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# **TEST REPORT**

<u>APPLICANT</u> : Mid Ocean Hong Kong Ltd.

ADDRESS : 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan,

Kowloon, Hong Kong

**SAMPLE DESCRIPTION** : Polyester Frisbee

<u>ITEM NO.</u> : IT3087

VENDOR CODE : 111034

COUNTRY OF ORIGIN : China

AGE REQUESTED ON APPLICATION FORM : 3+

**LABELED AGE GRADE** : Not suitable for children under 3 years

**AGE GRADE APPLIED IN TESTING** : Over 3 Years

**SAMPLE RECEIVED DATE** : 15-Nov-2023

**TURN AROUND TIME** : 15-Nov-2023 to 21-Nov-2023

REVISED DATE : 29-Nov-2023

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
Physical and Mechanical Hazards	EN 71-1:2014+A1:2018	Pass
Labeling Requirement	Directive 2009/48/EC	Pass
Flammability of Toys	EN 71-2:2020	Pass
Migration of Certain Elements	EN 71-3:2019+A1:2021	Pass
Phthalates Content	REACH Annex XVII, Entry 51 & 52	Pass
Total Cadmium Content	REACH Annex XVII, Entry 23	Pass
Polycyclic Aromatic Hydrocarbons (PAHs)	REACH Annex XVII, Entry 50	Pass
Benzene Content	REACH Annex XVII, Entry 5	Pass
Banned AZO Dyes	REACH Annex XVII, Entry 43	Pass
Colour Fastness to Rubbing	EN ISO 105-X12:2016	Pass

Note: This report cancels and supersedes report number EFSH23111132-CG-01+Rev 1 issued on Nov 23<sup>rd</sup>, 2023. Modification description: as per client's request, submit artwork of package for labeling review in the revised report.

Samples are obtained by express delivery, Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins Product Testing Service (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to <a href="mailto:info.sh@eurofins.com">info.sh@eurofins.com</a> and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins Product Testing Service (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to <a href="mailto:chinacomplaint@eurofins.com">chinacomplaint@eurofins.com</a> and referring to this report number.





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### Eurofins (Shanghai) contact information

Customer service: SunnyZhang@eurofins.com/ +86 216 1819 181 Sales specialist: Jack.Zhang@cpt.eurofinscn.com/ +86 18601770010

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

Signed for and on behalf of

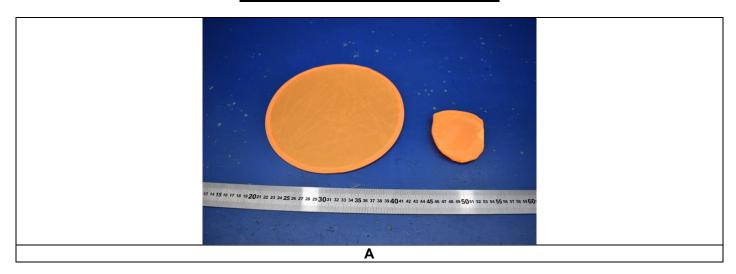
Eurofins Product Testing Service (Shanghai) Co., Ltd

Operation Director



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## **TEST SAMPLE PHOTO(S)**



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# **REFERENCE SAMPLE PHOTO(S)**



The reference sample(s) has not been tested in current report, but according to customer's request, the picture has also been included. For sample tested in current report, please refer to "Test sample photo".



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# **COMPONENT LIST**

Component No.	Component	Sample No.
1	Orange fabric	Α



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# **TEST RESULT**

## **Physical and Mechanical Hazards**

Test Request: As specified in European Standard on Safety of Toys EN 71-1:2014+A1:2018

Section	Description	Result
4	General requirements	
4.1	Material cleanliness (by visual assessment)	Р
4.2	Assembly	N/A
4.3	Flexible plastic sheeting	N/A
4.4	Toy Bags	N/A
4.5	Glass	N/A
4.6	Expanding Materials	N/A
4.7	Edges	Р
4.8	Points and Metallic Wires	Р
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	
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	
4.17.1	General	Р
4.17.2	All projectiles	Р
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
4.40	Percussion caps specifically designed for use in toys and toys using	NI/A
4.19	percussion caps	N/A
4.20	Acoustics	
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
4.20.2.10	Wind toys	N/A



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# **TEST RESULT**

Section	Description	Result
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	N/A
4.27	Flying toys	
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	N/A
7	Warnings, markings and instructions for use	,, .
7.1	General	Р
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	N/A
7.11	toys  Toys intended to be strung across a cradle, cot, or perambulator	N/A
7.12	Liquid-filled teethers	N/A
7.12	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
7.17	Toy scooters	N/A
7.19	Rocking horses and similar toys	N/A N/A
7.19		N/A N/A
1.20	Magnetic/electrical experimental sets	IN/A



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# **TEST RESULT**

Section	Description	Result
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	
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, F - Fail, N/A - Not Applicable, N/C - Not Conduct as per client's request



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## **TEST RESULT**

### **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 >5mm)	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 EN 71-2:2020

Section	Description	Result	
4	Requirements		
4.1	General Requirements	Р	
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	N/A	
4.4	Toys intended to be entered by a child	N/A	
4.5	Soft-filled toys	N/A	

### Remark:

P - Pass, F - Fail, N/A - Not Applicable



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## **TEST RESULT**

### **Migration of Certain Elements**

Test Request: Migration of certain elements as specified in European Standard on Safety of Toys EN 71-

3:2019+A1:2021.

