/Position



Nina L. H. Li/
TS Supervisor

2023-07-10

Date

Name/Position

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

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

Customer's requirement:

- | | |
|--|------|
| 1 EN 71-1:2014+A1:2018 Mechanical and physical properties
(According to the customer's instruction, excluding clause 6 Packaging and
clause 7 - Warnings, markings and instructions for use + 2009/48/EC Labeling
Requirement.) | PASS |
| 2 EN 71-2:2020 Flammability | PASS |
| 3 EN 71-3:2019+A1:2021 Migration of 19 Elements | PASS |
| 4 Cadmium content according to Annex XVII Entry 23 of Regulation (EC) No
1907/2006 and its amendments | PASS |
| 5 REACH regulation (EC) No. 1907/2006 and its amendment Annex XVII entry 51
and entry 52 : Phthalates | PASS |

Customer's requirement:

- | | |
|---|------|
| Phthalates content | PASS |
| 6 Polycyclic aromatic hydrocarbons (PAHs) - REACH regulation (EC) No.
1907/2006 with Amendment No. 552/2009 Annex XVII Item No. 50 and (EU)
No.1272/2013 | PASS |
| 7 REACH Regulation (EC) No. 1907/2006, the last amendment (EU) 2015/628
entry 63 of Annex XVII - Total Lead Content | PASS |
| 8 Organotin compounds content according to REACH Regulation (EC) No.
1907/2006 Annex XVII Item 20 and amendment Commission Regulation (EU)
No. 276/2010 (formerly known as 2009/425/EC) | PASS |
| 9 Short Chain Chlorinated Paraffin (SCCP) - according to Regulation (EU)
2019/1021 | PASS |

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Material List:

Item: 18378 INKEE Surprise Unicorn
18378

Material No.	Material	Color	Location
M001	Whole Product	Multi-color	18378 INKEE Surprise Unicorn
M002	Coating	Pink	Feet
M002a	Coating	Pink	Feet/ dot pattern on body
M003	Coating	Flesh	Mouth
M003a	Coating	Flesh	Mouth
M004	Coating	Black	Eyes
M004a	Coating	Black	Eyes
M005	Coating	Yellow	Ice cream/hair
M005a	Coating	Yellow	Ice cream/hair
M006	Coating	Light blue	Ice cream
M006a	Coating	Light blue	Ice cream
M007	Coating	Blue	Hair
M007a	Coating	Blue	Hair
M008	Coating	Green	Hair/tail
M008a	Coating	Green	Hair/tail
M009	Coating	Orange red	Hair
M009a	Coating	Orange red	Hair/mouth
M010	Coating	Pink	Dot pattern on body
M011	Coating	White	Mouth
M011a	Coating	White	Mouth
M012	Coating	Dark red	Mouth
M013	Coating	Red	Mouth
M014	Plastic	Bright pink	Tail/hair/accessories
M015	Plastic	White	Body

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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
4.7 Edges	Pass
4.8 Points and metallic wires	Pass
6. Packaging	Not Conducted
7. Warnings, markings and instructions for use	
7.1 General	Not Conducted
7.2 Toys not intended for children under 36 months	Not Conducted
7.3 Latex balloons	Not Conducted
7.4 Aquatic toys	Not Conducted
7.5 Functional toys	Not Conducted
7.6 Hazardous sharp functional edges and points	Not Conducted
7.7 Projectile toys	Not Conducted
7.8 Imitation protective masks and helmets	Not Conducted
7.9 Toy kites	Not Conducted
7.10 Roller skates, inline skates, skateboards and certain other ride-on toys	Not Conducted
7.11 Toys otherwise intended to be strung across a cradle, cot, or perambulator	Not Conducted
7.12 Liquid-filled teethingers	Not Conducted
7.13 Percussion caps specifically designed for use in toys	Not Conducted
7.14 Acoustics	Not Conducted
7.15 Toy bicycles	Not Conducted
7.16 Toys intended to bear the mass of a child	Not Conducted
7.17 Toys comprising monofilament fibres	Not Conducted
7.18 Toy scooters	Not Conducted
7.19 Rocking horses and similar toys	Not Conducted
7.20 Magnetic/ electrical experimental sets	Not Conducted

