

Report No.: **158282442a 001**

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Client: DEPESCHE VERTRIEB GMBH & CO. KG
Contact Information: Vierlander Strasse 14, 21502 Geesthacht, Germany
Test item(s): Non toys
**Identification/
Model No(s):** Ylvi 6 Colors gel pen
Item No.: 12884A
Sample obtaining method: Sending by customer
Condition at delivery: Test item complete and undamaged.
Sample Receiving date: 2023-12-13, 2024-01-03
Testing Period: 2023-12-15 to 2024-01-10
Place of testing: Chemical laboratory Hong Kong, Toys laboratory Hong Kong

Test Specification:

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

Other information:

Country of Destination: EU

The provided age grade of the item(s) : Not Provided
The appropriate age grade of the item(s) : Not requested (by client)
Per client's request, the item(s) was/ were tested for the age of over 3 years.

Packaging provided: Yes

The selection of the tested materials and parameters is based on testing experience according to the principles of proportionally considering technological probabilities. The analyses are focused on expected harmful substances caused by nature of materials and production conditions.

For and on behalf of
TÜV Rheinland Hong Kong Ltd.



Amenda Yung/
Senior CS Manager

2024-01-11

Date

Name/Position



Wong Yiu Tong , Tommy/
Senior Lab Manager

2024-01-11

Date

Name/Position

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

Test Result Summary :

Test Specification:

- 1 - Physical and Mechanical Test
 - General Product Labeling
 - Flammability Test

Test result:

PASS
Refer to result page
PASS

The above test(s) are tested per requested by applicant for "The General Product Safety Regulation (GPSR): (EU) 2023/988"

2	Depesche requirement: EN 71-3:2019+A1:2021 Migration of 19 Elements	PASS
3	EN 71 - 9 : 2005 + A1 : 2007; EN 71 - 10 and - 11 : 2005 Table 2B Colorants	PASS
4	EN 71 - 9 : 2005 + A1 : 2007; EN 71 - 10 and - 11 : 2005 Table 2C Primary Aromatic Amines	PASS
5	EN 71 - 9 : 2005 + A1 : 2007; EN 71 - 10 and - 11 : 2005 Table 2H Preservatives (other than wood preservatives)	PASS
6	Polycyclic aromatic hydrocarbons (PAHs) - according to GS Specification - AfPS GS 2019:01 PAK	PASS
7	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
8	Short Chain Chlorinated Paraffin (C10-C13) (SCCP) - according to Regulation (EU) 2019/1021	PASS
	Depesche's requirement: Medium Chain Chlorinated Paraffins (C14 - C17) (MCCP)	PASS
9	Total Cadmium Content - according to REACH regulation (EC) No. 1907/2006 Annex XVII Entry 23 and its amendments	PASS
	Total Lead Content - REACH Regulation (EC) No. 1907/2006 Annex XVII Entry 63 and its amendments	PASS
10	Depesche requirement: Total Lead Content	PASS
11	Depesche Phthalates Requirements	PASS
12	Biocides (Biological Active Products)	Refer to result page
13	Odour, qualitative - with ref. to SNV 195 651: 1968	PASS
14	Packaging Waste Total Heavy Metal Content - 94/62/EC	PASS
15	The Toys (Safety) Regulations 2011 of UK, UKCA mark	Refer to result page
16	The Toys (Safety) Regulations 2011 of UK, labelling requirements	Refer to result page

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Material List:

Item: Ylvi 6 Colors gel pen
Item No.: 12884A

Material No.	Material	Color	Location
M001	Whole Product	multicolor	whole product
M002	Coating	multicolor	pattern, code of pen
M003	Coating	silvery	pattern, letter of pen
M004	Plastic	multicolor	rainbow charms
M005	Plastic	multicolor	flower charms
M006	Plastic	transparent purple	barrel of pen
M007	Plastic	transparent pink	barrel of pen
M008	Plastic	transparent pale purple	clip of pen
M009	Plastic	transparent red	clip of pen
M010	Plastic	red	button of pen
M011	Plastic	orange	button of pen
M012	Plastic	purple	button of pen
M013	Plastic	pink	button of pen
M014	Plastic	light blue	button of pen
M015	Plastic	yellow	button of pen
M016	Plastic	dim red	ink tube
M017	Plastic	dim orange	ink tube
M018	Plastic	dim purple	ink tube
M019	Plastic	dim pink	ink tube
M020	Plastic	dim blue	ink tube
M021	Plastic	dim yellow	ink tube
M021-1	Plastic	dim yellow	ink tube
M022	Metal	silvery	o-ring
M023	Metal	silvery	chain
M024	Metal	silvery	pen tip
M025	Ink	yellow	pen ink
M025-1	Ink	yellow	pen ink
M026	Plastic	transparent	ink tube holder (inaccessible)

