

TEST REPORT

LAB NO. : (9323)038-0218 DATE : Feb 23, 2023 PAGE : 1 OF 25

APPLICANT : GUANGDONG YONGU ELECTRONIC MACHINERY

TECHNOLOGY CO., LTD

BUILDING 14, LIANDONG U VALLEY, INDUSTRIAL ZONE B,

HECHENG, HESHAN

CONTACT PERSON : /

DATE OF SUBMISSION: Feb 07, 2023

TEST PERIOD : Feb 07, 2023 to Feb 21, 2023

SAMPLE DESCRIPTION: Aluminum Enclosure

Color: /

Style no. / Model no.: A 系列, B 系列, C 系列, D 系列, E 系列, F 系列, G 系列, H 系列, J 系

列,K 系列,L 系列,M 系列

P.O. No.:

Country of Origin:

Country of Destination: /

MANUFACTURER : Guangdong YONGU Electronic Machinery Technology Co., Ltd

Building 14, Liandong U Valley, Industrial Zone B, Hecheng,

Heshan, Guangdong, 529700

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.	PASS	
1907/2006 concerning REACH including REACH		
SVHC 233 (release on Jan 17, 2023)		

RW

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BUREAU VERITAS CONSUMER PRODUCTS SERVICES (GUANGZHOW)

KENNY WANG OPERATION MANAGER

REMARK

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

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Photo of the Submitted Sample





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Photograph of test item(s)





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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 Method:	Analysis is based on GC, LC, IC, ICP, with various detection techniques and UV.
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Test Item	Sample Description
1	Black coated silvery metal (case)
2	Silvery metal (case)
3	Black plated silvery metal (screw)
4	Silvery metal (screw)
5	Dark grey foam (seal ring)
6	Grey foam (seal ring)

Maximum Allowable Limit :	0.1 % (Each of listed)
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Took Marra(a)	Result				
Test Item(s)	Detected Analyte(s)	Conc.	Unit		
1+2+3+4	ND	ND	%		
5+6	ND	ND	%		

Note / Key:

ND = Not detected ">" = Greater than mg/kg = milligram(s) per kilogram = ppm = part(s) per million

Detection Limit (Mg/Kg): Please refer appendix.

Remark:

- The list of Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH and is summarized in table of Appendix.

Conc. = Concentration



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Annex

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

Batch	No.	Substance name	CAS No.	EC No.	Detection Limit, %	Basis for identification as a SVHC
I	1	Triethyl arsenate*	15606-95-8	427-700-2	0.01	Carcinogenic
I	2	Anthracene	120-12-7	204-371-1	0.005	PBT
I	3	4,4'-Diaminodiphenyl methane (MDA)	101-77-9	202-974-4	0.005	Carcinogenic
I	4	Dibutyl phthalate (DBP)	84-74-2	201-557-4	0.005	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health
I	5	Cobalt dichloride*	7646-79-9	231-589-4	0.01	Carcinogenic
I	6	Diarsenic pentaoxide*	1303-28-2	215-116-9	0.01	Carcinogenic
I	7	Diarsenic trioxide*	1327-53-3	215-481-4	0.01	Carcinogenic
I	8	Sodium dichromate*	7789-12-0 ⁽¹⁾ , 10588-01-9 ⁽²⁾	234-190-3	0.01	Carcinogenic; Mutagenic; Toxic for reproduction
I	9	5-tert-butyl-2,4,6-trinitro- m-xylene (musk xylene)	81-15-2	201-329-4	0.005	vPvB
I	10	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	204-211-0	0.005	Toxic for reproduction; Equivalent level of concern having probable serious effects to environment and human health
I	11	Hexabromo cyclododecane (HBCDD) and all major diastereoisomers identified: α - HBCDD β - HBCDD γ - HBCDD	3194-55-6 ⁽³⁾ , 25637-99-4 ⁽⁴⁾ 134237-50-6 134237-51-7 134237-52-8	247-148-4, 221-695-9	0.005	PBT
I	12	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCP)	85535-84-8	287-476-5	0.01	PBT, vPvB
I	13	Bis(tributyltin)oxide	56-35-9	200-268-0	0.005	PBT



