



# TEST REPORT

Test Report # 19A-000716-1 Date of Report Issue: March 6, 2019  
Date of Sample Received: February 26, 2019 Pages: Page 1 of 8

## CLIENT INFORMATION:

Company: Mid Ocean Brands B.V.  
Address: 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong



## SAMPLE INFORMATION:

Product Name: MINI TOOL SET WITH LED LIGHT  
Model/style No.: IT3874  
Main Material: ABS,aluminum  
Buyer: Mid Ocean Brands B.V.  
Supplier: 100396  
Country of Distribution: Europe  
Testing Period: 02/26/2019-03/06/2019

## OVERALL RESULT:

**PASS**

Refer to page 2 for test result summary and appropriate notes.

HANGZHOU ASIAINSPECTION  
TESTING TECHNOLOGY CO., LTD

Kevin Lee  
Technical Manager





# TEST REPORT

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## TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	Directive 2011/65/EU and it's amend regulation 2015/863/EU, Restriction of the Use of Certain Hazardous Substances (RoHS)
PASS	2013/56/EU-Batteries and accumulators



**DETAILED RESULTS:****Directive 2011/65/EU and it's amend regulation 2015/863/EU, Restriction of the Use of Certain Hazardous Substances (RoHS)**

Test method:

- (1) With reference to IEC 62321-3-1:2013, determination of Cadmium, Lead, Mercury, Chromium and Br by XRF;
- (2) With reference of IEC 62321-4:2013/AMD1:2017, IEC 62321-5:2013 to determine Cadmium, Lead and Mercury by ICP-OES;
- (3) With reference of IEC62321-7-1:2015, IEC62321-7-2:2017 to determine Hexavalent Chromium by UV-vis
- (4) With reference of IEC 62321-6:2015 to determine PBBs and PBDEs by GC-MS.

No.	Parts Name	Test Item (mg/kg)						Conclusion
		Pb	Cd	Hg	CrVI	PBBs	PBDEs	
1	Black plastic shell	BL	BL	BL	BL	ND	535	PASS
2	Black plastic shell-silvery coating	BL	BL	BL	BL	BL	BL	PASS
3	Translucent plastic shell	BL	BL	BL	BL	BL	BL	PASS
4	Translucent plastic holder	BL	BL	BL	BL	BL	BL	PASS
5	Silvery metal	ND	ND	ND	Ne	-	-	PASS
6	Black plastic plectrum	BL	BL	BL	BL	ND	519	PASS
7	Silvery metal spring	ND	ND	ND	Ne	-	-	PASS
8	Silvery electrode slice	ND	ND	ND	Ne	-	-	PASS
10	Light-transparent plastic shell	BL	BL	BL	BL	ND	ND	PASS
11	Light-wick	BL	BL	BL	BL	BL	BL	PASS
12	Light-pin	ND	ND	ND	Ne	-	-	PASS
13	Silvery magnet	ND	ND	ND	Ne	-	-	PASS

Parameter	Unit	Requirement	Method Detection Limit (MDL)
Lead (Pb)	mg/kg	1000	15
Cadmium (Cd)	mg/kg	100	15
Mercury (Hg)	mg/kg	1000	15
Chromium VI (Cr VI)	mg/kg	1000	15
Group PBBs	mg/kg	1000	20
Group PBDEs	mg/kg	1000	20





As specified by client, with XRF analysis toxic harmful substance content, All kinds of matrixes screening of the element is limited see chart (Unit: mg/kg)

Elements	Polymer material	Metal material/ Inorganic nonmetallic material	Electronic component
Lead (Pb)	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Cadmium (Cd)	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Mercury (Hg)	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Chromium (Cr)	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$
Bromine (Br)	$BL \leq (300-3\sigma) < X$	-	$BL \leq (250-3\sigma) < X$

Note:

- Unit: mg/kg, 1mg/kg=1ppm=0.0001%
- MDL=Method Detection Limit
- ND=Not Detected(< MDL)
- "-" = Not Regulated or Not Applicable
- 3σ = Analysis shows that the instrument reproducibility
- BL=Below Limit; OL=Over Limit
- Ne=Negative, Absence of Cr(VI), the concentration of Cr (VI) in sample solution is less than 0.10μg/cm<sup>2</sup>.  
Po = Positive, Presence of Cr(VI), the concentration of Cr (VI) in sample solution is more than 0.13μg/cm<sup>2</sup>.
- "Results of XRF" is the result on total Br and total Cr while restricted substances are PBBs/PBDEs and Cr(VI).

Remark:

The test is carried out by external laboratory assessed as competent





**DETAILED RESULTS:**

**2013/56/EU-Batteries and accumulators**

Components and Parts Name	Item	MDL (mg/kg)	Result (mg/kg)	Limit (mg/kg)
9:Battery	Cadmium (Cd)	5	ND	20
	Lead (Pb)	5	ND	40
	Mercury (Hg)	5	ND	5
Conclusion	-	-	PASS	-

*Note:*

mg/kg = Milligrams per kilogram

MDL=Method Detection Limit

ND = Not detected (< MDL)



**DETAILED RESULTS:****Directive 2011/65/EU and it's amend regulation 2015/863/EU, Restriction of the Use of Certain Hazardous Substances (RoHS) (DBP, BBP, DEHP, DIBP)**

Test Method: IEC 62321-8:2017  
 Analytical Method: Gas Chromatography/Mass Spectrometry

Specimen No.	1	2	3	4	6	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
DBP	ND	ND	ND	ND	ND	1000
BBP	ND	ND	ND	ND	ND	1000
DEHP	ND	ND	ND	ND	ND	1000
DIBP	ND	ND	ND	ND	ND	1000
<b>Conclusion</b>	PASS	PASS	PASS	PASS	PASS	

Specimen No.	10	---	---	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
DBP	ND	---	---	---	---	1000
BBP	ND	---	---	---	---	1000
DEHP	ND	---	---	---	---	1000
DIBP	ND	---	---	---	---	1000
<b>Conclusion</b>	PASS	---	---	---	---	

**Note:**

DBP = Dibutyl phthalate; BBP = Benzyl butyl phthalate; DEHP = Di-(2-ethylhexyl) phthalate  
 DIBP = Di-iso-Butylphthalate Phthalate;  
 mg/kg = Milligrams per kilogram  
 ND = Not detected (Reporting Limit =150mg/kg)





**SAMPLE PHOTO:**







**SAMPLE PHOTO:**



-End Report-

