

TEST REPORT

Report No.: R-us6-16367363-1-E-S1

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Applicant Name : Mid Ocean Hongkong Limited
Applicant Address : Unit 201,2/F., Laford Centre,838 Lai Chi Kok Road, Lai Chi Kok, Kowloon, Hong Kong.

The following information was submitted and identified by/on behalf of the client:

Product Name : Foldable PVC raincoat with hood
Model : KC5101
Material : PVC
Buyer : Mid Ocean Hongkong Limited
Supplier : 100396
Goods exported to : EU
Country of Origin : /

Date of receipt : Oct.26,2016
Testing Period : Oct.26,2016-Oct.28,2016

Test Category : Applicant Testing
Test Requested : As specified by client
Test Method : Please refer to the following page
Test Instrument : Please refer to the following page

Testing Results : Please refer to the following page

Testing summary of Submitted Sample and Tested Component on Submitted Sample:

No.	Test items	Conclusion
1	REACH Annex XVII - Total Lead content	Pass
2	REACH Annex XVII - Total Cadmium content	Pass
3	REACH Annex XVII - Phthalates (6 items) Content	Pass
4	AZO-dyes	Pass

Approved by:

Kevin Lee

Technical Manager:

Kevin Lee

Issued Date:

Nov.03, 2016

No. 16107354



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Sample description:

No.	Specimen	Description
001	Foldable PVC raincoat with hood	Red plastic button
002		White rope
003		White plastic
004		Red PVC
005		Yellow PVC
006		Blue PVC
007		Blue plastic button
008		Yellow plastic button
009		Yellow rope
010		Yellow plastic
011		White plastic button
012		White PVC
013		Black PVC
014		Black plastic button
015		Black rope
016		Black plastic
017		004+005+006*
018		012+013*

Remark: "*"Based on the applicant requests for sample mixed test. Report of mixed test results do not represent one single material content, the data is only for reference.

Statement: This report supersedes the previous Report# R-us6-16367363-1-E

Testing Results:
1. Test specification: REACH Annex XVII - Total Lead content

Test method : CPSC-CH-E1002-08.3-2012

Test Item	MDL (mg/kg)	001 (mg/kg)	002 (mg/kg)	003 (mg/kg)	Limit (mg/kg)
Total Lead	15	<15	<15	<15	500
Conclusion	--	Pass	Pass	Pass	--

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Test Item	MDL (mg/kg)	007 (mg/kg)	008 (mg/kg)	009 (mg/kg)	Limit (mg/kg)
Total Lead	15	<15	<15	<15	500
Conclusion	--	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	010 (mg/kg)	011 (mg/kg)	014 (mg/kg)	Limit (mg/kg)
Total Lead	15	<15	<15	<15	500
Conclusion	--	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	015 (mg/kg)	016 (mg/kg)	017 (mg/kg)	Limit (mg/kg)
Total Lead	15	<15	<15	<15	500
Conclusion	--	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	018 (mg/kg)	Limit (mg/kg)
Total Lead	15	<15	500
Conclusion	--	Pass	--

Note:

MDL:Method Detection Limit

Main test instruments used for this method:

Instrument	Manufactory	Model / Type
ICP-OES	Agilent	VISTA-MPX

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2. Test specification: REACH Annex XVII - Total Cadmium content

Test method : CPSC-CH-E1002-08.3-2012

Requirement : (EC)No 1907/2006 REACH Annex XVII

Test Item	MDL (mg/kg)	001 (mg/kg)	002 (mg/kg)	003 (mg/kg)	Limit (mg/kg)
Total Cadmium	15	<15	<15	<15	100
Conclusion	--	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	007 (mg/kg)	008 (mg/kg)	009 (mg/kg)	Limit (mg/kg)
Total Cadmium	15	<15	<15	<15	100
Conclusion	--	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	010 (mg/kg)	011 (mg/kg)	014 (mg/kg)	Limit (mg/kg)
Total Cadmium	15	<15	<15	<15	100
Conclusion	--	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	015 (mg/kg)	016 (mg/kg)	017 (mg/kg)	Limit (mg/kg)
Total Cadmium	15	<15	<15	<15	100
Conclusion	--	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	018 (mg/kg)	Limit (mg/kg)
Total Cadmium	15	<15	100
Conclusion	--	Pass	--

Note:

MDL:Method Detection Limit

Main test instruments used for this method:

