

Issued Date: 2018. 12. 14 Page 1 of 16

INFINITY FOILS INC. 090 Niemann Road, Overland Park Kansas, 66214 USA



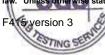
The following sample(s) was/were submitted and identified by/on behalf of the client as:-

SGS File No.	:	AYAA18-65709
Product Name	:	MB
Item/Part Name	:	N/A
Received Date	:	2018. 12. 07
Test Period	:	2018. 12. 07 ~ 2018. 12. 14
Test Requested	:	One hundred- Ninety one (191) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on June 27, 2018 regarding Regulation (EC) No 1907/2006 concerning the REACH.
		Six (6) substances in the Public Consultation List of potential Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA) on September 4, 2018 regarding Regulation (EC) No 1907/2006 concerning the REACH
Test Method	:	Please refer to next page(s).
Test Result(s)	:	Please refer to next page(s).
Summary	:	According to the specified scope and evaluation screening, the test results of SVHC are $\leq 0.1\%$ (w/w) in the articles of the submitted sample.

#### SGS Korea Co., Ltd

Jeff Jang / Chemical Lab Mgr

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-conditions">http://www.sgs.com/en/Terms-and-conditions</a> for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/terms-e-document.htm">www.sgs.com/terms-e-document.htm</a>. 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 fine 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 excressing all their rights and obligations under the transaction documents. This document is unawthorized 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).





# Test Method:

SGS In-House method - Analyzed by ICP-OES, PLM, UV/VIS, LC/MS ,GC/MS and colorimetric method

# Remarks:

The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the following SVHC related documents published by ECHA:
<a href="http://echa.europa.eu/web/guest/candidate-list-table">http://echa.europa.eu/web/guest/candidate-list-table</a> (Candidate list)
<a href="http://echa.europa.eu/proposals-to-identify-substances-of-very-high-concern-previous-consultations?p\_p\_id=substancetypelist\_WAR\_substanceportlet&p\_p\_lifecycle=0&p\_p\_state=normal&p\_p\_mode
 =view&p\_p\_col\_id=column-1&p\_p\_col\_pos=2&p\_p\_col\_count=4&\_substancetypelis
 (Proposals to identify SVHC consultations)</li>

This list is under evaluation by ECHA and may subject to change in the future.

- 2. In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 2 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of **0.1** % weight by weight (w/w).
- 3. Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1 % weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance in the Candidate List.
- 4. If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

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



# Test Result(s)

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
1	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	287-476-5	0.05	N.D.
2	Anthracene	120-12-7	204-371-1	0.05	N.D.
3	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	0.05	N.D.
4	Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	204-211-0	0.05	N.D.
5	Bis(tributyltin)oxide	56-35-9	200-268-0	0.05	N.D.
6	Cobalt dichloride*	7646-79-9	231-589-4	0.005	N.D.
7	4,4-Diaminodiphenylmethane	101-77-9	202-974-4	0.05	N.D.
8	Diarsenic pentaoxide*	1303-28-2	215-116-9	0.005	N.D.
9	Diarsenic trioxide*	1327-53-3	215-481-4	0.005	N.D.
10	Dibutyl phthalate (DBP)	84-74-2	201-557-4	0.05	N.D.
11	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β-HBCDD, γ-HBCDD)	25637-99-4 3194- 55-6 (134237-51- 7, 134237-50-6, 134237-52-8)	247-148-4 221-695-9	0.05	N.D.
12	Lead hydrogen arsenate*	7784-40-9	232-064-2	0.005	N.D.
13	Sodium dichromate <sup>*</sup> (Sodium dichromate, dehydrate)	10588-01-9 (7789-12-0)	234-190-3	0.005	N.D.
14	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4	0.05	N.D.
15	Triethyl arsenate*	15606-95-8	427-700-2	0.005	N.D.
16	Di-isobutyl phthalate(DIBP)	84-69-5	201-553-2	0.05	N.D.
17	2,4-Dinitrotoluene	121-14-2	204-450-0	0.05	N.D.