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		(TBTO)**				
		(1010)				Carriage
I	14	Lead hydrogen arsenate*	7784-40-9	232-064-2	0.01	Carcinogenic; Toxic for reproduction
I	15	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	0.005	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health
II	16	2,4-Dinitrotoluene	121-14-2	204-450-0	0.005	Carcinogenic
II	17	Anthracene oil	90640-80-5	292-602-7	0.01	Carcinogenic, PBT, vPvB
II	18	Anthracene oil, anthracene paste, distn. Lights	91995-17-4	295-278-5	0.01	Carcinogenic; Mutagenic, PBT, vPvB
II	19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	0.01	Carcinogenic; Mutagenic, PBT, vPvB
II	20	Anthracene oil, anthracene-low	90640-82-7	292-604-8	0.01	Carcinogenic; Mutagenic, PBT, vPvB
II	21	Anthracene oil, anthracene paste	90640-81-6	292-603-2	0.01	Carcinogenic; Mutagenic, PBT, vPvB
П	22	Diisobutyl phthalate	84-69-5	201-553-2	0.005	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health
II	23	Aluminosilicate, Refractory Ceramic Fibres*a	Index no. 65	0-017-00-8	0.01	Carcinogenic
II	24	Zirconia Aluminosilicate, Refractory Ceramic Fibres*b	Index no. 65	0-017-00-8	0.01	Carcinogenic
II	25	Lead chromate*	7758-97-6	231-846-0	0.01	Carcinogenic; Toxic for reproduction
II	26	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)*	12656-85-8	235-759-9	0.01	Carcinogenic; Toxic for reproduction
II	27	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2	215-693-7	0.01	Carcinogenic; Toxic for reproduction
II	28	Tris(2-chloroethyl) phosphate	115-96-8	204-118-5	0.005	Toxic for reproduction
III	29	Coal tar pitch, high temperature	65996-93-2	266-028-2	0.01	Carcinogenic, PBT, vPvB
III	30	Acrylamide	79-06-1	201-173-7	0.005	Carcinogenic;



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						Mutagenic
III	31	Trichloroethylene	79-01-6	201-167-4	0.005	Carcinogenic
III	32	Boric acid*	10043-35-3, 11113-50-1	233-139-2 / 234-343-4	0.01	Toxic for reproduction
III	33	Disodium tetraborate, anhydrous*	1330-43-4 ⁽⁵⁾ , 12179-04-3 ⁽⁶⁾ , 1303-96-4 ⁽⁷⁾	215-540-4	0.01	Toxic for reproduction
III	34	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	0.01	Toxic for reproduction
III	35	Sodium chromate*	7775-11-3	231-889-5	0.01	Carcinogenic; Mutagenic; Toxic for reproduction
III	36	Potassium chromate*	7789-00-6	232-140-5	0.01	Carcinogenic; Mutagenic
IV	37	Ammonium dichromate*	7789-09-5	232-143-1	0.01	Carcinogenic; Mutagenic; Toxic for reproduction
IV	38	Potassium dichromate*	7778-50-9	231-906-6	0.01	Carcinogenic; Mutagenic; Toxic for reproduction
IV	39	Cobalt(II) sulphate*	10124-43-3	233-334-2	0.01	Carcinogenic; Toxic for reproduction
IV	40	Cobalt(II) dinitrate*	10141-05-6	233-402-1	0.01	Carcinogenic; Toxic for reproduction
IV	41	Cobalt(II) carbonate*	513-79-1	208-169-4	0.01	Carcinogenic; Toxic for reproduction
IV	42	Cobalt(II) diacetate*	71-48-7	200-755-8	0.01	Carcinogenic; Toxic for reproduction
IV	43	2-Methoxyethanol	109-86-4	203-713-7	0.005	Toxic for reproduction
IV	44	2-Ethoxyethanol	110-80-5	203-804-1	0.005	Toxic for reproduction
IV	45	Chromium trioxide*	1333-82-0	215-607-8	0.01	Carcinogenic; Mutagenic
V	46	Acid 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	0.01	Carcinogenic
V	47	2-Ethoxyethyl acetate	111-15-9	203-839-2	0.005	Toxic for reproduction



