



# TEST REPORT

**Technical Report:** (5214)099-0533

April 17, 2014

Date Received: April 9, 2014

Page 1 of 13

Danny Yan  
Innovax Manufacturing Company  
Unit 711, 712 & 715, 7/fl, Block B, Alexandra Ind. Bldg,  
23-27 Wing Hong St., Lai Chi Kok, Kowloon, Hong Kong

Sample Description: Sample(s) received is/are stated to be:  
3-D silicone heat transfer badge

Color:	Grey	Manufacturer:	Innovax Manufacturing Company
Test Category:	Product Test	Age Group:	/
A-Tex Order Location:	HK and Europe	Style No(s):	/
A-Tex Product Code:	/	PO No.:	/
Test Period:	April 15, 2014 – April 17, 2014	Retest No.:	/
Country of Origin:	China	Country of Destination:	European Countries
Accessibility:	Indirect Skin Contact		
Fiber Content:	/		

## SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION	REMARK
Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH	PASS	-

### REMARK

If there are questions or concerns on this report, please contact:

(852) 2331 0330

[analytical-enquiry@hk.bureauveritas.com](mailto:analytical-enquiry@hk.bureauveritas.com)

BUREAU VERITAS HONG KONG LIMITED

DR. ALEX HUI  
MANAGER, CHEMICAL AND ANALYTICAL SERVICES

### ATEXL

Bureau Veritas Hong Kong Ltd.  
Consumer Product Services Division  
Kowloon Bay Office  
1/F, Pacific Trade Centre,  
2 Kai Hing Road, Kowloon Bay,  
Kowloon, Hong Kong  
Telephone: (852) 2331 0330 Fax: (852) 2331 0889  
[www.cps.bureauveritas.com](http://www.cps.bureauveritas.com)

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.cps.bureauveritas.com> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



Technical Report:

**(5214)099-0533**

April 17, 2014

Page 2 of 13

**Photo of the Submitted Sample**



## TEST RESULT

### Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH

Test Item 1:	Grey plastic with glue backing (badge)
--------------	--

No.	Substance name	CAS No.	EC No.	Result, %	Detection Limit, %	Basis for identification as a SVHC
				1		
1	Triethyl arsenate*	15606-95-8	427-700-2	ND	0.01	Carcinogenic
2	Anthracene	120-12-7	204-371-1	ND	0.005	PBT
3	4,4'-Diaminodiphenyl methane (MDA)	101-77-9	202-974-4	ND	0.005	Carcinogenic
4	Dibutyl phthalate (DBP)	84-74-2	201-557-4	ND	0.005	Toxic for reproduction
5	Cobalt dichloride*	7646-79-9	231-589-4	ND	0.01	Carcinogenic
6	Diarsenic pentaoxide*	1303-28-2	215-116-9	ND	0.01	Carcinogenic
7	Diarsenic trioxide*	1327-53-3	215-481-4	ND	0.01	Carcinogenic
8	Sodium dichromate*	7789-12-0 <sup>(1)</sup> ; 10588-01-9 <sup>(2)</sup>	234-190-3	ND	0.01	Carcinogenic; Mutagenic; Toxic for reproduction
9	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4	ND	0.005	vPvB
10	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	204-211-0	ND	0.005	Toxic for reproduction
11	Hexabromo cyclododecane (HBCDD) and all major diastereoisomers identified: α - HBCDD β - HBCDD γ - HBCDD	3194-55-6 <sup>(3)</sup> ; 25637-99-4 <sup>(4)</sup>  134237-50-6 134237-51-7 134237-52-8	247-148-4, 221-695-9	ND	0.005	PBT
12	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCP)	85535-84-8	287-476-5	ND	0.01	PBT, vPvB
13	Bis(tributyltin)oxide (TBTO)**	56-35-9	200-268-0	ND	0.005	PBT
14	Lead hydrogen arsenate*	7784-40-9	232-064-2	ND	0.01	Carcinogenic; Toxic for reproduction
15	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	ND	0.005	Toxic for reproduction
16	2,4-Dinitrotoluene	121-14-2	204-450-0	ND	0.005	Carcinogenic
17	Anthracene oil	90640-80-5	292-602-7	ND	0.01	Carcinogenic, PBT, vPvB
18	Anthracene oil, anthracene paste, distn. Lights	91995-17-4	295-278-5	ND	0.01	Carcinogenic; Mutagenic, PBT, vPvB
19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	ND	0.01	Carcinogenic; Mutagenic, PBT, vPvB
20	Anthracene oil, anthracene-low	90640-82-7	292-604-8	ND	0.01	Carcinogenic; Mutagenic, PBT, vPvB

