

TEST REPORT

Mechanical & Hardgoods Laboratory

Report No : HY/2016/30324A

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Date : 2016/04/28

MOLUK GmbH (www.moluk.com)

Seefeldstrasse 178, 8008 Zurich, Switzerland

The following merchandise was submitted & identified by the applicant as:

Type of Product: Pluï Brush Sunny / Pluï Brush Cloudy
Style/Item No: 43070 / 43075
Manufacturer/Vendor: MOLUK GmbH (www.moluk.com)
Country of Origin: MADE IN CHINA
Label Age Grading: 3+
Requested Age Grading: 3+
Age Group Applied in Testing: 3 years and up
Sample Receiving Date: 2016/03/25
Resubmitted Sample Date: 2016/04/08 & 2016/04/21
Testing Period: 2016/03/26 – 04/12 & 2016/04/22

We have tested the submitted sample(s) as requested and the following results were obtained:


Test Requested:

Please refer to the result summary.

Methods and Results:

Please refer to next page(s).

Signed for and on behalf of
SGS Taiwan Ltd.


Iris Huang
Asst. Manager



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Result Summary:

<u>Item</u>	<u>Test Parameter</u>	<u>Conclusion</u>
1	EN 71 Part 1:2014 – Mechanical and Physical Properties	Pass (See result 1)
2	EN 71 Part 2:2011+A1:2014 – Flammability	Pass (See result 2)
3	EN 71 Part 3:2013+A1:2014- Migration of Certain Elements	Pass (See result 3)
4	Cadmium(Cd) content in accordance with Annex 17 of REACH Regulation (EC) No 1907/2006	Pass (See result 4)
5	Phthalate content in accordance with Annex 17 of REACH Regulation (EC) No 1907/2006	Pass (See result 5)
6	Polynuclear Aromatic Hydrocarbons contents	Pass (See result 6)

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Test Results:

1. EN 71 Part 1:2014 – Mechanical and Physical Properties

Clause	Description	Result
4	General requirements	
4.1	Material cleanliness	<u>Pass</u>
4.7	Edges	<u>Pass</u>
4.8	Points and metallic wires	<u>Pass</u>
5	Toys intended for children under 36 months	
5.1	General requirements	<u>See Remark</u>
	(Remark : Plastic fragment became detached as small part after test. It is acceptable because appropriate age warning was found on the packaging.)	
7	Warnings, markings and instructions for use	
7.1	General	<u>Pass</u>
7.2	Toys not intended for children under 36months	<u>Pass</u>

Labeling requirement (Washing/Cleaning Label, CE mark, importer / manufacturer mark (name, address), product identification) according to the Directive 2009/48/EC-Safety of toys

Summary table:

	On product	On packaging
Washing/Cleaning instruction	Absent	Absent
CE mark	Absent	Present
Name & Address	Absent	Present
Product ID	Absent	Present

Washing/Cleaning Label Absent / See Remark
 (Sub-content is extracted from the context of EN 71 Part 1:2014)

(Remark: According to Directive 2009/48/EC the following safety requirements apply regarding cleaning and washing: 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 soak washed. The toy must fulfill the safety requirements also after having been cleaned in accordance with this point and the manufacturer's instructions. The manufacturer should, if applicable, provide instructions on how the toy has to be cleaned.)

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CE mark, importer / manufacturer mark (name, address), product identification Present / See Remark
(Sub-content is extracted from the context of EN 71 Part 1:2014)

(Remark: Toys made available on the market must bear the CE marking. The CE marking must be subject to the general principles set out in Article 30 of Regulation (EC) No 765/2008. The CE marking must be affixed visibly, legibly and indelibly to the toy, to an affixed label or to the *packaging*. In the case of small toys and toys consisting of small parts, the CE marking may alternatively be affixed to a label or an accompanying leaflet. Where, in the case of toys sold in counter displays, that is not technically possible, and on condition that the counter display was originally used as *packaging* for the toy, the CE marking may be affixed to the counter display. Where the CE marking is not visible from outside the *packaging*, if any, it shall as a minimum be affixed to the *packaging*. Where specific legislation does not impose specific dimensions, the CE marking must be at least 5 mm high.

The manufacturer'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 possible, on its *packaging* or in a document accompanying the toy. This requirement applies also to the name and address etc. of any importer.

Manufacturers must ensure that their toys bear a type, batch, serial or model number or other element allowing their identification, or where the size or nature of the toy does not allow it, that the required information is provided on the *packaging* or in a document accompanying the toy.)