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V	48	Strontium Chromate*	7789-06-2	232-142-6	0.01	Carcinogenic
V	49	1,2-benzenedicarboxylic acid, di-C7-11 branched alkyl ester and linear alkyl ester	68515-42-4	271-084-6	0.005	Toxic for reproduction
V	50	Hydrazine	302-01-2 7803-57-8	206-114-9	0.005	Carcinogenic
V	51	1-Methyl-2-pyrrolidone	872-50-4	212-828-1	0.005	Toxic for reproduction
VI	52	1,2,3-trichloropropane	96-18-4	202-486-1	0.005	Toxic for reproduction
VI	53	1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl ester, C7-rich (DIHP)	71888-89-6	276-158-1	0.005	Toxic for reproduction
VI	54	Dichromium tris(chromate)*	24613-89-6	246-356-2	0.01	Carcinogenic
VI	55	Potassium hydroxyoctaoxodizincated i-chromate*	11103-86-9	234-329-8	0.01	Carcinogenic
VI	56	Pentazinc chromate octahydroxide*	49663-84-5	256-418-0	0.01	Carcinogenic
VI	57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	500-036-1	0.005	Carcinogenic
VI	58	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	0.005	Toxic for reproduction
VI	59	2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1	0.005	Carcinogenic
VI	60	4-(1,1,3,3- tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	205-426-2	0.005	Equivalent level of concern
VI	61	1,2-Dichloroethane	107-06-2	203-458-1	0.005	Carcinogenic
VI	62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	0.005	Toxic for reproduction
VI	63	Arsenic acid*	7778-39-4	231-901-9	0.01	Carcinogenic
VI	64	Calcium arsenate*	7778-44-1	231-904-5	0.01	Carcinogenic
VI	65	Trilead diarsenate*	3687-31-8	222-979-5	0.01	Carcinogenic; Toxic for reproduction
VI	66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4	0.005	Toxic for reproduction
VI	67	2,2'-dichloro-4,4'- methylenedianiline (MOCA)	101-14-4	202-918-9	0.005	Carcinogenic
VI	68	Phenolphthalein	77-09-8	201-004-7	0.005	Carcinogenic
VI	69	Lead azide, Lead diazide*	13424-46-9	236-542-1	0.01	Toxic for reproduction



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						Toxic for
VI	70	Lead styphnate*	15245-44-0	239-290-0	0.01	reproduction
VI	71	Lead dipicrate*	6477-64-1	229-335-2	0.01	Toxic for reproduction
VII	72	1,2-bis(2- methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3	0.005	Toxic for reproduction
VII	73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	0.005	Toxic for reproduction
VII	74	Diboron trioxide*	1303-86-2	215-125-8	0.01	Toxic for reproduction
VII	75	Formamide	75-12-7	200-842-0	0.01	Toxic for reproduction
VII	76	Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	0.01	Toxic for reproduction
VII	77	TGIC (1,3,5- tris(oxiranylmethyl)- 1,3,5-triazine- 2,4,6(1H,3H,5H)-trione) §	2451-62-9	219-514-3	0.005	Mutagenic
VII	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	0.005	Mutagenic
VII	79	4,4'- bis(dimethylamino)benzo phenone (Michler's ketone)	90-94-8	202-027-5	0.005	Carcinogenic
VII	80	N,N,N',N'-tetramethyl- 4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	0.005	Carcinogenic
VII	81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohex a-2,5-dien-1-ylidene]dimethylammoniu m chloride (C.I. Basic Violet 3)	548-62-9	208-953-6	0.005	Carcinogenic
VII	82	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammoniumchloride(C.I. Basic Blue 26)	2580-56-5	219-943-6	0.005	Carcinogenic



