



## Test Report

No. VNHL2103004610EE-01

Date: March 24, 2021

Page 1 of 7

This report cancels and supersedes the report No **VNHL2103004610EE** dated March 23, 2021 issued by SGS Vietnam

### AAL-E PRODUCTION AND TRADING CO., LTD

LOT IV-6.3, ROAD 2, TAN DONG HIEP B INDUSTRIAL PARK, DI AN CITY, BINH DUONG PROVINCE, VIET NAM.

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

SGS Job No. : VNHL2103004610EE-01

Sample Description : "ANODIZE/ MIL A 8625F/ TYPE II/ CLASS 1 – KHONG MAU"

Characteristic : ALUMINUM ALLOY

Country of Origin : VIET NAM

Manufacturer : AAL-E PRODUCTION AND TRADING CO., LTD

Sample Receiving Date : MARCH 17, 2021

Final confirmed Date : MARCH 17, 2021

Testing Period : MARCH 17, 2021 TO MARCH 23, 2021

Test Requested : PLEASE REFER TO THE RESULT SUMMARY

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

#### Result Summary

Test Requested	Result (s)
<b>RoHS Directive 2011/65/EU Annex II [amended by Directive (EU) 2015/863]</b> (Cadmium, Lead, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)) – <b>As client's requirement</b>	Pass

Signed for and on behalf of

**SGS Vietnam LTD**



**To Ka Wing**

Chemical Lab Manager

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>.

Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

SGS Vietnam Ltd | Office : 198 Nguyen Thi Minh Khai St, District 3, Ho Chi Minh City, Vietnam t (84-28) 3935 1920 f (84-28) 3935 1921 [www.sgs.com](http://www.sgs.com)  
Lab : Lot III/21, 19/5A St, Industrial Group III, Tan Binh IZ, Tan Phu District, HCMC, Vietnam t (84-28) 3816 0999 f (84-28) 3816 0996

# Test Report

No. VNHL2103004610EE-01

Date: March 24, 2021

Page 2 of 7

**Test results:**

**Test Part Description:**

Component No.	Description	Material	Color
1	SILVERY METAL (ANODIZE/ MIL A 8625F/ TYPE II/ CLASS 1 – KHONG MAU)	METAL	SILVER

**RoHS Directive 2011/65/EU Annex II [amended by Directive (EU) 2015/863]**

Test Item(s):	Unit	Test Method	Results	RL	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)	17	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) #	µg/cm <sup>2</sup>	With reference to IEC 62321-7-1:2015 (Determination of CrVI by UV-VIS)	ND	0.10	-	
<b>Sum of PBBs</b>	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBB by GC-MS)	ND	-	1000	
Monobromobiphenyl	mg/kg		ND	5	-	
Dibromobiphenyl	mg/kg		ND	5	-	
Tribromobiphenyl	mg/kg		ND	5	-	
Tetrabromobiphenyl	mg/kg		ND	5	-	
Hexabromobiphenyl	mg/kg		ND	5	-	
Pentabromobiphenyl	mg/kg		ND	5	-	
Heptabromobiphenyl	mg/kg		ND	5	-	
Octabromobiphenyl	mg/kg		ND	5	-	
Nonabromobiphenyl	mg/kg		ND	5	-	
Decabromobiphenyl	mg/kg		ND	5	-	
<b>Sum of PBDEs</b>	mg/kg		With reference to IEC 62321-6:2015 (Determination of PBDE by GC-MS)	ND	-	1000
Monobromodiphenyl ether	mg/kg			ND	5	-
Dibromodiphenyl ether	mg/kg	ND		5	-	
Tribromodiphenyl ether	mg/kg	ND		5	-	
Tetrabromodiphenyl ether	mg/kg	ND		5	-	
Pentabromodiphenyl ether	mg/kg	ND		5	-	
Hexabromodiphenyl ether	mg/kg	ND		5	-	
Heptabromodiphenyl ether	mg/kg	ND		5	-	
Octabromodiphenyl ether	mg/kg	ND		5	-	
Nonabromodiphenyl ether	mg/kg	ND		5	-	
Decabromodiphenyl ether	mg/kg	ND	5	-		

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>.

Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Test Item(s):	Unit	Test Method	Results	RL	Limit
			1		
Bis (2-ethylhexyl) phthalate (DEHP)	mg/kg	With reference to IEC 62321-8:2017 (Determination of DEHP by GC-MS)	ND	50	1000
Butyl benzyl phthalate (BBP)	mg/kg	With reference to IEC 62321-8:2017 (Determination of BBP by GC-MS)	ND	50	1000
Dibutyl phthalate (DBP)	mg/kg	With reference to IEC 62321-8:2017 (Determination of DBP by GC-MS)	ND	50	1000
Diisobutyl phthalate (DIBP)	mg/kg	With reference to IEC 62321-8:2017 (Determination of DIBP by GC-MS)	ND	50	1000

**Note:**

1. mg/kg = ppm; 0.1wt% = 1000ppm
2. RL = Reporting Limit
3. ND = Not detected
4. # =
  - a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 µg/cm<sup>2</sup>.  
The sample coating is considered to contain CrVI
  - b. The sample is negative for CrVI if CrVI is n.d. (concentration less than 0.10 µg/cm<sup>2</sup>).  
The coating is considered a non-CrVI based coating
  - c. The result between 0.10 µg/cm<sup>2</sup> and 0.13 µg/cm<sup>2</sup> is considered to be inconclusive – unavoidable coating variations may influence the determination
5. - = not regulated
6. 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](http://www.cenelec.eu/dyn/www/f?p=104:110:721668440899381:::FSP_PROJECT,FSP_LANG_ID:20662,25).
7. The above test(s) was / were accredited ISO 17025:2017 by VILAS  
The above test(s) was / were performed by SGS VN's Chemical lab.

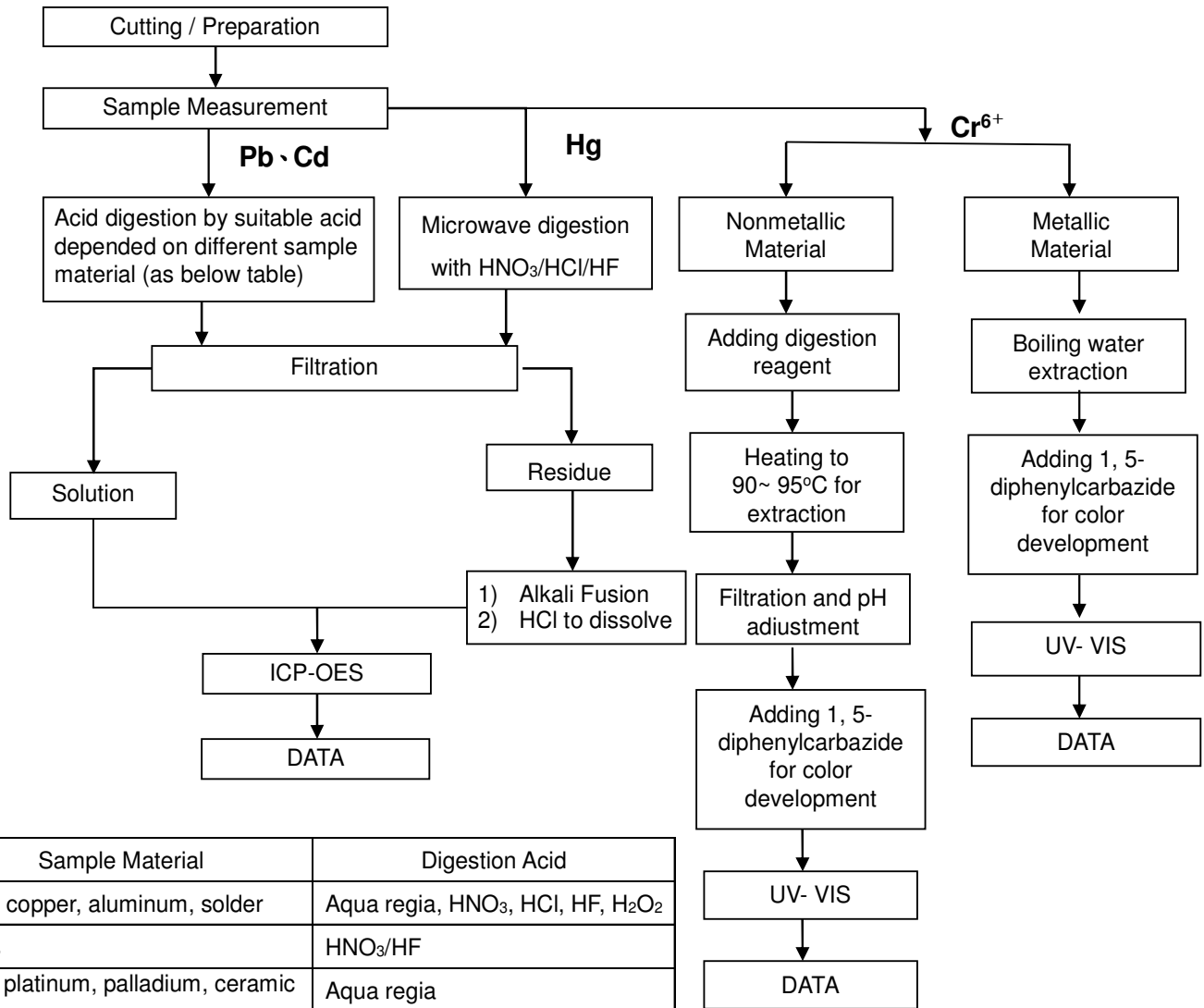
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>.

Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Flow Chart for RoHS: Pb/Cd/Hg/Cr<sup>6+</sup> Testing

The samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)



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

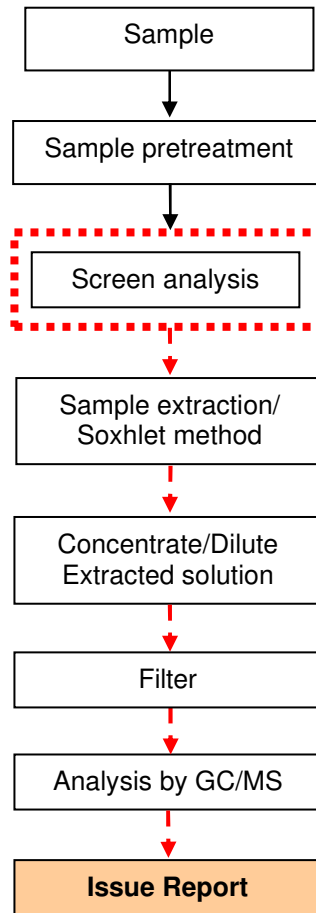
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>.

Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

PBB/PBDE analytical FLOW CHART

First testing process →  
 Optional screen process .....  
 Confirmation process ->



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>.

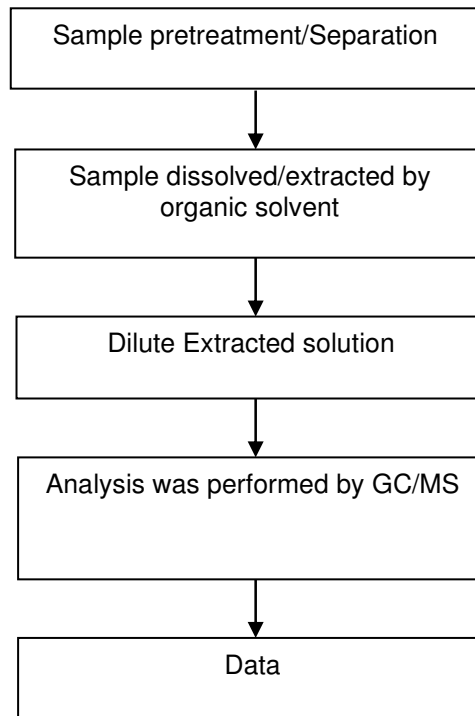
Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Analytical flow chart of phthalate content

Test method: IEC 62321-8: 2017

First testing process →  
 Optional screen process .....  
 Confirmation process ->



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>.

Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

PHOTO OF SUBMITTED SAMPLE FOR TESTING



REPORT RESULTS REFER TO SUBMITTED SAMPLE (S) ONLY

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>.

Attention is drawn to the limitations of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.