



TEST REPORT

Report No.: LCSE112422013R

Date: 2022.12.07

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Applicant : Optolong Optics Co.,Ltd

Address : Lenovo Technology City Rongchuang Office Building 1523-1526 Kepu Road, Kunming City, Yunnan Province, China 650102

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

Sample Name(s) : Optical Filters

Trade Mark : OPTOLONG

Style No. : Fluorescence Filters, Astronomy Filters, Bandpass Filters, Dichroic Beamsplitters, Reflective Mirrors, UV/IR CUT Filters, Shortpass/Longpass Filters

Sample Received Date : November 30, 2022

Testing Period : November 30, 2022 ~ December 07, 2022

Test Requested : As specified by client, to screen the 224 substances of very high concern (SVHC) under Regulation (EC) No 1907/2006 of REACH in the submitted sample(s).

Test Method/Test Result(s) : Please refer to the following page(s).

Summary : According to the analytical results, concentrations of all tested SVHC (see the candidate list) is less than 0.1%(w/w) in the submitted product.

Signed for and on behalf of LCS

Imanol Yan

Imanol Yan



Ningbo LCS Standard Technology Service Co., Ltd.

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Sample Description

Sample No.	Sample Description
1	Purple glass
2	Clear glass
3	Green glass
4	Yellow glass
5	Green glass
6	Clear glass
7	Clear glass
8	Black metal
9	Black metal

Test No.	Sample Description
A1	8、9

Test No.	Sample Description
B1	1、2、3、4、5、6、7

Test Result(s)

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					A1	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					B1	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

Test Method:

Refer to US EPA 3052:1996, US EPA 3050B:1996, US EPA 3060A:1996, US EPA 3550C:2007, US EPA 3540C:1996, ISO 17353:2004(E), EN 14582:2016 for sample pretreatment.

Analyzed by ICP-OES, UV-Vis, IC, HPLC, GC-MS, GC-FID and LC-MS-MS.

Sample/Part Description

Sample No.	Sample/Part Description	Number of SVHC
A	Mixed test, all parts (Metal) [#]	72
B	Mixed test, all parts (Nonmetal) [#]	224



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Note:

1. The table of tested result(s) only shows detected SVHC, and SVHC that below Report Limit are not reported. Please refer to the Candidate List of SVHC on next pages.
2. w/w %=weight by weight; 0.1%=1000mg/kg=1000ppm
3. N.D.=Not Detected (<Report Limit)
4. *: Concentration value of the substance by the conversion from the test results of certain elements.

Concentration value of Bis(tributyltin)oxide(TBTO), Dibutyltin dichloride(DBTC), 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate(DOTE), 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), Dibutylbis(pentane-2,4-dionato-O,O')tin by the conversion from the test results of certain compounds(Tributyl Tins(TBT), Dibutyl Tins(DBT), Dioctyl Tins(DOT), Monoctyl Tins(MOT)).

5. **: All refractory ceramic fibres are covered by index number 650-017-00-8 in Annex IV of the Regulation on Classification, Labeling and Packaging of chemical substances and mixtures, the so called CLP Regulation (Regulation (EC) No 1272/2008).
6. ***: C.I.: Colour Index
7. ****: Light fractions from distillation
8. *****: Concentration value of Disodium tetraborate, anhydrous and Tetraboron disodium heptaoxide, hydrate is evaluated by Disodium tetraborate, with no consider of the hydrate. Concentration value of Sodium perborate; perboric acid, sodium salt; Sodium peroxometaborate is evaluated by Sodium perborate, with no consider of the hydrate.
9. ▲: Concentration value of Formaldehyde, oligomeric reaction products with aniline (technical MDA) by the conversion from the test results of certain compounds (2,4-Diaminodiphenylmethane, 4,4'-Diaminodiphenylmethane, 2,2-Diaminodiphenylmethane).
10. ①: In view of the substances are established as UVCB substances (substances of unknown or variable composition, complex reaction products or biological materials) consisting of different and variable constituents, the test results are calculated based on the main constituents of the representative compounds for substances. When the content of the representative substances is equal to or higher than 0.1% (w/w), the presence of the substance in the sample need to be further confirmed by checking SDS or requesting from suppliers.
11. ②: In view of the substance contain variable substances, the test results are calculated based on main constituents of the representative compounds for the substances, and the test results of the representative compounds are calculated based on the result of specified heavy metal elements.
12. ③: The concentration of SVHC in product is calculated by the total mass of SVHC in all Groups divided into total product weight.
13. #: As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.
14. *: Indicates the tested items of 72 SVHC.