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VII	83	α,α-Bis[4- (dimethylamino)phenyl]-4 (phenylamino)naphthalen e-1-methanol (C.I. Solvent Blue 4)	6786-83-0	229-851-8	0.01	Carcinogenic
VII	84	4,4'-bis(dimethylamino)- 4"-(methylamino)trityl alcohol	561-41-1	209-218-2	0.005	Carcinogenic
VIII	85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	214-604-9	0.005	Persistent, bioaccumulative and toxic; very persistent and very bioaccumulative
VIII	86	N,N-dimethylformamide; dimethyl formamide	68-12-2	200-679-5	0.005	Toxic for reproduction
VIII	87	Methoxy acetic acid	625-45-6	210-894-6	0.005	Toxic for reproduction; equivalent level of concern
VIII	88	Dibutyltin dichloride (DBT) th	683-18-1	211-670-0	0.01	Toxic for reproduction
VIII	89	1,2-Diethoxyethane	629-14-1	211-076-1	0.005	Toxic for reproduction
VIII	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	0.01	Equivalent level of concern
VIII	91	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	0.01	Equivalent level of concern
VIII	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	-	-	0.005	Equivalent level of concern
VIII	93	Heptacosafluorotetradecan oic acid	376-06-7	206-803-4	0.005	Very persistent and very



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						bioaccumulative
VIII	94	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear ⁺	84777-06-0	284-032-2	0.005	Toxic for reproduction
VIII	95	Henicosafluoroundecanoic acid	2058-94-8	218-165-4	0.005	Very persistent and very bioaccumulative
VIII	96	N-pentyl-isopentylphtalate (iPnPP) +	776297-69-9	-	0.005	Toxic for reproduction
VIII	97	Pentacosafluorotridecanoic acid	72629-94-8	276-745-2	0.005	Very persistent and very bioaccumulative
VIII	98	4-(1,1,3,3- tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	-	-	0.005	Equivalent level of concern
VIII	99	Tricosafluorododecanoic acid	307-55-1	206-203-2	0.005	Very persistent and very bioaccumulative
VIII	100	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	0.01	Toxic for reproduction
VIII	101	Lead tetroxide (orange lead)*	1314-41-6	215-235-6	0.01	Toxic for reproduction
VIII	102	Diethyl sulphate	64-67-5	200-589-6	0.005	Carcinogenic; Mutagenic
VIII	103	Dinoseb	88-85-7	201-861-7	0.005	Toxic for reproduction
VIII	104	Lead Titanium Zirconium Oxide*	12626-81-2	235-727-4	0.01	Toxic for reproduction
VIII	105	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	0.01	Toxic for reproduction
VIII	106	Furan	110-00-9	203-727-3	0.01	Carcinogenic
VIII	107	N-methylacetamide	79-16-3	201-182-6	0.005	Toxic for reproduction
VIII	108	o-Toluidine; 2-Aminotoluene	95-53-4	202-429-0	0.005	Carcinogenic
VIII	109	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	0.01	Toxic for reproduction
VIII	110	4,4'-oxydianiline and its salts	101-80-4	202-977-0	0.005	Carcinogenic; Mutagenic
VIII	111	[Phthalato(2-)]dioxotrilead (Dibasic lead phthalate)*	69011-06-9	273-688-5	0.01	Toxic for reproduction
VIII	112	Lead titanium trioxide*	12060-00-3	235-038-9	0.01	Toxic for reproduction
VIII	113	Lead oxide sulphate*	12036-76-9	234-853-7	0.01	Toxic for reproduction
VIII	114	Lead dinitrate*	10099-74-8	233-245-9	0.01	Toxic for reproduction
VIII	115	4-Aminoazobenzene;	60-09-3	200-453-6	0.005	Carcinogenic



