

VINAPLASTICS CO., LTD

N° 69 SUNG YEN, SUNG YEN STREET, PHA LAI WARD, CHI LINH TOWN, HAI DUONG PROVINCE, VIETNAM

The following sample was submitted and identified on behalf of the client as below:

SGS Job No. : VNHL1803002507EE

Sample Description : BAILER BAG WITH BLACK PRINTING LDPE+LLDPE

Color : CLEAR

Characteristic : PLASTIC

Country of Origin : VIETNAM

Country of Destination : US

Item/Style : BAILER BAG LDPE+LLDPE

Date of Production : 26.2.2018

Manufacturer : VINAPLASTICS CO., LTD

Sample Receiving Date : MARCH 02, 2018

Final confirmed Date : MARCH 02, 2018

Testing Period : MARCH 02, 2018 TO MARCH 23, 2018

Test Requested : PLEASE REFER TO THE RESULT SUMMARY.

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

Test Requested	Conclusion
RoHS Directive 2011/65/EU Annex II [amended by Directive (EU) 2015/863] (Cd, Pb, Hg, CrVI)	Pass/ See result
Butylated Hydroxyl Toluene (BHT)	Data/ See result
Formaldehyde Content	Data/ See result
PAHs	Data/ See result
Phthalates Content	Data/ See result
Color Fastness to Water	Data/ See result
Color Fastness to Dry & Wet crocking/ Rubbing	Data/ See result

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Test Report

No. VNHL1803002507EE

Date: March 23, 2018

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Signed for and on behalf of

SGS Vietnam LTD



Wong Cho Wing

Hardline and E&E Lab Manager

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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 results:
Test part description: 1. CLEAR PLASTIC
1. RoHS Directive 2011/65/EU Annex II [amended by Directive (EU) 2015/863]

Test Item(s):	Unit	Test Method	Results	MDL	Limit
			1		
Cadmium(Cd)	mg/kg	With reference to IEC 62321-5:2013 (Determination of Cd by ICP-OES)	ND	2	100
Lead (Pb)	mg/kg	With reference to IEC 62321-5:2013 (Determination of Pb by ICP-OES)	ND	2	1000
Mercury (Hg)	mg/kg	With reference to IEC 62321-4:2013 (Determination of Hg by ICP-OES)	ND	2	1000
Hexavalent Chromium (CrVI)	mg/kg	With reference to IEC 62321-7-2:2017 (Determination of CrVI by UV-VIS)	ND	10	1000

Note:

1. mg/kg = ppm; 0.1wt% = 1000ppm
2. MDL = Method Detection Limit
3. ND = Not detected
4. - = not regulated
5. IEC 62321 is equivalent to EN 62321
http://www.cenelec.eu/dyn/www/f?p=104:110:721668440899381:::FSP_PROJECT,FSP_LANG_ID:20662,25.
6. The above test(s) was / were performed by SGS VN's Chemical lab.

2. Butylated Hydroxy Toluene (BHT) content

Test Item(s)	Unit	Method	MDL	Result
				1
4-methyl-2,6-ditert-butyl-phenol (BHT) (CAS No.: 128-37-0)	mg/kg	With reference to ASTM D4275-02 method. Analysis was performed by GC/MS.	1	ND

- Note :
1. % = percentage by weight
 2. ND = not detected
 3. ppm = mg/kg, 0.1wt% = 1000ppm
 4. MDL= Method Detection Limit
 5. The above test(s) was / were performed by SGS VN's Chemical lab.

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3. Formaldehyde Content

Test Method: Reference to ISO 14184-2: 2011.

Test Item(s)	Results (mg/kg)	MDL (mg/kg)
	1	
Formaldehyde Content	ND	16

- Note:
1. % = percentage by weight
 2. ND = not detected
 3. ppm = mg/kg, 0.1wt% = 1000ppm
 4. MDL= Method Detection Limit
 5. The above test(s) was / were performed by SGS VN's Chemical lab.

4. Polycyclic aromatic hydrocarbons (PAHs) Content (*)

Method: With reference to DIN EN ISO 18287:2006. Analysis was performed by GC-MS.

