

TEST REPORT

Lava Group S.c / Reiter Polska Sp.z.o.o

Technical Report: (3224)082-0052

Date Received: March 22,2024

April 02, 2024

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Lava Group S.c. / Reiter Polska Sp.z.o.o Eugeniusza Romera 4b,02-784 Warsaw,Poland

SAMPLE INFORMATION:

Sample Description:	Metal ball pen / Metal Roller pen Colour:Black, Blue,Red, White,Green,Violet,	Style No.(s):	PD10/PK10
Sample Status:	INTACT	PO No.:	1
Manufacturer:		Country of Origin:	1
Buyer:	1	Country of Destination:	OVERSEAS

Above sample information was provided and confirmed by customers, BV is not responsible for its accuracy or completeness.

EXECUTIVE SUMMARY:

TEST REQUESTED	CONCLUSION
Polycyclic Aromatic Hydrocarbons (PAHs) Content – Regulation (EC) No. 1907/2006 Annex XVII Entry 50, Point 5	PASS
Phthalates Content – Reference to regulation (EC) No. 1907/2006 Annex XVII Entry 51 & 52	PASS
Total Cadmium Content – Reference to Regulation (EC) No. 1907/2006 Annex XVII Entry 23 & As Cleint's requirement	PASS
Total Lead Content – Reference to Regulation (EC) No. 1907/2006 Annex XVII Entry 63	PASS
Nickel Release –Reference to Regulation (EC) No. 1907/2006 Annex XVII Entry 27, Points 1(b) and 1(c)	PASS

Note: Samples are provided by customers.

The tested part of the sample was specified by client.

The composite testing was performed as per client's request.

The test conclusion was given based on the results of tested part.



This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at https://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/ and is intended for your exclusive use. Any copying or replication of this report to or for any other person entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



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REMARK
If there are questions or concerns on this report, please contact the following persons:

Customer service

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BUREAU VERITAS TESTING TECHNICAL SERVICE (ZHEJIANG) CO.,LTD

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Tested Component(s) Breakdown List

Test Item	Description	Location	Style
1	Transparent plastic	-	-
2	Silver metal	-	-
3	Blue plastic	-	-
4	Silver metal) _	=
5	Blue ink	-	-
6	Silver metal	spring	-
7	Blue coating	-	=
8	Black plastic	<i>-</i>	-
9	Silver metal	-	-
10	Red coating	-	-
11	Black coating	-	=
12	Silver metal	-	-
13	Silver metal	-	-
14	Silver metal	-	=
15	Silver metal	-	-

Polycyclic Aromatic Hydrocarbons (PAHs) Content – Regulation (EC) No. 1907/2006 Annex XVII Entry 50, Point 5

Test Method : With reference to test method mentioned in German AfPS GS 2019:01 PAK.

N. 0 2	700000 20000	Result			Maximum
Parameter	Unit	1 + 3 + 8	5	7 + 10 + 11	Allowable Limit
Benzo (a) anthracene	mg/kg	ND	ND	ND	1
Chrysene	mg/kg	ND	ND	ND	1
Benzo (b) fluoranthene	mg/kg	ND	ND	ND	1
Benzo (j) fluoranthene	mg/kg	ND	ND	ND	1
Benzo (k) fluoranthene	mg/kg	ND	ND	ND	1
Benzo (e) pyrene	mg/kg	ND	ND	ND	1
Benzo (a) pyrene	mg/kg	ND	ND	ND	1
Dibenzo (a,h) anthracene	mg/kg	ND	ND	ND	1
Conclusion	-	PASS	PASS	PASS	-

Note / Key:

ND = Not detected

mg/kg = milligram(s) per kilogram = ppm = part(s) per

million

Detection Limit (mg/kg):

For individual testing - Each of the listed PAHs(mg/kg):

0.2

For composite testing - Each of the listed PAHs(mg/kg): 0.1



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Phthalates Content - Reference to regulation (EC) No. 1907/2006 Annex XVII Entry 51 & 52

Test Method : Reference to EN 14372:2004.

			Result		Maximum
Parameter	Unit	1 + 3 + 8	5	7 + 10 + 11	Allowable Limit
A. For toys and childcare articles	Ħ	-	-	-	-
DBP	mg/kg	ND	ND	ND	-
BBP	mg/kg	ND	ND	ND	-
DEHP	mg/kg	ND	ND	ND	=
DiBP	mg/kg	ND	ND	ND	-
B. Additional requirements for toys and childcare articles, which can be placed in mouth by the children (See remark)	-	ı	-	-	-
DnOP	mg/kg	ND	ND	ND	-
DINP	mg/kg	ND	ND	ND	<u> </u>
DIDP	mg/kg	ND	ND	ND	=
Sum of DBP, BBP, DEHP, DIBP	mg/kg	ND	ND	ND	1000
Sum of DNOP, DIDP, DINP	mg/kg	ND	ND	ND	1000
Conclusion	-	PASS	PASS	PASS	-

Note / Key:

ND = Not Detected Conc. = Concentration Detection Limit (mg/kg): Each 50

List	List of Phthalates Content – Reference To Regulation (EC) No. 1907/2006 Annex XVII Entry 51 & 52						
No.	Name of Analytes	Name of Analytes	CAS-No.				
1	Dibutyl phthalate (DBP)	84-74-2	5	Di-iso-nonyl phthalate (DINP)	28553-12- 0&68515-48- 0		
2	Butylbenzylphthalate (BBP)	85-68-7	6	Di-iso-decyl phthalate (DIDP)	26761-40-0 & 68515-49- 1		
3	Di-2-ethylhexyl phthalate (DEHP)	117-81-7	7	Diisobutyl phthalate	84-69-5		
4	Di-n-octyl phthalate (DNOP)	117-84-0	-	-	-		



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<u>Total Cadmium Content – Reference to Regulation (EC) No. 1907/2006 Annex XVII Entry 23 & As Cleint's requirement</u>

Test Method : The sample is comminuted and digested with acid mixtures, then analyzed by AAS

technique or ICP-OES.

