

Report No.: LST23052044ENS3 Date: May. 25, 2023

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Applicant: Mid Ocean Brands B.V.

Address: 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.

The following sample(s) information and test item(s) were submitted and identified by/on behalf of the applicant

Sample Name:	Recycled Paper Tube pen
Vendor code:	108694
Item number:	MO2067

Sample Receiving Date:	May. 04, 2023
Testing Period:	May. 05, 2023 to May. 22, 2023

#### Summary of Test Result(s):

No.	Test Requested	Result(s)
1	Tested materials of submitted samples refer to Annex XVII items 63 of the REACH Regulation (EC) No 1907/2006 & amended (EU) No 836/2012 & (EU) No 2015/628 - Lead content	PASS
2	Tested materials of submitted samples refer to Annex XVII items 23 of the REACH Regulation (EC) No 1907/2006 & commission regulation(EU) No.494/2011 & amended (EU) No. 835/2012 & (EU) No 217/2016 - Cadmium content	PASS
3	Tested materials of submitted samples refer to Annex XVII items 51&52 of the REACH Regulation (EC) No 1907/2006 & amended (EC) No. 552/2009&(EU) 2018/2005 - Phthalates	PASS
4	Tested materials of submitted samples refer to Annex XVII items 50 of the REACH Regulation (EC) No 1907/2006 Class II - Polycyclic Aromatic Hydrocarbons (PAHs)	PASS
5	Tested materials of submitted samples refer to Category 2 in AfPS GS 2019:01 PAK," Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the recognition of the GS mark".	PASS

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*FOR FURTHER DETAILS,PLEASE REFER TO THE FOLLOWING PAGE(S)\*

Signed for and on behalf of LST

Rory / Technical Manager



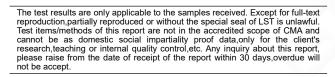
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**Sample Description** 

Material No.	<b>Component Description</b>	Location		
01	Green paper	Barrel		
02	Black paper	Barrel		
03	Light brown paper	Barrel		
04	Red paper	Barrel		
05	Blue paper	Barrel		
06	Blue gray paper	Barrel		
07	White paper	Barrel		
08	Gray plastic with silvery plating	Tip		
09	Gray plastic with silvery plating	Press-button		
10	Silvery plating metal	Clip		
11	White plastic	Thrust tube		
12	Black plastic	Thrust device		
13	Black plastic	Cylindrical accessory		
14	Silvery plating metal	Spring		
15	Silvery metal	Nib(with round bead)		
16	White plastic	Cartridge		
17	Blue ink	Ink		





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Photo of sample





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#### Test Result(s):

Annex XVII items 63 of the REACH - Lead content

Method:

Metal - With reference to CPSC-CH-E1001-08.3,

Nonmetal - With reference to CPSC-CH-E1002-08.3,

Surface coating - With reference to CPSC-CH-E1003-09.1,

analyzed by Atomic Absorption Spectroscopy (AAS).

Material No.	Limit (mg/kg)	Result (mg/kg)	Conclusion
(01+02+03)▲	500	N.D.	PASS
(04+05)▲	500	N.D.	PASS
(06+07)▲	500	N.D.	PASS
(08+09)▲	500	N.D.	PASS
10	500	25	PASS
(11+12+13)▲	500	N.D.	PASS
14	500	15	PASS
16	500	N.D.	PASS
17	500	N.D.	PASS

**Note:** 1. mg/kg = milligram per kilogram (ppm).

- 2. N.D. = Not Detected (< RL).
- 3. RL (Reporting Limit) = 10 mg/kg.
- 4. "▲"this data for several samples of mixed test results, the actual data of one or several samples in mixed samples are likely more than the results, please be careful to use this data.



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Annex XVII items 23 of the REACH - Cadmium content Method:

Metal - With reference to CPSC-CH-E1001-08.3,

Nonmetal - With reference to CPSC-CH-E1002-08.3,

Surface coating - With reference to CPSC-CH-E1003-09.1,

analyzed by Atomic Absorption Spectroscopy (AAS).

Material No.	Limit (mg/kg)	Result (mg/kg)	Conclusion
(01+02+03)▲	100	N.D.	PASS
(04+05)▲	100	N.D.	PASS
(06+07)▲	100	N.D.	PASS
(08+09)▲	100	N.D.	PASS
10	100	N.D.	PASS
(11+12+13)▲	100	17	PASS
14	100	N.D.	PASS
15	100	12	PASS
16	100	N.D.	PASS
17	1000	N.D.	PASS

Note: 1. mg/kg = milligram per kilogram (ppm).

2. N.D. = Not Detected (< RL).

3. RL (Reporting Limit) = 5 mg/kg.

4. "▲"this data for several samples of mixed test results, the actual data of one or several samples in mixed samples are likely more than the results, please be careful to use this data.



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Annex XVII items 51&52 of the REACH - Phthalates

<u>Method:</u>With reference to ISO 8124-6:2018(E) Method C,Internal standard(IS) calibration,was analyzed by Gas Chromatograph-Mass Spectrometer (GC-MS).