## TEST RESULT

### Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH

No.	Substance name	CAS No.	EC No.	Result, %	Detection Limit, %	Basis for identification as a SVHC
				1		
21	Anthracene oil, anthracene paste	90640-81-6	292-603-2	ND	0.01	Carcinogenic; Mutagenic, PBT, vPvB
22	Diisobutyl phthalate	84-69-5	201-553-2	ND	0.005	Toxic for reproduction
23	Aluminosilicate, Refractory Ceramic Fibres <sup>*a</sup>	Index no. 650-017-00-8		ND	0.01	Carcinogenic
24	Zirconia Aluminosilicate, Refractory Ceramic Fibres <sup>*b</sup>	Index no. 650-017-00-8		ND	0.01	Carcinogenic
25	Lead chromate*	7758-97-6	231-846-0	ND	0.01	Carcinogenic; Toxic for reproduction
26	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)*	12656-85-8	235-759-9	ND	0.01	Carcinogenic; Toxic for reproduction
27	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2	215-693-7	ND	0.01	Carcinogenic; Toxic for reproduction
28	Tris(2-chloroethyl) phosphate	115-96-8	204-118-5	ND	0.005	Toxic for reproduction
29	Coal tar pitch, high temperature	65996-93-2	266-028-2	ND	0.01	Carcinogenic, PBT, vPvB
30	Acrylamide	79-06-1	201-173-7	ND	0.005	Carcinogenic; Mutagenic
31	Trichloroethylene	79-01-6	201-167-4	ND	0.005	Carcinogenic
32	Boric acid*	10043-35-3, 11113-50-1	233-139-2 / 234-343-4	ND	0.01	Toxic for reproduction
33	Disodium tetraborate, anhydrous*	1330-43-4 <sup>(5)</sup> , 12179-04-3 <sup>(6)</sup> , 1303-96-4 <sup>(7)</sup>	215-540-4	ND	0.01	Toxic for reproduction
34	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	ND	0.01	Toxic for reproduction
35	Sodium chromate*	7775-11-3	231-889-5	ND	0.01	Carcinogenic; Mutagenic; Toxic for reproduction
36	Potassium chromate*	7789-00-6	232-140-5	ND	0.01	Carcinogenic; Mutagenic
37	Ammonium dichromate*	7789-09-5	232-143-1	ND	0.01	Carcinogenic; Mutagenic; Toxic for reproduction
38	Potassium dichromate*	7778-50-9	231-906-6	ND	0.01	Carcinogenic; Mutagenic; Toxic for reproduction
39	Cobalt(II) sulphate*	10124-43-3	233-334-2	ND	0.01	Carcinogenic; Toxic for reproduction