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7.21 Toys with electrical cables exceeding 300 mm in length	Not Conducted
7.22 Toys with cords or chains intended for children of 18 months and over but under 36 months	Not Conducted
7.23 Toys intended to be attached to a cradle, cot or perambulator	Not Conducted
7.24 Sledges with cords for pulling	Not Conducted
7.25 Flying toys	Not Conducted
7.26 Improvised projectiles	Not Conducted

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

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

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

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

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

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

Test No.				T001	T002	T003
Material No.				M002	M003	M004
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< 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	52	49	-
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	4.9	5.2	-
Organic Tin [^]	mg/kg	0.2	12	<RL(*1)	<RL(*1)	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	-
Mass of trace amount #	mg	--	--	20.9	11.0	<10

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

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Test Result:

Test No.				T004	T005	T006
Material No.				M005	M006	M007
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	-	< RL	< RL
Antimony (Sb)	mg/kg	5	560	-	< RL	< RL
Arsenic (As)	mg/kg	5	47	-	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	-	39	57
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	-	2.2	5.1
Organic Tin [^]	mg/kg	0.2	12	-	-	<RL(*1)
Zinc (Zn)	mg/kg	10	46,000	-	< RL	< RL
Mass of trace amount #	mg	--	--	<10	12.9	17.9

Abbreviation:

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Test Result:

Test No.				T007	T008	T009
Material No.				M008	M009	M010
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL	-
Antimony (Sb)	mg/kg	5	560	< RL	< RL	-
Arsenic (As)	mg/kg	5	47	< RL	< RL	-
Barium (Ba)	mg/kg	2.5	18,750	89	20	-
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	3.8	< RL	-
Organic Tin [^]	mg/kg	0.2	12	<RL(*1)	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL	-
Mass of trace amount #	mg	--	--	13.3	10.6	<10

Abbreviation:

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

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

Abbreviation:

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

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Test Result:

Test No.				T013	T014
Material No.				M014	M015
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result
Aluminium (Al)	mg/kg	10	28,130	< RL	< RL
Antimony (Sb)	mg/kg	5	560	< RL	< RL
Arsenic (As)	mg/kg	5	47	< RL	< RL
Barium (Ba)	mg/kg	2.5	18,750	< RL	< RL
Boron (B)	mg/kg	10	15,000	< RL	< RL
Cadmium (Cd)	mg/kg	1	17	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	460	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	< RL
Cobalt (Co)	mg/kg	2.5	130	< RL	< RL
Copper (Cu)	mg/kg	2.5	7,700	< RL	< RL
Lead (Pb)	mg/kg	2.5	23	< RL	< RL
Manganese (Mn)	mg/kg	2.5	15,000	< RL	< RL
Mercury (Hg)	mg/kg	2.5	94	< RL	< RL
Nickel (Ni)	mg/kg	2.5	930	< RL	< RL
Selenium (Se)	mg/kg	10	460	< RL	< RL
Strontium (Sr)	mg/kg	2.5	56,000	< RL	< RL
Tin (Sn)	mg/kg	1.0	180,000	1.5	1.6
Organic Tin [^]	mg/kg	0.2	12	-	-
Zinc (Zn)	mg/kg	10	46,000	< RL	< RL
Mass of trace amount #	mg	--	--	-	-

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

Remark:

- * Categorization of toys materials is based on the material texture. According to point H.11 of Annex H to EN 71-3:2019+A1:2021, cosmetic materials with dry, brittle, powder like or pliable texture such as lipstick and eyeshadow are considered as category I materials. However, as a reminder, it cannot preclude the possibility that some national enforcement authorities might take a more stringent action to treat cosmetic materials as sticky and evaluate according to category II requirement as they are intended to be applied on skin and retained for long time.
- # According to EN 71-3:2019+A1:2021, if the weight of a test portion of toy material is less than 10mg, the analysis of migration of certain elements would not be required. If the weight of a test portion of toy material is between 10mg and 100mg, the analytical results would be calculated as though 100mg of the test portion had been used.
- *1 Confirmation of Organic tin content has been performed. Result can refer to subsequent page(s) for details.

