

**TEST REPORT**      **No:** ACCHL250009593      **Issue Date:** 21-Aug-2025      **Page 1 of 12**

**PROTERIAL THAI ENAMEL WIRE CO., LTD.**

**171 MOO 12 BANGNA-TRAD KM.43 BANGWUA, BANGPAKONG, CHACHOENGSAO, 24180 THAILAND**

The following sample(s) was/were submitted and identified by the client as:

Sample Name : Polyamide imide overcoated with self-lubricant polyamide-imide  
Part No. : KMK-22A  
Country of Origin : Thailand

The following sample(s) was/were identified by SGS as:

Sample Number : ACC25-0002097-0001  
Sample Condition : Sample is contained in plastic bag.  
Quantity Submitted : 1 bag  
Sample Received Date : Aug 15 2025  
Testing Period : Aug 15 - Aug 21 2025  
Test Requested : In accordance with the ELV Directive 2000/53/EC and its amendment directives.  
Selected test (s) as requested by client.  
Test Method(s) : Please refer to next page(s)  
Test Result(s) : Please refer to next page(s)  
Conclusion : Base on the performed tests on submitted sample(s), the test results of Cadmium (Cd), Lead (Pb), Mercury (Hg), Hexavalent chromium (Cr-VI) comply with the limits as set by the Article 4 (2) of ELV Directive 2000/53/EC where the decision rules based on simple acceptance which the probability of false accept may be as high as 50% in case the results is exactly on the tolerance limit.

**Signed for and on behalf of  
SGS (Thailand) Limited**



**Anchalee Wunnaphuek  
Acting Chemical Laboratory Manager**

FOLDER NUMBER : ACC25-0002097

**732315**

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 limitation 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 30 days only.

# TEST REPORT

No: ACCHL250009593

Issue Date: 21-Aug-2025 Page 2 of 12

## Test Result(s) :

Test Item(s)	Unit	Method	Result	MDL	Limit
Lead(Pb)	mg/kg	With reference to IEC 62321-5:2013, analysis was performed by ICP-OES.	ND	2	1000
Cadmium(Cd)	mg/kg	With reference to IEC 62321-5:2013, analysis was performed by ICP-OES.	ND	2	100
Mercury(Hg)	mg/kg	With reference to IEC 62321-4:2013+AMD1:2017, analysis was performed by ICP-OES.	ND	2	1000
Hexavalent Chromium(CrVI)	µg/cm <sup>2</sup>	IEC 62321-7-1 edition 1.0 : 2015 for Hexavalent Chromium Content, Analyzed by UV/Vis Spectrometry.	ND	0.10	-
Polybrominated biphenyls (PBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	-	-
Monobrominated biphenyl (MonoBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Dibrominated biphenyl (DiBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tribrominated biphenyl (TriBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tetrabrominated biphenyl (TetraBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Pentabrominated biphenyl (PentaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Hexabrominated biphenyl (HexaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Heptabrominated biphenyl (HeptaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Octabrominated biphenyl (OctaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Nonabrominated biphenyl (NonaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Decabrominated biphenyl (DecaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Polybrominated diphenyl ether (PBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	-	-
Monobrominated diphenyl ether (MonoBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-

FOLDER NUMBER : ACC25-0002097

732315

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 limitation 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 30 days only.

# TEST REPORT

No: ACCHL250009593

Issue Date: 21-Aug-2025 Page 3 of 12

Test Item(s)	Unit	Method	Result	MDL	Limit
Dibrominated diphenyl ether (DiBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tribrominated diphenyl ether (TriBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tetrabrominated diphenyl ether (TetraBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Pentabrominated diphenyl ether (PentaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Hexabrominated diphenyl ether (HexaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Heptabrominated diphenyl ether (HeptaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Octabrominated diphenyl ether (OctaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Nonabrominated diphenyl ether (NonaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Decabrominated diphenyl ether (DecaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Hexabromocyclododecane (HBCDD)#	mg/kg	With reference to IEC 62321-9:2021. Analysis was perform by GC/MS.	ND	20	-
Perfluorooctanesulfonic Acid (PFOS)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
Perfluorooctane Sulfonamide(PFOSA)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
2-(N-methylperfluoro-1-octane sulfonamido) - ethanol (N-MeFOSE)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
2-(N-ethylperfluoro-1-octane sulfonamido) - ethanol (N-EtFOSE)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
N-Methyl-Perfluorooctane sulfonamide(N-Me-FOSA)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-

FOLDER NUMBER : ACC25-0002097

732315

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 limitation 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 30 days only.