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M027	Plastic	transparent	polybag (packaging)
M029	Plastic + coating	transparent purple +multicolor	barrel of pen
M030	Plastic + coating	transparent pink+multicolor	barrel of pen

1.GPSR - General Product Safety Regulation
Result:
1. Physical and Mechanical Test

Test No.	Material No.	Description	Test Method	Result
T001	M001	Requirement for sharp points	Reference to EN71 Part 1	PASS
		Requirement for sharp edges	Reference to EN71 Part 1	PASS

2. General Product Labeling

Test No.	Material No.	Description	Result
T001	M001	Address of manufacturer or responsible trading company	Present (Packaging & Product)
		Definite identification of the article	Present (Packaging & Product)

These labeling shall be indicated on the products, or where that is not possible, on its packaging or in documents accompanying the products.

3. Flammability Test

Test No.	Material No.	Description	Test Method	Result
T001	M001	General requirements	Reference to EN71 Part 2	PASS

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

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

3) For scraped-off toy materials:

Test Result:

Test Parameter	Unit	RL	Test No.	T001	T002
			Material No.	M002	M003
			Regulatory Requirement	Result	Result
Aluminium (Al)	mg/kg	10	28,130	816	-
Antimony (Sb)	mg/kg	5	560	< RL	-
Arsenic (As)	mg/kg	5	47	< RL	-
Barium (Ba)	mg/kg	2.5	18,750	24.7	-
Boron (B)	mg/kg	10	15,000	< RL	-
Cadmium (Cd)	mg/kg	1	17	< RL	-
Chromium III (Cr(III))	mg/kg	10	460	< RL	-
Chromium VI (Cr(VI))	mg/kg	0.045	0.053	< RL	-
Cobalt (Co)	mg/kg	2.5	130	< RL	-
Copper (Cu)	mg/kg	2.5	7,700	< RL	-
Lead (Pb)	mg/kg	2.5	23	< RL	-
Manganese (Mn)	mg/kg	2.5	15,000	< RL	-
Mercury (Hg)	mg/kg	2.5	94	< RL	-
Nickel (Ni)	mg/kg	2.5	930	< RL	-
Selenium (Se)	mg/kg	10	460	< RL	-
Strontium (Sr)	mg/kg	2.5	56,000	< RL	-
Tin (Sn)	mg/kg	1.0	180,000	1.73	-
Organic Tin [^]	mg/kg	0.2	12	-	-
Zinc (Zn)	mg/kg	10	46,000	173	-
Mass of trace amount	mg	--	--	16	<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

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, 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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3.EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 Table 2B Colourants

Test Method: EN 71-10 and -11:2005 for Table 2B Colourants

Test Result:

					Test No.	T001
					Material No.	M025
Test Parameter	CAS No.	Unit	RL	Regulatory Requirement	Result	
Disperse Blue 1	2475-45-8	mg/kg	10	10 (Action Limit)	< RL	
Disperse Blue 3	2475-46-9	mg/kg	10	10 (Action Limit)	< RL	
Disperse Blue 106	12223-01-7	mg/kg	10	10 (Action Limit)	< RL	
Disperse Blue 124	61951-51-7	mg/kg	10	10 (Action Limit)	< RL	
Disperse Orange 3	730-40-5	mg/kg	10	10 (Action Limit)	< RL	
Disperse Orange 37/76	12223-33-5/ 13301-61-6	mg/kg	10	10 (Action Limit)	< RL	
Disperse Yellow 3	2832-40-8	mg/kg	10	10 (Action Limit)	< RL	
Disperse Red 1	2872-52-8	mg/kg	10	10 (Action Limit)	< RL	
Solvent Yellow 1	60-09-3	mg/kg	10	10 (Action Limit)	< RL	
Solvent Yellow 2	60-11-7	mg/kg	10	10 (Action Limit)	< RL	
Solvent Yellow 3	97-56-3	mg/kg	10	10 (Action Limit)	< RL	
Basic Red 9	569-61-9	mg/kg	10	10 (Action Limit)	< RL	
Basic Violet 1	8004-87-3	mg/kg	10	10 (Action Limit)	< RL	
Basic Violet 3	548-62-9	mg/kg	10	10 (Action Limit)	< RL	
Acid Red 26	3761-53-3	mg/kg	10	10 (Action Limit)	< RL	
Acid Violet 49	1694-09-3	mg/kg	10	10 (Action Limit)	< RL	
Disperse Blue 35*	12222-75-2	mg/kg	10	10 (Action Limit)	< RL	

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

Remark:

* According to the BfR-recommendations (Bundesinstitut für Risikobewertung), Disperse blue 35 is analysed additionally.

