TEST REPORT

APPLICANT	:	MatX Commerce B.V.
ADDRESS	:	Van Heutszsingel 100 7741 EW, Coevorden Netherlands
SAMPLE DESCRIPTION	:	Sensory Body Sock
ITEM NO.	:	Body-Sock-S Body-Sock-M Body-Sock-L Body-Sock-XL
MANUFACTURER	:	Hangzhou Sohahome Technology Co.,Ltd
COUNTRY OF ORIGIN	:	China
AGE REQUESTED ON APPLICATION FORM	:	3+years
LABELED AGE GRADE	:	Not Present
AGE GRADE APPLIED IN TESTING	:	3years+
CARE LABEL INSTRUCTION	:	
SAMPLE RECEIVED DATE	:	11-Oct-2022
TURN AROUND TIME	:	11-Oct-2022 to 03-Nov-2022

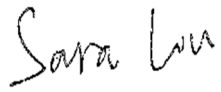
The following test item(s) was/were performed on selected sample(s) and/or component(s) confirmed by applicant

TEST REQUESTED	TEST METHOD/REGULATION	RESULT
Fiber Content	AATCC TM20-2021, AATCC TM20A-2021	See Test Result
Care Instruction verification	/	See Test Result
Dimensional Stability to Washing	AATCC TM150-2018t	Pass
Appearance after Washing	In House Test Method	Satisfactory
Colorfastness to Crocking	AATCC TM8-2016e	Pass
Colorfastness to Light	AATCC TM16.3-2020	Pass
Colourfastness to Water	AATCC 107-2013	Pass
Colorfastness to Perspiration	AATCC TM15-2021e	Pass
Bursting Strength	ASTM D3786/D3786M-2018	See Test Result
Seam Stretchability of Knitted Garments	AATCC TS-015	See Test Result
Physical and Mechanical Hazards	EN71 Part 1:2014+A1:2018	Pass
Labeling Requirement	Directive 2009/48/EC	Pass
Flammability of Toys	EN71 Part 2:2020	Pass
Restricted CMR Substances Content – Extractable heavy metals	REACH Annex XVII, Entry 72	Pass
Restricted CMR Substances Content – Polycyclic Aromatic Hydrocarbons (PAHs)	REACH Annex XVII, Entry 72	Pass
Formaldehyde Content	REACH Annex XVII, Entry 72	Pass
Restricted CMR Substances Content – Phthalates	REACH Annex XVII, Entry 72	Pass
Restricted CMR Substances Content – solvent Residues	REACH Annex XVII, Entry 72	Pass
Restricted CMR Substances Content – Dyes	REACH Annex XVII, Entry 72	Pass
Banned AZO Dyes	REACH Annex XVII, Entry 43	Pass
Restricted CMR Substances Content – Chlorinated Aromatic Hydrocarbons	REACH Annex XVII, Entry 72	Pass
Restricted CMR Substances Content – Quinoline	REACH Annex XVII, Entry 72	Pass
Total Lead Content	REACH Annex XVII, Entry 63	Pass
Total Cadmium Content	REACH Annex XVII, Entry 23	Pass
Migration of Certain Elements	EN71 Part 3:2019+A1:2021	Pass

Eurofins（Hangzhou）contact information
Customer service: EllenZhu2@eurofins.com/ +86 571 87203730
Sales specialist: RockShen@eurofins.com/ +86 216 1819 181

********** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) **********

Signed for and on behalf of
Eurofins Product Testing Service (Shanghai) Co., Ltd Hangzhou Branch



Sara Liu
Lab Manager

SAMPLE PHOTO(S)

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EFHZ22100861-CG-01

TO BE CONTINUED

COMPONENT LIST

Component No.	Component	Sample No.
1	White coating with fabric（bag）	A
2	Black plastic stopper（bag）	A
3	Blue woven fabric(bag)	A
4	Blue knit fabric（body）	A
5	Black knit fabric（piping）	A
6	Black fabric rope（bag）	A

TO BE CONTINUED

TEST RESULT

Fiber Content

AATCC TM20-2021, AATCC TM20A-2021.