Remark:

The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.



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Candidate List of SVHC

Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
I	1	Anthracene	120-12-7	204-371-1	0.005
I	2	4,4'-Diaminodiphenylmethane	101-77-9	202-974-4	0.005
I	3	Dibutyl phthalate(DBP)	84-74-2	201-557-4	0.005
I	4*	Cobalt dichloride*	7646-79-9	231-589-4	0.01
I	5*	Diarsenic pentaoxide*	1303-28-2	215-116-9	0.01
I	6*	Diarsenic trioxide *	1327-53-3	215-481-4	0.01
I	7*	Sodium dichromate *	7789-12-0 10588-01-9	234-190-3	0.01
I	8	Musk xylene	81-15-2	201-329-4	0.005
I	9	Bis(2-ethyl(hexyl) phthalate) (DEHP)	117-81-7	204-211-0	0.005
I	10	Hexabromocyclododecane (HBCDD)	25637-99-4 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	247-148-4 221-695-9	0.005
I	11	Short Chain Chlorinated Paraffins (SCCPs)	85535-84-8	287-476-5	0.01
I	12	Bis(tributyltin)oxide (TBTO)*	56-35-9	200-268-0	0.005
I	13*	Lead hydrogen arsenate*	7784-40-9	232-064-2	0.01
I	14	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	0.005
I	15*	Triethyl arsenate*	15606-95-8	427-700-2	0.01
II	16	^① Anthracene oil	90640-80-5	292-602-7	0.05
II	17	^① Anthracene oil, anthracene paste, distn. Lights****	91995-17-4	295-278-5	0.05
II	18	^① Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	0.05
II	19	^① Anthracene oil, anthracene-low	90640-82-7	292-604-8	0.05
II	20	^① Anthracene oil, anthracene paste	90640-81-6	292-603-2	0.05
II	21	^① Coal tar pitch, high temperature	65996-93-2	266-028-2	0.05
II	22	Acrylamide	79-06-1	201-173-7	0.01
II	23	2,4-Dinitrotoluene	121-14-2	204-450-0	0.01
II	24	Diisobutyl phthalate (DIBP)	84-69-5	201-553-2	0.005
II	25*	^② Lead chromate	7758-97-6	231-846-0	0.05
II	26*	^② Lead chromate molybdate sulphate red (C.I. Pigment Red 104)***	12656-85-8	235-759-9	0.05
II	27*	^② Lead sulfochromate yellow (C.I. Pigment Yellow 34)***	1344-37-2	215-693-7	0.05
II	28	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	204-118-5	0.01



