

## REACH SVHC 報告書

弊社は、下記製品が欧州化学物質庁 (ECHA) 発行の別表記載の SVHC (高懸念物質) の内、下記物質を 0.1wt% を超えて含有し、その他の物質については 0.1wt% を超えて含有していないことを報告致します。

水晶振動子 / Crystal Resonator			
型名 :	DSX210GE	DSX211G	DSX221G
	DSX320GE	DSX321G	DSX321GK
	DSX530GK		DSX320G
			DSX530GA
	DSX210G	DSX220G	DSX630G
	DSX840GK	DSX840GT	DSX840GA
			DSX151GAL/GL

### 含有物質

型名	物質名	CAS No.	製品重量	含有率
DSX210GE	チタン酸鉛	12060-00-3	0.0092g	2.4%
DSX211G	チタン酸鉛	12060-00-3	0.0068g	3.3%
DSX221G	チタン酸鉛	12060-00-3	0.013g	6.7%
DSX320G	チタン酸鉛	12060-00-3	0.021g	5.9%
DSX320GE	チタン酸鉛	12060-00-3	0.023g	3.4%
DSX321G	チタン酸鉛	12060-00-3	0.020g	6.3%
DSX321GK	チタン酸鉛	12060-00-3	0.022g	5.8%
DSX530GA	チタン酸鉛	12060-00-3	0.048g	4.4%
DSX530GK	チタン酸鉛	12060-00-3	0.048g	4.4%

含有物質

型名	物質名	CAS No.	製品重量	含有率
DSX210G	チタン酸鉛	12060-00-3	0.0073g	3.1%
DSX220G	チタン酸鉛	12060-00-3	0.014g	3.5%
DSX630G	チタン酸鉛	12060-00-3	0.068g	5.6%
DSX840GA	チタン酸鉛	12060-00-3	0.16g	3.7%
DSX840GK	チタン酸鉛	12060-00-3	0.20g	3.0%
DSX840GT	チタン酸鉛	12060-00-3	0.17g	2.5%
DSX151GAL	チタン酸鉛	12060-00-3	0.40g	2.1%
DSX151GL	チタン酸鉛	12060-00-3	0.34g	2.4%

(対象範囲)

本報告書は製品のみを対象としており、製品の包装材は対象外としています。

(特記事項)

欧州化学物質庁(ECHA)のSVHC(高懸念物質)について、サプライヤーへの調査依頼、又はサプライヤーからの自主的な情報伝達に基づき弊社が知り得た情報に基づき記述しています。SVHC(高懸念物質)の意図的な使用や含有による調査のため、不純物として残留等を否定するものではありません。

以上

Number of the Candidate list: 181 ( last updated: 15 January, 2018 )