	(A)	Requirement:
Fiber Claim	No Claim	Blends: ± 3% as claim
Fiber Lab Analysis	93.8%Polyester 6.2%Spandex	
Recommended Labeled Fiber Content	94%Polyester 6%Spandex	

Care Instruction verification

Based on the results of the tests reported, the proposed care instruction is not appropriate for submitted sample.

Dimensional Stability to Washing

AATCC TM150-2018t,1993 AATCC Standard Reference Detergent Wob, 3 Washes, Nomal Cycle, At 27°C/80°F, Line Dry, 4-Lbs Load, Measure At 10 In.

	A	Requirement:
Lengthwise(%)	+0.4	+/-5%
Widthwise(%)	+0.9	

Remark: (+)Means Extension (-)Means Shrinkage

TO BE CONTINUED

TEST RESULT

Appearance after Washing

HZ-SOP-IHTM-002,As Per Care Instruction, AATCC TM150-2018t,1993 AATCC Standard Reference Detergent Wob, 3 Washes, Nomal Cycle, At 27°C/80°F, Line Dry, 4-Lbs Load.

	A	Requirement:
General Appearance	Satisfactory	Satisfactory
Observation	No obvious Change	
Color Change	4.5	
Cross staining	4.5	
Pilling	4.5	

Observation
-Shape: No Obvious Skewness
- Pilling: No Obvious Pilling
- Seam: No Obvious Change
- Label: No Obvious Change
- Snap: No Obvious Change

Remark:

PILLING RATING

Grade 5	No change
Grade 4	Slight surface fuzzing and / or partially formed pills
Grade 3	Moderate surface fuzzing and / or moderate pilling. Pills of varying size and density partially covering the specimen surface.
Grade 2	Distinct surface fuzzing and / or distinct pilling. Pills of varying size and density covering a large proportion of the specimen surface.
Grade 1	Dense surface fuzzing and / or severe pilling. Pills of varying size and density covering the whole of the specimen surface.

Remark:
Grey Scale for Assessing Colour Change/Staining

Grade 5	negligible or no change or staining
Grade 4	slightly changed or stained
Grade 3	noticeably changed or stained
Grade 2	considerably changed or stained
Grade 1	much changed or stained

Colorfastness to Crocking

AATCC TM8-2016e.

	A	Requirement:
Dry	4.5	Class 4.0
Wet	4.5	Class 3.0

Remark:

Grey Scale for Assessing Colour Change/Staining

Class 5	negligible or no change or staining
Class 4	slightly changed or stained
Class 3	noticeably changed or stained
Class 2	considerably changed or stained
Class 1	much changed or stained

TO BE CONTINUED

TEST RESULT

Colourfastness to Light

AATCC TM16.3-2020, use Xenon arc lamp, Method 3, After 20 AFU

	A	Requirement:
Color Change	4.0	Class 4.0

Colorfastness to Water

AATCC TM107-2013e2

	A	Requirement:
Color Change	4.5	Class 4.0
Color Staining on		
Acetate	4.0	Class 3.0
Cotton	4.5	
Nylon	4.0	
Polyester	4.0	
Acrylic	4.5	
Wool	4.5	
Self Staining	/	Class 4.5

Colourfastness to Perspiration

AATCC TM15-2021.

	A	Requirement:
Colour Change	4.5	Class 4.0
Colour Staining on		
Acetate	4.5	Class 3.0
Acrylic	4.5	
Cotton	4.5	
Nylon	4.5	
Polyester	4.5	
Wool	4.5	
Self Staining	/	Class 4.5

Remark:

Grey Scale for Assessing Colour Change/Staining

Class 5	negligible or no change or staining
Class 4	slightly changed or stained
Class 3	noticeably changed or stained
Class 2	considerably changed or stained
Class 1	much changed or stained

TO BE CONTINUED

TEST RESULT

Dimensional Stability to Dry Clean

Commercial Dry Clean, After 1 Cycle.