Test Item	CAS number	Result (mg/kg)	MDL (mg/kg)
		1	
Naphthalene	91-20-3	ND	0.2
Acenaphthylene	208-96-8	ND	0.2
Acenaphthene	83-32-9	ND	0.2
Fluorene	86-73-7	ND	0.2
Phenanthrene	85-01-8	ND	0.2
Anthracene	120-12-7	ND	0.2
Fluoranthene	206-44-0	ND	0.2
Pyrene	129-00-0	ND	0.2
Benz[a]anthracene	56-55-3	ND	0.2
Chrysene	218-01-9	ND	0.2
Benzo[b]fluoranthene	205-99-2	ND	0.2
Benzo[j]fluoranthene	205-82-3	ND	0.2
Benzo[k]fluoranthene	207-08-9	ND	0.2
Benzo[a]pyrene	50-32-8	ND	0.2
Benzo[e]pyrene	192-97-2	ND	0.2
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.2
Dibenz[a,h]anthracene	53-70-3	ND	0.2
Benzo[g,h,i]perylene	191-24-2	ND	0.2
Total 18 PAHs	--	ND	--

- Note:
1. % = percentage by weight
 2. ND = not detected
 3. ppm = mg/kg, 0.1wt% = 1000ppm
 4. MDL= Method Detection Limit
 5. The above test(s) was / were performed by SGS VN's Chemical lab.

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5. Phthalates

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

Phthalates	CAS No.	Unit	Result	MDL
			1	
Dibutyl phthalate (DBP)	84-74-2	%	ND	0.005
Diisobutyl phthalate (DiBP)	84-69-5	%	ND	0.005
Benzyl butyl phthalate (BBP)	85-68-7	%	ND	0.005
Di(2-ethylhexyl) phthalate (DEHP)	117-81-7	%	ND	0.005
Diisononyl phthalate (DINP)	28553-12-0	%	ND	0.005
Diisodecyl phthalate (DIDP)	26761-40-0	%	ND	0.005
Di-n-octyl phthalate (DNOP)	117-84-0	%	ND	0.005
Bis-methylglycol phthalate (DMEP)	117-82-8	%	ND	0.005
Bis-hexyl phthalate (DnHP)	84-75-3	%	ND	0.005
Diisoheptyl phthalate (DIHP)	71888-89-6	%	ND	0.005
Diisopentylphthalate (DiPP)	605-50-5	%	ND	0.005
1,2-Benzenedicarboxylic acid, di-C _{7,11} -branched and linear alkyl esters (DHNUP)	68515-42-4	%	ND	0.005
Dimethyl Phthalate (DMP)	131-11-3	%	ND	0.005
Diethyl Phthalate (DEP)	84-66-2	%	ND	0.005
n-Pentyl-isopentyl phthalate (nPipp)	776297-69-9	%	ND	0.005
Di-n-pentyl phthalate (DnPP)	131-18-0	%	ND	0.005

- Note:
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6. Color Fastness To Water

Test method: ISO 105 E01 : 2013

	<u>(1)</u>
Change in shade	4-5
Staining on multifibre stripe	
Acetate	4-5
Cotton	4-5
Nylon	4-5
Polyester	4-5
Acrylic	4-5
Wool	4-5
Self staining	5

Note: The above test(s) was / were performed by SGS VN's Softline lab.

