



中国认可  
国际互认  
检测  
TESTING  
CNAS L6478



# TEST REPORT

**Reference No.** ..... : WTF20F03009481C  
**Applicant** ..... : Mid Ocean Brands B.V.  
**Address** ..... : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong  
**Manufacturer** ..... : 104438  
**Sample Name** ..... : Assorted puzzle game  
**Model No.** ..... : KC2938  
**Labelled Age Grading** ..... : 3+  
**Test Requested** ..... : For compliance with the European Standard on Safety of Toys:  
- EN 71-1:2014+A1:2018 Mechanical and physical properties  
- EN 71-2:2014 Flammability  
- EN 71-3:2019 Migration of certain elements  
**Test Method** ..... : Please refer to next page (s)  
**Test Conclusion** ..... : Please refer to next page (s)  
**Date of Receipt sample** ..... : 2020-03-12  
**Date of Test** ..... : 2020-03-12 to 2020-03-17  
**Date of Issue** ..... : 2020-03-17  
**Test Result** ..... : Please refer to next page (s)

**Remarks:**

The results shown in this test report refer only to the sample(s) tested; this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.  
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**Test Result:****1) Part 1 : Mechanical and physical properties**

<b>Section</b>	<b>Description</b>	<b>Result</b>
4	GENERAL REQUIREMENTS	--
4.1	Material cleanliness	Pass
4.7	Edges	Pass
4.8	Points and metallic wires	Pass
7	Warnings, markings and instructions for use	--
7.1	General Remark: Warnings on toys shall not be misleading or incorrect. Toys intended for children under 36 months shall comply with the requirements in Clause 5 of this standard. A warning on a toy or its packaging does not release the manufacturer or his authorized representative from the obligation to meet these requirements. The warnings shall be preceded by the words 'Warning' or 'Warnings', as appropriate.	Pass See Remark
7.2	Toys not intended for children under 36 months Remark: Toys which are not intended for, but might be dangerous for children under 36 months shall bear a warning, for example: "Not suitable for children under 36 months" or "Not suitable for children under three years" together with a brief indication of the specific hazard calling for this restriction. The age warning shall be clearly legible at the point of sale of the product and appear either on the toy itself or on its retail packaging. The indication of the specific hazard may appear on a leaflet or in the instructions for use.	Pass See Remark

**Note:** The testing standard "EN 71-1:2014+A1:2018" does not been accredited by CNAS

**2)Part 2: Flammability**

<b>Section</b>	<b>Description</b>	<b>Result</b>
4	REQUIREMENTS	--
4.1	General	Pass See Note

**Note:**

4.1 The following materials shall not be used in the manufacture of toys:

- Celluloid (cellulose nitrate), except when used in varnish, paint or glue, or in balls of the type used for table tennis or similar games, and materials with the same behaviour in fire as celluloid. Specific materials to which the test flame is applied in order to check compliance of the toy with requirements in 4.2 to 4.5 are considered to comply with this requirement if the toy meets its appropriate requirements in 4.2 to 4.5;
- Materials with a piled surface which produce surface flash on the approach of a flame. Piled surfaces showing no momentary area of flame over the area of the piled surface remote from the test flame are considered to meet this requirement;
- Highly flammable solids.

In addition, toys shall not contain flammable gases, highly flammable liquids, flammable liquids, flammable gels except as provided for below:

- Flammable liquids, flammable gels and preparations supplied in sealed containers having a maximum volume of 15 ml per container;
- Highly flammable liquids and flammable liquids being entirely retained within a porous material in capillary channels of writing instruments;
- Flammable liquids with a viscosity greater than  $260 \times 10^{-6} \text{m}^2/\text{s}$  corresponding to a flow time of more than 38 s when determined in accordance with EN ISO 2431 using cup No. 6;
- Highly flammable liquids contained in toys covered in EN 71-5.

NOTE: Different legal requirements may exist in non-EU countries.



**LABELING REQUIREMENT(WASHING/CLEANING INSTRUCTION,CE MARK, IMPORTER/ MANUFACTURER NAME AND ADDERSS, PRODUCT IDENTIFICATION)ACCORDINGTO THE DIRECTIVE 2009/48/EC-SAFETY OF TOYS**

Summary table:

Information	Observation Result	Location
Washing/Cleaning instruction	Not applicable	--
CE mark	Existing	Packaging
Importer's Name	Existing	Packaging
Importer's address	Existing	Packaging
Manufacturer's Name	Absent	--
Manufacturer's address	Absent	--
Product ID	Existing	Packaging

**Note:**

1. According to Directive 2009/48/EC, a toy intended for use by children under 36 months must be designed and manufactured in such a way that it can be cleaned. A textile toy must, to this end, be washable, except if it contains a mechanism that may be damaged if soaked. The manufacturer should, if applicable, provide instructions on how the toy has to be cleaned.
2. CE marking should be visible from outside the packaging and its height must be at least 5mm.
3. Manufacturer's and Importer's name, registered trade name or registered trade mark and the address at which the manufacturer can be contacted must be indicated on the toy or, where that is not impossible, on its packaging or in a document accompanying the toy.
4. Manufacturers must ensure that their toys bear a type, batch, serial or model or other element allowing their identification, or where the size or nature of the toys does not allow it, that the required information is provided on the packaging or in a document accompanying the toy.



### 3) EN71-3:2019 Migration of Heavy Metal Test

Test method: As per European Standard on Safety of toys EN71-3:2019, determined by ICP-MS, GC-MS and IC-ICP-MS.