	A	Requirement:
Lengthwise (%)	-1.8	-
Widthwise (%)	-0.4	-

Remark:
(+) Extension (-) Shrinkage

Appearance after Dry Clean

HZ-SOP-IHTM-002, As Per Care Instruction, Commercial Dry Clean, After 1 Cycle.

	A	Requirement:
General Appearance	Satisfactory	-
Color Change	4.5	
Cross staining	4.5	
Pilling	4.5	

Observation
-Shape: No Obvious Skewness
- Pilling: No Obvious Pilling
- Seam: No Obvious Change
- Snap: No Obvious Change

Remark:

PILLING RATING

Grade 5	No change
Grade 4	Slight surface fuzzing and / or partially formed pills
Grade 3	Moderate surface fuzzing and / or moderate pilling. Pills of varying size and density partially covering the specimen surface.
Grade 2	Distinct surface fuzzing and / or distinct pilling. Pills of varying size and density covering a large proportion of the specimen surface.
Grade 1	Dense surface fuzzing and / or severe pilling. Pills of varying size and density covering the whole of the specimen surface.

Grey Scale for Assessing Colour Change/Staining

Grade 5	negligible or no change or staining
Grade 4	slightly changed or stained
Grade 3	noticeably changed or stained
Grade 2	considerably changed or stained
Grade 1	much changed or stained

TO BE CONTINUED

TEST RESULT

Colorfastness to Washing

AATCC TM61-2013e2(2020), Test No. Ref 2A Modified, At 41℃/105°F with 0.15%, 1993 AATCC Standard Reference Detergent WOB, Multifiber No.10, AATCC Grey Scale with 50 steel balls

	A	Requirement:
Color Change	4.5	-
Color Staining on Acetate	3.0	-
Cotton	4.0	
Nylon	3.0	
Polyester	3.5	
Acrylic	4.0	
Wool	4.0	
Self Staining	/	-

Remark:

Grey Scale for Assessing Colour Change/Staining

Class 5	negligible or no change or staining
Class 4	slightly changed or stained
Class 3	noticeably changed or stained
Class 2	considerably changed or stained
Class 1	much changed or stained

Colorfastness To Drycleaning

AATCC TM132-2004e3(2013)e3, Multifiber No.10, AATCC Grey Scale

	A	Requirement:
Color Change	4.5	-
Self Staining	/	-
Color Staining on		-
Acetate	4.5	
Cotton	4.5	
Nylon	4.5	
Polyester	4.5	
Acrylic	4.5	
Wool	4.5	

Remark:

Grey Scale for Assessing Colour Change/Staining

Class 5	negligible or no change or staining
Class 4	slightly changed or stained
Class 3	noticeably changed or stained
Class 2	considerably changed or stained
Class 1	much changed or stained

TO BE CONTINUED

TEST RESULT

Colorfastness to Non-Chlorine Bleach

AATCC TS-001.

	A	Requirement:
Color Change		
POWDER/LIQUID	4.5/4.5	-

Colorfastness to Chlorine Bleach

AATCC TS-001.

	A	Requirement:
Colour Change	4.5	-

Remark:

Grey Scale for Assessing Colour Change/Staining

Class 5	negligible or no change or staining
Class 4	slightly changed or stained
Class 3	noticeably changed or stained
Class 2	considerably changed or stained
Class 1	much changed or stained

Bursting Strength

ASTM D3786/D3786M-2018.

	A-Blue knit fabric	Requirement:
Bursting Strength	105psi	-
	A-Top	Requirement:
Bursting Strength	62psi	-
	A-Bottom	Requirement:
Bursting Strength	59psi	-
	A-Centre Front	Requirement:
Bursting Strength	64psi	-

Seam Stretchability of Knitted Garments

AATCC TS-015.