## TEST RESULT

### Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH

No.	Substance name	CAS No.	EC No.	Result, %	Detection Limit, %	Basis for identification as a SVHC
				1		
40	Cobalt(II) dinitrate*	10141-05-6	233-402-1	ND	0.01	Carcinogenic; Toxic for reproduction
41	Cobalt(II) carbonate*	513-79-1	208-169-4	ND	0.01	Carcinogenic; Toxic for reproduction
42	Cobalt(II) diacetate*	71-48-7	200-755-8	ND	0.01	Carcinogenic; Toxic for reproduction
43	2-Methoxyethanol	109-86-4	203-713-7	ND	0.005	Toxic for reproduction
44	2-Ethoxyethanol	110-80-5	203-804-1	ND	0.005	Toxic for reproduction
45	Chromium trioxide*	1333-82-0	215-607-8	ND	0.01	Carcinogenic; Mutagenic
46	Acid generated from chromium trioxide and their oligomers:					
	Chromic acid*	7738-94-5	231-801-5	ND	0.01	Carcinogenic
	Dichromic acid*	13530-68-2	236-881-5			
Oligomers of chromic acid and dichromic acid*	-	-				
47	2-Ethoxyethyl acetate	111-15-9	203-839-2	ND	0.005	Toxic for reproduction
48	Strontium Chromate*	7789-06-2	232-142-6	ND	0.01	Carcinogenic
49	1,2-benzenedicarboxylic acid, di-C7-11 branched alkyl ester and linear alkyl ester	68515-42-4	271-084-6	ND	0.005	Toxic for reproduction
50	Hydrazine	302-01-2 7803-57-8	206-114-9	ND	0.005	Carcinogenic
51	1-Methyl-2-pyrrolidone	872-50-4	212-828-1	ND	0.005	Toxic for reproduction
52	1,2,3-trichloropropane	96-18-4	202-486-1	ND	0.005	Toxic for reproduction
53	1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl ester, C7-rich (DIHP)	71888-89-6	276-158-1	ND	0.005	Toxic for reproduction
54	Dichromium tris(chromate)*	24613-89-6	246-356-2	ND	0.01	Carcinogenic
55	Potassium hydroxyoctaoxodizincated i-chromate*	11103-86-9	234-329-8	ND	0.01	Carcinogenic
56	Pentazine chromate octahydroxide*	49663-84-5	256-418-0	ND	0.01	Carcinogenic
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	500-036-1	ND	0.005	Carcinogenic

### TEST RESULT

#### Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH

No.	Substance name	CAS No.	EC No.	Result, %	Detection Limit, %	Basis for identification as a SVHC
				1		
58	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	ND	0.005	Toxic for reproduction
59	2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1	ND	0.005	Carcinogenic
60	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	205-426-2	ND	0.005	Equivalent level of concern
61	1,2-Dichloroethane	107-06-2	203-458-1	ND	0.005	Carcinogenic
62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	ND	0.005	Toxic for reproduction
63	Arsenic acid*	7778-39-4	231-901-9	ND	0.01	Carcinogenic
64	Calcium arsenate*	7778-44-1	231-904-5	ND	0.01	Carcinogenic
65	Trilead diarsenate*	3687-31-8	222-979-5	ND	0.01	Carcinogenic; Toxic for reproduction
66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4	ND	0.005	Toxic for reproduction
67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	ND	0.005	Carcinogenic
68	Phenolphthalein	77-09-8	201-004-7	ND	0.005	Carcinogenic
69	Lead azide, Lead diazide*	13424-46-9	236-542-1	ND	0.01	Toxic for reproduction
70	Lead styphnate*	15245-44-0	239-290-0	ND	0.01	Toxic for reproduction
71	Lead dipicrate*	6477-64-1	229-335-2	ND	0.01	Toxic for reproduction
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3	ND	0.005	Toxic for reproduction
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	ND	0.005	Toxic for reproduction
74	Diboron trioxide*	1303-86-2	215-125-8	ND	0.01	Toxic for reproduction
75	Formamide	75-12-7	200-842-0	ND	0.01	Toxic for reproduction
76	Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	ND	0.01	Toxic for reproduction
77	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione) §	2451-62-9	219-514-3	ND	0.005	Mutagenic
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	ND	0.005	Mutagenic