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Organic tin content
Test Method: EN 71-3:2019+A1:2021, analyzed by GC-MS

Test No.			T001	T002	T006
Material No.			M002	M003	M007
Test Parameter	Unit	RL	Result	Result	Result
MeT (Methyltin cation)	mg/kg	0.2	< RL	< RL	< RL
DMT (Dimethyltin Cation)	mg/kg	0.2	< RL	< RL	< RL
BuT (Butyltin cation)	mg/kg	0.2	< RL	< RL	< RL
DBT (Dibutyltin cation)	mg/kg	0.2	< RL	< RL	< RL
TBT (Tributyltin cation)	mg/kg	0.2	< RL	< RL	< RL
TeBT (Tetrabutyltin cation)	mg/kg	0.2	< RL	< RL	< RL
MOT (Monooctyltin cation)	mg/kg	0.2	< RL	< RL	< RL
DOT (Dioctyltin cation)	mg/kg	0.2	< RL	< RL	< RL
DProT (Dipropyltin cation)	mg/kg	0.2	< RL	< RL	< RL
TcyT (Tricyclohexyltin cation)	mg/kg	0.2	< RL	< RL	< RL
DPhT (Diphenyltin cation)	mg/kg	0.2	< RL	< RL	< RL
TPhT (Triphenyltin cation)	mg/kg	0.2	< RL	< RL	< RL
Sum of Organic tin cations	mg/kg	NA	< RL	< RL	< RL
Category	NA	NA	3	3	3
Limit	mg/kg	NA	12	12	12
Test No.			T007		
Material No.			M008		
Test Parameter	Unit	RL	Result		
MeT (Methyltin cation)	mg/kg	0.2	< RL		
DMT (Dimethyltin Cation)	mg/kg	0.2	< RL		
BuT (Butyltin cation)	mg/kg	0.2	< RL		
DBT (Dibutyltin cation)	mg/kg	0.2	< RL		
TBT (Tributyltin cation)	mg/kg	0.2	< RL		
TeBT (Tetrabutyltin cation)	mg/kg	0.2	< RL		
MOT (Monooctyltin cation)	mg/kg	0.2	< RL		
DOT (Dioctyltin cation)	mg/kg	0.2	< RL		
DProT (Dipropyltin cation)	mg/kg	0.2	< RL		
TcyT (Tricyclohexyltin cation)	mg/kg	0.2	< RL		
DPhT (Diphenyltin cation)	mg/kg	0.2	< RL		
TPhT (Triphenyltin cation)	mg/kg	0.2	< RL		
Sum of Organic tin cations	mg/kg	NA	< RL		
Category	NA	NA	3		
Limit	mg/kg	NA	12		

Remark:

- * According to Annex G of EN 71-3:2019+A1:2021, the sum of migration of organic tin shall not exceed the migration limits as below:

Category	Category I	Category II	Category III
Scope	Dry, brittle, powder-like or pliable toy materials	Liquid or sticky toy materials	Scraped-off toy materials
Limit	0.9mg/kg	0.2mg/kg	12mg/kg

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4.Total Cadmium Content

Test Method: EN 1122:2001 (method B)

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Test Result
T001	M002a + M003a + M004a	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	--
		Average	mg/kg	10	--
T002	M005a + M006a + M007a	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	--
		Average	mg/kg	10	--
T003	M008a + M009a + M011a	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	--
		Average	mg/kg	10	--
T005	M014 + M015	Trial 1	mg/kg	10	< RL
		Trial 2	mg/kg	10	--
		Average	mg/kg	10	--