	A	Requirement:
Strength - Top(lbf)	8.7S.T.B.	-
Strength - Bottom(lbf)	7.3 S.T.B.	
Strength - Centre Front Seam(lbf)	8.2 S.T.B.	
Elongation - Top(%)	41.7	
Elongation - Bottom(%)	31.7	
Elongation - Centre Front Seam(%)	30.0	

Remark:

S.T.B. — Sewing Thread Breakage

TO BE CONTINUED

TEST RESULT

Physical and Mechanical Hazards

Test Request: As specified in European Standard on Safety of Toys EN71 Part 1:2014+A1 :2018

Section	Description	Result
4	General requirements	
4.1	Material cleanliness (by visual assessment)	P
4.2	Assembly	N/A
4.3	Flexible plastic sheeting	N/A
4.4	Toy Bags	P
4.5	Glass	N/A
4.6	Expanding Materials	N/A
4.7	Edges	P
4.8	Points and Metallic Wires	P
4.9	Protruding parts	N/A
4.10	Parts moving against each other	
4.10.1	Folding and sliding mechanisms	N/A
4.10.2	Driving mechanisms.	N/A
4.10.3	Hinges	N/A
4.10.4	Springs	N/A
4.11	Mouth-actuated toys and other toys intended to be put in the mouth	N/A
4.12	Balloons	N/A
4.13	Cords of toy kites and other flying toys.	N/A
4.14	Enclosures	N/A
4.14.1	Toys which a child can enter	N/A
4.14.2	Masks and helmets	N/A
4.15	Toys intended to bear the mass of a child	
4.15.1	Toys propelled by the child or by other means	N/A
4.15.2	Toy bicycles	N/A
4.15.3	Rocking horses and similar toys	N/A
4.15.4	Toys not propelled by a child	N/A
4.15.5	Toys scooters	N/A
4.16	Heavy immobile toys	N/A
4.17	Projectiles	N/A
4.17.1	General	N/A
4.17.2	All projectiles	N/A
4.17.3	Projectile toy with stored energy	N/A
4.17.4	Certain projectile toys without stored energy	N/A
4.18	Aquatic toys and inflatable toys	N/A
4.19	Percussion caps specifically designed for use in toys and toys using percussion caps	N/A
4.20	Acoustics	N/A
4.20.2.1	General	N/A
4.20.2.2	Close-to-the-ear toys	N/A
4.20.2.3	Table-top or floor toys	N/A
4.20.2.4	Hand-held toys	N/A
4.20.2.5	Toys using headphones or earphones	N/A
4.20.2.6	Rattles	N/A
4.20.2.7	Squeeze toys	N/A
4.20.2.8	Pull-along or push toys	N/A
4.20.2.9	Percussion toys	N/A

