



TEST REPORT



Report No. : (8222)000-0000-000

Date Issued : 2022. 00. 00

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Company Name :

Address :

Sample Description

Name / Type of Product :

Item No. / Part No. :

Material/Color :

Manufacturer/Vendor :

Date Received : 0000. 00. 00

Test Period : 0000. 00. 00 ~ 0000. 00. 00

Test Type : 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 Site : Fixed Test Lab (RM908~915 126, Beolmal-ro, Dongan-gu, Anyang-si)

Test Method(s) : For the detail, please the following page(s).

Test Results(s) : For the detail, please the following page(s).

Authorized by

Bureau Veritas Korea Co., Ltd.
Consumer Product Services

JIN KIM

Lab Manager / Bureau Veritas Korea CPS



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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.

No.	Substance name	CAS No.	EC No.	Basis for identification as a SVHC	Detection Limit, %	Result, %
1	Triethyl arsenate*	15606-95-8	427-700-2	Carcinogenic	0.01	ND
2	Anthracene	120-12-7	204-371-1	PBT	0.005	ND
3	4,4'-Diaminodiphenyl methane (MDA)	101-77-9	202-974-4	Carcinogenic	0.005	ND
4	Dibutyl phthalate (DBP)	84-74-2	201-557-4	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health	0.005	ND
5	Cobalt dichloride*	7646-79-9	231-589-4	Carcinogenic	0.01	ND
6	Diarsenic pentaoxide*	1303-28-2	215-116-9	Carcinogenic	0.01	ND
7	Diarsenic trioxide*	1327-53-3	215-481-4	Carcinogenic	0.01	ND
8	Sodium dichromate*	7789-12-0 ⁽¹⁾ , 10588-01-9 ⁽²⁾	234-190-3	Carcinogenic; Mutagenic; Toxic for reproduction	0.01	ND
9	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4	vPvB	0.005	ND
10	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	204-211-0	Toxic for reproduction; Equivalent level of concern having probable serious effects to environment and human health	0.005	ND
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	PBT	0.005	ND
12	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCP)	85535-84-8	287-476-5	PBT, vPvB	0.01	ND
13	Bis(tributyltin)oxide (TBTO)**	56-35-9	200-268-0	PBT	0.005	ND
14	Lead hydrogen arsenate*	7784-40-9	232-064-2	Carcinogenic;	0.01	ND



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				Toxic for reproduction		
15	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health	0.005	ND
16	2,4-Dinitrotoluene	121-14-2	204-450-0	Carcinogenic	0.005	ND
17	Anthracene oil	90640-80-5	292-602-7	Carcinogenic, PBT, vPvB	0.01	ND
18	Anthracene oil, anthracene paste, distn. Lights	91995-17-4	295-278-5	Carcinogenic; Mutagenic, PBT, vPvB	0.01	ND
19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	Carcinogenic; Mutagenic, PBT, vPvB	0.01	ND
20	Anthracene oil, anthracene-low	90640-82-7	292-604-8	Carcinogenic; Mutagenic, PBT, vPvB	0.01	ND
21	Anthracene oil, anthracene paste	90640-81-6	292-603-2	Carcinogenic; Mutagenic, PBT, vPvB	0.01	ND
22	Diisobutyl phthalate	84-69-5	201-553-2	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health	0.005	ND
23	Aluminosilicate, Refractory Ceramic Fibres ^{*a}	Index no. 650-017-00-8		Carcinogenic	0.01	ND
24	Zirconia Aluminosilicate, Refractory Ceramic Fibres ^{*b}	Index no. 650-017-00-8		Carcinogenic	0.01	ND
25	Lead chromate [*]	7758-97-6	231-846-0	Carcinogenic; Toxic for reproduction	0.01	ND
26	Lead chromate molybdate sulfate red (C.I. Pigment Red 104) [*]	12656-85-8	235-759-9	Carcinogenic; Toxic for reproduction	0.01	ND
27	Lead sulfochromate yellow (C.I. Pigment Yellow 34) [*]	1344-37-2	215-693-7	Carcinogenic; Toxic for reproduction	0.01	ND
28	Tris(2-chloroethyl) phosphate	115-96-8	204-118-5	Toxic for reproduction	0.005	ND
29	Coal tar pitch, high temperature	65996-93-2	266-028-2	Carcinogenic, PBT, vPvB	0.01	ND
30	Acrylamide	79-06-1	201-173-7	Carcinogenic; Mutagenic	0.005	ND
31	Trichloroethylene	79-01-6	201-167-4	Carcinogenic	0.005	ND
32	Boric acid [*]	10043-35-3, 11113-50-1	233-139-2 / 234-343-4	Toxic for reproduction	0.01	ND