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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
III	29	Trichloroethylene	79-01-6	201-167-4	0.005
III	30*	Boric acid*	10043-35-3 11113-50-1	233-139-2 234-343-4	0.01
III	31*	^② Disodium tetraborate, anhydrous*****	1330-43-4 12179-04-3 1303-96-4	215-540-4	0.01
III	32*	^② Tetraboron disodium heptaoxide, hydrate*****	12267-73-1	235-541-3	0.01
III	33*	Sodium chromate*	7775-11-3	231-889-5	0.01
III	34*	Potassium chromate*	7789-00-6	232-140-5	0.01
III	35*	Ammonium dichromate *	7789-09-5	232-143-1	0.01
III	36*	Potassium dichromate *	7778-50-9	231-906-6	0.01
IV	37*	Cobalt(II) sulphate*	10124-43-3	233-334-2	0.01
IV	38*	Cobalt(II) dinitrate*	10141-05-6	233-402-1	0.01
IV	39*	Cobalt(II) carbonate*	513-79-1	208-169-4	0.01
IV	40*	Cobalt(II) diacetate*	71-48-7	200-755-8	0.01
IV	41	2-Methoxyethanol	109-86-4	203-713-7	0.005
IV	42	2-Ethoxyethanol	110-80-5	203-804-1	0.005
IV	43*	Chromium trioxide*	1333-82-0	215-607-8	0.01
IV	44*	^① Acids generated from chromium trioxide and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid*	7738-94-5 13530-68-2	231-801-5 236-881-5	0.01
V	45	2-ethoxyethyl acetate	111-15-9	203-839-2	0.01
V	46*	Strontium chromate *	7789-06-2	232-142-6	0.01
V	47	^① 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	271-084-6	0.01
V	48	Hydrazine	7803-57-8 302-01-2	206-114-9	0.01
V	49	1-methyl-2-pyrrolidone	872-50-4	212-828-1	0.01
V	50	1,2,3-trichloropropane	96-18-4	202-486-1	0.01
V	51	^① 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	276-158-1	0.01
VI	52*	^② Aluminosilicate Refractory Ceramic	—	—	0.05



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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
		Fibres (RCF)**			
VI	53*	^② Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)**	—	—	0.05
VI	54*	Dichromium tris(chromate) *	24613-89-6	246-356-2	0.01
VI	55*	Potassium hydroxyoctaoxidizincate dichromate*	11103-86-9	234-329-8	0.01
VI	56	^① Formaldehyde, oligomeric reaction products with aniline (technical MDA) [▲]	25214-70-4	500-036-1	0.01
VI	57*	Pentazinc chromate octahydroxide*	49663-84-5	256-418-0	0.01
VI	58	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	0.005
VI	59	2-Methoxyaniline (o-Anisidine)	90-04-0	201-963-1	0.005
VI	60	4-(1,1,3,3-tetramethylbutyl) phenol (4-tert-Octylphenol)	140-66-9	205-426-2	0.005
VI	61	1,2-Dichloroethane	107-06-2	203-458-1	0.005
VI	62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	0.005
VI	63*	Arsenic acid *	7778-39-4	231-901-9	0.01
VI	64*	Calcium arsenate *	7778-44-1	231-904-5	0.01
VI	65*	Trilead diarsenate *	3687-31-8	222-979-5	0.01
VI	66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4	0.005
VI	67	Phenolphthalein	77-09-8	201-004-7	0.005
VI	68	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	0.005
VI	69*	Lead diazide *	13424-46-9	236-542-1	0.01
VI	70*	Lead 2,4,6-trinitro-m-phenylene dioxide (Lead styphnate)*	15245-44-0	239-290-0	0.01
VI	71*	Lead dipicrate*	6477-64-1	229-335-2	0.01
VII	72	1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2	203-977-3	0.01
VII	73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	0.01
VII	74*	Diboron trioxide*	1303-86-2	215-125-8	0.01
VII	75	Formamide	75-12-7	200-842-0	0.01
VII	76*	Lead(II) bis methanesulfonate *	17570-76-2	401-750-5	0.01
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	0.01
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	0.01
VII	79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	202-027-5	0.01



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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
VII	80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	0.01
VII	81	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3)***	548-62-9	208-953-6	0.01
VII	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	0.01
VII	83	α,α -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) ***	6786-83-0	229-851-8	0.01
VII	84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	209-218-2	0.01
VIII	85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	214-604-9	0.05
VIII	86	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	0.05
VIII	87	Tricosafuorododecanoic acid	307-55-1	206-203-2	0.05
VIII	88	Henicosafuoroundecanoic acid	2058-94-8	218-165-4	0.05
VIII	89	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	0.05
VIII	90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	—	—	0.05
VIII	91	^① 4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	—	—	0.05
VIII	92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	0.05
VIII	93	Cyclohexane-1,2-dicarboxylic anhydride, 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	0.05
VIII	94	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalicanhydride, 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	0.05
VIII	95	Methoxyacetic acid	625-45-6	210-894-6	0.05
VIII	96	^① 1,2-Benzenedicarboxylic acid,	84777-06-0	284-032-2	0.05