# TEST REPORT

No: ACCHL250009593

Issue Date: 21-Aug-2025 Page 4 of 12

Test Item(s)	Unit	Method	Result	MDL	Limit
Actinolite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Amosite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Anthophyllite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Chrysotile#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Crocidolite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Tremolite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-

## Test part description

Result : metal with plating

FOLDER NUMBER : ACC25-0002097

732315

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 limitation 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 30 days only.

# TEST REPORT

No: ACCHL250009593

Issue Date: 21-Aug-2025 Page 5 of 12

## Note :

- (a) mg/kg = ppm ; 0.1wt% = 1000 ppm
- (b) ug/cm2 = microgram/centremeter square
- (c) ND = Not Detected (Less than MDL)
- (d) MDL = Method Detection Limit
- (e) Negative = Undetectable / Positive = Detectable
- (f) "-" = Not regulated
- (g) The result of Hexavalent Chromium (Cr(VI)) = a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 ug/cm2. The sample coating is considered to contain CrVI
  - b. The sample is negative for CrVI if CrVI is ND (concentration less than 0.10 ug/cm2). The coating is considered a non-CrVI based coating
  - c. The result between 0.10 ug/cm2 and 0.13 ug/cm2 is considered to be inconclusive - unavoidable coating variations may influence the determination
- (h) For corrosion protection coatings on metals: Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing represent status of the sample at the time of testing.
- (i) Test method as specified by client's request.
- (j) PFOS refer to its salts/derivative including PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-Na (CAS No.: 4021-47-0), PFOS-NH4 (CAS No.: 29081-56-9), PFOS-NH2(C2H4OH)2 (CAS No.: 70225-14-8), PFOS-N(C2H5)4 (CAS No.: 56773-42-3), PFOS-N(C10H21)2(CH3)2 (CAS No.: 251099-16-8) and POSF (CAS No.: 307-35-7)

Test(s) marked \* on test report is/are not included in the accreditation scope.

Test(s) marked # on this Report was tested/analyzed by an external laboratory with prior approval of the client.

FOLDER NUMBER : ACC25-0002097

732315

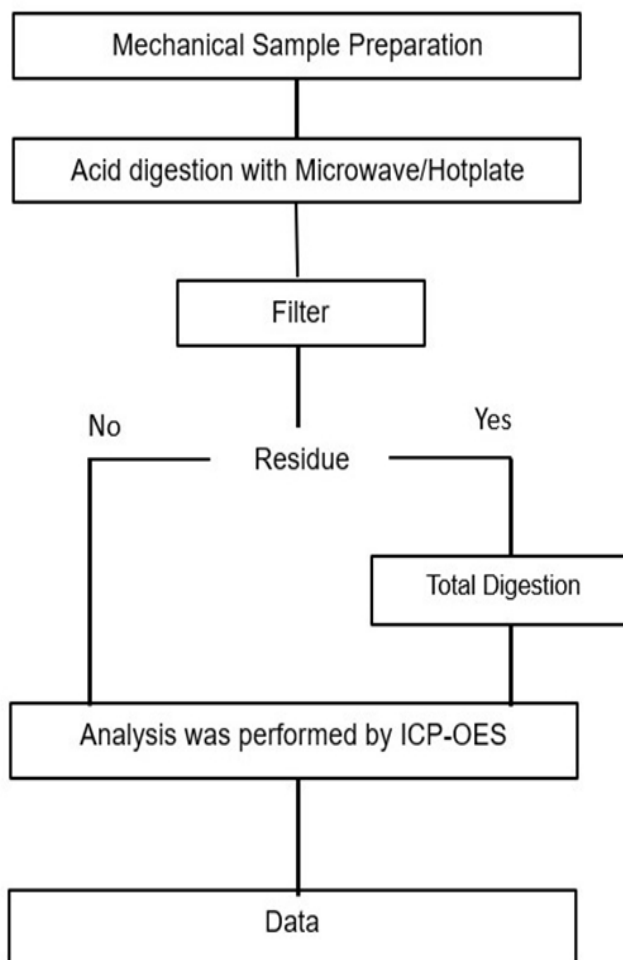
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation 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 30 days only.

## Flow chart of Heavy metal Testing

(Test method : IEC 62321)



FOLDER NUMBER : ACC25-0002097

732315

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>.