Substances	DBP	BBP	DEHP	DIBP	SUM	DNOP	DIDP	DINP	SUM	
CAS No.	01 71 0	95 69 7	117-81-7	94 60 F		117-84-0	26761-40-0	28553-12-0		
CAS NO.	04-74-2	05-00-7	11/-01-/	04-09-5	/68515-49-1/68515-48-0		/6		Osmalusian	
Limit (%)					0.1	>			0.1	Conclusion
RL(%)	0.005	0.005	0.005	0.005		0.005	0.01	0.01		
Material No.					Resu	lt (%)				
(08+09)▲	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS
(11+12+13)▲	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS
16	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS
17	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS

**Note:** 1. mg/kg = milligram per kilogram (ppm).

- 2. 1%= 10000mg/kg
- 3. N.D. = Not Detected (< RL).
- 4. RL= Reporting Limit.
- 5. The DBP,BBP,DEHP and DIBP shall not be used as substances or in mixtures, in concentrations greater than 0.1% by weight of the plasticised material, in toys and childcare articles.
- 6. The DNOP,DIDP and DINP shall not be used as substances or in mixtures, in concentrations greater than 0.1% by weight of the plasticised material, in toys and childcare articles which can be placed in the mouth by children.
- 7. "▲"this data for several samples of mixed test results, the actual data of one or several samples in mixed samples are likely more than the results, please be careful to use this data.



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Annex XVII items 50 of the REACH - Polycyclic Aromatic Hydrocarbons (PAHs)

<u>Method</u>: With reference to AfPS GS 2019:01 PAK, analyzed by Gas Chromatograph-Mass Spectrometry (GC-MS).

Toot Substance		Limit (mg/kg)			Result (mg/kg)		
Test Substance	CAS No.	Ι	II	III	(08+09)▲	(11+12+13)▲	
Benzo[a]anthracene(BaA)	56-55-3		1	0.5	N.D.	N.D.	
Chrysene (CHR)	218-01-9		1	0.5	N.D.	N.D.	
Benzo[b]fluoranthene(BbFA)	205-99-2		1	0.5	N.D.	N.D.	
Benzo[k]fluoranthene(BkFA)	207-08-9		1	0.5	N.D.	N.D.	
Benzo[a]pyrene(BaP)	50-32-8	1	1	0.5	N.D.	N.D.	
Dibenzo[a,h]anthracene(DBAhA)	53-70-3		1	0.5	N.D.	N.D.	
Benzo[e]pyrene(BeP)	192-97-2		1	0.5	N.D.	N.D.	
Benzo[j]fluoranthene(BjFA)	205-82-3		1	0.5	N.D.	N.D.	
SUM		10			N.D.	N.D.	
Con	clusion				PASS	PASS	

Test Outstands		Limit (mg/kg)			Result (mg/kg)		
Test Substance	CAS No.	Ι	II	III	16	17	
Benzo[a]anthracene(BaA)	56-55-3		1	0.5	N.D.	N.D.	
Chrysene (CHR)	218-01-9		1	0.5	N.D.	N.D.	
Benzo[b]fluoranthene(BbFA)	205-99-2		1	0.5	N.D.	N.D.	
Benzo[k]fluoranthene(BkFA)	207-08-9		1	0.5	N.D.	N.D.	
Benzo[a]pyrene(BaP)	50-32-8	1	1	0.5	N.D.	N.D.	
Dibenzo[a,h]anthracene(DBAhA)	53-70-3		1	0.5	N.D.	N.D.	
Benzo[e]pyrene(BeP)	192-97-2		1	0.5	N.D.	N.D.	
Benzo[j]fluoranthene(BjFA)	205-82-3		1	0.5	N.D.	N.D.	
SUM	10			N.D.	N.D.		
Conclusion					PASS	PASS	

Note:

**e:** 1. mg/kg = milligram per kilogram (ppm).

- 2. N.D. = Not Detected (<RL).
- 3. RL (Reporting Limit) = 0.2 mg/kg.
- 4. "--" = Not Regulated.
- 5. Product Class:
  - I = Extender oils.

#### Zhejiang Lisen Testing Technology Co., Ltd.

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II = Rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use.

III = Toys, including activity toys, and childcare articles, if any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use.

6. "▲"this data for several samples of mixed test results, the actual data of one or several samples in mixed samples are likely more than the results, please be careful to use this data.

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AfPS GS 2019:01 PAK - Polycyclic Aromatic Hydrocarbons (PAHs)

<u>Method</u>: With reference to AfPS GS 2019:01 PAK, analyzed by Gas Chromatograph-Mass Spectrometry (GC-MS).