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4.EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 Table 2C Primary Aromatic Amines

Test Method: EN 71-10 and -11:2005 for Table 2C Primary Aromatic Amines

Test Result:

					Test No.	T002
					Material No.	M025-1
Test Parameter	CAS No.	Unit	RL	Regulatory Requirement	Result	
Benzidine	92-87-5	mg/kg	1	5 (Action Limit)	< RL	
2-Naphthylamine	91-59-8	mg/kg	1	5 (Action Limit)	< RL	
4-Chloroaniline	106-47-8	mg/kg	1	5 (Action Limit)	< RL	
3,3'-Dichlorobenzidine	91-94-1	mg/kg	1	5 (Action Limit)	< RL	
3,3'-Dimethoxybenzidine	119-90-4	mg/kg	1	5 (Action Limit)	< RL	
3,3'-Dimethylbenzidine	119-93-7	mg/kg	1	5 (Action Limit)	< RL	
o-Toluidine	95-53-4	mg/kg	1	5 (Action Limit)	< RL	
2-Methoxyaniline (o-Anisidine)	90-04-0	mg/kg	1	5 (Action Limit)	< RL	
Aniline	62-53-3	mg/kg	1	5 (Action Limit)	< RL	

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

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5.EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 Table 2H Preservatives (other than wood preservatives)

Test Method: EN 71-10 and -11:2005 for Table 2H Preservatives (other than wood preservatives)

Test result

					Test No.	T001
					Material No.	M025
Test Parameter	CAS No.	Unit	RL	Regulatory Requirement	Result	
Phenol	108-95-2	mg/kg	10	10 (Action Limit)	< RL	
1,2- Benzylisothiazolin- 3-one	2634-33-5	mg/kg	5	5 (Action Limit)	< RL	
2-Methyl -4-isothiazolin -3-one	2682-20-4	mg/kg	10	10	< RL	
5-Chloro -2-methyl -4-isothiazolin -3-one	26172-55-4	mg/kg	10	10	< RL	
5-Chloro- 2-methyl -4-isothiazolin -3-one + 2-Methyl- 4-isothiazolin - 3-one	Various	mg/kg	15	15	< RL	
Formaldehyde (free)	50-00-0	%	0.05	0.05	< RL	

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

6. 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
Material No.				M004	M005
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	0.2	0.3
Phenanthrene	85-01-8	mg/kg	0.2	< RL	< RL
Pyrene	129-00-0	mg/kg	0.2	< RL	< RL
Sum of, Anthracene, Fluoranthene, Phenanthrene, Pyrene	-	mg/kg	0.2	<RL	<RL
Sum of 15 PAHs	-	mg/kg	0.2	0.2	0.3
Category*	-	--	-	2a	2a
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)

Parameter	Unit	Category 1	Category 2		Category 3	
		Materials intended to be placed into the mouth, or Materials in toys or articles for children up to 3 years of age with intended long-term skin contact (more than 30 s)	Materials that do not fall into Category 1 with intended or foreseeable long-term skin contact (more than 30 s) or repeated short-term skin contact	Cat. 2a Use by children	Cat. 2b Other consumer products	Cat. 3a Use by children
		-				
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

7. Polycyclic aromatic hydrocarbons (PAHs)

Test Method: Organic solvent extraction, GCMS

				Test No.	T001	T002
				Material No.	M004	M005
Test Parameter	CAS NO	Unit	RL	Result	Result	Result
Benzo[a]anthracene (BaA)	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 (BbFA)	205-99-2	mg/kg	0.2	< RL	< RL	< RL
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.2	< RL	< RL	< RL
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.2	< RL	< RL	< RL
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.2	< RL	< RL	< RL
Chrysene (CHR)	218-01-9	mg/kg	0.2	< RL	< RL	< RL
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.2	< RL	< RL	< RL