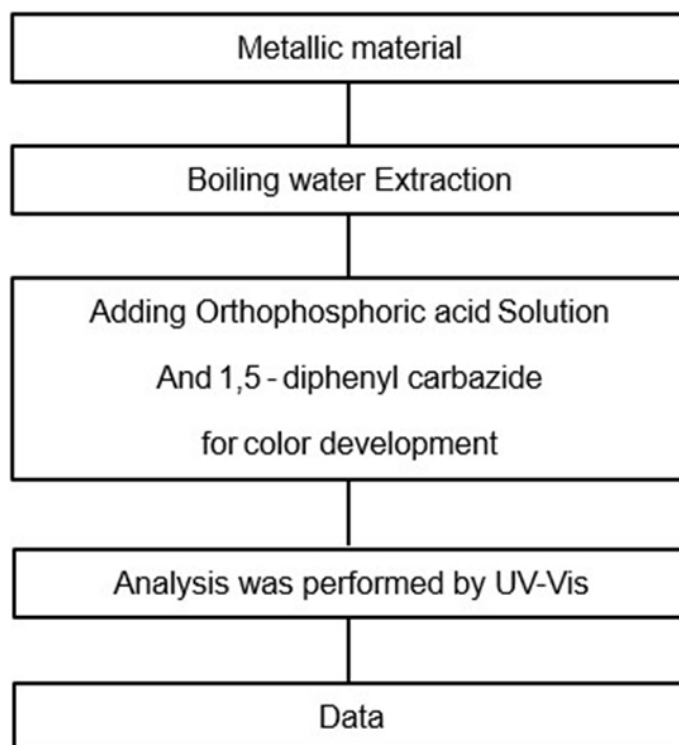
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if 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 30 days only.



## Flow chart of Hexavalent Chromium Testing

(Test method : IEC 62321)



FOLDER NUMBER : ACC25-0002097

732315

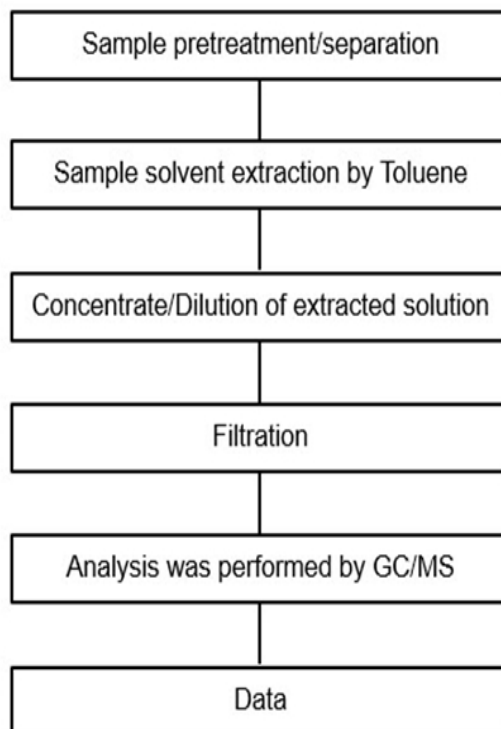
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation 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 30 days only.

## Flow chart of PBBs, PBDEs Testing

(Test method : IEC 62321)



FOLDER NUMBER : ACC25-0002097

732315

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>.

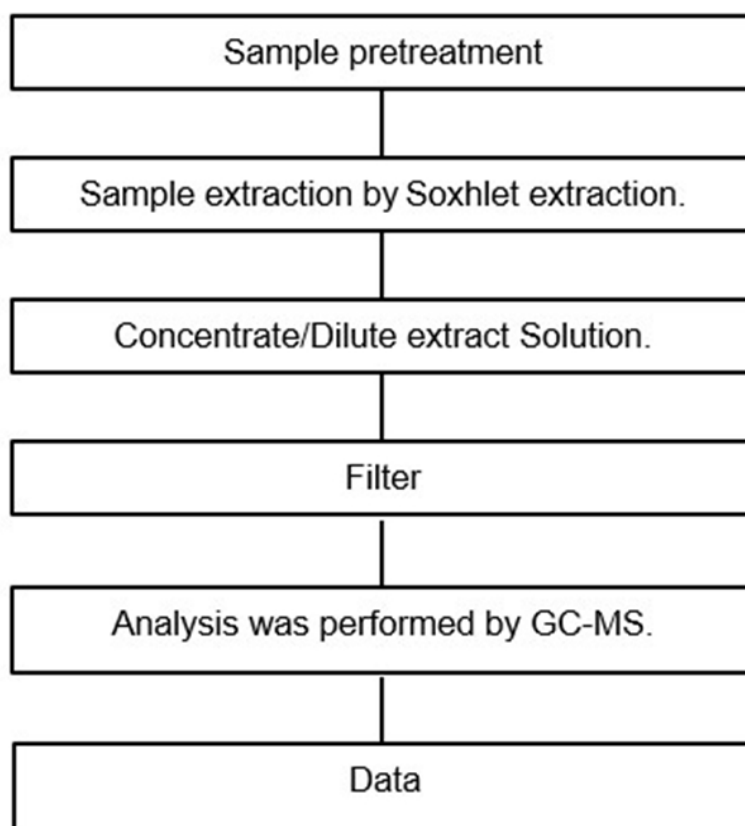
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if 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 30 days only.