#### A. Category (III): Scraped-off toy material.

Test Items	Result (mg/kg)				MDL (mg/kg)	Upper Limit (mg/kg)
	No.1	No.2	No.3	No.4		
Sol. Aluminium (Al)	ND	ND	ND	ND	50	70000
Sol. Antimony(Sb)	ND	ND	ND	ND	10	560
Sol. Arsenic(As)	ND	ND	ND	ND	5	47
Sol. Barium(Ba)	ND	ND	ND	ND	50	18750
Sol. Boron(B)	ND	ND	ND	ND	50	15000
Sol. Cadmium(Cd)	ND	ND	ND	ND	5	17
Sol. Chromium(III)(Cr(III))	ND	ND	ND	ND	5	460
Sol. Chromium(VI)(Cr(VI))	ND	ND	ND	ND	0.02	0.053
Sol. Cobalt(Co)	ND	ND	ND	ND	10	130
Sol. Copper(Cu)	ND	ND	ND	ND	50	7700
Sol. Lead(Pb)	ND	ND	ND	ND	5	23
Sol. Manganese(Mn)	ND	ND	ND	ND	50	15000
Sol. Mercury(Hg)	ND	ND	ND	ND	10	94
Sol. Nickel(Ni)	ND	ND	ND	ND	10	930
Sol. Selenium(Se)	ND	ND	ND	ND	10	460
Sol. Strontium(Sr)	ND	ND	ND	ND	50	56000
Sol. Tin(Sn)	ND	ND	ND	ND	4.9	180000
Sol. Organic Tin	ND	ND	ND	ND	4.9	12
Sol. Zinc(Zn)	ND	ND	ND	ND	50	46000
<b>Conclusion</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	--	--

#### Note:

- (1) Sol. = Soluble
- (2) mg/kg = milligram per kilogram
- (3) MDL = Method Detection Limit
- (4) ND = Not Detected (lower than MDL)
- (5) Soluble chromium(III)=Soluble total chromium-Soluble chromium(VI)
- (6) Confirmation test of Soluble Chromium(III) & Chromium(VI) is not required in case Soluble Total Chromium is not detected (lower than MDL). Soluble Chromium(VI) is reported as Soluble Total Chromium.
- (7) Confirmation test of Soluble Organic Tin is not required in case Soluble Tin is not detected (lower than MDL). Soluble Organic Tin is reported as Soluble Tin.
- (8) The testing standard "EN 71-3:2019" does not been accredited by CNAS

**B. Categories of various toy materials:**

Category I: Dry, brittle, powder like or pliable

Solid toy material from which powder-like material is released during playing and semi-solid materials that may also leave residues on the hands during play. The material can be ingested. Contamination of the hands with the material may contribute to the oral exposure of the material. (e.g. the cores of colouring pencils, chalk, crayons, modelling clays and plaster).

Category II: Liquid or sticky

Fluid or viscous toy material, which can be ingested or to which dermal exposure may occur during playing. (e.g. liquid paints, finger paints, liquid ink in pens, glue sticks, slimes, bubble solution).

Category III : Scraped-off

Solid toy material with or without a coating, which can be ingested as a result of biting, tooth scraping, sucking or licking. (e.g. coatings, lacquers, plastics, paper, textiles, glass, ceramic, metallic, wooden, bone , leather and other materials).

**Specimen Description:**

No.1: Black plastic base

No.2: Yellow plastic base

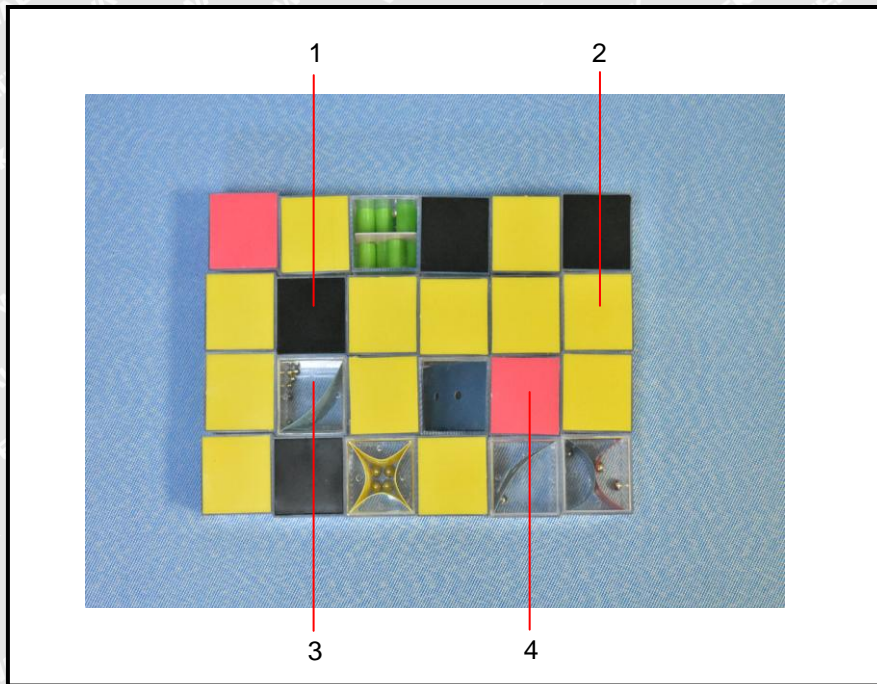
No.3: Transparent plastic shell

No.4: Pink plastic base

**Sample photo:**



**Photograph of parts tested:**



===== End of Report =====

# WALTEK