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33	Disodium tetraborate, anhydrous*	1330-43-4 ⁽⁵⁾ , 12179-04-3 ⁽⁶⁾ , 1303-96-4 ⁽⁷⁾	215-540-4	Toxic for reproduction	0.01	ND
34	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	Toxic for reproduction	0.01	ND
35	Sodium chromate*	7775-11-3	231-889-5	Carcinogenic; Mutagenic; Toxic for reproduction	0.01	ND
36	Potassium chromate*	7789-00-6	232-140-5	Carcinogenic; Mutagenic	0.01	ND
37	Ammonium dichromate*	7789-09-5	232-143-1	Carcinogenic; Mutagenic; Toxic for reproduction	0.01	ND
38	Potassium dichromate*	7778-50-9	231-906-6	Carcinogenic; Mutagenic; Toxic for reproduction	0.01	ND
39	Cobalt(II) sulphate*	10124-43-3	233-334-2	Carcinogenic; Toxic for reproduction	0.01	ND
40	Cobalt(II) dinitrate*	10141-05-6	233-402-1	Carcinogenic; Toxic for reproduction	0.01	ND
41	Cobalt(II) carbonate*	513-79-1	208-169-4	Carcinogenic; Toxic for reproduction	0.01	ND
42	Cobalt(II) diacetate*	71-48-7	200-755-8	Carcinogenic; Toxic for reproduction	0.01	ND
43	2-Methoxyethanol	109-86-4	203-713-7	Toxic for reproduction	0.005	ND
44	2-Ethoxyethanol	110-80-5	203-804-1	Toxic for reproduction	0.005	ND
45	Chromium trioxide*	1333-82-0	215-607-8	Carcinogenic; Mutagenic	0.01	ND
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	Carcinogenic	0.01	ND
47	2-Ethoxyethyl acetate	111-15-9	203-839-2	Toxic for reproduction	0.005	ND
48	Strontium Chromate*	7789-06-2	232-142-6	Carcinogenic	0.01	ND
49	1,2-benzenedicarboxylic acid, di-C7-11 branched alkyl ester and linear alkyl ester	68515-42-4	271-084-6	Toxic for reproduction	0.005	ND
50	Hydrazine	302-01-2 7803-57-8	206-114-9	Carcinogenic	0.005	ND



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51	1-Methyl-2-pyrrolidone	872-50-4	212-828-1	Toxic for reproduction	0.005	ND
52	1,2,3-trichloropropane	96-18-4	202-486-1	Toxic for reproduction	0.005	ND
53	1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl ester, C7-rich (DIHP)	71888-89-6	276-158-1	Toxic for reproduction	0.005	ND
54	Dichromium tris(chromate)*	24613-89-6	246-356-2	Carcinogenic	0.01	ND
55	Potassium hydroxyoctaoxodizincated i-chromate*	11103-86-9	234-329-8	Carcinogenic	0.01	ND
56	Pentazinc chromate octahydroxide*	49663-84-5	256-418-0	Carcinogenic	0.01	ND
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	500-036-1	Carcinogenic	0.005	ND
58	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	Toxic for reproduction	0.005	ND
59	2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1	Carcinogenic	0.005	ND
60	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	205-426-2	Equivalent level of concern	0.005	ND
61	1,2-Dichloroethane	107-06-2	203-458-1	Carcinogenic	0.005	ND
62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	Toxic for reproduction	0.005	ND
63	Arsenic acid*	7778-39-4	231-901-9	Carcinogenic	0.01	ND
64	Calcium arsenate*	7778-44-1	231-904-5	Carcinogenic	0.01	ND
65	Trilead diarsenate*	3687-31-8	222-979-5	Carcinogenic; Toxic for reproduction	0.01	ND
66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4	Toxic for reproduction	0.005	ND
67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	Carcinogenic	0.005	ND
68	Phenolphthalein	77-09-8	201-004-7	Carcinogenic	0.005	ND
69	Lead azide, Lead diazide*	13424-46-9	236-542-1	Toxic for reproduction	0.01	ND
70	Lead styphnate*	15245-44-0	239-290-0	Toxic for reproduction	0.01	ND
71	Lead dipicrate*	6477-64-1	229-335-2	Toxic for reproduction	0.01	ND
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3	Toxic for reproduction	0.005	ND