Very as	2000 A S		Res	sult		Maximum
Parameter	Unit	2	4	5	6	Allowable Limit
Cadmium (Cd)	mg/kg	ND	ND	ND	ND	100
Conclusion	-	PASS	PASS	PASS	PASS	-

Total			Res	sult		Maximum
Parameter	Unit	9	12	13	14	Allowable Limit
Cadmium (Cd)	mg/kg	23.0	48.2	ND	68.0	100
Conclusion	-	PASS	PASS	PASS	PASS	-

100	A00000 21 54		Res	sult		Maximum
Parameter	Unit	7	9	11	15	Allowable Limit
Cadmium (Cd)	mg/kg	ND	ND	ND	55.1	100
Conclusion	-	PASS	PASS	PASS	PASS	_

Parameter L		Result	Maximum
	Unit	1+3+8	Allowable Limit
Cadmium (Cd)	mg/kg	ND	100
Conclusion	-	PASS	

Note / Key:

ND = Not Detected
MDL = Method Detection Limit

mg/kg = milligram per kilogram Detection Limit (mg/kg): 10



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Total Lead Content - Reference to Regulation (EC) No. 1907/2006 Annex XVII Entry 63

Test Method: The sample is digested with acid, then analyzed by ICP-OES/AAS

Maximum Limit:	500 mg/kg
maximum Emile.	

Test Item(s)	Result	Unit	Conclusion
1+3+8	21.2	mg/kg	PASS
2	90.4	mg/kg	PASS
5	13.5	mg/kg	PASS
6	ND	mg/kg	PASS
7	ND	mg/kg	PASS
10	ND	mg/kg	PASS
11	ND	mg/kg	PASS
13	ND	mg/kg	PASS

Note / Key: ND = Not Detected MDL = Method Detection Limit

mg/kg = milligram per kilogram Detection Limit(mg/kg): 10



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Nickel Release - Reference to Regulation (EC) No. 1907/2006 Annex XVII Entry 27, Points 1(b) and 1(c)

Test Method : I BS EN 1811: 2023;

II BS EN 12472: 2020 and BS EN 1811: 2023.

~	Result 9		
Test Item(s)			
Test Method			
Parameter	Surface Area	Test Sol. Vol.	Nickel (Ni)
Unit	cm²	mL	mcg/sq.cm/week
Trial 1 - Measurement 1	10.8	11	ND
Trial 1 - Measurement 2	10.8	11	ND
Trial 2 - Measurement 1	10.8	11	ND
Trial 2 - Measurement 2	10.8	11	ND
Trial 3 - Measurement 1	10.8	11	ND
Trial 3 - Measurement 2	10.8	11	ND
Conclusion		PASS	

Note / Key:

mcg/sq. cm/week = microgram(s) per square centimeter Reporting Limit (mcg/sq. cm/week) : 0.05 per week

Remark:

- According to BS EN 1811: 2023 with Amendment A1: 2015, Section 9.2.2.2, Test Item(s) with nickel release not exceeding 0.88 mcg/sq. cm/ week should be concluded as pass when the combined expanded measurement uncertainty of 46 % was considered. See interpretation of result(s).

Interpretation of Result(s) [EC No. 1907/2006 Annex XVII, Entry 27, Points 1(b) & 1(c)]:

Case Description Conclusion I $X \ge 0.88[a]$ FAIL II X < 0.88[a] PASS

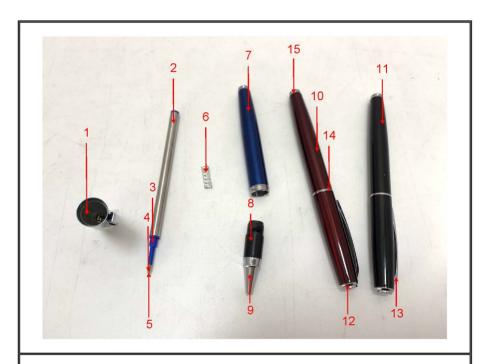
X = Analytical result of Nickel (Ni) release in mcg/sq. cm/week

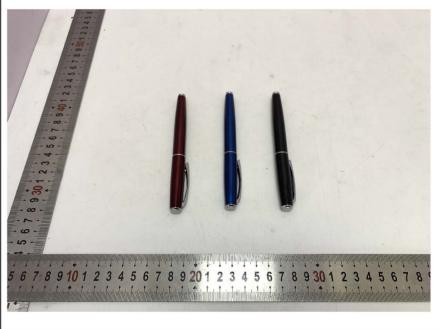
[a] Migration limit of 0.5 mcg/sq. cm/week with the consideration of combined expanded measurement uncertainty.



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SAMPLE REFERENCE PHOTO:





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