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



Issued Date: 2018. 12. 14 Page 4 of 16

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
18	Tris(2-chloroethyl) phosphate	115-96-8	204-118-5	0.05	N.D.
19	Anthracene oil	90640-80-5	292-602-7	0.05	N.D.
20	Anthracene oil, anthracene paste; distn. Lights	91995-17-4	295-278-5	0.05	N.D.
21	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	0.05	N.D.
22	Anthracene oil, anthracene-low	90640-82-7	292-604-8	0.05	N.D.
23	Anthracene oil, anthracene paste	90640-81-6	292-603-2	0.05	N.D.
24	Coal tar pitch, high temperature	65996-93-2	266-028-2	0.05	N.D.
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2	215-693-7	0.005	N.D.
26	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)*	12656-85-8	235-759-9	0.005	N.D.
27	Lead chromate*	7758-97-6	231-846-0	0.005	N.D.
28	Acrylamide	79-06-01	201-173-7	0.05	N.D.
29	Boric acid*	10043-35-3 11113-50-1	233-139-2 234-343-4	0.005	N.D.
30	Disodium tetraborate, anhydrous*	1330-43-4 12179-04-3 1303-96-4	215-540-4	0.005	N.D.
31	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	0.005	N.D.
32	Trichloroethylene	79-01-6	201-167-4	0.05	N.D.
33	Sodium chromate <sup>*</sup>	7775-11-3	231-889-5	0.005	N.D.
34	Ammonium dichromate*	7789-09-5	232-143-1	0.005	N.D.

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



Issued Date: 2018. 12. 14

Page 5 of 16

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
35	Potassium dichromate*	7778-50-9	231-906-6	0.005	N.D.
36	Potassium chromate*	7789-00-6	232-140-5	0.005	N.D.
37	Cobalt(II) sulphate*	10124-43-3	233-334-2	0.005	N.D.
38	Cobalt(II) dinitrate*	10141-05-6	233-402-1	0.005	N.D.
39	Cobalt(II) carbonate*	513-79-1	208-169-4	0.005	N.D.
40	Cobalt(II) diacetate*	71-48-7	200-755-8	0.005	N.D.
41	2-Methoxyethanol	109-86-4	203-713-7	0.05	N.D.
42	2-Ethoxyethanol	110-80-5	203-804-1	0.05	N.D.
43	Chromium trioxide*	1333-82-0	215-607-8	0.005	N.D.
44	Acids generated from chromium trioxide and their oligomers: Chromic acid Dichromic acid Oligomers of chromic acid and dichromic acid*	7738-94-5 13530-68-2 -	231-801-5 236-881-5 -	0.005	N.D.
45	1-methyl-2-pyrrolidone	872-50-4	212-828-1	0.05	N.D.
46	2-ethoxyethyl acetate	111-15-9	203-839-2	0.05	N.D.
47	1,2-benzenedicarboxylic acid, di-C6- 8-branced alkyl esters, C7-rich	71888-89-6	276-158-1	0.05	N.D.
48	1,2-benzenedicarboxylic acid, di-C7- 11-branched and linear alkyl esters	68515-42-4	271-084-6	0.05	N.D.
49	1,2,3-trichloropropane	96-18-4	202-486-1	0.05	N.D.

