

# Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 1 of 11

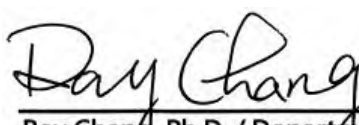
Formosa Plastics Corporation  
No. 100, Shui-Guan Rd., Renwu Dist., Kaohsiung City 814 , Taiwan

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

Sample Name	:	Impact Modifier Additive
Sample Color	:	White
Style / Item No.	:	M-48
Material Composition	:	Impact Modifier Additive
Sample Submitted By	:	Formosa Plastics Corporation
	*	* * * *
Date of Sample Received	:	Jan 06, 2025
Testing Period	:	Jan 06, 2025 – Jan 14, 2025
Test Requested	:	Chemical of High Concern to Children (CHCC) as contaminants in Chapter 173-334 WAC Children's Safe Products Act- Reporting Rule
Test Result(s)	:	Please refer to next page(s).

Summary :

According to the specified scope and analytical techniques, CHCC as contaminants are $\leq 100\text{ppm}$ in each material group of the submitted sample.	PASS
---	------

  
Ray Chang, Ph.D. / Department Manager  
Signed for and on behalf of  
SGS Taiwan Ltd.  
Chemical Laboratory-Kaohsiung



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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.

## Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 2 of 11

### Remark:

1. In accordance with Chapter 173-334-080 WAC Children's Safe Products Act – Reporting Rule, each chemical on the CHCC list that is a contaminant present in a product component must be reported at any concentration above 100 ppm.
2. For a CHCC that is intentionally added to the product component, client is suggested to identify the exact concentration of the CHCC at practical quantification limit (PQL) by requesting quantitative analysis from the laboratory.  
[http://www.ecy.wa.gov/programs/swfa/cspa/pdf/cspaguide\\_pql.pdf](http://www.ecy.wa.gov/programs/swfa/cspa/pdf/cspaguide_pql.pdf) (Reporting Guidance – Practical Quantification Limits (PQLs))
3. The list of chemicals of high concern to children (CHCCs) was referenced from the reporting list of chemicals of high concern to children (CHCC list), section 173-334-130, Chapter 173-334 WAC, Children's Safe Product Act.
4. Test results in this report are based on the tested sample.

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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.

## Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 3 of 11

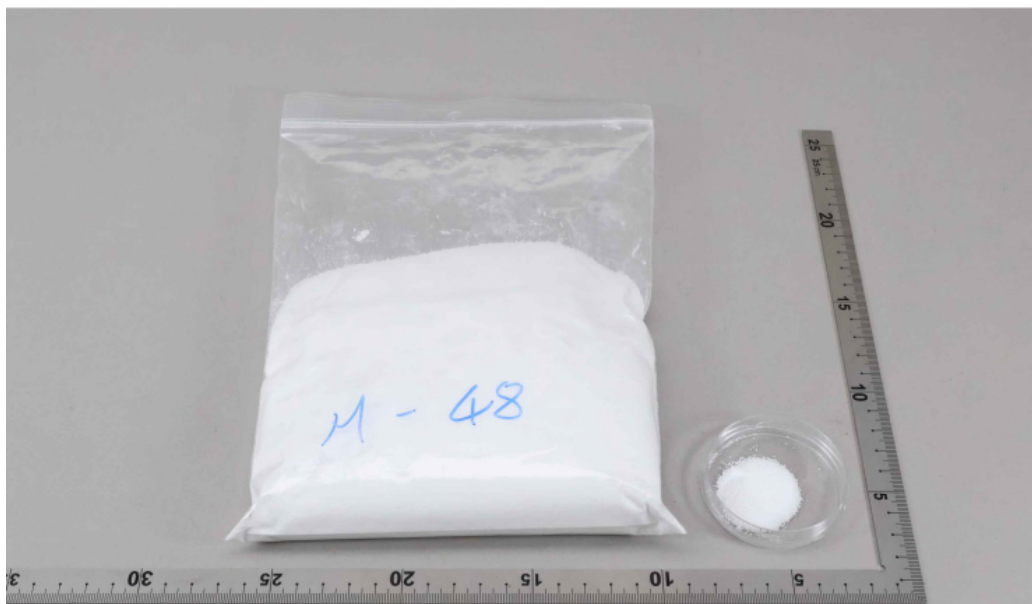
### Test Sample:

Sample breakdown list:

Material Group	Test Component	Component Description
A	1	White Powder

Sample photo:

# SFW25100505



SGS authenticate the photo on original report only

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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.

## Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 4 of 11

### Test Result:

#### Formaldehyde and Acetaldehyde

Method: With reference to ISO 17226-1:2021. Analysis was performed by HPLC-DAD.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Formaldehyde	(50-00-0)	ND	3
Acetaldehyde	(75-07-0)	ND	3
Comment		PASS	- -

#### AZO dyes

Method: With reference to EN 14362-1:2017 – Analysis was performed by GC-MS/HPLC-DAD.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Aniline	(62-53-3)	ND	5
2-Aminotoluene	(95-53-4)	ND	5
2,4-Diaminotoluene	(95-80-7)	ND	5
4-Chloroaniline	(106-47-8)	ND	5
3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine	(119-93-7)	ND	5
Comment		PASS	- -

#### VOC

Method: Solvent extraction. Analysis was performed by GC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Benzene	(71-43-2)	ND	5
Vinyl chloride	(75-01-4)	ND	5
Methylene chloride	(75-09-2)	ND	5
1,1,2,2-Tetrachloroethane	(79-34-5)	ND	5
Ethylbenzene	(100-41-4)	ND	5
Styrene	(100-42-5)	14.5	5
Toluene	(108-88-3)	ND	5
Phenol	(108-95-2)	ND	5
Tetrachloroethene	(127-18-4)	ND	5
N-Methylpyrrolidone	(872-50-4)	ND	5
Carbon disulfide	(75-15-0)	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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.

## Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 5 of 11

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Methyl ethyl ketone	(78-93-3)	ND	5
Hexachlorobutadiene (HCDB)	(87-68-3)	ND	5
Acrylonitrile	(107-13-1)	ND	5
1,4-Dioxane	(123-91-1)	ND	5
Comment		PASS	- -

### Phthalates

Method: With reference to ISO 14389:2014. Analysis was performed by GC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Diethyl phthalate (DEP)	(84-66-2)	ND	30
Di-n-butyl phthalate (DBP)	(84-74-2)	ND	30
Di-n-Hexyl phthalate (DnHP)	(84-75-3)	ND	30
Butyl benzyl phthalate (BBP)	(85-68-7)	ND	30
Di-2-ethylhexyl phthalate (DEHP)	(117-81-7)	ND	30
Di-n-octyl phthalate (DnOP)	(117-84-0)	ND	30
Diisodecyl phthalate (DIDP)	(26761-40-0)	ND	30
Diisononyl phthalate (unbranched) (DINP)	(28553-12-0)	ND	30
Dicyclohexyl phthalate (DCHP)	(84-61-7)	ND	30
Diisobutyl phthalate (DIBP)	(84-69-5)	ND	30
Di-(2-methoxyethyl) phthalate (DMEP)	(117-82-8)	ND	30
Dipentyl phthalate (DPP)	(131-18-0)	ND	30
Comment		PASS	- -

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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.

## Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 6 of 11

### Preservation

Method: Solvent Extraction – Analysis was performed by HPLC/DAD, GC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Propyl paraben	(94-13-3)	ND	10
Butyl paraben	(94-26-8)	ND	10
Methyl paraben	(99-76-3)	ND	10
4-Hydroxybenzoic acid	(99-96-7)	ND	10
Ethyl paraben	(120-47-8)	ND	10
Benzophenone-2 (Bp-2)	(131-55-5)	ND	10
2-Ethyl-hexyl-4-methoxycinnamate	(5466-77-3)	ND	10
2-Ethylhexanoic acid	(149-57-5)	ND	5
Comment		PASS	- -

### Heavy Metals

Method: With reference to USEPA 3052:1996 –Analysis was performed by ICP-OES.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Mercury & mercury compounds including methyl mercury (22967-92-6) ▼	(7439-97-6)	ND	2
Antimony & Antimony compounds ▼	(7440-36-0)	ND	2
Arsenic & Arsenic compounds including arsenic trioxide (1327-53-3) & dimethyl arsenic acid (75-60-5) ▼	(7440-38-2)	ND	2
Cadmium & cadmium compounds ▼	(7440-43-9)	ND	2
Cobalt & cobalt compounds ▼	(7440-48-4)	ND	2
Comment		PASS	- -

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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.

## Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 7 of 11

### Perfluorooctane sulfonic acid and its salts; PFOS

Method: With reference to CEN/TS 15968:2010 – Analysis was performed by HPLC-MS-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Perfluorooctane sulfonic acid and its salts; PFOS	(1763-23-1)	ND	10
Comment		PASS	--

### Perfluorooctanoic acid (PFOA) and related substances

Method: With reference to CEN/TS 15968:2010 – Analysis was performed by HPLC-MS-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Perfluorooctanoic acid (PFOA) and related substances	(335-67-1)	ND	10
Comment		PASS	--

### Phenols

Method: Solvent Extraction – Analysis was performed by HPLC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
4-Nonylphenol	(104-40-5)	ND	10
Nonyl phenol	(25154-52-3)	ND	10
4-Nonyl phenol (NP) branched	(84852-15-3)	ND	10
4-tert-Octylphenol	(140-66-9)	ND	10
4-Octylphenol	(1806-26-4)	ND	10
Comment		PASS	--

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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.

# Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 8 of 11

## Flame Retardants

Method: Solvent Extraction – Analysis was performed by GC-MS and LC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Hexabromocyclododecane (HBCDD)	(25637-99-4)	ND	20
Decabromodiphenyl ether (BDE-209)	(1163-19-5)	ND	20
Tetrabromobisphenol A (TBBPA)	(79-94-7)	ND	20
Tris(2-chloroethyl) phosphate (TCEP)	(115-96-8)	ND	20
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	(13674-87-8)	ND	20
Triphenyl phosphate (TPP)	(115-86-6)	ND	20
Tris (2,3-dibromopropyl) phosphate (TDBPP)	(126-72-7)	ND	20
Tri-n-butyl phosphate (TNBP)	(126-73-8)	ND	20
Ethylhexyl diphenyl phosphate (EHDPP)	(1241-94-7)	ND	20
Tricresyl phosphate (TCP)	(1330-78-5)	ND	20
Tris(1-chloro-2-propyl) phosphate (TCPP)	(13674-84-5)	ND	20
Bis (2-ethylhexyl) tetrabromophthalate (TBPH)	(26040-51-7)	ND	20
Bis(chloromethyl)propane-1,3-diyl tetrakis-(2-chloroethyl) bis(phosphate) (V6)	(38051-10-4)	ND	20
Isopropylated triphenyl phosphate (IPTPP)	(68937-41-7)	ND	20
Decabromodiphenyl ethane (DBDPE)	(84852-53-9)	ND	20
2-ethylhexyl-2,3,4,5-tetrabromobenzoate (TBB)	(183658-27-7)	ND	20
Comment		PASS	- -

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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.



# Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 9 of 11

## N-nitrosamines

Method: With reference to GB/T 24153:2009. Analysis was performed by GC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
N-Nitrosodimethylamine	(62-75-9)	ND	0.5
N-Nitrosodiphenylamine	(86-30-6)	ND	0.5
Comment		PASS	- -

## Glycol ethers

Method: Solvent Extraction – Analysis was performed by GC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
2-Methoxyethanol	(109-86-4)	ND	10
Ethylene glycol monoethyl ether	(110-80-5)	ND	10
Ethylene glycol	(107-21-1)	ND	10
Comment		PASS	- -

## Estragole

Method: Solvent Extraction – Analysis was performed by GC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Estragole	(140-67-0)	ND	10
Comment		PASS	- -

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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.

## Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 10 of 11

### Bisphenol

Method: Solvent Extraction – Analysis was performed by HPLC-MS-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Bisphenol A (BPA)	(80-05-7)	ND	1
Bisphenol S (BPS)	(80-09-1)	ND	1
Bisphenol F (BPF)	(620-92-8)	ND	1
Comment		PASS	- -

### Chloroorganic carriers

Method: With reference to EN 17137:2018. Analysis was performed by GC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Hexachlorobenzene	(118-74-1)	ND	0.1
Pentachlorobenzene	(608-93-5)	ND	0.1
Comment		PASS	- -

### C.I. Solvent Yellow 14

Method: With reference to DIN 54231:2022. Analysis was performed by LC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
C.I. Solvent Yellow 14	(842-07-9)	ND	15
Comment		PASS	- -

### Butylated hydroxyanisole (BHA)

Method: With reference to ASTM D4275:2017. Analysis was performed by GC-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Butylated hydroxyanisole (BHA)	(25013-16-5)	ND	1
Comment		PASS	- -

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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.



## Test Report

Report No.: SFW25100505 Report Issue Date : Jan 14, 2025 Page 11 of 11

### Chlorinated paraffins

Method: Solvent Extraction – Analysis was conducted by GC-NCI-MS.

Test Item (CAS No.)		Concentration (ppm)	RL (ppm)
		1	
Short-chain chlorinated paraffins (SCCP)	(85535-84-8)	ND	30
Chlorinated paraffins	(108171-26-2)	ND	30
Comment		PASS	- -

Note:

1. RL = Reporting Limit.
2. Regulatory limit: 100 ppm (mg/kg) for each CHCC as contaminant.
3. ND = Not Detected (lower than RL).
4. ▼The test result is based on the calculation of selected element(s) / marker(s) and to the worst-case scenario. The client is advised to review the chemical formulation to ascertain above metal substances present in the article.
5. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019.

\*\*\* 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.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. 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 instruction, 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.