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

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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8.Short Chain Chlorinated Paraffin (C10-C13) (SCCP) and Medium Chain Chlorinated Paraffins (C14 - C17) (MCCP)

Test Method: ref. to EN ISO 18219-1:2021/ ISO 18219-2:2021

Test result:

Test No.	Material No.	Test Parameter	Unit	RL	Result
T001	M004	SCCP	%	0.01	< RL
		MCCP	%	0.01	< RL
T002	M005	SCCP	%	0.01	< RL
		MCCP	%	0.01	< RL

Abbreviation: < = less than
 RL = Report Limit
 SCCP = Short Chain Chlorinated Paraffin (C₁₀-C₁₃)
 MCCP = Medium Chain Chlorinated Paraffins (C14 - C17)
 % = 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

*1 According to customer’s instruction, the maximum permissible limit of Medium Chain Chlorinated Paraffin (MCCP) shall not contain more than 0.1% .

9.Total Lead and Cadmium Content

Test Method: Acid digestion, analyzed by ICP-OES

Test result:

Test No.	Material No.	Test Parameter	Unit	RL	Test Result
T001	M004	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T002	M005	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T003	M006 + M007	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T004	M008 + M009 + M010	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T005	M011 + M012 + M013	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T006	M014 + M015 + M016	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T007	M017 + M018 + M019	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T009	M022 + M023 + M024	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T010	M026	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T011	M020	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL
T013	M021-1	Lead	mg/kg	10	< RL
		Cadmium	mg/kg	10	< RL

Abbreviation: < = less than
 RL = Reporting Limit
 mg/kg = milligram per kilogram
 1% = 10000 mg/kg

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)
- ** Requirements for Lead content according to Annex XVII Entry 63 of Regulation (EC) No. 1907/2006 (REACH) and its amendments:
- 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%
 - Articles supplied to the general public during normal or reasonably foreseeable conditions of use, be placed in the mouth by children < 0.05%. 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.

10.Total Lead

Test Method: Acid digestion, analyzed by ICP-OES / AAS

Test result:

Test No.	Material No.	Test Parameter	Unit	RL	Customer's Requirement	Test Result
T001	M004	Lead Content	mg/kg	10	100	< RL
T002	M005	Lead Content	mg/kg	10	100	< RL
T003	M006 + M007	Lead Content	mg/kg	10	100	< RL
T004	M008 + M009 + M010	Lead Content	mg/kg	10	100	< RL
T005	M011 + M012 + M013	Lead Content	mg/kg	10	100	< RL
T006	M014 + M015 + M016	Lead Content	mg/kg	10	100	< RL
T007	M017 + M018 + M019	Lead Content	mg/kg	10	100	< RL
T009	M022 + M023 + M024	Lead Content	mg/kg	10	100	< RL
T010	M026	Lead Content	mg/kg	10	100	< RL
T011	M020	Lead Content	mg/kg	10	100	< RL
T013	M021-1	Lead Content	mg/kg	10	100	< RL

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

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11. Phthalates content

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

Test Result:

				Test No.	T001	T002	T003
				Material No.	M004	M005	M008 + M009 + M010
Test Parameter	CAS NO	Unit	RL	Result	Result	Result	
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.01	< RL	< RL	< RL	
Dibutyl phthalate (DBP)	84-74-2	%	0.01	< RL	< RL	< RL	
Benzylbutyl phthalate (BBP)	85-68-7	%	0.01	< RL	< RL	< RL	
Diisobutyl phthalate (DIBP)	84-69-5	%	0.01	< RL	< RL	< RL	
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.01	<RL	<RL	<RL	
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	< RL	< RL	< RL	
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.01	< RL	< RL	< RL	
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.01	< RL	< RL	< RL	
Sum (DINP+ DIDP+ DNOP)	--	%	0.01	<RL	<RL	<RL	
Di-n-pentyl phthalate (DnPP)	131-18-0	%	0.01	< RL	< RL	< RL	
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.01	< RL	< RL	< RL	
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.01	< RL	< RL	< RL	
Diisopentyl phthalate (DiPP)	605-50-5	%	0.01	< RL	< RL	< RL	
n-Pentyl-isopentyl phthalate	776297-69-9	%	0.01	< RL	< RL	< RL	
Di(methoxyethyl) phthalate (DMEP)	117-82-8	%	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	
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, dipentylester, branched and linear	84777-06-0	%	0.01	< RL	< RL	< RL	
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	%	0.01	< RL	< RL	< RL	
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (CAS No.: 84-75-3)	68515-51-5 68648-93-1	%	0.01	< RL	< RL	< RL	
Conclusion: Customer's requirement				Pass	Pass	Pass	