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	1	4-Phenylazoaniline				
						Toxic for
VIII	116	Lead cyanamidate*	20837-86-9	244-073-9	0.01	reproduction
VIII	117	Tetralead trioxide sulphate*	12202-17-4	235-380-9	0.01	Toxic for reproduction
VIII	118	4-methyl-m- phenylenediamine (2,4- toluene-diamine)	95-80-7	202-453-1	0.005	Carcinogenic
VIII	119	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	0.01	Toxic for reproduction
VIII	120	Trilead bis(carbonate)dihydroxide (basic lead carbonate)*	1319-46-6	215-290-6	0.01	Toxic for reproduction
VIII	121	Dimethyl sulphate	77-78-1	201-058-1	0.005	Carcinogenic
VIII	122	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	0.01	Toxic for reproduction
VIII	123	Silicic acid, barium salt, lead-doped*	68784-75-8	272-271-5	0.01	Toxic for reproduction
VIII	124	Biphenyl-4-ylamine	92-67-1	202-177-1	0.005	Carcinogenic
VIII	125	Lead oxide (lead monoxide)*	1317-36-8	215-267-0	0.01	Toxic for reproduction
VIII	126	Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	0.01	Toxic for reproduction
VIII	127	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	200-879-2	0.01	Carcinogenic; Mutagenic
VIII	128	Silicic acid, lead salt*	11120-22-2	234-363-3	0.01	Toxic for reproduction
VIII	129	Trilead dioxide phosphonate*	12141-20-7	235-252-2	0.01	Toxic for reproduction
VIII	130	o-aminoazotoluene	97-56-3	202-591-2	0.005	Carcinogenic
VIII	131	1-bromopropane	106-94-5	203-445-0	0.01	Toxic for reproduction
VIII	132	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	0.005	Carcinogenic
VIII	133	4,4'-methylenedi-o- toluidine	838-88-0	212-658-8	0.005	Carcinogenic
VIII	134	Tetraethyllead*	78-00-2	201-075-4	0.01	Toxic for reproduction
VIII	135	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	0.01	Toxic for reproduction
VIII	136	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	0.01	Toxic for reproduction
VIII	137	Diisopentylphthalate +	605-50-5	210-088-4	0.005	Toxic for reproduction
IV	138	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	0.01	Equivalent level of concern
IV	139	Cadmium*	7440-43-9	231-152-8	0.01	Carcinogenic; Equivalent level of concern
IV	140	Cadmium oxide*	1306-19-0	215-146-2	0.01	Carcinogenic; Equivalent level of



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						concern
IV	141	Dipentyl phthalate (DPP) +	131-18-0	205-017-9	0.005	Toxic for reproduction
IV	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]	-	-	0.005	Equivalent level of concern
IV	143	Ammonium pentadecafluorooctanoate (APFO) [‡]	3825-26-1	223-320-4	0.005	Toxic for reproduction; PBT
IV	144	Pentadecafluorooctanoic acid (PFOA) [≠]	335-67-1	206-397-9	0.005	Toxic for reproduction; PBT
X	145	Cadmium sulphide*	1306-23-6	215-147-8	0.01	Carcinogenic; Equivalent level of concern
X	146	Dihexyl phthalate	84-75-3	201-559-5	0.005	Toxic for reproduction
X	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	0.005	Carcinogenic
Х	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	0.005	Carcinogenic
X	149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	202-506-9	0.005	Toxic for reproduction
X	150	Lead di(acetate)*	301-04-2	206-104-4	0.01	Toxic for reproduction
X	151	Trixylyl phosphate	25155-23-1	246-677-8	0.005	Toxic for reproduction



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XI	152	Cadmium chloride*	10108-64-2	233-296-7	0.01	Carcinogenic; Mutagenic; Toxic for Reproduction; Equivalent level of concern having probable serious effects to human health
XI	153	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear*+	68515-50-4	271-093-5	0.005	Toxic for reproduction
XI	154	Sodium peroxometaborate*	7632-04-4	231-556-4	0.01	Toxic for reproduction
XI	155	Sodium perborate; perboric acid, sodium salt*	-	239-172-9; 234-390-0	0.01	Toxic for reproduction
XII	156	Cadmium fluoride *	7790-79-6	232-222-0	0.01	Carcinogenic; Mutagenic; Toxic for Reproduction; Equivalent level of concern having probable serious effects to human health
XII	157	Cadmium sulphate *	10124-36-4; 31119-53-6	233-331-6	0.01	Carcinogenic; Mutagenic; Toxic for Reproduction; Equivalent level of concern having probable serious effects to human health
XII	158	2-benzotriazol-2-yl-4,6- di-tert-butylphenol (UV- 320)	3846-71-7	223-346-6	0.005	PBT; vPvB
XII	159	2-(2H-benzotriazol-2-yl)- 4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	0.005	PBT; vPvB
XII	160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE) th	15571-58-1	239-622-4	0.01	Toxic for Reproduction