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



Issued Date: 2018. 12. 14 Page 6 of 16

Reporting Concentration **EC** number No. Substance Name CAS number Limit (%) (%) 7803-57-8 50 Hydrazine 206-114-9 0.05 N.D. 302-01-2 51 Strontium chromate\* 7789-06-2 232-142-6 0.005 N.D. 107-06-2 52 1,2-Dichloroethane 203-458-1 0.05 N.D. 2,2'-dichloro-4,4'-methylenedianiline 53 101-14-4 202-918-9 0.05 N.D. (MOCA) 2-Methoxyaniline 54 201-963-1 90-04-0 0.05 N.D. o-Anisidine 4-(1,1,3,3-tetramethylbutyl) phenol, 205-426-2 140-66-9 N.D. 55 0.05 (4-tert-Octylphenol) Aluminosilicate Refractory Ceramic 650-017-00-8 N.D. 56 0.005 Fibres\* (RCF) (Index no.) 57 Arsenic acid\* 7778-39-4 231-901-9 0.005 N.D. 58 Bis(2-methoxyethyl) ether 111-96-6 203-924-4 0.05 N.D. N.D. 59 Bis(2-methoxyethyl) phthalate 117-82-8 204-212-6-0.05 60 Calcium arsenate\* 7778-44-1 231-904-5 0.005 N.D. Dichromium tris(chromate)\* 246-356-2 61 24613-89-6 0.005 N.D. Formaldehyde, oligomeric reaction 62 25214-70-4 500-036-1 N.D. 0.05 products with aniline (technical MDA) 63 Lead diazide\* N.D. 13424-46-9 236-542-1 0.005 64 Lead dipicrate\* 6477-64-1 229-335-2 0.005 N.D. 65 Lead styphnate\* 15245-44-0 239-290-2 0.005 N.D. 66 N,N-dimethylacetamide (DMAC) 127-19-5 204-826-4 0.05 N.D. 67 Pentazinc chromate octahydroxide\* 49663-84-5 256-418-0 0.005 N.D. 77-09-8 201-004-7 68 Phenolphthalein 0.05 N.D.

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



Issued Date: 2018. 12. 14 Page 7 of 16

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
69	Potassium hydroxyocta- oxodizincatedichromate*	11103-86-9	234-329-8	0.005	N.D.
70	Trilead diarsenate*	3687-31-8	222-979-5	0.005	N.D.
71	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)*	650-017-00-8 (Index no.)	-	0.005	N.D.
72	1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2	203-977-3	0.05	N.D.
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	0.05	N.D.
74	Diboron trioxide*	1303-86-2	215-125-8	0.005	N.D.
75	Formamide	75-12-7	200-842-0	0.05	N.D.
76	Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	0.005	N.D.
77	TGIC(1,3,5-tris (oxiranyl methyl)- 1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9	219-514-3	0.05	N.D.
78	β-TGIC (1,3,5-tris[(2S and 2R)-2,3- epoxypropyl]-1,3,5-triazine-2,4,6- (1H,3H,5H)-trione)**	59653-74-6	423-400-0	0.05	N.D.
79	4,4'-bis(dimethylamino) benzophenone (Michler's ketone)	90-94-8	202-027-5	0.05	N.D.
80	N,N,N',N'-tetramethyl-4,4'- methylenedianiline (Michler's base)	101-61-1	202-959-2	0.05	N.D.
81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien- 1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	208-953-6	0.05	N.D.
82	[4-[[4-anilino-1-naphthyl][4- (dimethylamino)phenyl]methylene]cy clohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	219-943-6	0.05	N.D.
83	α,α-Bis[4-(dimethylamino) phenyl]-4 (phenylamino) naphthalene-1- methanol (C.I. Solvent Blue 4)	6786-83-0	229-851-8	0.05	N.D.

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



Issued Date: 2018. 12. 14

Page 8 of 16

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
84	4,4'-bis(dimethylamino)-4''- (methylamino)trityl alcohol	561-41-1	209-218-2	0.05	N.D.
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	214-604-9	0.05	N.D.
86	Pentacosafluorotridecanoic acid	72629-94-8	276-745-2	0.05	N.D.
87	Tricosafluorododecanoic acid	307-55-1	206-203-2	0.05	N.D.
88	Henicosafluoroundecanoic acid	2058-94-8	218-165-4	0.05	N.D.
89	Heptacosafluorotetradecanoic acid	376-06-7	206-803-4	0.05	N.D.
90	4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	-	-	0.05	N.D.
91	4-Nonylphenol, branched and linear – substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof	-	-	0.05	N.D.
92	Diazene-1,2-dicarboxamide (C,C'- azodi(formamide))	123-77-3	204-650-8	0.05	N.D.
93	Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	85-42-7 13149-00-3 14166-21-3	201-604-9, 236-086-3, 238-009-9	0.05	N.D.
94	Hexahydromethylphathalic anhydride, Hexahydro-4- methylphathalic anhydride, Hexahydro-1-methylphathalic anhydride, Hexahydro-3- methylphathalic anhydride	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	247-094-1, 243-072-0, 256-356-4, 260-566-1	0.05	N.D.
95	Methoxy acetic acid	625-45-6	210-894-6	0.05	N.D.
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	0.05	N.D.