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

Remark:

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

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5. Phthalates content

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

Test Result:

Test No.				T001	T002	T003
Material No.				M002a + M003a + M004a	M005a + M006a + M007a	M008a + M009a + M011a
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	< RL	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.005	< RL	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	< RL	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	< RL	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.005	<RL	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	< RL	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	< RL	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.005	< RL	< RL	< RL
Di-n-pentyl phthalate (DnPP)	131-18-0	%	0.005	< RL	< RL	< RL
Di(methoxyethyl) phthalate (DMEP)	117-82-8	%	0.005	< RL	< RL	< RL
Diisopentyl phthalate (DiPP)	605-50-5	%	0.005	< RL	< RL	< RL
n-Pentyl-isopentyl phthalate	776297-69-9	%	0.005	< RL	< RL	< RL
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	%	0.01	< RL	< RL	< RL
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	%	0.01	< RL	< RL	< RL
Conclusion: REACH regulation (EC) No. 1907/2006 and its amendment regulations on Annex XVII entries 51 and 52				Pass	Pass	Pass

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Test No.				T004
Material No.				M014 + M015
Test Parameter	CAS NO	Unit	RL	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.005	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.005	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.005	< RL
Di-n-pentyl phthalate (DnPP)	131-18-0	%	0.005	< RL
Di(methoxyethyl) phthalate (DMEP)	117-82-8	%	0.005	< RL
Diisopentyl phthalate (DiPP)	605-50-5	%	0.005	< RL
n-Pentyl-isopentyl phthalate	776297-69-9	%	0.005	< RL
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	%	0.01	< RL
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	%	0.01	< RL
Conclusion: REACH regulation (EC) No. 1907/2006 and its amendment regulations on Annex XVII entries 51 and 52				Pass

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

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Remark:

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

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

Denote:

Examples of articles that are excluded from the restriction

- 1) Articles exclusively for industrial / agricultural use / use in open air, provided that no plasticised material comes into contact with human mucous membranes or into prolonged contact with human skin (i.e. Continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day.)
 - 2) Aircraft and motor vehicles (Directive 2007/46/EC) placed on the market before 7 January 2024, or articles for use exclusively in the maintenance or repair of them
 - 3) Measuring devices for laboratory use;
 - 4) Food contact material and articles within the scope of Regulation (EC) No 1935/2004 or Commission Regulation (EU) No 10/2011
 - 5) Medical devices (Directive 90/385/EEC, 93/42/EEC or 98/79/EC)
 - 6) Electrical and electronic equipment within the scope of Directive 2011/65/EU
 - 7) Immediate packaging of medicinal products (Regulation (EC) No 726/2004, Directive 2001/82/EC or Directive 2001/83/EC)
- Single component with an amount below reporting limit was not considered by the calculation of the sum. In the case of all phthalates were not detected, the result is stated < RL
- *1 According to customer's requirement, the maximum permissible limit for each phthalate is 0.1%.

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6. Polycyclic aromatic hydrocarbons (PAHs)

Test Method: Organic solvent extraction, GCMS

Test No.				T001	T002	T005
Material No.				M002a + M003a + M004a	M005a + M006a + M007a	M014 + M015
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Benzo[a]anthracene (BaA)	56-55-3	mg/kg	0.1	< RL	< RL	< RL
Benzo[a]pyrene (BaP)	50-32-8	mg/kg	0.1	< RL	< RL	< RL
Benzo[b]fluoranthene (BbFA)	205-99-2	mg/kg	0.1	< RL	< RL	< RL
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.1	< RL	< RL	< RL
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.1	< RL	< RL	< RL
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	< RL	< RL	< RL
Chrysene (CHR)	218-01-9	mg/kg	0.1	< RL	< RL	< RL
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.1	< RL	< RL	< RL