Observation Result:

CE marking was found on the back card and the height is 10, 8 mm

Manufacturer's/importer name, address was found on the back card

Product identification 43070, 43075 were found on the back card

2. EN 71 Part 2:2011+A1:2014 – Flammability

<u>Clause</u>	<u>Description</u>	<u>Result</u>
4	Requirements	
4.1	General requirements	<u>Pass</u>

N.B.: -Only applicable clauses were shown

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3. EN 71 Part 3:2013+A1:2014- Migration of Certain Elements

Category III: Scrapped-off toy material

Method: With reference to EN 71 Part 3:2013+A1:2014. Analysis was performed by ICP-AES.

Extractable Organic Tin was analyzed by GC-MS. Extractable Chromium III & Chromium VI were analyzed by LC-ICP-MS.

Test Items		Result(mg/kg)	MDL	Limit
		1~4	(mg/kg)	(mg/kg)
Soluble Aluminium	(Al)	N.D.	50	70,000
Soluble Antimony	(Sb)	N.D.	10	560
Soluble Arsenic	(As)	N.D.	10	47
Soluble Barium	(Ba)	N.D.	50	18,750
Soluble Boron	(B)	N.D.	50	15,000
Soluble Cadmium	(Cd)	N.D.	5	17
Soluble Cobalt	(Co)	N.D.	10	130
Soluble Copper	(Cu)	N.D.	50	7,700
Soluble Lead	(Pb)	N.D.	10	160
Soluble Manganese	(Mn)	N.D.	50	15,000
Soluble Mercury	(Hg)	N.D.	10	94
Soluble Nickel	(Ni)	N.D.	10	930
Soluble Selenium	(Se)	N.D.	10	460
Soluble Strontium	(Sr)	N.D.	50	56,000
Soluble Tin	(Sn)	N.D.	4.9	180,000
Soluble Zinc	(Zn)	N.D.	50	46,000
Soluble Chromium (III)	(Cr (III))	N.D.	1	460
Soluble Chromium (VI)	(Cr (VI))	N.D.	0.18	0.2
Soluble Organic Tin#	--	N.D.	--	12

Remark: #

Test Items		Soluble Organic Tin Result(s)	MDL
		1~4	(mg/kg)
Methyl tin	(MeT)	N.D.	0.5
Di-n-propyl tin	(DProT)	N.D.	0.5
Butyl tin	(BuT)	N.D.	0.5
Dibutyl tin	(DBT)	N.D.	0.5
Tributyl tin	(TBT)	N.D.	0.5
n-Octyl tin	(MOT)	N.D.	0.5
Tetrabutyl tin	(TeBT)	N.D.	0.5
Di-n-octyl tin	(DOT)	N.D.	0.5
Diphenyl tin	(DPhT)	N.D.	0.5
Triphenyl tin	(TPhT)	N.D.	0.5

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4. Cadmium (Cd) content

Method: With reference to BS EN 1122: 2001, Method B and performed by ICP – AES

<u>Test item</u>	<u>Unit</u>	<u>MDL</u>	<u>1</u>	<u>3~5</u>	<u>Limit</u>
Cadmium (Cd)	mg/kg	2	N.D.	N.D.	See Note 5

5. Phthalate content

Method: With reference to EN 14372: 2004 method. Analysis was performed by GC/MS.

<u>Test items</u>	<u>MDL</u>	<u>1</u>	<u>3~5</u>	<u>Permissible Limit</u>
Dibutyl Phthalate (DBP)	0.003	N.D.	N.D.	0.1%
Benzylbutyl Phthalate (BBP)	0.003	N.D.	N.D.	0.1%
Di-(2-ethylhexyl)Phthalate (DEHP)	0.003	N.D.	N.D.	0.1%
Diisononyl Phthalate (DINP)	0.01	N.D.	N.D.	0.1%
Di-n-octyl Phthalate (DNOP)	0.003	N.D.	N.D.	0.1%
Diisodecyl Phthalate (DIDP)	0.01	N.D.	N.D.	0.1%

6. Polynuclear Aromatic Hydrocarbons contents

Method: With reference to AfPS GS 2014:01 PAK method. Analysis was performed by GC/MS.