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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
		dipentylester, branched and linear			
VIII	97	Diisopentylphthalate (DIPP)	605-50-5	210-088-4	0.05
VIII	98	N-pentyl-isopentylphthalate	776297-69-9	—	0.05
VIII	99	1,2-Diethoxyethane	629-14-1	211-076-1	0.05
VIII	100	N,N-dimethylformamide	68-12-2	200-679-5	0.05
VIII	101	Dibutyltin dichloride (DBTC)*	683-18-1	211-670-0	0.05
VIII	102*	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	0.01
VIII	103*	Trilead bis(carbonate) dihydroxide*	1319-46-6	215-290-6	0.01
VIII	104*	Lead oxide sulfate*	12036-76-9	234-853-7	0.01
VIII	105*	[Phthalato(2-)]dioxotrilead*	69011-06-9	273-688-5	0.01
VIII	106*	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	0.01
VIII	107*	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	0.01
VIII	108*	Lead bis(tetrafluoroborate) *	13814-96-5	237-486-0	0.01
VIII	109*	Lead cyanamidate*	20837-86-9	244-073-9	0.01
VIII	110*	Lead dinitrate*	10099-74-8	233-245-9	0.01
VIII	111*	Lead monoxide (lead oxide) *	1317-36-8	215-267-0	0.01
VIII	112*	Orange lead (lead tetroxide)*	1314-41-6	215-235-6	0.01
VIII	113*	Lead titanium trioxide*	12060-00-3	235-038-9	0.01
VIII	114*	Lead titanium zirconium oxide*	12626-81-2	235-727-4	0.01
VIII	115*	Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	0.01
VIII	116*	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	0.01
VIII	117*	Silicic acid(H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped*	68784-75-8	272-271-5	0.01
VIII	118*	Silicic acid, lead salt*	11120-22-2	234-363-3	0.01
VIII	119*	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	0.01
VIII	120*	Tetraethyllead*	78-00-2	201-075-4	0.01
VIII	121*	Tetralead trioxide sulphate*	12202-17-4	235-380-9	0.01
VIII	122*	Trilead dioxide phosphonate*	12141-20-7	235-252-2	0.01
VIII	123	Furan	110-00-9	203-727-3	0.05
VIII	124	Methyloxirane (Propylene oxide)	75-56-9	200-879-2	0.05
VIII	125	Diethyl sulphate	64-67-5	200-589-6	0.05
VIII	126	Dimethyl sulphate	77-78-1	201-058-1	0.05



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VIII	127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	0.05
VIII	128	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	201-861-7	0.05
VIII	129	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	0.05
VIII	130	4,4'-oxydianiline and its salts	101-80-4	202-977-0	0.05
VIII	131	4-aminoazobenzene	60-09-3	200-453-6	0.05
VIII	132	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	202-453-1	0.05
VIII	133	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	0.05
VIII	134	Biphenyl-4-ylamine	92-67-1	202-177-1	0.05
VIII	135	o-aminoazotoluene	97-56-3	202-591-2	0.05
VIII	136	o-Toluidine	95-53-4	202-429-0	0.05
VIII	137	N-methylacetamide	79-16-3	201-182-6	0.05
VIII	138	1-bromopropane (n-propyl bromide)	106-94-5	203-445-0	0.05
IX	139	^① 4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	—	—	0.05
IX	140*	Cadmium	7440-43-9	231-152-8	0.01
IX	141*	Cadmium oxide*	1306-19-0	215-146-2	0.01
IX	142	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	0.01
IX	143	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	0.01
IX	144	Dipentyl phthalate (DPP)	131-18-0	205-017-9	0.01
X	145*	Cadmium sulphide *	1306-23-6	215-147-8	0.01
X	146	Dihexyl phthalate	84-75-3	201-559-5	0.01
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	0.01
X	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	0.01
X	149	Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7	202-506-9	0.01