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



Issued Date: 2018. 12. 14 Page 9 of 16

Reporting Concentration No. Substance Name CAS number **EC** number Limit (%) (%) 97 Diisopentylphthalate (DIPP) 605-50-5 210-088-4 0.05 N.D. 98 N-pentyl-isopentylphtalate 0.05 N.D. 99 1,2-Diethoxyethane 629-14-1 211-076-1 0.05 N.D. N,N-dimethylformamide; dimethyl 100 68-12-2 200-679-5 0.05 N.D. formamide 101 Dibutyltin dichloride (DBT) 683-18-1 211-670-0 0.05 N.D. 102 Acetic acid, lead salt, basic\* 51404-69-4 257-175-3 0.005 N.D. Basic lead carbonate (trilead 103 1319-46-6 215-290-6 0.005 N.D. bis(carbonate)dihydroxide)\* Lead oxide sulfate (basic lead 104 234-853-7 0.005 N.D. 12036-76-9 sulfate)\* [Phthalato(2-)]dioxotrilead (dibasic 105 69011-06-9 273-688-5 0.005 N.D. lead phthalate)\* 106 Dioxobis(stearato)trilead\* N.D. 12578-12-0 235-702-8 0.005 107 Fatty acids, C16-18, lead salts\* 91031-62-8 292-966-7 0.005 N.D. 108 Lead bis(tetrafluoroborate)\* 237-486-0 0.005 N.D. 13814-96-5 109 Lead cyanamidate\* 20837-86-9 244-073-9 0.005 N.D. 110 Lead dinitrate\* 10099-74-8 233-245-9 0.005 N.D. N.D. 111 Lead oxide (lead monoxide)\* 1317-36-8 215-267-0 0.005 112 Lead tetroxide (orange lead)\* 1314-41-6 215-235-6 0.005 N.D. 113 235-038-9 0.005 Lead titanium trioxide\* 12060-00-3 N.D. 114 Lead Titanium Zirconium Oxide\* 235-727-4 0.005 N.D. 12626-81-2 115 0.005 Pentalead tetraoxide sulphate\* 12065-90-6 235-067-7 N.D.

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



Issued Date: 2018. 12. 14 Pa

Page 10 of 16

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
116	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	0.005	N.D.
117	Silicic acid, barium salt, lead-doped*	68784-75-8	272-271-5	0.005	N.D.
118	Silicic acid, lead salt*	11120-22-2	234-363-3	0.005	N.D.
119	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	0.005	N.D.
120	Tetraethyllead*	78-00-2	201-075-4	0.005	N.D.
121	Tetralead trioxide sulphate*	12202-17-4	235-380-9	0.005	N.D.
122	Trilead dioxide phosphonate*	12141-20-7	235-252-2	0.005	N.D.
123	Furan	110-00-9	203-727-3	0.05	N.D.
124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	200-879-2	0.05	N.D.
125	Diethyl sulphate	64-67-5	200-589-6	0.05	N.D.
126	Dimethyl sulphate	77-78-1	201-058-1	0.05	N.D.
127	3-ethyl-2-methyl-2-(3-methylbutyl)- 1,3-oxazolidine	143860-04-2	421-150-7	0.05	N.D.
128	Dinoseb	88-85-7	201-861-7	0.05	N.D.
129	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	0.05	N.D.
130	4,4'-oxydianiline and its salts	101-80-4	202-977-0	0.05	N.D.
131	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3	200-453-6	0.05	N.D.
132	4-methyl-m-phenylenediamine (2,4- toluene-diamine)	95-80-7	202-453-1	0.05	N.D.
133	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	0.05	N.D.
134	Biphenyl-4-ylamine	92-67-1	202-177-1	0.05	N.D.