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XII	161	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) th	-	-	0.01	Toxic for Reproduction
XIII	162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5; 68648-93-1	271-094-0; 272-013-1	0.01	Toxic for reproduction
XIII	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]	-	-	0.01	vPvB
XIV	164	1,3-propanesultone	1120-71-4	214-317-9	0.005	Carcinogenic
XIV	165	2,4-di-tert-butyl-6-(5- chlorobenzotriazol-2- yl)phenol (UV-327)	3864-99-1	223-383-8	0.005	vPvB
XIV	166	2-(2H-benzotriazol-2-yl)- 4-(tert-butyl)-6-(sec- butyl)phenol (UV-350)	36437-37-3	253-037-1	0.005	vPvB
XIV	167	Nitrobenzene	98-95-3	202-716-0	0.005	Toxic for reproduction
XIV	168	Perfluorononan-1-oic acid acid and its sodium and ammonium salts	375-95-1; 21049-39-8; 4149-60-4	206-801-3	0.005	Toxic for reproduction; PBT
XV	169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5	0.005	Carcinogenic; Mutagenic; Toxic for Reproduction; PBT; vPvB



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XVI	170	(bisphenol A; BPA)	80-05-7	201-245-8	0.005	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health & environment
XVI	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] (4-Hpbl)	-	-	0.005	Equivalent level of concern having probable serious effects to the environment
XVI	172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3830-45-3, 335-76-2, 3108-42-7	-, 206-400-3, 221-470-5	0.005	Toxic for reproduction; PBT
XVI	173	p-(1,1- dimethylpropyl)phenol (PTAP)	80-46-6	201-280-9	0.005	Equivalent level of concern having probable serious effects to the environment
XVII	174	Perfluorohexane-1- sulphonic acid and its salts (PFHxS)	-	-	0.005	vPvB
XVIII	175	1,6,7,8,9,14,15,16,17,17,1 8,18- Dodecachloropentacyclo [12.2.1.16,9.02,13.05,10] octadeca-7,15-diene ("Dechlorane Plus"TM) [covering any of its individual anti- and syn- isomers or any combination thereof]	-	-	0.005	vPvB
XVIII	176	Benz[a]anthracene	56-55-3	200-280-6	0.005	Carcinogenic; PBT; vPvB
XVIII	177	Cadmium nitrate	10325-94-7	233-710-6	0.005	Carcinogenic; Mutagenic; Equivalent level of concern having probable serious effects to human health



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XVIII	178	Cadmium carbonate	513-78-0	208-168-9	0.005	Carcinogenic; Mutagenic; Equivalent level of concern having probable serious effects to human health
XVIII	179	Cadmium hydroxide	21041-95-2	244-168-5	0.005	Carcinogenic; Mutagenic; Equivalent level of concern having probable serious effects to human health
XVIII	180	Chrysene	218-01-9	205-923-4	0.005	Carcinogenic; PBT; vPvB
XVIII	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]	-	-	0.005	Equivalent level of concern having probable serious effects to the environment
XIX	182	Octamethylcyclotetrasilox ane (D4)	556-67-2	209-136-7	0.005	PBT; vPvB
XIX	183	Decamethylcyclopentasilo xane (D5)	541-02-6	208-764-9	0.005	PBT; vPvB
XIX	184	Dodecamethylcyclohexasi loxane (D6)	540-97-6	208-762-8	0.005	PBT; vPvB
XIX	185	Lead	7439-92-1	231-100-4	0.005	Toxic for reproduction
XIX	186	Disodium octaborate	12008-41-2	234-541-0	0.005	Toxic for reproduction
XIX	187	Benzo[ghi]perylene	191-24-2	205-883-8	0.005	PBT; vPvB
XIX	188	Terphenyl hydrogenated	61788-32-7	262-967-7	0.005	vPvB
XIX	189	Ethylenediamine (EDA)	107-15-3	203-468-6	0.005	Equivalent level of concern having probable serious effects to human health