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73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	Toxic for reproduction	0.005	ND
74	Diboron trioxide*	1303-86-2	215-125-8	Toxic for reproduction	0.01	ND
75	Formamide	75-12-7	200-842-0	Toxic for reproduction	0.01	ND
76	Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	Toxic for reproduction	0.01	ND
77	TGIC (1,3,5- tris(oxiranylmethyl)- 1,3,5-triazine- 2,4,6(1H,3H,5H)-trione) §	2451-62-9	219-514-3	Mutagenic	0.005	ND
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	Mutagenic	0.005	ND
79	4,4'- bis(dimethylamino)benzo phenone (Michler's ketone)	90-94-8	202-027-5	Carcinogenic	0.005	ND
80	N,N,N',N'-tetramethyl- 4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	Carcinogenic	0.005	ND
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	Carcinogenic	0.005	ND
82	[4-[[4-anilino-1- naphthyl][4- (dimethylamino) phenyl]methylene]cycloh exa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	219-943-6	Carcinogenic	0.005	ND
83	α,α-Bis[4- (dimethylamino)phenyl]-4 (phenylamino)naphthalen e-1-methanol (C.I. Solvent Blue 4)	6786-83-0	229-851-8	Carcinogenic	0.01	ND
84	4,4'-bis(dimethylamino)- 4''-(methylamino)trityl alcohol	561-41-1	209-218-2	Carcinogenic	0.005	ND
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	214-604-9	Persistent, bioaccumulative and toxic; very persistent and very	0.005	ND



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				bioaccumulative		
86	N,N-dimethylformamide; dimethyl formamide	68-12-2	200-679-5	Toxic for reproduction	0.005	ND
87	Methoxy acetic acid	625-45-6	210-894-6	Toxic for reproduction ; equivalent level of concern	0.005	ND
88	Dibutyltin dichloride (DBT) ^{db}	683-18-1	211-670-0	Toxic for reproduction	0.01	ND
89	1,2-Diethoxyethane	629-14-1	211-076-1	Toxic for reproduction	0.005	ND
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	Equivalent level of concern	0.01	ND
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	Equivalent level of concern	0.01	ND
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	-	-	Equivalent level of concern	0.005	ND
93	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	Very persistent and very bioaccumulative	0.005	ND
94	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear +	84777-06-0	284-032-2	Toxic for reproduction	0.005	ND
95	Henicosafuoroundecanoic acid	2058-94-8	218-165-4	Very persistent and very bioaccumulative	0.005	ND
96	N-pentyl-isopentylphthalate (iPnPP) +	776297-69-9	-	Toxic for reproduction	0.005	ND
97	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	Very persistent and very bioaccumulative	0.005	ND