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				Test No.	T004	T005	T006
				Material No.	M011 + M012 + M013	M014 + M015 + M016	M017 + M018 + M019
Test Parameter	CAS NO	Unit	RL	Result	Result	Result	
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.01	< RL	< RL	< RL	
Dibutyl phthalate (DBP)	84-74-2	%	0.01	< RL	< RL	< RL	
Benzylbutyl phthalate (BBP)	85-68-7	%	0.01	< RL	< RL	< RL	
Diisobutyl phthalate (DIBP)	84-69-5	%	0.01	< RL	< RL	< RL	
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.01	<RL	<RL	<RL	
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	< RL	< RL	< RL	
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.01	< RL	< RL	< RL	
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.01	< RL	< RL	< RL	
Sum (DINP+ DIDP+ DNOP)	--	%	0.01	<RL	<RL	<RL	
Di-n-pentyl phthalate (DnPP)	131-18-0	%	0.01	< RL	< RL	< RL	
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.01	< RL	< RL	< RL	
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.01	< RL	< RL	< RL	
Diisopentyl phthalate (DiPP)	605-50-5	%	0.01	< RL	< RL	< RL	
n-Pentyl-isopentyl phthalate	776297-69-9	%	0.01	< RL	< RL	< RL	
Di(methoxyethyl) phthalate (DMEP)	117-82-8	%	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	
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, dipentylester, branched and linear	84777-06-0	%	0.01	< RL	< RL	< RL	
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	%	0.01	< RL	< RL	< RL	
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (CAS No.: 84-75-3)	68515-51-5 68648-93-1	%	0.01	< RL	< RL	< RL	
Conclusion: Customer's requirement				Pass	Pass	Pass	

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				Test No.	T007	T008	T009
				Material No.	M020 + M021	M026	M027
Test Parameter	CAS NO	Unit	RL	Result	Result	Result	
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.01	< RL	< RL	< RL	
Dibutyl phthalate (DBP)	84-74-2	%	0.01	< RL	< RL	< RL	
Benzylbutyl phthalate (BBP)	85-68-7	%	0.01	< RL	< RL	< RL	
Diisobutyl phthalate (DIBP)	84-69-5	%	0.01	< RL	< RL	< RL	
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.01	<RL	<RL	<RL	
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	< RL	< RL	< RL	
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.01	< RL	< RL	< RL	
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.01	< RL	< RL	< RL	
Sum (DINP+ DIDP+ DNOP)	--	%	0.01	<RL	<RL	<RL	
Di-n-pentyl phthalate (DnPP)	131-18-0	%	0.01	< RL	< RL	< RL	
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.01	< RL	< RL	< RL	
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.01	< RL	< RL	< RL	
Diisopentyl phthalate (DiPP)	605-50-5	%	0.01	< RL	< RL	< RL	
n-Pentyl-isopentyl phthalate	776297-69-9	%	0.01	< RL	< RL	< RL	
Di(methoxyethyl) phthalate (DMEP)	117-82-8	%	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	
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, dipentylester, branched and linear	84777-06-0	%	0.01	< RL	< RL	< RL	
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	%	0.01	< RL	< RL	< RL	
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (CAS No.: 84-75-3)	68515-51-5 68648-93-1	%	0.01	< RL	< RL	< RL	
Conclusion: Customer's requirement				Pass	Pass	Pass	

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Test Parameter	CAS NO	Test No.		T011	T012
		Unit	RL	M029	M030
Material No.				Result	Result
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.01	< RL	< RL
Dibutyl phthalate (DBP)	84-74-2	%	0.01	< RL	< RL
Benzylbutyl phthalate (BBP)	85-68-7	%	0.01	< RL	< RL
Diisobutyl phthalate (DIBP)	84-69-5	%	0.01	< RL	< RL
Sum (DEHP+DBP+BBP+DIBP)	-	%	0.01	<RL	<RL
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	< RL	< RL
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.01	< RL	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.01	< RL	< RL
Sum (DINP+ DIDP+ DNOP)	--	%	0.01	<RL	<RL
Di-n-pentyl phthalate (DnPP)	131-18-0	%	0.01	< RL	< RL
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.01	< RL	< RL
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.01	< RL	< RL
Diisopentyl phthalate (DiPP)	605-50-5	%	0.01	< RL	< RL
n-Pentyl-isopentyl phthalate	776297-69-9	%	0.01	< RL	< RL
Di(methoxyethyl) phthalate (DMEP)	117-82-8	%	0.01	< RL	< RL
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	%	0.01	< RL	< RL
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	%	0.01	< RL	< RL
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	%	0.01	< RL	< RL
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	%	0.01	< RL	< RL
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (CAS No.: 84-75-3)	68515-51-5 68648-93-1	%	0.01	< RL	< RL
Conclusion: Customer's requirement				Pass	Pass