## TEST RESULT

### Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH

No.	Substance name	CAS No.	EC No.	Result, %	Detection Limit, %	Basis for identification as a SVHC
				1		
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	202-027-5	ND	0.005	Carcinogenic
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	ND	0.005	Carcinogenic
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	ND	0.005	Carcinogenic
82	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	219-943-6	ND	0.005	Carcinogenic
83	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0	229-851-8	ND	0.01	Carcinogenic
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	209-218-2	ND	0.005	Carcinogenic
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	214-604-9	ND	0.005	Persistent, bioaccumulative and toxic; very persistent and very bioaccumulative
86	N,N-dimethylformamide; dimethyl formamide	68-12-2	200-679-5	ND	0.005	Toxic for reproduction
87	Methoxy acetic acid	625-45-6	210-894-6	ND	0.005	Toxic for reproduction ; equivalent level of concern
88	Dibutyltin dichloride (DBT)*	683-18-1	211-670-0	ND	0.01	Toxic for reproduction
89	1,2-Diethoxyethane	629-14-1	211-076-1	ND	0.005	Toxic for reproduction

## TEST RESULT

### Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH

No.	Substance name	CAS No.	EC No.	Result, %	Detection Limit, %	Basis for identification as a SVHC
				1		
90	Hexahydro-2-benzofuran-1,3-dione (HHPA), cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride	85-42-7, 13149-00-3, 14166-21-3	201-604-9, 236-086-3, 238-009-9	ND	0.01	Equivalent level of concern
91	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic 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	ND	0.01	Equivalent level of concern
92	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	-	-	ND	0.005	Equivalent level of concern
93	Heptacosaf fluorotetradecanoic acid	376-06-7	206-803-4	ND	0.005	Very persistent and very bioaccumulative
94	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear <sup>+</sup>	84777-06-0	284-032-2	ND	0.005	Toxic for reproduction
95	Henicosaf fluoroundecanoic acid	2058-94-8	218-165-4	ND	0.005	Very persistent and very bioaccumulative
96	N-pentyl-isopentylphthalate (iPnPP) <sup>+</sup>	776297-69-9	-	ND	0.005	Toxic for reproduction
97	Pentacosaf fluorotridecanoic acid	72629-94-8	276-745-2	ND	0.005	Very persistent and very bioaccumulative
98	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	-	-	ND	0.005	Equivalent level of concern
99	Tricosaf fluorododecanoic acid	307-55-1	206-203-2	ND	0.005	Very persistent and very bioaccumulative
100	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	ND	0.01	Toxic for reproduction



## TEST RESULT

### Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH

No.	Substance name	CAS No.	EC No.	Result, %	Detection Limit, %	Basis for identification as a SVHC
				1		
101	Lead tetroxide (orange lead)*	1314-41-6	215-235-6	ND	0.01	Toxic for reproduction
102	Diethyl sulphate	64-67-5	200-589-6	ND	0.005	Carcinogenic; Mutagenic
103	Dinoseb	88-85-7	201-861-7	ND	0.005	Toxic for reproduction
104	Lead Titanium Zirconium Oxide*	12626-81-2	235-727-4	ND	0.01	Toxic for reproduction
105	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	ND	0.01	Toxic for reproduction
106	Furan	110-00-9	203-727-3	ND	0.01	Carcinogenic
107	N-methylacetamide	79-16-3	201-182-6	ND	0.005	Toxic for reproduction
108	o-Toluidine; 2-Aminotoluene	95-53-4	202-429-0	ND	0.005	Carcinogenic
109	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	ND	0.01	Toxic for reproduction
110	4,4'-oxydianiline and its salts	101-80-4	202-977-0	ND	0.005	Carcinogenic; Mutagenic
111	[Phthalato(2-)]dioxotrilead (Dibasic lead phthalate)*	69011-06-9	273-688-5	ND	0.01	Toxic for reproduction
112	Lead titanium trioxide*	12060-00-3	235-038-9	ND	0.01	Toxic for reproduction
113	Lead oxide sulphate*	12036-76-9	234-853-7	ND	0.01	Toxic for reproduction
114	Lead dinitrate*	10099-74-8	233-245-9	ND	0.01	Toxic for reproduction
115	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3	200-453-6	ND	0.005	Carcinogenic
116	Lead cyanamidate*	20837-86-9	244-073-9	ND	0.01	Toxic for reproduction
117	Tetralead trioxide sulphate*	12202-17-4	235-380-9	ND	0.01	Toxic for reproduction
118	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7	202-453-1	ND	0.005	Carcinogenic
119	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	ND	0.01	Toxic for reproduction
120	Trilead bis(carbonate)dihydroxide (basic lead carbonate)*	1319-46-6	215-290-6	ND	0.01	Toxic for reproduction
121	Dimethyl sulphate	77-78-1	201-058-1	ND	0.005	Carcinogenic
122	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	ND	0.01	Toxic for reproduction
123	Silicic acid, barium salt, lead-doped*	68784-75-8	272-271-5	ND	0.01	Toxic for reproduction
124	Biphenyl-4-ylamine	92-67-1	202-177-1	ND	0.005	Carcinogenic
125	Lead oxide (lead monoxide)*	1317-36-8	215-267-0	ND	0.01	Toxic for reproduction
126	Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	ND	0.01	Toxic for reproduction