Name	EC no.	CAS no.	Date of inclusion
4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9	28/10/2008
5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	201-329-4	81-15-2	28/10/2008
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8	28/10/2008
Anthracene	204-371-1	120-12-7	28/10/2008
Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	28/10/2008
Bis (2-ethylhexyl)phthalate (DEHP)	204-211-0	117-81-7	28/10/2008
Bis(tributyltin) oxide (TBTO)	200-268-0	56-35-9	28/10/2008
Cobalt dichloride	231-589-4	7646-79-9	28/10/2008
Diarsenic pentaoxide	215-116-9	1303-28-2	28/10/2008
Diarsenic trioxide	215-481-4	1327-53-3	28/10/2008
Dibutyl phthalate (DBP)	201-557-4	84-74-2	28/10/2008
Hexabromocyclododecane (HBCDD)	-	-	28/10/2008
Hexabromocyclododecane	247-148-4	25637-99-4	
1,2,5,6,9,10-hexabromocyclododecane	221-695-9	3194-55-6	
alpha-hexabromocyclododecane	-	134237-50-6	
beta-hexabromocyclododecane	-	134237-51-7	
gamma-hexabromocyclododecane	-	134237-52-8	
Lead hydrogen arsenate	232-064-2	7784-40-9	28/10/2008
Sodium dichromate	234-190-3	10588-01-9, 7789-12-0	28/10/2008
Triethyl arsenate	427-700-2	15606-95-8	28/10/2008
2,4-dinitrotoluene	204-450-0	121-14-2	13/01/2010
Anthracene oil	292-602-7	90640-80-5	13/01/2010
Anthracene oil, anthracene paste	292-603-2	90640-81-6	13/01/2010
Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	13/01/2010
Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4	13/01/2010
Anthracene oil, anthracene-low	292-604-8	90640-82-7	13/01/2010
Diisobutyl phthalate	201-553-2	84-69-5	13/01/2010
Lead chromate	231-846-0	7758-97-6	13/01/2010
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8	13/01/2010
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2	13/01/2010
Pitch, coal tar, high-temp.	266-028-2	65996-93-2	13/01/2010
Tris(2-chloroethyl) phosphate	204-118-5	115-96-8	13/01/2010
Acrylamide	201-173-7	79-06-1	30/03/2010
Ammonium dichromate	232-143-1	7789-09-5	18/06/2010
Boric acid	-	-	18/06/2010
Boric acid, crude natural	234-343-4	11113-50-1	
Boric acid	233-139-2	10043-35-3	
Disodium tetraborate, anhydrous	215-540-4	12179-04-3, 1303-96-4, 1330-43-4	18/06/2010
Potassium chromate	232-140-5	7789-00-6	18/06/2010
Potassium dichromate	231-906-6	7778-50-9	18/06/2010
Sodium chromate	231-889-5	7775-11-3	18/06/2010
Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1	18/06/2010
Trichloroethylene	201-167-4	79-01-6	18/06/2010
2-ethoxyethanol	203-804-1	110-80-5	15/12/2010

Name	EC no.	CAS no.	Date of inclusion
2-methoxyethanol	203-713-7	109-86-4	15/12/2010
Acids generated from chromium trioxide and their oligomers	-	-	15/12/2010
Oligomers of chromic acid and dichromic acid	-	-	
Dichromic acid	236-881-5	7738-94-5	
Chromic acid	231-801-5	13530-68-2	
Chromium trioxide	215-607-8	1333-82-0	15/12/2010
Cobalt(II) carbonate	208-169-4	513-79-1	15/12/2010
Cobalt(II) diacetate	200-755-8	71-48-7	15/12/2010
Cobalt(II) dinitrate	233-402-1	10141-05-6	15/12/2010
Cobalt(II) sulphate	233-334-2	10124-43-3	15/12/2010
1,2,3-trichloropropane	202-486-1	96-18-4	20/06/2011
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6	20/06/2011
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4	20/06/2011
1-Methyl-2-pyrrolidone (NMP)	212-828-1	872-50-4	20/06/2011
2-ethoxyethyl acetate	203-839-2	111-15-9	20/06/2011
Hydrazine	206-114-9	302-01-2, 7803-57-8	20/06/2011
Strontium chromate	232-142-6	7789-06-2	20/06/2011
1,2-dichloroethane	203-458-1	107-06-2	19/12/2011
2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4	19/12/2011
2-Methoxyaniline, o-Anisidine	201-963-1	90-04-0	19/12/2011
4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9	19/12/2011
Aluminosilicate Refractory Ceramic Fibres	-	-	19/12/2011
Arsenic acid	231-901-9	7778-39-4	19/12/2011
Bis(2-methoxyethyl) ether	203-924-4	111-96-6	19/12/2011
Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8	19/12/2011
Calcium arsenate	231-904-5	7778-44-1	19/12/2011
Dichromium tris(chromate)	246-356-2	24613-89-6	19/12/2011
Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	19/12/2011
Lead diazide, Lead azide	236-542-1	13424-46-9	19/12/2011
Lead dipicrate	229-335-2	6477-64-1	19/12/2011
Lead styphnate	239-290-0	15245-44-0	19/12/2011
N,N-dimethylacetamide	204-826-4	127-19-5	19/12/2011
Pentazinc chromate octahydroxide	256-418-0	49663-84-5	19/12/2011
Phenolphthalein	201-004-7	77-09-8	19/12/2011
Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9	19/12/2011
Trilead diarsenate	222-979-5	3687-31-8	19/12/2011
Zirconia Aluminosilicate Refractory Ceramic Fibres	-	-	19/12/2011
1,2-bis(2-methoxyethoxy)ethane (TEGDME, triglyme)	203-977-3	112-49-2	18/06/2012
1,2-dimethoxyethane, ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	18/06/2012
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	219-514-3	2451-62-9	18/06/2012
1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione ( $\beta$ -TGIC)	423-400-0	59653-74-6	18/06/2012
4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	209-218-2	561-41-1	18/06/2012
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	18/06/2012