TO BE CONTINUED

TEST RESULT

Section	Description	Result
4.20.2.10	Wind toys	N/A
4.20.2.11	Cap-firing toys	N/A
4.20.2.12	Voice toys	N/A
4.21	Toys containing a non-electrical heat source	N/A
4.22	Small balls	N/A
4.23	Magnets	N/A
4.24	Yo-yo balls	N/A
4.25	Toys attached to food	N/A
4.26	Toy disguise costumes	P
4.27	Flying toys	N/A
4.27.1	General	N/A
4.27.2	Rotors and propellers on flying toys	N/A
4.27.3	Rotors and propellers on remote controlled flying toys	N/A
5	Toys intended for children under 36 months	
5.1	General requirements	N/A
5.2	Soft-filled toys and soft-filled parts of a toy	N/A
5.3	Plastic sheeting	N/A
5.4	Cords, chains and electrical cables in toys	N/A
5.5	Liquid-filled toys	N/A
5.6	Speed limitation of electrically-driven ride-on toys	N/A
5.7	Glass and porcelain	N/A
5.8	Shape and size of certain toys	N/A
5.9	Toys comprising monofilament fibres	N/A
5.10	Small balls	N/A
5.11	Play figures	N/A
5.12	Hemispheric-shaped toys	N/A
5.13	Suction cups	N/A
5.14	Straps intended to be worn fully or partially around the neck	N/A
5.15	Sledges with cords for pulling	N/A
6	Packaging	P
7	Warnings, markings and instructions for use	
7.1	General	N/A
7.2	Toys not intended for children under 36 months	N/A
7.3	Latex Balloons	N/A
7.4	Aquatic toys	N/A
7.5	Functional Toys	N/A
7.6	Hazardous sharp functional edges and points	N/A
7.7	Projectiles toys	N/A
7.8	Imitation protective masks and helmets	N/A
7.9	Toy kites	N/A
7.10	Roller skates, inline skates, skateboards and certain other ride-on toys	N/A
7.11	Toys intended to be strung across a cradle, cot, or perambulator	N/A
7.12	Liquid-filled teethers	N/A
7.13	Percussion caps specifically designed for use in toys	N/A
7.14	Acoustics	N/A
7.15	Toys bicycles	N/A
7.16	Toys intended to bear the mass of a child	N/A
7.17	Toys comprising monofilament fibres	N/A
7.18	Toy scooters	N/A
7.19	Rocking horses and similar toys	N/A

TO BE CONTINUED

TEST RESULT

Section	Description	Result
7.20	Magnetic/electrical experimental sets	N/A
7.21	Toy with electrical cables exceeding 300mm in length	N/A
7.22	Toys with cords or chains intended for children of 18 months and over but under 36 months	N/A
7.23	Toys intended to be attached to a cradle, cot or perambulator	N/A
7.24	Sledges with cords for pulling	N/A
7.25	Flying toys	N/A
7.25.1	Flying toys	N/A
7.25.2	Remote controlled flying toys	N/A
7.26	Improvised projectiles	N/A

Remark:
P – Pass
NA – Not Applicable

Labeling Requirement

Test Request: Labeling requirement including Washing/Cleaning instruction, CE mark, importer / manufacturer name and address, product identification as specified in Directive 2009/48/EC – Safety of toys

Labeling Content	Observation Result	Location	Conclusion
Washing/Cleaning Instruction	Not Applicable	/	/
CE Mark	Present, Correct form, CE marking (height >5.0 mm)	Packaging	Pass
Importer’s Name & Address	Present	Packaging	Pass
Manufacturer’s Name & Address	Present	Packaging	Pass
Product ID	Present	Packaging	Pass

Flammability of Toys

Test Request: As Specified in European Standard on Safety of Toys EN71 Part 2:2020

Section	Description	Result
4	Requirements	
4.1	General Requirements	P
4.2	Toys to be worn on the head	N/A
4.3	Toy disguise costumes and toys intended to be worn by a child in play	P
4.4	Toys intended to be entered by a child	N/A
4.5	Soft-filled toys (Sample was not tested if its maximum dimension is 150mm or less.)	N/A

Remark:
P – Pass
NA – Not Applicable

TO BE CONTINUED

TEST RESULT

Restricted CMR Substances Content – Extractable heavy metals

Test Request: CMR Substances content as specified in entry 72 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/1513.

Test Method: Chromium VI compounds – With reference to EN ISO 17075-1:2017, quantification by UV-Vis Spectrophotometer.
Other compounds – With reference to EN 16711-2:2015, quantification by Inductively coupled plasma mass spectrometry (ICP-MS)

Test Item(s)	Unit	Limit	MDL	Result
				4
Cadmium	mg/kg	1	0.1	ND
Extractable Chromium VI	mg/kg	1	0.5	ND
Arsenic	mg/kg	1	0.2	ND
Lead (Pb)	mg/kg	1	0.2	ND

Remark:
As per client's request, only the appointed materials have been tested.

