



中国认可  
国际互认  
检测  
TESTING  
CNAS L3791



鶴山利奧計量檢測服務有限公司  
HESHAN LEO METROLOGY AND TESTING SERVICES CO. LTD.

# Test Report

Report No.: HSTR17090033TC

Date: Sep 13, 2017

**Leo Paper Products Ltd.**

**Level 9, Telford House, 16 Wang Hoi Road, Kowloon Bay, Kowloon, Hong Kong**

**Heshan Astros Printing Ltd**

**Xuantan Temple Industry District Gu Lao Town Heshan City Guangdong Province China**

## Sample and Information Supplied By Client As:

Item name by client : NY15222 LOBLOLLY BB

Sample description by lab : 5 pcs paperboard book

SKU/JOB NO. : S1718834

Quantity of sample : 5 Pieces

Request age grading : 0-3 YEARS

Exported to : US/Canada/ EU

Age Group Assessed As : 0-3 YEARS

Tested age : 0-3 YEARS

Per Age Guideline

Sample receiving date : Sep 7, 2017

Testing period : Sep 7, 2017 - Sep 13, 2017

## Test Request

- EN 71 Part 1: 2014: Mechanical and Physical Properties
- EN 71 Part 2: 2011+A1:2014: Flammability
- Labeling requirement (Washing/Cleaning Label, CE mark, importer / manufacturer mark (name, address), product identification) according to the Directive 2009/48/EC-Safety of toys
- EN 71 Part 3: 2013+A1: 2014 - Migration of Certain Elements
- Entry 23 of Annex XVII of REACH Regulation (EC) No 1907/2006 for cadmium content (previously restricted under Directive 91/338/EEC)
- Entries 51 and 52 of Annex XVII of REACH Regulation (EC) No 1907/2006 for phthalates content (previously restricted under Directive 2005/84/EC)
- As specified by client, Determination of Formaldehyde with reference to EN71-9 Organic chemical compounds – Requirements

## Conclusion

**PASS**  
**PASS**  
**SEE RESULT**  
**PASS**  
**PASS**  
**PASS**  
**PASS**

For further details, please refer to the following page(s)

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Signed For And On Behalf Of LEO MTS Co Ltd.:

**Youshan Rao**  
Supervisor

**RuiRong Liang**  
Supervisor





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## Tests Conducted :

### 1. Mechanical and Physical Properties

AS SPECIFIED IN EUROPEAN STANDARD ON SAFETY OF TOYS EN71 PART 1: 2014

Section	Description	Result
4	GENERAL REQUIREMENTS	
4.1	Material cleanliness	Pass
4.7	Edges	Pass
4.8	Points and metallic wires	Pass
5	TOYS INTENDED FOR CHILDREN UNDER 36 MONTHS	
5.1	General requirements	
5.1a	Small part requirement on toys & removable Components (Test method 8.2)	Pass
5.1b	Tension test (Test method 8.4)	Pass
	Sharp edge (Test method 8.11)	Pass
	Sharp point (Test method 8.12)	Pass
5.8	Shape and size of certain toys	Pass
7	WARNING, MARKINGS AND INSTRUCTIONS FOR USE	
7.1	General	Pass

### 2. Flammability

AS SPECIFIED IN EUROPEAN STANDARD ON SAFETY OF TOYS EN71 PART 2: 2011+A1:2014

Section	Description	Result
4	REQUIREMENTS	
4.1	General	Pass

### 3. 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:

	Observation Result	Location
Washing/Cleaning instruction	Not applicable	--
CE mark	Present	Toy
Importer's Name	Present	Toy
Importer's Address	Present	Toy
Manufacturer's Name	Present	Toy
Manufacturer's Address	Present	Toy
Product ID	Present	Toy

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 soak washed. The manufacturer should, if applicable, provide instructions on how the toy has to be cleaned.
2. The CE marking must be visible from outside the packaging and its height must be at least 5mm.





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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 possible, on its packaging or in a document accompanying the toy.

4. 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.

#### 4. Migration of Certain Elements (EN71-3:2013+A1:2014)

##### Category III: Scraped-off toy material

Method: with reference to EN71-3:2013+A1:2014, Analysis of general elements was determined by ICP-OES.