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XIX	190	Benzene-1,2,4- tricarboxylic acid 1,2 anhydride (TMA)	552-30-7	209-008-0	0.005	Equivalent level of concern having probable serious effects to human health
XIX	191	Dicyclohexyl phthalate (DCHP)	84-61-7	201-545-9	0.005	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health
XX	192	2,2-bis(4'- hydroxyphenyl)-4- methylpentane	6807-17-6	401-720-1	0.005	Toxic for reproduction
XX	193	Benzo[k]fluoranthene	207-08-9	205-916-6	0.005	Carcinogenic; PBT; vPvB
XX	194	Fluoranthene	206-44-0	205-912-4	0.005	PBT; vPvB
XX	195	Phenanthrene	85-01-8	201-581-5	0.005	vPvB
XX	196	Pyrene	129-00-0	204-927-3	0.005	PBT; vPvB
XX	197	1,7,7-trimethyl-3- (phenylmethylene)bicyclo [2.2.1]heptan-2-one (3-benzylidene camphor; 3-BC)	15087-24-8	239-139-9	0.005	Equivalent level of concern having probable serious effects to the environment
XXI	198	2-methoxyethyl acetate	110-49-6	203-772-9	0.005	Toxic for reproduction
XXI	199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4- nonylphenol, branched and linear (4-NP)	-	-	0.005	Equivalent level of concern having probable serious effects to the environment
XXI	200	2,3,3,3-tetrafluoro-2- (heptafluoropropoxy)prop ionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	-	0.005	Equivalent level of concern having probable serious effects on the environment & human health
XXI	201	4-tert-butylphenol (PTBP)	98-54-4	202-679-0	0.005	Equivalent level of concern having probable serious effects to the environment



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XXII	202	2-benzyl-2- dimethylamino-4'- morpholinobutyrophenon e	119313-12-1	404-360-3	0.005	Toxic for reproduction
XXII	203	2-methyl-1-(4- methylthiophenyl)-2- morpholinopropan-1-one	71868-10-5	400-600-6	0.005	Toxic for reproduction
XXII	204	Diisohexyl phthalate	71850-09-4	276-090-2	0.005	Toxic for reproduction
XXII	205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	-	0.005	Equivalent level of concern having probable serious effects on the environment and human health
XXIII	206	1-vinylimidazole	1072-63-5	214-012-0	0.005	Toxic for reproduction
XXIII	207	2-methylimidazole	693-98-1	211-765-7	0.005	Toxic for reproduction
XXIII	208	Butyl 4-hydroxybenzoate	94-26-8	202-318-7	0.005	Equivalent level of concern having probable serious effects on the human health - Endocrine disrupting properties
XXIII	209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	245-152-0	0.005	Toxic for reproduction
XXIV	210	Bis(2-(2- methoxyethoxy)ethyl) ether	143-24-8	205-594-7	0.005	Toxic for reproduction
XXIV	211	Dioctyltin dilaurate, stannane, dioctyl- ,bis(coco acyloxy) derivs., and any other stannance, dioctyl-, bis(fatty acyloxy) derivs. Wherein C12 is the predominant carbon number of the fatty acyloxy moiety	-	-	0.005	Toxic for reproduction
XXV	212	1,4-dioxane	123-91-1	204-661-8	0.01	Equivalent level of concern having probable serious effects on the environment & human health