## Flow chart of HBCDD Analysis

(Test method : IEC 62321-9 : 2021)



FOLDER NUMBER : ACC25-0002097

732315

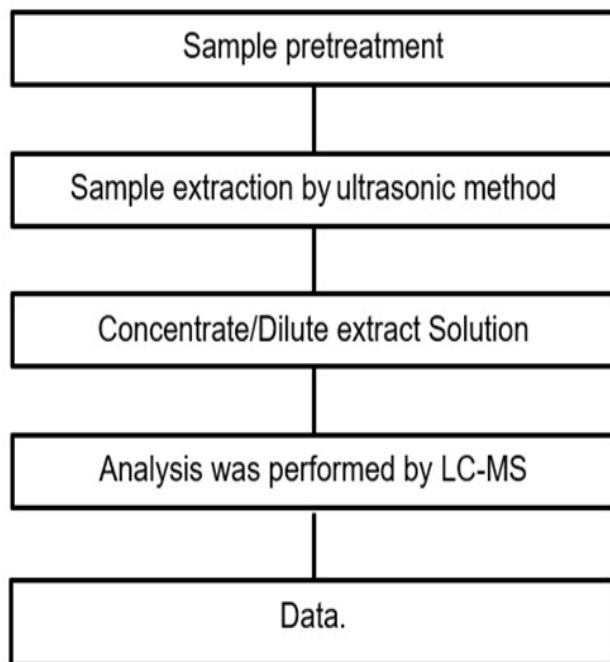
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation 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 30 days only.

### Flow chart of PFOS Analysis

(Test method : EN 17681-1 : 2022)



FOLDER NUMBER : ACC25-0002097

732315

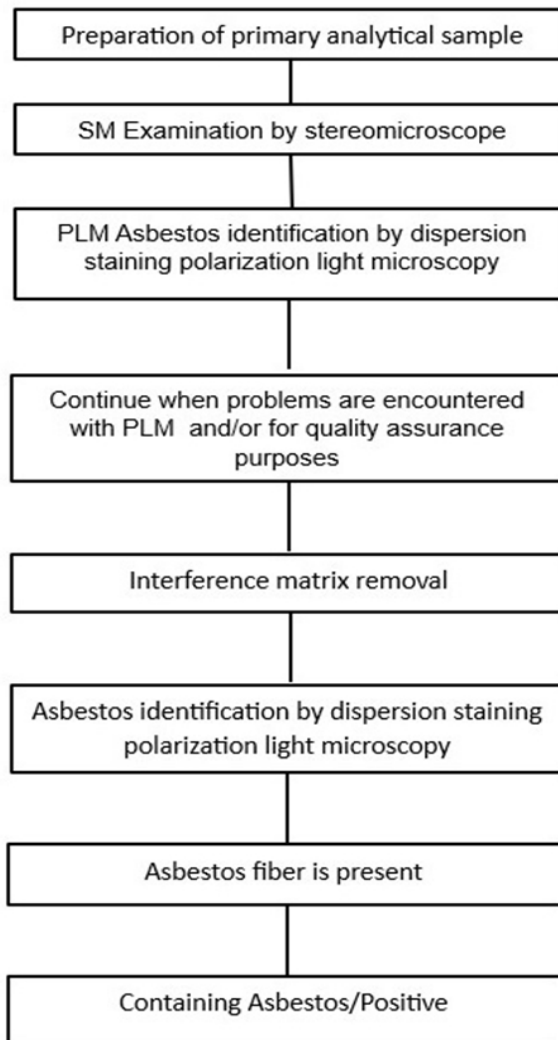
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation 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 30 days only.

## Flow chart of determination Asbestos Testing

(Test method : EPA 600/R-93/116)



FOLDER NUMBER : ACC25-0002097

732315

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 limitation 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 30 days only.

## TEST REPORT

No: ACCHL250009593

Issue Date: 21-Aug-2025 Page 12 of 12

### Sample Photo:



**ACC25-0002097-0001**

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

FOLDER NUMBER : ACC25-0002097

**732315**

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 limitation 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 30 days only.