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



Issued Date: 2018. 12. 14

Page 11 of 16

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
135	o-aminoazotoluene	97-56-3	202-591-2	0.05	N.D.
136	o-Toluidine; 2-Aminotoluene	95-53-4	202-429-0	0.05	N.D.
137	N-methylacetamide	79-16-3	201-182-6	0.05	N.D.
138	1-bromopropane; n-propyl bromide	106-94-5	203-445-0	0.05	N.D.
139	Cadmium	7440-43-9	231-152-8	0.005	N.D.
140	Cadmium oxide*	1306-19-0	215-146-2	0.005	N.D.
141	Dipentyl phthalate (DPP)	131-18-0	205-017-9	0.05	N.D.
142	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	-	-	0.05	N.D.
143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	0.05	N.D.
144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	0.05	N.D.
145	Dihexyl phthalate	84-75-3	201-559-5	0.05	N.D.
146	Trixylyl phosphate	25155-23-1	246-677-8	0.05	N.D.
147	Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7	202-506-9	0.05	N.D.
148	Disodium 4-amino-3-[[4'-[(2,4- diaminophenyl)azo][1,1'-biphenyl]-4- yl]azo] -5-hydroxy-6- (phenylazo)naphthalene-2,7- disulphonate (C.I. Direct Black 38)	1937-37-7	217-710-3	0.05	N.D.

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



Issued Date: 2018. 12. 14

Page 12 of 16

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
149	Disodium 3,3'-[[1,1'-biphenyl]-4,4'- diylbis(azo)]bis(4-aminonaphthalene- 1-sulphonate) (C.I. Direct Red 28)	573-58-0	209-358-4	0.05	N.D.
150	Cadmium sulphide*	1306-23-6	215-147-8	0.005	N.D.
151	Lead di(acetate)*	301-04-2	206-104-4	0.005	N.D.
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	0.05	N.D.
153	Cadmium chloride*	10108-64-2	233-296-7	0.005	N.D.
154	Sodium perborate*; perboric acid, sodium salt*	-	239-172-9 234-390-0	0.005	N.D.
155	Sodium peroxometaborate*	7632-04-4	231-556-4	0.005	N.D.
156	2-benzotriazol-2-yl-4,6-di-tert- butylphenol (UV-320)	3846-71-7	223-346-6	0.05	N.D.
157	2-(2H-benzotriazol-2-yl)-4,6- ditertpentylphenol (UV-328)	25973-55-1	247-384-8	0.05	N.D.
158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7- oxo-8-oxa-3,5-dithia-4- stannatetradecanoate (DOTE)	15571-58-1	239-622-4	0.05	N.D.
159	Reaction mass of 2-ethylhexyl 10- ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5- dithia-4-stannatetradecanoate and 2- ethylhexyl 10-ethyl-4-[[2-[(2- ethylhexyl)oxy]-2-oxoethyl]thio]-4- octyl-7-oxo-8-oxa-3,5-dithia-4- stannatetradecanoate (reaction mass of DOTE and MOTE)	-	-	0.05	N.D.
160	Cadmium fluoride	7790-79-6	232-222-0	0.005	N.D.
161	Cadmium sulphate	10124-36-4; 31119-53-6	233-331-6	0.005	N.D.
162	1,2-benzenedicarboxylic acid, di-C6- 10-alkyl esters; 1,2- benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq$ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5 68648-93-1	271-094-0 272-013-1	0.05	N.D.

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



Issued Date: 2018. 12. 14 Page 13 of 16

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
163	5-sec-butyl-2-(2,4-dimethylcyclohex- 3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex- 3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	-	-	0.05	N.D.
164	1,3-propanesultone	1120-71-4	214-317-9	0.05	N.D.
165	2,4-di-tert-butyl-6-(5- chlorobenzotriazol-2-yl)phenol (UV- 327)	3864-99-1	223-383-8	0.05	N.D.
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)- 6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	0.05	N.D.
167	Nitrobenzene	98-95-3	202-716-0	0.05	N.D.
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9- heptadecafluorononanoic acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3	0.05	N.D.
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5	0.05	N.D.
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	201-245-8	0.05	N.D.
171	4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well- defined substances which include any of the individual isomers or a combination thereof]	-	-	0.05	N.D.
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	- 206-400-3 221-470-5	0.05	N.D
173	p-(1,1-dimethylpropyl)phenol	80-46-6	201-280-9	0.05	N.D