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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
X	150*	Lead di(acetate)*	301-04-2	206-104-4	0.01
X	151	^① Trixylyl phosphate	25155-23-1	246-677-8	0.01
XI	152	^① 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	0.01
XI	153*	Cadmium chloride *	10108-64-2	233-296-7	0.01
XI	154*	^② Sodium perborate; perboric acid, sodium salt *****	15120-21-5 11138-47-9	239-172-9 234-390-0	0.01
XI	155*	^② Sodium peroxometaborate*****	7632-04-4	231-556-4	0.01
XII	156	2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	0.01
XII	157	2-Benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	223-346-6	0.01
XII	158	^① Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)*	—	—	0.05
XIII	159	^① 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	0.05
XIII	160	^① 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 stereoisomers of [1] and [2] or any combination thereof]	—	—	0.05
XII	161*	Cadmium fluoride*	7790-79-6	232-222-0	0.01
XII	162*	Cadmium sulphate*	10124-36-4 31119-53-6	233-331-6	0.01
XII	163	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)*	15571-58-1	239-622-4	0.05
XIV	164	Nitrobenzene	98-95-3	202-716-0	0.01
XIV	165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	0.01
XIV	166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	0.01
XIV	167	1,3-propanesultone	1120-71-4	214-317-9	0.01
XIV	168	Perfluorononan-1-ic-acid and its sodium and ammonium salts	375-95-1	206-801-3	0.01



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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
			21049-39-8 4149-60-4		
XV	169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5	0.01
XVI	170	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	221-470-5 206-400-3 -	0.01
XVI	171	p-(1,1-dimethylpropyl)phenol	80-46-6	201-280-9	0.01
XVI	172	^① 4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	—	—	0.05
XVI	173	4,4'-isopropylidenediphenol (bisphenol A; BPA)	80-05-7	201-245-8	0.01
XVII	174	Perfluorohexane-1-sulphonic acid and its salts	—	—	0.05
XVIII	175	Dechlorane plus (including any of its individual anti- and syn-isomers or any combination thereof)	—	—	0.01
XVIII	176	Benzo[a]anthracene	56-55-3, 1718-53-2	200-280-6	0.01
XVIII	177	^① 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 (4-HPbl)]	—	—	0.05
XVIII	178*	Cadmium nitrate*	10325-94-7 10022-68-1	233-710-6	0.01
XVIII	179*	Cadmium carbonate*	513-78-0	208-168-9	0.01
XVIII	180*	Cadmium hydroxide*	21041-95-2	244-168-5	0.01
XVIII	181	Chrysene	218-01-9, 1719-03-5	205-923-4	0.01
XIX	182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7	209-008-0	0.01
XIX	183	Benzo[g,h,i]perylene	191-24-2	205-883-8	0.01
XIX	184	Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9	0.01
XIX	185	Dicyclohexylphthalate (DCHP)	84-61-7	201-545-9	0.01



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XIX	186*	Disodium octaborate*	12008-41-2	234-541-0	0.01
XIX	187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	208-762-8	0.01
XIX	188	Ethylenediamine (EDA)	107-15-3	203-468-6	0.01
XIX	189*	Lead	7439-92-1	231-100-4	0.01
XIX	190	Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7	0.01
XIX	191	^① Terphenyl, hydrogenated	61788-32-7	262-967-7	0.01
XX	192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2,2,1]heptan-2-one	15087-24-8	239-139-9	0.01
XX	193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	0.01
XX	194	Benzo[k]fluoranthene	207-08-9	205-916-6	0.01
XX	195	Fluoranthene	206-44-0	205-912-4	0.01
XX	196	Phenanthrene	85-01-8	201-581-5	0.01
XX	197	Pyrene	129-00-0	204-927-3	0.01
XXI	198	4-tert-butylphenol	98-54-4	202-679-0	0.01
XXI	199	2-methoxyethyl acetate	110-49-6	203-772-9	0.01
XXI	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)	—	—	0.01
XXI	201	^① Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	—	—	0.01
XXII	202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	0.01
XXII	203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	0.01
XXII	204	Diisohexyl phthalate	71850-09-04	276-090-2	0.01
XXII	205	Perfluorobutane sulfonic acid (PFBS) and its salts	—	—	0.01
XXIII	206	1-vinylimidazole	1072-63-5	214-012-0	0.01
XXIII	207	2-methylimidazole	693-98-1	211-765-7	0.01
XXIII	208	Butyl 4-hydroxybenzoate	94-26-8	202-318-7	0.01