Restricted CMR Substances Content – Polycyclic Aromatic Hydrocarbons (PAHs)

Test Request: CMR Substances content as specified in entry 72 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/1513.

Test Method: Solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS) with reference to AfPS GS 2019:01 PAK (PAK=PAHs) requirement.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4
Benzo(a)anthracene	56-55-3	mg/kg	1	0.2	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.2	ND
Benzo(a)pyrene	50-32-8	mg/kg	1	0.2	ND
Benzo(e)pyrene	192-97-2	mg/kg	1	0.2	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	1	0.2	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	1	0.2	ND
Chrysene	218-01-9	mg/kg	1	0.2	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	1	0.2	ND

Remarks:
As per client's request, only the appointed materials have been tested.
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Formaldehyde Content

Test Request: Formaldehyde content as specified in entry 72 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendments.

Test Method: ISO 14184-1:2011, free and hydrolysed formaldehyde (water extraction method).

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4
Formaldehyde Conent	50-00-0	mg/kg	75	16	ND

Remarks:
As per client's request, only the appointed materials have been tested.
The concentration limit for formaldehyde in clothing, related accessory, textile other than clothing, footwear shall be 75 mg/kg after 1 November 2020.
The concentration limit for formaldehyde in jackets, coats or upholstery shall be 300 mg/kg during the period between 1 November 2020 and 1 November 2023. The concentration limit of 75 mg/kg shall apply thereafter.
As per client's request, the most stringent limit is applied in the test.
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

Restricted CMR Substances Content – Phthalates

Test Request: CMR Substances content as specified in entry 72 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/1513.

Test Method: With reference to EN ISO 14389:2014 solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS).

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4
Dipentylphtalate	131-18-0	mg/kg	1000	50	ND
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	mg/kg	1000	50	ND
Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	mg/kg	1000	50	ND
Diisopentylphthalate (DiPP)	605-50-5	mg/kg	1000	50	ND
Di-n-hexyl phthalate (DnHP)	84-75-3	mg/kg	1000	50	ND
Sum of Specified Phthalates	-	mg/kg	1000	-	ND

Remarks:
As per client's request, only the appointed materials have been tested.
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL
"- " = Not regulated

TO BE CONTINUED

TEST RESULT

Restricted CMR Substances Content–solvent Residues

Test Request: CMR Substances content as specified in entry 72 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/1513.

Test Method: With reference to EPA 3550C:2007, EPA 8270E:2018, solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS).

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4
Benzene	71-43-2	mg/kg	5	5	ND
Dimethylacetamide	127-19-5	mg/kg	3000	100	ND
1-Methyl-2-pyrrolidone (NMP)	872-50-4	mg/kg	3000	100	ND
N,N-dimethylformamide (DMFa)	68-12-2	mg/kg	3000	100	ND

Remarks:
As per client's request, only the appointed materials have been tested.
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

Restricted CMR Substances Content – Dyes

Test Request: CMR Substances content as specified in entry 72 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/1513.

Test Method: DIN 54231:2005 solvent extraction and determination by High Performance Liquid Chromatography (HPLC/DAD) and High Performance Liquid Chromatographic Mass Spectrometer (HPLC/MS).

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4
Disperse Blue 1	2475-45-8	mg/kg	50	15	ND
C.I. Basic Red 9	569-61-9	mg/kg	50	15	ND
Basic Violet 3	548-62-9	mg/kg	50	15	ND

Remarks:
As per client's request, only the appointed materials have been tested.
mg/kg = milligram per kilogram
MDL = Method Detection Limit
ND = Not Detected, less than MDL

TO BE CONTINUED

TEST RESULT

Banned AZO Dyes

Test Request: Banned AZO dyes as specified in entry 43 of annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: EN ISO 14362-1:2017, EN ISO 14362-3:2017, analysis was performed by GC-MS