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98	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	-	-	Equivalent level of concern	0.005	ND
99	Tricosafuorododecanoic acid	307-55-1	206-203-2	Very persistent and very bioaccumulative	0.005	ND
100	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	Toxic for reproduction	0.01	ND
101	Lead tetroxide (orange lead)*	1314-41-6	215-235-6	Toxic for reproduction	0.01	ND
102	Diethyl sulphate	64-67-5	200-589-6	Carcinogenic; Mutagenic	0.005	ND
103	Dinoseb	88-85-7	201-861-7	Toxic for reproduction	0.005	ND
104	Lead Titanium Zirconium Oxide*	12626-81-2	235-727-4	Toxic for reproduction	0.01	ND
105	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	Toxic for reproduction	0.01	ND
106	Furan	110-00-9	203-727-3	Carcinogenic	0.01	ND
107	N-methylacetamide	79-16-3	201-182-6	Toxic for reproduction	0.005	ND
108	o-Toluidine; 2-Aminotoluene	95-53-4	202-429-0	Carcinogenic	0.005	ND
109	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	Toxic for reproduction	0.01	ND
110	4,4'-oxydianiline and its salts	101-80-4	202-977-0	Carcinogenic; Mutagenic	0.005	ND
111	[Phthalato(2-)]dioxotrilead (Dibasic lead phthalate)*	69011-06-9	273-688-5	Toxic for reproduction	0.01	ND
112	Lead titanium trioxide*	12060-00-3	235-038-9	Toxic for reproduction	0.01	ND
113	Lead oxide sulphate*	12036-76-9	234-853-7	Toxic for reproduction	0.01	ND
114	Lead dinitrate*	10099-74-8	233-245-9	Toxic for reproduction	0.01	ND
115	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3	200-453-6	Carcinogenic	0.005	ND
116	Lead cyanamidate*	20837-86-9	244-073-9	Toxic for reproduction	0.01	ND
117	Tetralead trioxide sulphate*	12202-17-4	235-380-9	Toxic for reproduction	0.01	ND
118	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7	202-453-1	Carcinogenic	0.005	ND
119	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	Toxic for reproduction	0.01	ND
120	Trilead bis(carbonate)dihydroxide (basic lead carbonate)*	1319-46-6	215-290-6	Toxic for reproduction	0.01	ND
121	Dimethyl sulphate	77-78-1	201-058-1	Carcinogenic	0.005	ND
122	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	Toxic for reproduction	0.01	ND



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123	Silicic acid, barium salt, lead-doped*	68784-75-8	272-271-5	Toxic for reproduction	0.01	ND
124	Biphenyl-4-ylamine	92-67-1	202-177-1	Carcinogenic	0.005	ND
125	Lead oxide (lead monoxide)*	1317-36-8	215-267-0	Toxic for reproduction	0.01	ND
126	Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	Toxic for reproduction	0.01	ND
127	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	200-879-2	Carcinogenic; Mutagenic	0.01	ND
128	Silicic acid, lead salt*	11120-22-2	234-363-3	Toxic for reproduction	0.01	ND
129	Trilead dioxide phosphonate*	12141-20-7	235-252-2	Toxic for reproduction	0.01	ND
130	o-aminoazotoluene	97-56-3	202-591-2	Carcinogenic	0.005	ND
131	1-bromopropane	106-94-5	203-445-0	Toxic for reproduction	0.01	ND
132	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	Carcinogenic	0.005	ND
133	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	Carcinogenic	0.005	ND
134	Tetraethyllead*	78-00-2	201-075-4	Toxic for reproduction	0.01	ND
135	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	Toxic for reproduction	0.01	ND
136	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	Toxic for reproduction	0.01	ND
137	Diisopentylphthalate ⁺	605-50-5	210-088-4	Toxic for reproduction	0.005	ND
138	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	Equivalent level of concern	0.01	ND
139	Cadmium*	7440-43-9	231-152-8	Carcinogenic; Equivalent level of concern	0.01	ND
140	Cadmium oxide*	1306-19-0	215-146-2	Carcinogenic; Equivalent level of concern	0.01	ND
141	Dipentyl phthalate (DPP) ⁺	131-18-0	205-017-9	Toxic for reproduction	0.005	ND
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]	-	-	Equivalent level of concern	0.005	ND