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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
XXIII	209	Dibutylbis(pentane-2,4-dionato-O,O')tin*	22673-19-4	245-152-0	0.05
XXIV	210	Bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	205-594-7	0.01
XXIV	211	Diocetyl tin 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*	—	—	0.01
XXV	212	1,4-dioxane	123-91-1	204-661-8	0.01
XXV	213	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	—	—	0.01
XXV	214	4,4'-(1-methylpropylidene)bisphenol	77-40-7	201-025-1	0.01
XXV	215	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	0.01
XXV	216	Glutaral	111-30-8	203-856-5	0.01
XXV	217	Middle Chain Chlorinated Paraffins (MCCPs)(UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C ₁₄ to C ₁₇)	—	—	0.01
XXV	218*	Orthoboric acid, sodium salt*	13840-56-7	237-560-2	0.05
XXV	219	Phenol, alkylation products (mainly in para position) with C ₁₂ -rich branched alkyl chains from oligomerisation, covering any individual isomers and/or combinations thereof (PDDP)	—	—	0.01
XXVI	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)	—	—	0.01
XXVI	221	6,6'-di-tert-butyl-2,2'-methylene di-p-cresol	119-47-1	204-327-1	0.01
XXVI	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	0.01
XXVI	223	Tris(2-methoxyethoxy)vinylsilane	1067-53-4	213-934-0	0.01
XXVII	224	N-(hydroxymethyl)acrylamide	924-42-5	213-103-2	0.01



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Appendix:

1. Any supplier of an article containing a substance that is included in the Candidate List in a concentration above 0.1% weight by weight (w/w) has the duty to communicate information in accordance with Article 33 of European Union regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
 - 1) Any supplier shall provide the recipient of the article with sufficient information to allow safe use of the article including, as a minimum, the name of that substance.
 - 2) On request by a consumer any supplier shall provide the consumer with sufficient information to allow safe use of the article including, as a minimum, the name of that substance within 45 days of receipt of the request, free of charge.
2. The supplier of a substance that is included in the Candidate List on their own shall provide the recipient of the substance with a safety data sheet for free compiled in accordance with Article 31 and Annex II of REACH.
3. The supplier of a mixture that containing a substance that is included in the Candidate List shall exchange information in accordance with Article 31, Article 32, and Annex II of REACH.
 - 1) Any supplier shall provide the recipient of the mixture with a safety data sheet for free where a preparation meets the criteria for classification as dangerous in accordance with Directives 1999/45/EC.
 - 2) Any supplier shall provide the recipient of the mixture with a safety data sheet for free where a preparation does not meet the criteria for classification as dangerous in accordance with Directive 1999/45/EC, but contains any substance that is included in the Candidate List in an individual concentration of $\geq 0.1\%$ by weight for non-gaseous mixtures or $\geq 0.2\%$ by volume for gaseous mixtures.