Elements	Result In (mg/kg)	MDL (mg/kg)	Limit (mg/kg)
	(1)		
Soluble Arsenic (As)	ND	5	47
Soluble Barium (Ba)	ND	5	18750
Soluble Cadmium (Cd)	ND	5	17
Soluble Chromium (Cr)	ND	0.15	--
Soluble Chromium III (Cr III)	ND	5	460
Soluble Chromium VI (Cr VI)	ND	0.1	0.2
Soluble Mercury (Hg)	ND	5	94
Soluble Lead (Pb)	ND	5	160
Soluble Antimony (Sb)	ND	5	560
Soluble Selenium (Se)	ND	5	460
Soluble Aluminum (Al)	515	50	70000
Soluble Boron (B)	ND	50	15000
Soluble Cobalt (Co)	ND	10	130
Soluble Copper (Cu)	ND	50	7700
Soluble Manganese (Mn)	ND	50	15000
Soluble Nickel (Ni)	ND	25	930
Soluble Tin (Sn)	ND	4	180000
Soluble organic tin	ND	--	12
Soluble Strontium (Sr)	ND	50	56000
Soluble Zinc (Zn)	ND	50	46000

Remark:

- ND = Not Detected (Less Than MDL)
- mg/kg = milligram per kilogram
- The test results of Chromium (III), Chromium (VI) and Organic tin were reported of migration results of total chromium and tin respectively unless specified.

#### 5. Total Cadmium (Cd) Content (Entry 23 of Annex XVII of REACH)

Acid digestion method was used and Total Cadmium content was determined by ICP-OES.

For Paint on Painted Article:

Element	Result In (mg/kg)	MDL (mg/kg)	Limit (mg/kg)
	(2)		
Total Cadmium	ND	10	1000





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Note:

- ND = Not Detected (Less Than MDL)
- mg/kg = milligram per kilogram

### 6. Phthalates Content (Entries 51 and 52 of Annex XVII of REACH)

Method: with reference to CPSC-CH-C1001-09.3.

Analysis was performed by Gas Chromatography Mass Spectrometry (GC-MS).

Test Items		Result In (%)	Detection Limit	Limit
		(2)		
Dibutyl Phthalate	DBP	ND	0.005%	--
Benzyl Butyl Phthalate	BBP	ND	0.005%	--
Bis-(2-Ethylhexyl) Phthalate	DEHP	ND	0.005%	--
Di-N-Octyl Phthalate	DNOP	ND	0.010%	--
Di-"Isononyl" Phthalate	DINP	ND	0.010%	--
Di-"Isodecyl" Phthalate	DIDP	ND	0.010%	--
Total (DBP+BBP+DEHP)		ND	--	0.1%
Total (DINP+DNOP+DIDP)		ND	--	0.1%

Note:

- ND = Not Detected (Less Than Detection Limit)
- % = Percentage By Weight
- The results shown as ND (not detected) are ignored in the sum calculation.

### 7. Formaldehyde Content

Method (paper): with reference to EN645:1993 and EN 1541:2001

Method (textile): with reference to ISO 14184-1:2011

Analysis was performed by UV-visible spectrophotometer.

Test Items	Result In (mg/kg)	Limit (mg/kg)
	(1)	
Formaldehyde	<10	30

Note:

- < = Less than
- mg/kg = Milligram per kilogram

### Tested components:

- (1) Multi-color coated paperboard of book
- (2) Multi-color coating on paperboard of book





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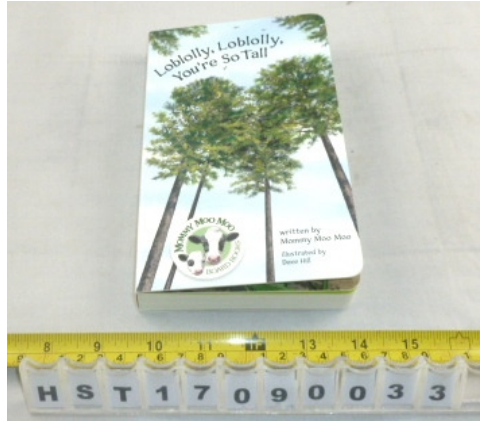
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## Sample Photo:



\*\*\*\*\*End Of Report\*\*\*\*\*

### Note:

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