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

Remark:

- According to customer instruction, the maximum permissible limits of phthalates are as follows:

Parameter	Unit	Maximum Permissible Limit
Sum of Dibutyl phthalate (DBP), Benzylbutyl phthalate (BBP), Diethylhexyl phthalate (DEHP) and Diisobutyl phthalate (DIBP)	%	0.1
Sum of Di-n-octyl phthalate (DNOP), Diisodecyl phthalate (DIDP) and Diisononyl phthalate (DINP)	%	0.1
Di-n-pentyl phthalate (DnPP)	%	0.1
Di-n-hexyl phthalate (DnHP)	%	0.1
Dicyclohexyl phthalate (DCHP)	%	0.1
Diisopentyl phthalate (DiPP)	%	0.1
n-Pentyl-isopentyl phthalate	%	0.1
Di(methoxyethyl) phthalate (DMEP)	%	0.1
1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	%	0.1
1,2-Benzenedicarboxylic acid, di-C7-11 branched and linear alkyl ester (DHNUP)	%	0.1
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	%	0.1
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	%	0.1
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate	%	0.1

- Single component with an amount below reporting limit was not considered by the calculation of the sum.

12. Biocides (Biological Active Products)

Test Method: Reference to ISO 13365:2011, acetonitrile extraction, LC-MS/MS analysis

Test result

Test No.	Material No.	Test Parameter	CAS No.	Unit	RL	Test Result
T001	M025	Octhilinone (OIT)	26530-20-1	mg/kg	10	39
		4,5-Dichloro-2-octyl-3 (2H)- isothiazolone (DCOIT)	64359-81-5	mg/kg	10	< RL

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

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13.Odour, qualitative

Test Method: Ref. to SNV 195 651: 1968

Test Result:

Test No.	Material No.	Test Parameter	Regulatory Requirement	Test Result
T001	M001	Odour, qualitative	2 (qualitative)	1

Evaluation scheme (in deviation from product specific odour):

1 = odourless

2 = weak

3 = bearable

4 = intense/annoying

5 = unbearable

14.Packaging Waste Total Heavy Metal Content - 94/62/EC

Test Method: Sample digestion, analyzed by ICP-OES / Ultraviolet Visible Spectrophotometer (UV-Vis)

Result:

Test No.	Material No.	Test Parameters	Unit	RL	Regulatory Requirement	Result	Conclusion
T001	M027	Pb	mg/kg	10	-	< RL	-
		Cd	mg/kg	10	-	< RL	-
		Cr (VI)	mg/kg	10	-	< RL	-
		Hg	mg/kg	10	-	< RL	-
		Sum of Pb, Cd, Cr(VI) and Hg	mg/kg	10	100	<RL	Pass

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

Remark:

** According to "European Parliament and Council Directive 94/62/EC of 20 December 1994"; the maximum permissible limit of the sum of the concentration of Lead, Cadmium, Mercury and Hexavalent Chromium is 100ppm.

*** Single element with an amount of less than reporting limit were not considered by the calculation of the sum. In the case of all elements were less than reporting limit, the result is stated < RL.

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15. The Toys (Safety) Regulations 2011 of UK, UKCA mark

Test result:

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

Remark:

- #1 The UK government will continue to recognise the CE marking, therefore businesses can also use the UKCA marking, giving them flexibility to choose which marking to apply.
- * Although no final packaging has been received, the manufacturer/trader/applicant has confirmed that the above information marked (*) will be shown onto the toy itself and/or packaging of the toy.

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

Test Result:

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

* Although no final packaging has been received, the manufacturer/trader/applicant has confirmed that the above information marked (*) will be shown onto the toy itself and/or packaging of the toy.

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Sample Photo



- END -

