



Test Report

No. VNHL1712015080HG-01

Date: January 09, 2018

Page 1 of 4

This test report supersedes report number VNHL1712015080HG dated January 02, 2018

JOYGROUP INVESTMENTS LIMITED

FACTORY: JOYFUL CO., LTD

ROAD 5, TAM PHUOC INDUSTRIAL ZONE, TAM PHUOC COMMUNE, BIEN HOA CITY, DONG NAI PROVINCE, VIETNAM

This report is duplicated from VNHL1712014695HG date December 20, 2017 with different client's information

The following sample(s) was/were submitted and identified by/on behalf of the client as:

SGS Job No. : VNHL1712015080HG-01

Sample Description : DECORATIVE PAPER (PU, HPU, SPU, PUS, JP, JPS, PM, 3DPM, MB, 3DMB COATING)

Sample Receiving Date : DECEMBER 13, 2017

Final confirmed Date : DECEMBER 14, 2017

Testing Period : DECEMBER 14, 2017 TO DECEMBER 20, 2017

Test Requested : PLEASE REFER TO THE RESULT SUMMARY.

Test Results : PLEASE REFER TO NEXT PAGE(S).

Result Summary :

Test Requested	Conclusion
EN71-3: 2013+A1:2014 – Migration of certain elements	Pass/See Results
Phthalates (17P)	Pass/See Results

Signed for and on behalf of

SGS Vietnam LTD



Wong Cho Wing

Hardline and E&E Lab Manager

"This document is issued by the Company under its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested only."

SGS Vietnam Ltd | Office : 8th & 9th Floor, Bao Lao Dong Building, 198 Nguyen Thi Minh Khai Street, Ward 6, District 3, Ho Chi Minh City
S. R. Vietnam t (84-8) 3935 1920 f (84-8) 3935 1921 www.sgs.com
Lab : Lot III/21, 19/5A St, Industrial Group III, Tan Binh IZ, Tan Phu District, HCMC, S.R. Vietnam t (84-8) 3816 0999 f (84-8) 3816 0996

Test result s:

Sample description: 1. YELLOW BROWN PAPER

EN71-3: 2013 + A1:2014 – Migration of certain elements:

Category III: Scrapped-off toy material

Method: With reference to EN71-3:2013+A1:2014. Analysis of general elements was performed by ICP-OES. Chromium (III) was obtained by calculation, chromium (VI) was analyzed by UV/Vis

Test Item	Result (mg/kg)		Reporting Limit (mg/kg)	Permissible Limit (mg/kg)
	1			
Mass of trace amount (mg)	--		--	--
Soluble Aluminium (Al)	1009		50	70,000
Soluble Antimony (Sb)	ND		10	560
Soluble Arsenic (As)	ND		10	47
Soluble Barium (Ba)	ND		50	18,750
Soluble Boron (B)	ND		50	15,000
Soluble Cadmium (Cd)	ND		5	17
Soluble Chromium (Cr)	0.83		0.15	--
Soluble Chromium (III) [#] (Cr (III))	0.83		1	460
Soluble Chromium (VI) [#] (Cr (VI))	ND		0.18	0.2
Soluble Cobalt (Co)	ND		10	130
Soluble Copper (Cu)	ND		50	7,700
Soluble Lead (Pb)	ND		10	160
Soluble Manganese (Mn)	ND		50	15,000
Soluble Mercury (Hg)	ND		10	94
Soluble Nickel (Ni)	ND		10	930
Soluble Selenium (Se)	ND		10	460
Soluble Strontium (Sr)	ND		50	56,000
Soluble Tin (Sn)	ND		4.9	180,000
Soluble Organic Tin [^]	ND		--	12
Soluble Zinc (Zn)	ND		50	46,000

- Note :
- mg/kg = milligram per kilogram
 - ND = Not Detected
 - 1% = 10000 mg/kg = 10000 ppm
 - [#] Confirmation test of soluble chromium (III) & chromium (VI) is not required in case of soluble chromium does not exceed their requirements as specified in EN71-3: 2013+A1:2014.
 - [^] Confirmation test of soluble organic tin is not required in case of soluble tin, after conversion, does not exceed the soluble organic tin requirement as specified in EN71-3: 2013+A1:2014.

"This document is issued by the Company under its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested only."

Phthalates

Test Method: With Reference to BS EN 14372: 2004. Analysis was conducted by GC-MS.

Phthalates	CAS No.	Unit	Result	MDL	Client's requirement
			1		
Dibutyl phthalate (DBP)	84-74-2	%	ND	0.003	<0.1
Diisobutyl phthalate (DiBP)	84-69-5	%	ND	0.003	<0.1
Benzyl butyl phthalate (BBP)	85-68-7	%	ND	0.003	<0.1
Di(2-ethylhexyl) phthalate (DEHP)	117-81-7	%	ND	0.003	<0.1
Diisononyl phthalate (DINP)	28553-12-0	%	ND	0.01	<0.1
Diisodecyl phthalate(DIDP)	26761-40-0	%	ND	0.01	<0.1
Di-n-octyl phthalate(DNOP)	117-84-0	%	ND	0.003	<0.1
Bis-methylglycol phthalate(DMEP)	117-82-8	%	ND	0.003	<0.1
Bis-hexyl phthalate(DnHP)	84-75-3	%	ND	0.003	<0.1
Diisoheptyl phthalate(DIHP)	71888-89-6	%	ND	0.01	<0.1
Di-n-pentylphthalate (DnPP)	131-18-0	%	ND	0.003	<0.1
Diisopentylphthalate (DiPP)	605-50-5	%	ND	0.003	<0.1
1,2-Benzenedicarboxylic acid, di-C _{7,11} -branched and linear alkyl esters(DHNUP)	68515-42-4	%	ND	0.003	<0.1
N-pentyl-isopentylphthalate (iPnPP)	776297-69-9	%	ND	0.003	<0.1
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear (bis-C5-alkyl-(linear and branched) phthalate) (DPP)	84777-06-0	%	ND	0.003	<0.1
1,2-Benzenedicarboxylic acid dihexyl ester, branched and linear	68515-50-4	%	ND	0.003	<0.1
Di(C6-C10)alkyl phthalate	68515-51-5 68648-93-1	%	ND	0.003	<0.1
Conclusion	--	--	PASS	--	--

Note :

1. % = percentage by weight
2. ND = not detected
3. ppm = mg/kg, 0.1wt% = 1000ppm
4. MDL= Method Detection Limit

"This document is issued by the Company under its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested only."

Photo appendix



REPORT RESULTS REFER TO SUBMITTED SAMPLE (S) ONLY

*****End of Report*****

"This document is issued by the Company under its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested only."