<u>Test items</u>	<u>Unit</u>	<u>MDL</u>	<u>1</u>	<u>3~5</u>
Acenaphthene (CAS No.: 83-32-9)	mg/kg	0.2	N.D.	N.D.
Acenaphthylene (CAS No.: 208-96-8)		0.2	N.D.	N.D.
Anthracene (CAS No.: 120-12-7)		0.2	N.D.	N.D.
Benzo[a]anthracene (CAS No.: 56-55-3)		0.2	N.D.	N.D.
Benzo[a]pyrene (CAS No.: 50-32-8)		0.2	N.D.	N.D.
Benzo[b]fluoranthene (CAS No.: 205-99-2)		0.2	N.D.	N.D.
Benzo[g,h,i]perylene (CAS No.: 191-24-2)		0.2	N.D.	N.D.
Benzo[k]fluoranthene (CAS No.: 207-08-9)		0.2	N.D.	N.D.
Chrysene (CAS No.: 218-01-9)		0.2	N.D.	N.D.
Dibenzo[a,h]anthracene (CAS No.: 53-70-3)		0.2	N.D.	N.D.
Fluoranthene (CAS No.: 206-44-0)		0.2	N.D.	N.D.
Fluorene (CAS No.: 86-73-7)		0.2	N.D.	N.D.
Indeno[1,2,3-c,d] pyrene (CAS No.: 193-39-5)		0.2	N.D.	N.D.
Naphthalene (CAS No.: 91-20-3)		0.2	N.D.	N.D.
Phenanthrene (CAS No.: 85-01-8)		0.2	N.D.	N.D.
Pyrene (CAS No.: 129-00-0)		0.2	N.D.	N.D.
Benzo[j]fluoranthene (CAS No.: 205-82-3)		0.2	N.D.	N.D.
Benzo[e]pyrene (CAS No.: 192-97-2)		0.2	N.D.	N.D.
Sum of 18 PAHs		-	N.D.	N.D.

AFPS (German commission for Product Safety): GS PAHs requirements

Parameter	Category 1	Category 2		Category 3	
	Material intended to be put in the mouth or toys with intended skin contact (longer than 30 s).	Materials not falling under category 1 with foreseeable contact to skin for longer than 30 seconds (long-term skin contact).		Materials not falling under category 1 or 2 with foreseeable contact to skin for less than 30 seconds (short-term skin contact).	
		Toy under 2009/48/EC	Other products under ProdSG	Toy under 2009/48/EC	Other products under ProdSG
Naphthalene	< 1	< 2		< 10	
Acenaphthylene	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
Acenaphthene					
Fluorene					
Phenanthrene					
Anthracene					
Fluoranthene					
Pyrene					
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-c,d]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Sum of 18 PAH	< 1	< 5	< 10	< 20	< 50

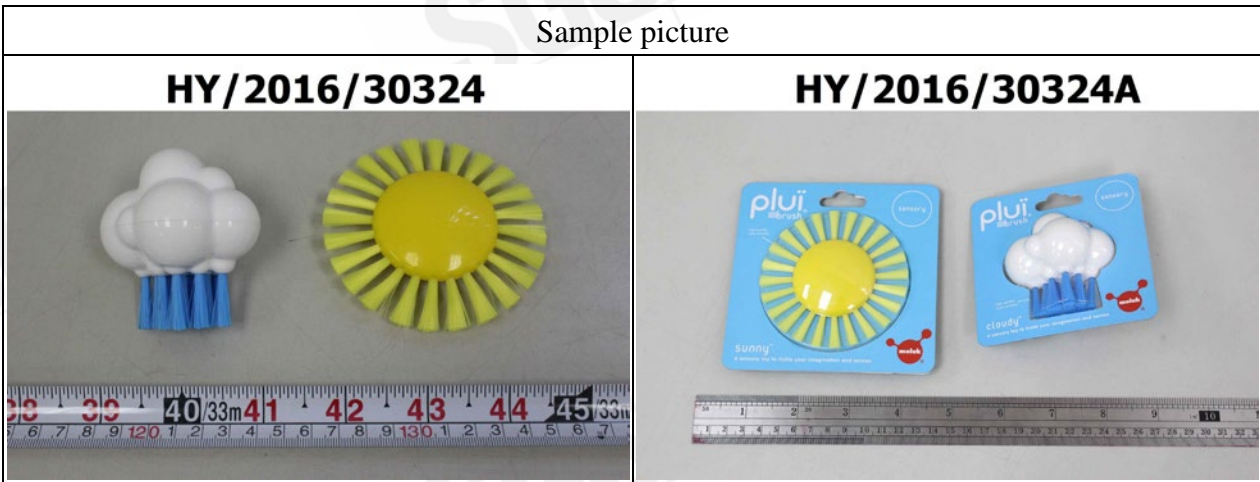
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Description:

1. White plastic of sample.
2. Blue plastic thread of sample. (brush)
3. Yellow plastic of sample.
4. Yellow plastic thread of sample. (brush)
5. Blue plastic thread of sample. (brush)*

- Note:
1. mg/kg = ppm
 2. N.D. = not detected
 3. MDL = Method Detection Limit
 4. “-“ = Not Regulated
 5. Requirement: They shall not be placed on market, if
 - The mixtures and articles produced from plastic material: ≥ 100 ppm
 - Painted articles: ≥ 1000 ppm
 - Metal components for jewelry: ≥ 100 ppm
 6. * = Test done on client resubmitted/additional sample.
 7. The chemical analysis was conducted in SGS Taiwan Ltd. Chemical Laboratory-Taipei

Sample picture



As received



Back card information

** End of Report **