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143	Ammonium pentadecafluorooctanoate (APFO) [‡]	3825-26-1	223-320-4	Toxic for reproduction; PBT	0.005	ND
144	Pentadecafluorooctanoic acid (PFOA) [‡]	335-67-1	206-397-9	Toxic for reproduction; PBT	0.005	ND
145	Cadmium sulphide*	1306-23-6	215-147-8	Carcinogenic; Equivalent level of concern	0.01	ND
146	Dihexyl phthalate	84-75-3	201-559-5	Toxic for reproduction	0.005	ND
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	Carcinogenic	0.005	ND
148	Disodium 4-amino-3-[[4'-[(2,4diaminophenyl)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	Carcinogenic	0.005	ND
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	202-506-9	Toxic for reproduction	0.005	ND
150	Lead di(acetate)*	301-04-2	206-104-4	Toxic for reproduction	0.01	ND
151	Trixylyl phosphate	25155-23-1	246-677-8	Toxic for reproduction	0.005	ND
152	Cadmium chloride*	10108-64-2	233-296-7	Carcinogenic; Mutagenic; Toxic for Reproduction; Equivalent level of concern having probable serious effects to human health	0.01	ND
153	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear ⁺⁺	68515-50-4	271-093-5	Toxic for reproduction	0.005	ND
154	Sodium peroxometaborate*	7632-04-4	231-556-4	Toxic for reproduction	0.01	ND
155	Sodium perborate; perboric acid, sodium salt*	-	239-172-9; 234-390-0	Toxic for reproduction	0.01	ND



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156	Cadmium fluoride *	7790-79-6	232-222-0	Carcinogenic; Mutagenic; Toxic for Reproduction; Equivalent level of concern having probable serious effects to human health	0.01	ND
157	Cadmium sulphate *	10124-36-4; 31119-53-6	233-331-6	Carcinogenic; Mutagenic; Toxic for Reproduction; Equivalent level of concern having probable serious effects to human health	0.01	ND
158	2-benzotriazol-2-yl-4,6- di-tert-butylphenol (UV-320)	3846-71-7	223-346-6	PBT; vPvB	0.005	ND
159	2-(2H-benzotriazol-2-yl)- 4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	PBT; vPvB	0.005	ND
160	2-ethylhexyl 10-ethyl-4,4- dioctyl-7-oxo-8-oxa-3,5- dithia-4- stannatetradecanoate (DOTE) ^{cb}	15571-58-1	239-622-4	Toxic for Reproduction	0.01	ND
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) ^{cb}	-	-	Toxic for Reproduction	0.01	ND
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	Toxic for reproduction	0.01	ND



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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]	-	-	vPvB	0.01	ND
164	1,3-propanesultone	1120-71-4	214-317-9	Carcinogenic	0.005	ND
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	vPvB	0.005	ND
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	vPvB	0.005	ND
167	Nitrobenzene	98-95-3	202-716-0	Toxic for reproduction	0.005	ND
168	Perfluorononan-1-oic acid and its sodium and ammonium salts	375-95-1; 21049-39-8; 4149-60-4	206-801-3	Toxic for reproduction; PBT	0.005	ND
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5	Carcinogenic; Mutagenic; Toxic for Reproduction; PBT; vPvB	0.005	ND
170	4,4'-isopropylidenediphenol (bisphenol A; BPA)	80-05-7	201-245-8	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health	0.005	ND
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)	-	-	Equivalent level of concern having probable serious effects to the environment	0.005	ND
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	Toxic for reproduction; PBT	0.005	ND



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173	p-(1,1-dimethylpropyl)phenol (PTAP)	80-46-6	201-280-9	Equivalent level of concern having probable serious effects to the environment	0.005	ND
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	-	-	vPvB	0.005	ND
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 Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	-	vPvB (Article 57e)	0.005	ND
176	Benz[a]anthracene	56-55-3	200-280-6	Carcinogenic (Article 57a) PBT (Article 57d) vPvB (Article 57e)	0.005	ND
177	Cadmium nitrate	10325-94-7	233-710-6	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)	0.005	ND
178	Cadmium carbonate	513-78-0	208-168-9	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)	0.005	ND
179	Cadmium hydroxide	21041-95-2	244-168-5	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)	0.005	ND
180	Chrysene	218-01-9	205-923-4	Carcinogenic (Article 57a) PBT (Article 57d) vPvB (Article 57e)	0.005	ND
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol,	-	-	Endocrine disrupting properties (Article 57(f) – environment)	0.005	ND