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XXV	213	2,2- bis(bromomethyl)propane 1,3-diol (BBMP) 2,2- dimethylpropan-1-ol, tribromo derivative 3- bromo-2,2- bis(bromomethyl)-1- propanol (TBNPA) 2,3- dibromo-1-propanol (2,3- DBPA)	3296-90-0 36483-57-5 1522-92-5 96-13-9	221-967-7 253-057-0 - 202-480-9	0.01	Carcinogenic
XXV	214	2-(4-tert- butylbenzyl)propionaldeh yde and its individual stereoisomers (LILIAL)	-	-	0.01	Toxic for reproduction
XXV	215	4,4'-(1-methylpropylidene)bisphe nol; Bisphenol B (BPB)	77-40-7	201-025-1	0.01	Equivalent level of concern having probable serious effects on the human health - Endocrine disrupting properties
XXV	216	Glutaral (GDA)	111-30-8	203-856-5	0.01	Respiratory sensitising properties (human health)
XXV	217	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	-	-	0.01	PBT, vPvB
XXV	218	Orthoboric acid, sodium salt	13840-56-7	237-560-2	0.01	Toxic for reproduction
XXV	219	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	-	-	0.01	Toxic for reproduction Endocrine disrupting properties (human health) Endocrine disrupting properties - environment
XXVI	220	(DBMC) 6,6'-di-tert- butyl-2,2'-methylenedi-p- cresol (DBMC)	204-327-1	119-47-1	0.01	Toxic for reproduction



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XXVI	221	tris(2- methoxyethoxy)vinylsilan e	213-934-0	1067-53-4	0.01	Toxic for reproduction
XXVI	222	(4-MBC) (±)-1,7,7- trimethyl-3-[(4- methylphenyl)methylene] bicyclo[2.2.1]heptan-2- one covering any of the individual isomers and/or combinations thereof (4- MBC)	-	-	0.01	Endocrine disrupting properties (human health)
XXVI	223	S- (tricyclo[5.2.1.0'2,6]deca- 3-en-8(or 9)-yl) O- (isopropyl or isobutyl or 2-ethylhexyl) O- (isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	401-850-9	255881-94- 8	0.01	РВТ
XXVII	224	N- (hydroxymethyl)acrylami de	924-42-5	213-103-2	0.01	As a monomer for polymerization as a fluoroalkyl acrylate copolymer, and in paints and coatings
XXVIII	225	1,1'-[ethane-1,2-diylbisoxy] bis[2,4,6-tribromobenzene] (BTBPE)	37853-59-1	253-692-3	0.01	vPvB (Article 57e)
XXVIII	226	2,2',6,6'-tetrabromo-4,4'- isopropylidenediphenol (TBBPA)	79-94-7	201-236-9	0.01	Carcinogenic (Article 57a)
XXVIII	227	4,4'-sulphonyldiphenol (BPS)	80-09-1	201-250-5	0.01	Toxic for reproduction (Article 57c);Endocrine disrupting properties (Article 57f)
XXVIII	228	Barium diboron tetraoxide (BaB2O4)	13701-59-2	237-222-4	0.01	Toxic for reproduction (Article 57c)
XXVIII	229	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof (TBPH)	-	-	0.01	vPvB (Article 57e)
XXVIII	230	Isobutyl 4- hydroxybenzoate	4247-02-3	224-208-8	0.01	Endocrine disrupting properties (Article 57f)



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XXVIII	231	Melamine	108-78-1	203-615-4	0.01	Endocrine disrupting properties (Article 57f)
XXVIII	232	Perfluoroheptanoic acid and its salts	-	-	0.01	Toxic for reproduction (Article 57c); PBT (Article 57d); vPvB (Article 57e); Endocrine disrupting properties (Article 57f)
XXVIII	233	Reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine	-	473-390-7	0.01	vPvB (Article 57e)

⁽¹⁾ CAS no. 7789-12-0 refers to sodium dichromate dihydrate

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. $^{\$}TGIC$ (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione) and β -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. ^aRefer 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 (μm) c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight.

⁽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



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- ^bRefer 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 (μm). c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight.
- 9. ⁺[1,2-Benzenedicarboxylic acid, dipentylester, branched and linear] is a mixture of phthalates contains DPP, DIPP and N-pentyl-isopentylphtalate.
- 10. *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.
- 11. ++[1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear] is a mixture of phthalates contains dihexyl phthalate.
- 12. ^bResult is based on the tin metal concentration, and further confirmation for checking DBT, DOTE & MOTE concentration.



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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.

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