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4
4-methyl-m-phenylenediamine / 2,4-Toluylendiamine	95-80-7	mg/kg	30	5	ND
2-Naphthylamine	91-59-8	mg/kg	30	5	ND
4,4'-methylenedi-o-toluidine / 3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	mg/kg	30	5	ND
Bis-(4-aminophenyl)methane	101-77-9	mg/kg	30	5	ND
4,4'-Oxydianiline	101-80-4	mg/kg	30	5	ND
4,4'-Thiodianiline	139-65-1	mg/kg	30	5	ND
Benzidine	92-87-5	mg/kg	30	5	ND
o-Toluidine	95-53-4	mg/kg	30	5	ND
5-Nitro-o-toluidine (Note 1)	99-55-8	mg/kg	30	5	ND
o-Aminoazotoluene (Note 1)	97-56-3	mg/kg	30	5	ND
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	mg/kg	30	5	ND
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	mg/kg	30	5	ND
2,4,5-Trimethylaniline	137-17-7	mg/kg	30	5	ND
4-Aminobiphenyl	92-67-1	mg/kg	30	5	ND
o-Anisidine	90-04-0	mg/kg	30	5	ND
3,3'-Dichlorobenzidine	91-94-1	mg/kg	30	5	ND
4-Chloroaniline	106-47-8	mg/kg	30	5	ND
3,3'-Dimethoxybenzidine	119-90-4	mg/kg	30	5	ND
n.d.3,3'-Dimethybenzidine	119-93-7	mg/kg	30	5	ND
2-Methoxy-5-methylaniline	120-71-8	mg/kg	30	5	ND
4-Chloro-2-methylaniline	95-69-2	mg/kg	30	5	ND
4-Amino-azobenzene (Note 2)	60-09-3	mg/kg	30	5	ND

Remarks:
As per client's request, only the appointed materials have been tested.
Note 1: The CAS-numbers 97-56-3 and 99-55-8 are further reduced to CAS-numbers 95-53-4 and 95-80-7.
Note 2: 4-Amino-azobenzene(CAS No.:60-09-3) is reduced to aniline and 1,4-phenylenediamine.
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Restricted CMR Substances Content – Chlorinated Aromatic Hydrocarbons

Test Request: CMR Substances content as specified in entry 72 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/1513.

Test Method: With reference to EN 17137:2018, analysis was performed by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4
α , α , α ,4-tetrachlorotoluene	5216-25-1	mg/kg	1	0.1	ND
α , α , α -trichlorotoluene	98-07-7	mg/kg	1	0.1	ND
α -chlorotoluene	100-44-7	mg/kg	1	0.1	ND

Remarks:
As per client's request, only the appointed materials have been tested.
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

Restricted CMR Substances Content – Quinoline

Test Request: CMR Substances content as specified in entry 72 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/1513.

Test Method: With reference to EPA 3550C:2007, EPA 8270E:2018, solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS).

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4
Quinoline	91-22-5	mg/kg	50	10	ND

Remarks:
As per client's request, only the appointed materials have been tested.
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Total Lead Content

Test Request: Total lead content as specified in entry 63 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Regulation (EU) No 2015/628.

Test Method: EPA 3050B:1996, EPA 3051A:2007, EPA 3052:1996
Acid digestion/ microwave digestion method was used and total lead content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result
				2
Total Lead	mg/kg	500	10	11

Remark:
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

Total Cadmium Content

Test Request: Total cadmium content as specified in Commission Regulation (EU) 2016/217 amending entry 23 of Annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: EPA 3050B:1996, EPA 3052:1996, EN 1122:2001 Method B, acid digestion method was used and total cadmium content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result
				2
Total Cadmium	mg/kg	100	5	ND

Remark:
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Migration of Certain Elements

Test Request: Migration of certain elements as specified in European Standard on Safety of Toys EN71 Part 3:2019+A1:2021.