		Result (mg/kg)					
Test Substance	CAS No.	(08+09)▲	(11+12+13)	16	17		
Category Type		Category 2	Category 2	Category 2	Category 2		
(1) Naphthalene(NAP)	91-20-3	N.D.	0.2	N.D.	N.D.		
(2) Phenanthrene(PHE)	85-01-8	N.D.	N.D.	N.D.	N.D.		
(3) Anthracene(ANT)	120-12-7	N.D.	N.D.	N.D.	N.D.		
(4) Fluoranthene(FLT)	206-44-0	N.D.	N.D.	N.D.	N.D.		
(5) Pyrene(PYR)	129-00-0	N.D.	N.D.	N.D.	N.D.		
Sum of (PHE, ANT, FLT, PYR)		N.D.	N.D.	N.D.	N.D.		
(6) Benzo(a)anthracene(BaA)	56-55-3	N.D.	N.D.	N.D.	N.D.		
(7) Chrysene(CHR)	218-01-9	N.D.	N.D.	N.D.	N.D.		
(8) Benzo(b)fluoranthene(BbFA)	205-99-2	N.D.	N.D.	N.D.	N.D.		
(9) Benzo(k)fluoranthene(BkFA)	207-08-9	N.D.	N.D.	N.D.	N.D.		
(10) Benzo(a)pyrene(BaP)	50-32-8	N.D.	N.D.	N.D.	N.D.		
(11) Indeno(1,2,3-cd)pyrene(IPY)	193-39-5	N.D.	N.D.	N.D.	N.D.		
(12) Dibenzo(a,h)anthracene(DBAhA)	53-70-3	N.D.	N.D.	N.D.	N.D.		
(13) Benzo(g,h,i)perylene(BPE)	191-24-2	N.D.	N.D.	N.D.	N.D.		
(14) Benzo[e]pyrene(BeP)	192-97-2	N.D.	N.D.	N.D.	N.D.		
(15) Benzo[j]fluoranthene(BjFA)	205-82-3	N.D.	N.D.	N.D.	N.D.		
Sum of 15 PAHs		N.D.	0.2	N.D.	N.D.		
Conclusion		PASS	PASS	PASS	PASS		

#### AfPS GS 2019:01 PAK

		Limit (mg/kg)					
Test Substance			Category 2		Category 3		
	CAS No.	Category 1	Use by Children*	Others	Use by Children*	Others	
(1) Naphthalene(NAP)	91-20-3	< 1	<2		<10		
(2) Phenanthrene(PHE)	85-01-8		4	8			
(3) Anthracene(ANT)	120-12-7		74				
(4) Fluoranthene(FLT)	206-44-0						

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(5) Pyrene(PYR)	129-00-0				X	
Sum of (PHE, ANT, FLT, PYR)		<1	<5	<10	<20	<50
(6) Benzo(a)anthracene(BaA)	56-55-3	<0.2	<0.2	<0.5	<0.5	<1
(7) Chrysene(CHR)	218-01-9	<0.2	<0.2	<0.5	<0.5	<1
(8) Benzo(b)fluoranthene(BbFA)	205-99-2	<0.2	<0.2	<0.5	<0.5	<1
(9) Benzo(k)fluoranthene(BkFA)	207-08-9	<0.2	<0.2	<0.5	<0.5	<1
(10) Benzo(a)pyrene(BaP)	50-32-8	<0.2	<0.2	<0.5	<0.5	<1
(11) Indeno(1,2,3-cd)pyrene(IPY)	193-39-5	<0.2	<0.2	<0.5	<0.5	<1
(12) Dibenzo(a,h)anthracene(DBAhA)	53-70-3	<0.2	<0.2	<0.5	<0.5	<1
(13) Benzo(g,h,i)perylene(BPE)	191-24-2	<0.2	<0.2	<0.5	<0.5	<1
(14) Benzo[e]pyrene(BeP)	192-97-2	<0.2	<0.2	<0.5	<0.5	<1
(15) Benzo[j]fluoranthene(BjFA)	205-82-3	<0.2	<0.2	<0.5	<0.5	<1
Sum of 15 PAHs		<1	<5	<10	<20	<50

**Note:** 1. mg/kg = milligram per kilogram (ppm).

- 2. N.D. = Not Detected (<RL).
- 3. RL (Reporting Limit) = 0.2 mg/kg.
- 4. "--" = Not Regulated.
- Category 1: Materials intended to be placed in the mouth, or materials in toys according to Directive 2009/48/EC or materials in articles for the use by children up to 3 years of agecoming into long-term contact with skin (more than 30s) during the intended use.
  Category 2: Materials not covered by category 1, coming into long-term contact (more than 30s) or short term repetitive contact with skin during the intended or foreseeable use.
  Category 3: Materials not covered by category 1 nor by category 2, coming into short-term contact (up to 30s) with skin during the intended or foreseeable use.
- 6. "\*" =Children is legally defined as a person before reaching the age of 14 years.
- 7. "▲"this data for several samples of mixed test results, the actual data of one or several samples in mixed samples are likely more than the results, please be careful to use this data.

#### Remark:

This report is a revised document for Report No. LST23052044ENS2. Report No. LST23052044ENS2 is replaced and invalidated automatically from the approval date of this report.

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

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