## TEST RESULT

### Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH

No.	Substance name	CAS No.	EC No.	Result, %	Detection Limit, %	Basis for identification as a SVHC
				1		
127	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	200-879-2	ND	0.01	Carcinogenic; Mutagenic
128	Silicic acid, lead salt*	11120-22-2	234-363-3	ND	0.01	Toxic for reproduction
129	Trilead dioxide phosphonate*	12141-20-7	235-252-2	ND	0.01	Toxic for reproduction
130	o-aminoazotoluene	97-56-3	202-591-2	ND	0.005	Carcinogenic
131	1-bromopropane	106-94-5	203-445-0	ND	0.01	Toxic for reproduction
132	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	ND	0.005	Carcinogenic
133	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	ND	0.005	Carcinogenic
134	Tetraethyllead*	78-00-2	201-075-4	ND	0.01	Toxic for reproduction
135	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	ND	0.01	Toxic for reproduction
136	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	ND	0.01	Toxic for reproduction
137	Diisopentylphthalate <sup>+</sup>	605-50-5	210-088-4	ND	0.005	Toxic for reproduction
138	Diazeno-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	ND	0.01	Equivalent level of concern
139	Cadmium*	7440-43-9	231-152-8	ND	0.01	Carcinogenic; Equivalent level of concern
140	Cadmium oxide*	1306-19-0	215-146-2	ND	0.01	Carcinogenic; Equivalent level of concern
141	Dipentyl phthalate (DPP) <sup>+</sup>	131-18-0	205-017-9	ND	0.005	Toxic for reproduction
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]	-	-	ND	0.005	Equivalent level of concern
143	Ammonium pentadecafluorooctanoate (APFO) <sup>‡</sup>	3825-26-1	223-320-4	ND	0.005	Toxic for reproduction; PBT
144	Pentadecafluorooctanoic acid (PFOA) <sup>‡</sup>	335-67-1	206-397-9	ND	0.005	Toxic for reproduction; PBT

## TEST RESULT

### Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH

No.	Substance name	CAS No.	EC No.	Result, %	Detection Limit, %	Basis for identification as a SVHC
				1		
145	Cadmium sulphide	1306-23-6	215-147-8	ND	0.01	Carcinogenic; Equivalent level of concern
146	Dihexyl phthalate	84-75-3	201-559-5	ND	0.005	Toxic for reproduction
147	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	ND	0.005	Carcinogenic
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	ND	0.005	Carcinogenic
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	202-506-9	ND	0.005	Toxic for reproduction
150	Lead di(acetate)	301-04-2	206-104-4	ND	0.01	Toxic for reproduction
151	Trixylyl phosphate	25155-23-1	246-677-8	ND	0.005	Toxic for reproduction