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	branched and linear (RP-HP) [with $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear]					
182	Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7	PBT; vPvB	0.005	ND
183	Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9	PBT; vPvB	0.005	ND
184	Dodecamethylcyclohexasiloxane (D6)	540-97-6	208-762-8	PBT; vPvB	0.005	ND
185	Lead	7439-92-1	231-100-4	Toxic for reproduction	0.005	ND
186	Disodium octaborate	12008-41-2	234-541-0	Toxic for reproduction	0.005	ND
187	Benzo[ghi]perylene	191-24-2	205-883-8	PBT; vPvB	0.005	ND
188	Terphenyl hydrogenated	61788-32-7	262-967-7	vPvB	0.005	ND
189	Ethylenediamine (EDA)	107-15-3	203-468-6	Equivalent level of concern having probable serious effects to human health	0.005	ND
190	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (TMA)	552-30-7	209-008-0	Equivalent level of concern having probable serious effects to human health	0.005	ND
191	Dicyclohexyl phthalate (DCHP)	84-61-7	201-545-9	Toxic for reproduction; Equivalent level of concern having probable serious effects to human health	0.005	ND
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	Toxic for reproduction	0.005	ND
193	Benzo[k]fluoranthene	207-08-9	205-916-6	Carcinogenic; PBT; vPvB	0.005	ND
194	Fluoranthene	206-44-0	205-912-4	PBT; vPvB	0.005	ND



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195	Phenanthrene	85-01-8	201-581-5	vPvB	0.005	ND
196	Pyrene	129-00-0	204-927-3	PBT; vPvB	0.005	ND
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	Equivalent level of concern having probable serious effects to the environment	0.005	ND
198	2-methoxyethyl acetate	110-49-6	203-772-9	Toxic for reproduction	0.005	ND
199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	-	-	Equivalent level of concern having probable serious effects to the environment	0.005	ND
200	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	-	Equivalent level of concern having probable serious effects on the environment & human health	0.005	ND
201	4-tert-butylphenol (PTBP)	98-54-4	202-679-0	Equivalent level of concern having probable serious effects to the environment	0.005	ND
202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	Toxic for reproduction	0.005	ND
203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	Toxic for reproduction	0.005	ND
204	Diisohexyl phthalate	71850-09-4	276-090-2	Toxic for reproduction	0.005	ND
205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	-	Equivalent level of concern having probable serious effects on the environment and human health	0.005	ND



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206	1-vinylimidazole	1072-63-5	214-012-0	Toxic for reproduction	0.005	ND
207	2-methylimidazole	693-98-1	211-765-7	Toxic for reproduction	0.005	ND
208	Butyl 4-hydroxybenzoate (Butylparaben)	94-26-8	202-318-7	Equivalent level of concern having probable serious effects on the human health	0.005	ND
209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	245-152-0	Toxic for reproduction	0.010	ND
210	bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	205-594-7	Toxic for reproduction	0.01	ND
211	Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	-	-	Toxic for reproduction	0.01	ND
212	1,4-dioxane	123-91-1	204-661-8	Carcinogenic; Equivalent level of concern having probable serious effects on the environment & human health	0.01	ND
213	2,2-bis(bromomethyl) propane 1,3-diol (BMP) 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	Carcinogenic	0.01	ND
214	2-(4-tert-butylbenzyl) propionaldehyde and its individual stereoisomers	-	-	Toxic for reproduction	0.01	ND
215	4,4'-(1-methylpropylidene)bisphe- nol; (bisphenol B)	77-40-7	201-025-1	Equivalent level of concern having probable serious effects on the environment &	0.01	ND