Test Method: General elements, with reference to EN 71-3:2019+A1:2021, analysis was performed by

ICP-MS;

Extractable Chromium (VI), with reference to EN 71-3:2019+A1:2021, analysis was

performed by IC-ICP-MS;

Extractable organic tin, with reference to EN 71-3:2019+A1:2021, analysis was performed

by GC-MS.

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

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



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# **TEST RESULT**

## Limits –MDL per category type:

Test Item(s):	Unit	Limit	MDL	Limit	MDL	Limit	MDL
Category Type				I	ĺ		
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 (AI)	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



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## **TEST RESULT**

## **Phthalates Content**

Phthalates content as specified in entry 51&52 of annex XVII of REACH Regulation (EC) No Test Request:

1907/2006 and its amendment Commission Regulation (EU) 2018/2005.

EPA 3550C:2007, EPA 8270E:2018, solvent extraction and quantification by GC-MS. Test Method:

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
Di-n-butyl phthalate (DBP)	84-74-2	%	ı	0.005	ND
Benzylbutyl phthalate (BBP)	85-68-7	%	ı	0.005	ND
Diethylhexyl phthalate (DEHP)	117-81-7	%	ı	0.005	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	ı	0.005	ND
Sum of DEHP, DBP, BBP, DIBP	-	%	0.1	-	ND
Di-n-octyl phthalate (DNOP)	117-84-0	%	ı	0.005	ND
Diisononyl phthalate (DINP)	28553-12-0	%	ı	0.005	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND
Sum of DNOP, DINP, DIDP	-	%	0.1	-	ND

#### Remarks:

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

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.

EPA 3050B:1996, EPA 3052:1996, EN 1122:2001 Method B, acid digestion method was Test Method:

used and total cadmium content was determined by ICP-OES.

Toot Itom(a)	Unit	Limit	MDL	Result
Test Item(s)	Unit	Lillit	MIDE	1
Cadmium (Cd)	mg/kg	100	5	ND

#### Remark:

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

<sup>&</sup>quot;-"= Not Regulated



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## **TEST RESULT**

### Polycyclic Aromatic Hydrocarbons (PAHs)

Test Request: Polycyclic Aromatic Hydrocarbons (PAHs) content as specified in entry 50 of Annex XVII of

REACH Regulation (EC) No 1907/2006 and its latest amendment.

Test Method: Solvent extraction and quantification by gas chromatography-mass selective detection (GC-

MS) with respect to AfPS GS 2019:01 PAK

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
, ,				1	
Benzo(a)anthracene	56-55-3	mg/kg	0.5	0.1	ND
Chrysene	218-01-9	mg/kg	0.5	0.1	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	0.5	0.1	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	0.5	0.1	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	0.5	0.1	ND
Benzo(a)pyrene	50-32-8	mg/kg	0.5	0.1	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.5	0.1	ND
Benzo(e)pyrene	192-97-2	mg/kg	0.5	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

#### **Benzene Content**

Test Request: Benzene content as specified in entry 5 of annex XVII of REACH Regulation (EC) No

1907/2006 and its amendment Regulation (EU) 2015/1494.

Test Method: EPA 3550C:2007, EPA 8270E:2018, solvent extraction and quantification by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
Benzene	71-43-2	mg/kg	5	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



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## **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, sampling procedure and sample preparation according to Annex

E4.2 and Annex E4.3.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
4-methyl-m-phenylenediamine	95-80-7	mg/kg	30	5	ND
4-Amino-azobenzene (Note 2)	60-09-3	mg/kg	30	5	ND ND
2-Naphthylamine	91-59-8	mg/kg	30	5	ND ND
4,4'-methylenedi-o-toluidine	838-88-0	mg/kg	30	5	ND 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
4-methoxy-m- phenylenediamine	615-05-4	mg/kg	30	5	ND
4,4'-Methylene-bis-(2- chloroaniline)	101-14-4	mg/kg	30	5	ND
o-Aminoazotoluene (Note 1)	97-56-3	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

## Remarks:

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

14D 140t detected, 1605 than MBE



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## **TEST RESULT**

## **Colour Fastness to Rubbing**

EN ISO 105-X12:2016.

	(1)	Client's Requirement
Lengthwise-Dry	4-5	Grade 2-3
Lengthwise-Wet	4-5	Grade 2-3
Widthwise-Dry	4-5	Grade 2-3
Widthwise-Wet	4-5	Grade 2-3

#### Remark:

Grey Scale for Assessing Colour Change/Staining
Grade 5 Negligible or no change/staining
Grade 4 Slightly changed/stained
Grade 3 Noticeably changed/stained
Grade 2 Considerably changed/stained
Grade 1 Much changed/stained

The test was subcontracted to Eurofins Product Testing Service (Shanghai) Co., Ltd. Hangzhou Branch.