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



Issued Date: 2018. 12. 14 Page 14 of 16

No.	Substance Name	CAS number	EC number	Reporting Limit (%)	Concentration (%)
174	Perfluorohexane-1-sulphonic acid and its salts	355-46-4	206-587-1	0.05	N.D.
175	1,6,7,8,9,14,15,16,17,17,18,18 Dodecachloropentacyclo[12.2.1.16,9. 02,13.05,10] octadeca-7,15-diene (Dechlorane PlusTM) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	-	0.05	N.D.
176	Benz[a]anthracene	56-55-3	200-280-6	0.05	N.D.
177	Cadmium nitrate	10325-94-7	233-710-6	0.005	N.D.
178	Cadmium carbonate	513-78-0	208-168-9	0.005	N.D.
179	Cadmium hydroxide	21041-95-2	244-168-5	0.005	N.D.
180	Chrysene	218-01-9	205-923-4	0.05	N.D.
181	Reaction products of 1,3,4- thiadiazolidine-2, 5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	-	-	0.05	N.D.
182	Benzo[ghi]perylene (BgP)	191-24-2	205-883-8	0.05	N.D.
183	Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9	0.05	N.D.
184	Disodium octaborate	12008-41-2	234-541-0	0.005	N.D.
185	Dodecamethylcyclohexasiloxane (D6)	540-97-6	208-762-8	0.05	N.D.
186	Ethylenediamine	107-15-3	203-468-6	0.05	N.D.
187	Lead	7439-92-1	231-100-4	0.005	N.D.

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



Issued Date: 2018. 12. 14 Page 15 of 16

Reporting Concentration **EC** number No. Substance Name **CAS** number Limit (%) (%) 188 Octamethylcyclotetrasiloxane (D4) 556-67-2 209-136-7 0.05 N.D. 189 Terphenyl hydrogenated 61788-32-7 262-967-7 0.05 N.D. 190 Dicyclohexyl phthalate(DCHP) 201-545-9 84-61-7 0.05 N.D. Benzene-1,2,4-tricarboxylic acid 1,2 191 552-30-7 209-008-0 0.05 N.D. anhydride (trimellitic anhydride; TMA) 2,2-bis(4'-hydroxyphenyl)-4-192 6807-17-6 401-720-1 0.05 N.D. methylpentane 207-08-9 193 Benzo[k]fluoranthene 0.05 N.D. 205-916-6 194 0.05 N.D. Fluoranthene 206-44-0 205-912-4 195 Phenanthrene 85-01-8 201-581-5 0.05 N.D. 196 129-00-0 204-927-3 0.05 N.D. Pyrene Undecafluorohexanoic acid and its 307-24-4 206-196-6 197 0.05 N.D. ammonium salt 21615-47-4 244-479-6

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

SGS Korea Co., Ltd.



# Note:

- 1. RL = Reporting Limit, 0.1% (w/w) = 1,000 ppm = 1,000 mg/kg
- 2. N.D. = Not detected (lower than RL)
  - N.A. = Not applicable for respective material type.

The submitted sample was found to contain significant amount of specific element(s) of SVHC. Upon further test verification and also information provided from client, the possibility that the element(s) content originate from SVHC is very unlikely, even though their presence cannot be exclude entirely. It may be assumed that the detected element(s) have a non-SVHC source.

 \*.The test result is based on the calculation of selected element(s) / marker(s) and to the worst-case scenario. For detail information, please refer to the SGS REACH website: <u>www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm</u>

The client is advised to review the chemical formulation to ascertain above metal substances present in the article. RL = 0.005% is evaluated for element (i.e. cobalt, arsenic, lead, sodium, chromium, chromium(VI), silicon, aluminum, zirconium, boron, and potassium respectively), except molybdenum RL=0.0005%

- 4. \*\*. -TGIC is one of the isomers for TGIC compounds and hence, tested together. The reported test result is based the proposed ratio as according to ECHA dossier.
- 5. \*\*\*.The sample was diluted with solvent because of matrix effect, so there could be slight increase in MDL and it may have an effect on RL.



\*\*\* 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/terms">www.sgs.com/terms</a> e-document.htm, 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 is and/sell 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).