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				human health		
216	Glutaral	111-30-8	203-856-5	Equivalent level of concern having probable serious effects on human health	0.01	ND
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]	-	-	PBT; vPvB	0.01	ND
218	Orthoboric acid, sodium salt	13840-56-7	237-560-2	Toxic for reproduction	0.01	ND
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)	-	-	Toxic for reproduction; Equivalent level of concern having probable serious effects on the environment & human health	0.01	ND
220	(±)-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)	-	-	Equivalent level of concern having probable serious effects on human health	0.05	ND
221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC)	119-47-1	204-327-1	Toxic for reproduction	0.05	ND
222	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	255881-94-8	401-850-9	PBT	0.05	ND



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223	tris(2-methoxyethoxy) vinylsilane	1067-53-4	213-934-0	Toxic for reproduction	0.05	ND
224	N-(hydroxymethyl) acrylamide	924-42-5	213-103-2	Carcinogenic; Mutagenic	0.05	ND
225	1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene](BTB PE)	37853-59-1	253-692-3	vPvB	0.01	ND
226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol)(TBBPA)	79-94-7	201-236-9	Carcinogenic	0.01	ND
227	4,4'-sulphonyldiphenol(Bis phenol S, BPS)	80-09-1	201-250-5	Toxic for reproduction; Equivalent level of concern having probable serious effects on the environment & human health	0.01	ND
228	Barium diborontetraoxide	13701-59-2	237-222-4	Toxic for reproduction	0.01	ND
229	Bis(2-ethylhexyl) tetrabromophthalate(T BPH)	-	-	vPvB	0.01	ND
230	Isobutyl 4-hydroxybenzoate(Isobutylparaben)	4247-02-3	224-208-8	Equivalent level of concern having probable serious effects on human health	0.01	ND
231	Melamine	108-78-1	203-615-4	Equivalent level of concern having probable serious effects on the environment & human health	0.01	ND
232	Perfluoroheptanoicacid (PFHpA) and its salts	-	-	Toxic for reproduction; PBT; vPvB; Equivalent level of concern having probable serious effects on the environment & human health	0.01	ND



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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	vPvB	0.01	ND
234	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	278-355-8	Suspected to be Toxic to Reproduction; A majority of data submitters agree this substance is Skin sensitising	0.01	ND
235	Bis(4-chlorophenyl) sulphone	80-07-9	201-247-9	Under assessment as Persistent, Bioaccumulative and Toxic	0.01	ND

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



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- 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. # = Reference with client information(attachment_), _haven't been tested and consider as ND
 5. *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.
 6. **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.
 7. [§]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.
 8. ^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 (μ m) c) alkaline oxide and alkali earth oxide (Na₂O+K₂O+CaO+MgO+BaO) content less or equal to 18% by weight.
 9. ^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 (μ m). c) alkaline oxide and alkali earth oxide (Na₂O+K₂O+CaO+MgO+BaO) content less or equal to 18% by weight.
 10. ⁺[1,2-Benzenedicarboxylic acid, dipentylester, branched and linear] is a mixture of phthalates contains DPP, DIPP and N-pentyl-isopentylphthalate.
 11. ^zPFOA 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.
 12. ⁺⁺[1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear] is a mixture of phthalates contains dihexyl phthalate.
 13. ^{db}Result 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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Photo of the Submitted Sample





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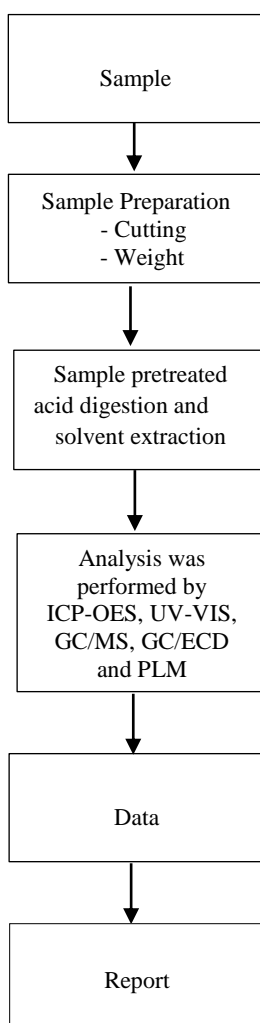
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Test Flowchart of SVHC Content



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