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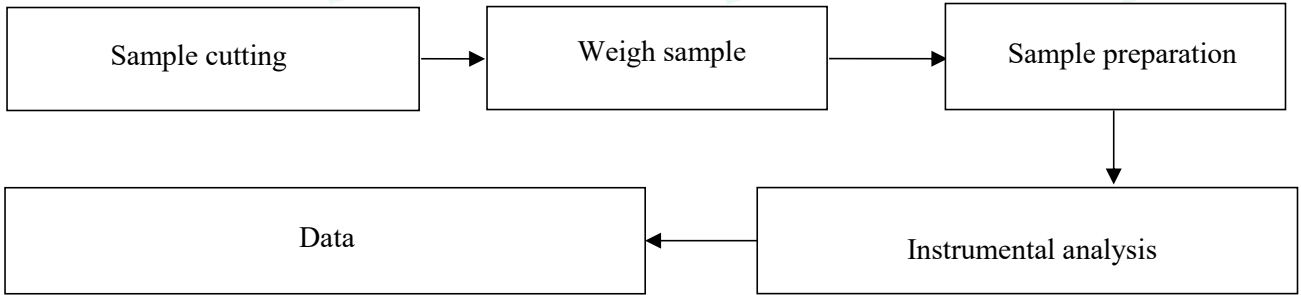
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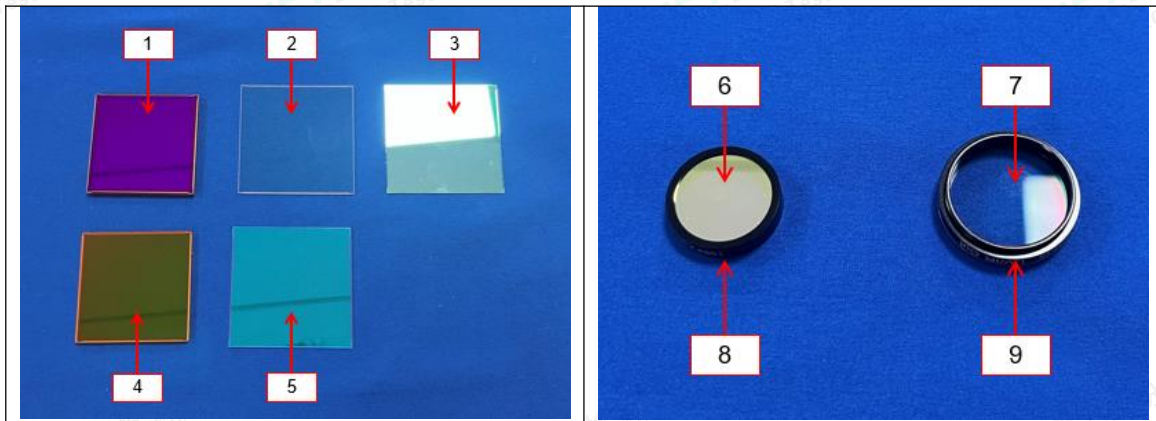
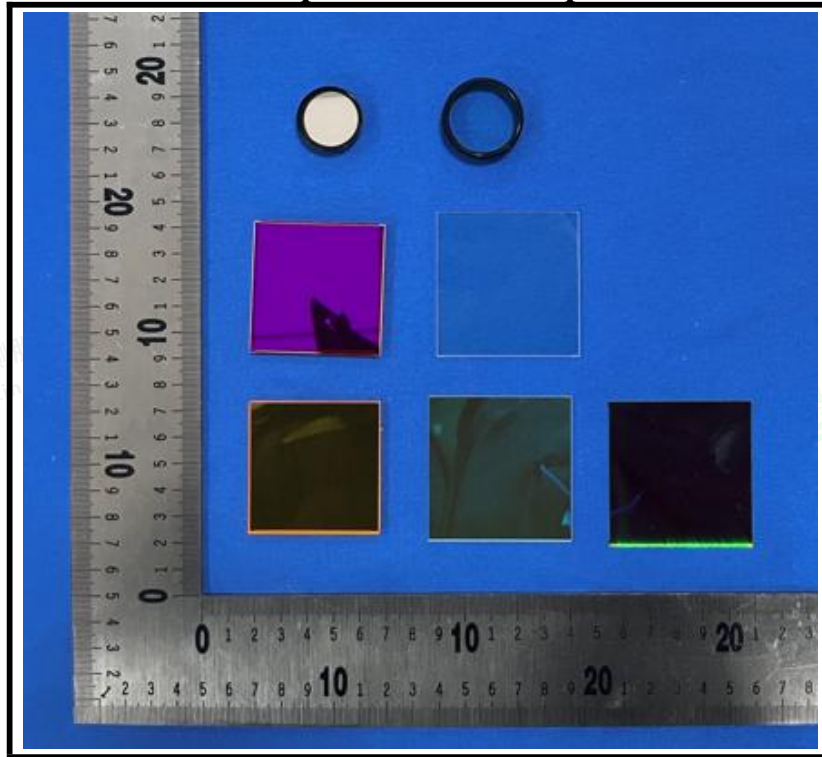
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