- (1) CAS no. 7789-12-0 refers to sodium dichromate dihydrate  
 (2) CAS no. 10588-01-9 refers to anhydrous sodium dichromate  
 (3) CAS no. 3194-55-6 refers to a specific HBCDD - 1,2,5,6,9,10-hexabromocyclododecane  
 (4) CAS no. 25637-99-4 refers to unspecific HBCDD isomer composition  
 (5) CAS no. 1330-43-4 refers to disodium tetraborate, anhydrous  
 (6) CAS no. 12179-04-3 refers to sodium tetraborate, pentahydrate  
 (7) CAS no. 1303-96-4 refers to sodium tetraborate, decahydrate

Method: Analysis is based on GC, LC, IC, ICP, with various detection techniques and UV.

Remark:

1. PBT = Persistent, bio accumulative and toxic as defined in Regulation (EC) No 1907/2006
2. vPvB = Very persistent and very bio accumulative as defined in Regulation (EC) No 1907/2006
3. ND = Not Detected
4. \*Result is based on the heavy metal or inorganic element concentration. Due to the limit of the analytical technology available, any further investigation is not feasible. The client is strongly advised to review the chemical formulation to ascertain.
5. \*\*Result is identified by tributyltin (TBT). Due to the limit of the analytical technology available, any further investigation is not feasible. The client is strongly advised to review the chemical formulation to ascertain.
6. <sup>§</sup>TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione) and  $\beta$ -TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione) are reported as a mixture.
7. <sup>a</sup>Refer to Aluminosilicate, Refractory Ceramic Fibres fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres ( $\mu\text{m}$ ) c) alkaline oxide and alkali earth oxide ( $\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$ ) content less or equal to 18% by weight.
8. <sup>b</sup>Refer to Zirconia Aluminosilicate, Refractory Ceramic Fibres fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres ( $\mu\text{m}$ ). c) alkaline oxide and alkali earth oxide ( $\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$ ) content less or equal to 18% by weight.
9. <sup>+</sup>[1,2-Benzenedicarboxylic acid, dipentylester, branched and linear] is a mixture of phthalates contains DPP, DIPP and N-pentyl-isopentylphthalate.
10. <sup>≠</sup>PFOA and APFO are reported together. The result is based on PFOA concentration. Due to the limit of the analytical technology available, any further investigation is not feasible. The client is strongly advised to review the chemical formulation to ascertain.

Note:

1. The limit of 0.1% (w/w) applies to an article. The results were calculated assuming as the submitted sample was an article. However, the results may not be applicable if the intended use of the sample is a substance or mixture. According to REACH, definition of an article, substance and mixture are:
  - i. Article - An object during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition
  - ii. Substance - A chemical element and its compound in the natural state or obtained by any manufacturing process
  - iii. Mixture (Previously known as "Preparation") - A mixture or solution composed of two or more substances
2. In accordance of Article 7 of Regulation (EC) No. 1907/2006 (REACH regulation) – Registration and notification of substances in articles, any producer or importer of articles shall notify ECHA, if a substance meets in criteria in Article 57 and is identified in accordance with Article 59(1), if both (1) the substance is present in those articles in quantities totalling over 1 tonne per producer or importer per year & (2) the substance is present in those articles above a concentration of 0.1% weight by weight (w/w) are met. The information to be notified shall include (a) identity and contact details of the producer or importer, (b) the registration numbers, (c) the identity of the substance and (d) the classification of the substance, (e) a brief description of the use of the substance and (f) the tonnage range of the substance.
3. In accordance of Article 33 of Regulation (EC) No. 1907/2006 (REACH regulation) – Duty to communicate information on substances in articles, any supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in 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. On request by a consumer the relevant information shall be provided by any supplier of an article free of charge, within 45 days of receipt of the request.

END