7. Color Fastness To Rubbing

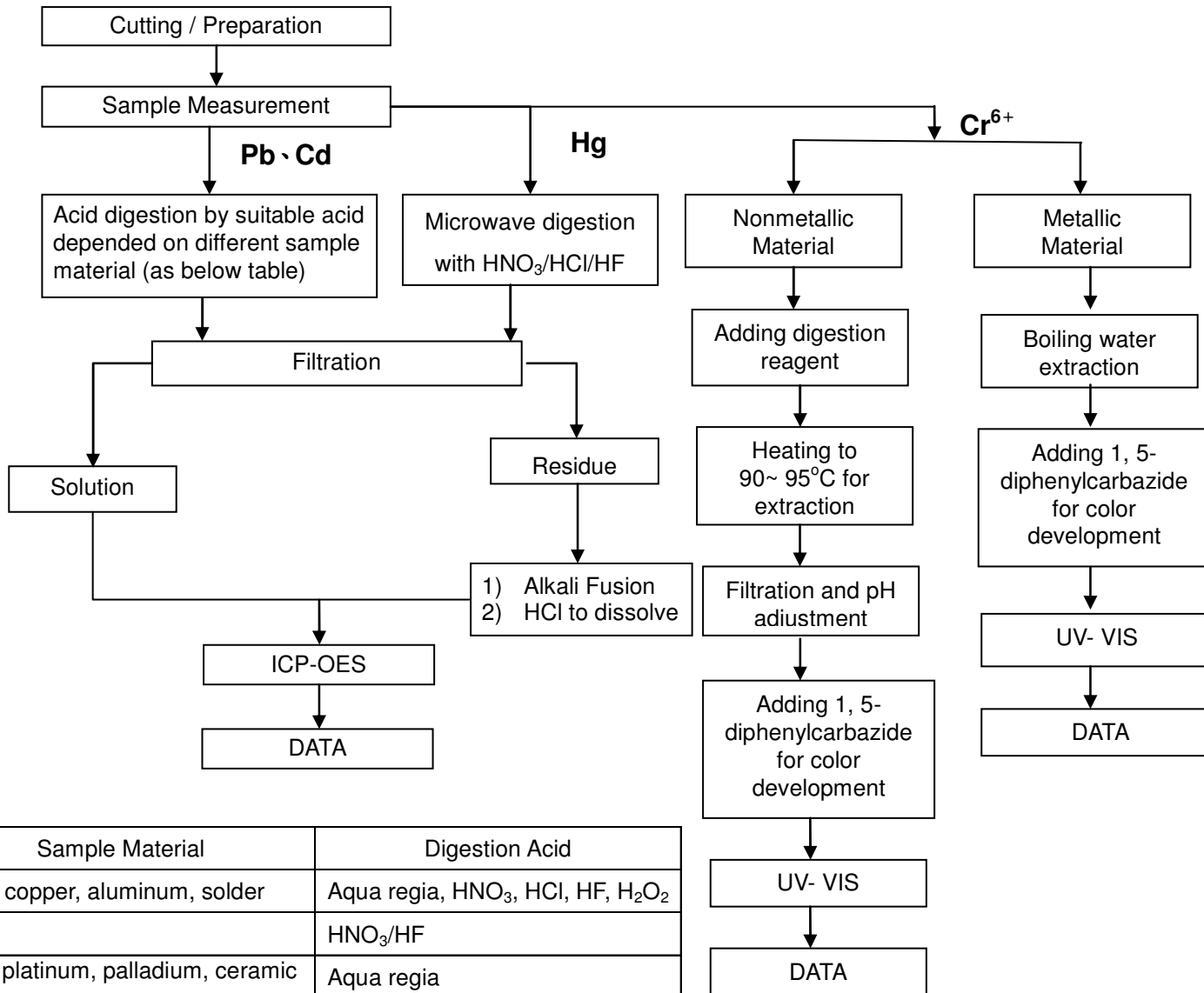
Test Method: ISO 105 X12:2016 size of rubbing finger 16mm in diameter.

<u>As received</u>	<u>(1)</u>
Dry staining	4-5
Wet staining	4-5

Remarks: Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.
The above test(s) was / were performed by SGS VN's Softline lab.
Above tests are accredited ISO 17025:2005 by VILAS.

Flow Chart for RoHS: Pb/Cd/Hg/Cr⁶⁺ Testing

- 1) The samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) Operator: Ms. Thu
- 3) Section Chief: Mr. Hoan



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
Glass	HNO ₃ /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO ₃
Plastic	H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
Others	Any acid to total digestion

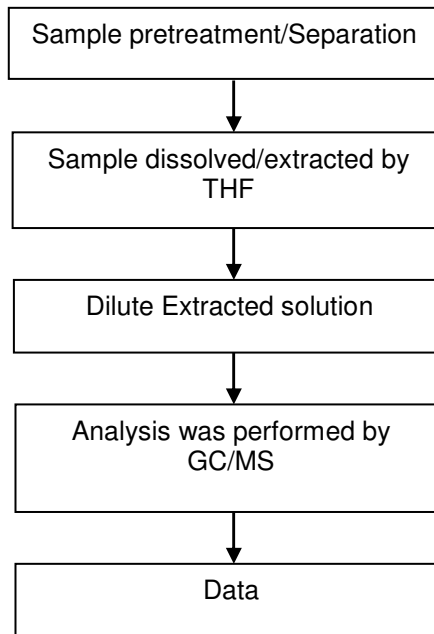
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Analytical flow chart of phthalate content

- 1) Name of the person who made measurement: Ms. Ha
- 2) Name of the person in charge of measurement: Mr. Hoan

Test method: IEC 62321-8

First testing process →
Optional screen process
Confirmation process - -▶



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Photo appendix



REPORT RESULTS REFER TO SUBMITTED SAMPLE (S) ONLY
End of Report

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