Test Method: General elements, with reference to EN 71 Part 3:2019+A1:2021, analysis was performed by ICP-MS;
Extractable Chromium (VI), with reference to EN 71 Part 3:2019+A1:2021, analysis was performed by IC-ICP-MS/IC-UV/Vis;
Extractable organic tin, with reference to EN 71 Part 3:2019+A1:2021, analysis was performed by GC-MS.

Test Item(s):	Unit	Result					
		1	2	3	4	5	6
Category Type		III	III	III	III	III	III
Extractable Lead (Pb)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	34	ND
Extractable Arsenic (As)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Barium (Ba)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Boron (B)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Cobalt (Co)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Manganese (Mn)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Strontium (Sr)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Zinc (Zn)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Copper (Cu)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Aluminum (Al)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Nickel (Ni)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Tin (Sn)	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Chromium#2	mg/kg	-	ND	ND	0.031	ND	ND
Extractable Organic Tin#1	mg/kg	ND	ND	ND	ND	ND	ND
Extractable Chromium (III) (Cr III) #3	mg/kg	ND	-	-	-	-	-
Extractable Chromium (VI) (Cr VI)	mg/kg	ND	-	-	-	-	-

Note:

#1 - The migration of organic tin is expressed as tributyltin.
#2 - If the migration of total Chromium is below the maximum limit for Chromium (VI), it can be inferred that the material complies with the requirements for both Chromium(III) and Chromium(VI).
#3 - In particular Chromium (III) is calculated by subtracting the Chromium (VI) concentration from the total chromium concentration.

Remarks:
mg/kg = milligram per kilogram
MDL = Method Detection Limit
ND = Not Detected, less than MDL

TO BE CONTINUED

TEST RESULT

Limits –MDL per category type:

Test Item(s):	Unit	Limit	MDL	Limit	MDL	Limit	MDL
Category Type		I		II		III	
Extractable Lead (Pb)	mg/kg	2.0	1.0	0.5	0.2	23	10
Extractable Antimony (Sb)	mg/kg	45	5	11.3	1	560	10
Extractable Arsenic (As)	mg/kg	3.8	0.2	0.9	0.1	47	5
Extractable Barium (Ba)	mg/kg	1500	50	375	10	18750	50
Extractable Cadmium (Cd)	mg/kg	1.3	0.1	0.3	0.05	17	1
Extractable Mercury (Hg)	mg/kg	7.5	0.5	1.9	0.2	94	10
Extractable Selenium (Se)	mg/kg	37.5	2	9.4	1	460	10
Extractable Boron (B)	mg/kg	1200	50	300	10	15000	50
Extractable Cobalt (Co)	mg/kg	10.5	1	2.6	0.2	130	10
Extractable Manganese (Mn)	mg/kg	1200	50	300	10	15000	50
Extractable Strontium (Sr)	mg/kg	4500	50	1125	50	56000	50
Extractable Zinc (Zn)	mg/kg	3750	50	938	50	46000	50
Extractable Copper (Cu)	mg/kg	622.5	10	156	10	7700	50
Extractable Aluminum (Al)	mg/kg	2250	50	560	50	28130	50
Extractable Nickel (Ni)	mg/kg	75	5	18.8	2	930	10
Extractable Tin (Sn)	mg/kg	15000	50	3750	50	180000	50
Extractable Organic Tin	mg/kg	0.9	0.2	0.2	0.2	12	0.2
Extractable Chromium	mg/kg	-	0.02	-	0.005	-	0.02
Extractable Chromium (III) (Cr III)	mg/kg	37.5	2	9.4	1	460	10
Extractable Chromium (VI) (Cr VI)	mg/kg	0.02	0.02	0.005	0.005	0.053	0.02

Category I: dry, brittle, powder-like or pliable toy material
Category II: liquid or sticky toy material
Category III: scrapped-off toy material
“-” = Not Regulated

END OF THE REPORT