Instrument	Manufactory	Model / Type
ICP-OES	Agilent/Shimadzu	VISTA-MPX/ ICPE-9000

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3. Test specification: REACH Annex XVII - Phthalates (6 items) Content
Test method : US EPA 3550C:2007 &US EPA 8270D: 2014

Requirement : (EC) No 1907/2006 REACH Annex XVII

Item	CAS No.	MDL (mg/kg)	017 (mg/kg)	018 (mg/kg)	Limit (mg/kg)
Dibutyl Phthalate (DBP)	84-74-2	30	<30	<30	1000
Benzyl Butyl Phthalate (BBP)	85-68-7	30	<30	<30	
Di(2-ethylhexyl) Phthalate (DEHP)	117-81-7	30	104	247	
Di-n-octyl Phthalate (DNOP)	117-84-0	30	<30	<30	1000
Diisononyl Phthalate (DINP)	28553-12-0/ 68515-48-0	150	<150	<150	
Diisodecyl Phthalate (DIDP)	26761-40-0/ 68515-49-1	150	<150	<150	
Conclusion	--	--	Pass	Pass	--

Note:

MDL:Method Detection Limit

Main test instruments used for this method:

Instrument	Manufactory	Model / Type
GC-MS	Agilent	7890B/5977A

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4. Test specification : AZO-dyes

Test method : EN 14362-1:2012 & EN 14362-3:2012

Requirement : 30 mg/kg -- Directive 2009/552/EC 、 2006/1907/EC and 2002/61/EC

Test Item	CAS No.	MDL (mg/kg)	017 (mg/kg)	018 (mg/kg)
4-Aminobiphenyl	92-67-1	5	<5	<5
4,4'-Benzidine	92-87-5	5	<5	<5
4-Chloro-2-methylaniline	95-69-2	5	<5	<5
2-Naphthylamine	91-59-8	5	<5	<5
o-Aminoazotoluene 1	97-56-3	5	<5	<5
5-Nitro-o-toluidine 2	99-55-8	5	<5	<5
4-Chloroaniline	106-47-8	5	<5	<5
4-Methoxy-1,3-phenylenediamine	615-05-4	5	<5	<5
Bis-(4-aminophenyl)methane	101-77-9	5	<5	<5
3,3'-Dichlorobenzidine	91-94-1	5	<5	<5
3,3'-Dimethoxybenzidine	119-90-4	5	<5	<5
3,3'-Dimethylbenzidine	119-93-7	5	<5	<5
3,3'-Dimethyl-4,4'-diaminadiphenylmethane	838-88-0	5	<5	<5
2-Methoxy-5-methylaniline	120-71-8	5	<5	<5
4,4'-Methylene bis(o-chloroaniline)	101-14-4	5	<5	<5
4,4'-Oxydianiline	101-80-4	5	<5	<5
4,4'-Thiodianiline	139-65-1	5	<5	<5
o-Tolidine	95-53-4	5	<5	<5
2,4-Diaminotoluene	95-80-7	5	<5	<5
2,4,5-Trimethylaniline	137-17-7	5	<5	<5
o-Anisidine	90-04-0	5	<5	<5
4-Amino-azobenzene ³	60-09-3	5	<5	<5
Conclusion	--	--	Pass	Pass

Remarks:

- Note 1 : o-Aminoazotoluene(CAS No.:97-56-3) is been reduced to o-Toluidine(CAS No.:95-53-4) and quantified by this.
- Note 2 : 5-Nitro-o-toluidine(CAS No.:99-55-8) is been reduced to 4-Methyl-m-phenylene Diamine(CAS No.:95-80-7) and quantified by this.
- Note 3 : 4-Amino-azobenzene(CAS No.:60-09-3) is detected as p-Phenylenediamine and aniline. Need further confirmation when detected at the same time.
- Further confirmed : p-Phenylenediamine and Aniline were found simultaneously indicating the possible presence of 4-Amino-azobenzene which has to be proved by a specific test

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Note:

MDL:Method Detection Limit

Main test instruments used for this method:

Instrument	Manufactory	Model / Type
GC-MS	Agilent	7890B-5977A
HPLC	Shimadzu	LC-20AT

Annex: Sample Photo



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The results shown here refer only to the sample(s) tested, unless otherwise stated. This report can only be reproduced in full, not partially, except by explicit written permission of the laboratory.

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