Test No.				T003
Material No.				M008a + M009a + M011a
Test Parameter	CAS NO	Unit	RL	Result
Benzo[a]anthracene (BaA)	56-55-3	mg/kg	0.1	< RL
Benzo[a]pyrene (BaP)	50-32-8	mg/kg	0.1	< RL
Benzo[b]fluoranthene (BbFA)	205-99-2	mg/kg	0.1	< RL
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.1	< RL
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.1	< RL
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	< RL
Chrysene (CHR)	218-01-9	mg/kg	0.1	< RL
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.1	< RL

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

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Remark:

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

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

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7.Total Lead

Test Method: CPSC-CH-E1001-08.3, CPSC-CH-E1002-08.3 and CPSC-CH-E1003-09.1 (Microwave method)

Test result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Test Result
T005	M014 + M015	Lead Content	%	0.001	0.05	< RL
T001	M002a + M003a + M004a	Lead Content	%	0.001	0.05	< RL
T002	M005a + M006a + M007a	Lead Content	%	0.001	0.05	< RL
T003	M008a + M009a + M011a	Lead Content	%	0.001	0.05	< RL

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

Remark:

*	Country	Legislation	Maximum Permissible Limit
	EU	Paragraph 1-6 of Entry 63 of Annex XVII, REACH Regulation (EC) No. 1907/2006	For Jewellery, imitation jewellery, hair accessories, bracelets, necklaces, rings, piercing jewellery, wrist watches, wrist-wear, brooches and cufflinks and parts used for jewellery-making 0.05% (by weight of the individual part)
		Paragraph 7-10 of Entry 63 of Annex XVII, REACH Regulation (EC) No. 1907/2006	Articles supplied to the general public during normal or reasonably foreseeable conditions of use, be placed in the mouth by children 0.05% (by weight of the individual part) The limit shall not apply where it can be demonstrated that the rate of lead release from such an article or any such accessible part of an article, whether coated or uncoated, does not exceed 0,05 µg/cm² per hour (equivalent to 0,05 µg/g/h), and, for coated articles, that the coating is sufficient to ensure that this release rate is not exceeded for a period of at least two years of normal or reasonably foreseeable conditions of use of the article.

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8.Organotin compounds content

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

Test No.				T001
Material No.				M014 + M015
Test Parameter	Unit	RL	Regulatory Requirement	Result
TBT(Tributyltin) by weight of tin	%	0.01	--	< RL
TPT(Triphenyltin) by weight of tin	%	0.01	--	< RL
TOT(Trioctyltin) by weight of tin	%	0.01	--	< RL
TCyT(Tricyclohexyltin) by weight of tin	%	0.01	--	< RL
TPrT(Tripropyltin) by weight of tin	%	0.01	--	< RL
Sum of Tin of tri-substituted organotins	%	NA	0.1	<RL
DBT(Dibutyltin) by weight of tin	%	0.01	0.1	< RL
DOT(Dioctyltin) by weight of tin	%	0.01	0.1	< RL

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

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Remark:

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

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

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9.Short Chain Chlorinated Paraffin (SCCP)

Test Method: Leather Materials: ISO 18219:2015
 Non-Leather Materials: CADS method

Test result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Result
T001	M014 + M015	SCCP	%	0.01	0.15	< RL

Abbreviation: < = less than
 RL = Reporting Limit
 SCCP = Short Chain Chlorinated Paraffin C₁₀-C₁₃
 % = Percentage

Remark:

* According to Regulation (EU) 2019/1021 as regards Annex I:

Alkanes C ₁₀ -C ₁₃ , chloro (short-chain chlorinated paraffins) (SCCPs)	Maximum Permissible Limit
The production , placing on the market and use of articles containing SCCPs	< 0.15% by weight
The production , placing on the market and use of substances or preparations containing SCCPs	< 1% by weight

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Sample Photos



- END -

This GTCB is only used for TÜV Rheinland Business Stream Products
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