Name	EC no.	CAS no.	Date of inclusion
[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	208-953-6	548-62-9	18/06/2012
[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	219-943-6	2580-56-5	18/06/2012
Diboron trioxide	215-125-8	1303-86-2	18/06/2012
Formamide	200-842-0	75-12-7	18/06/2012
Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2	18/06/2012
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	18/06/2012
$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	229-851-8	6786-83-0	18/06/2012
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	284-032-2	84777-06-0	19/12/2012
1,2-diethoxyethane	211-076-1	629-14-1	19/12/2012
1-bromopropane (n-propyl bromide)	203-445-0	106-94-5	19/12/2012
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	19/12/2012
4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	19/12/2012
4,4'-oxydianiline and its salts	-	-	19/12/2012
4,4'-oxydianiline	202-977-0	101-80-4	19/12/2012
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-	-	19/12/2012
4-aminoazobenzene	200-453-6	60-09-3	19/12/2012
4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7	19/12/2012
4-Nonylphenol, branched and linear	-	-	19/12/2012
6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8	19/12/2012
[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9	19/12/2012
Acetic acid, lead salt, basic	257-175-3	51404-69-4	19/12/2012
Biphenyl-4-ylamine	202-177-1	92-67-1	19/12/2012
Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	214-604-9	1163-19-5	19/12/2012
Cyclohexane-1,2-dicarboxylic anhydride	-	-	19/12/2012
cis-cyclohexane-1,2-dicarboxylic anhydride	236-086-3	13149-00-3	19/12/2012
Cyclohexane-1,2-dicarboxylic anhydride	201-604-9	85-42-7	19/12/2012
trans-cyclohexane-1,2-dicarboxylic anhydride	238-009-9	14166-21-3	19/12/2012
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA)	204-650-8	123-77-3	19/12/2012
Dibutyltin dichloride (DBTC)	211-670-0	683-18-1	19/12/2012
Diethyl sulphate	200-589-6	64-67-5	19/12/2012
Diisopentyl phthalate	210-088-4	605-50-5	19/12/2012
Dimethyl sulphate	201-058-1	77-78-1	19/12/2012
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7	19/12/2012
Dioxobis(stearato)trilead	235-702-8	12578-12-0	19/12/2012
Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	19/12/2012
Furan	203-727-3	110-00-9	19/12/2012
Henicosaflluoroundecanoic acid	218-165-4	2058-94-8	19/12/2012
Heptacosaflluorotetradecanoic acid	206-803-4	376-06-7	19/12/2012
Hexahydromethylphthalic anhydride	-	-	19/12/2012
Hexahydro-1-methylphthalic anhydride	256-356-4	48122-14-1	19/12/2012
Hexahydromethylphthalic anhydride	247-094-1	25550-51-0	19/12/2012
Hexahydro-4-methylphthalic anhydride	243-072-0	19438-60-9	19/12/2012
Hexahydro-3-methylphthalic anhydride	260-566-1	57110-29-9	19/12/2012

Name	EC no.	CAS no.	Date of inclusion
Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	19/12/2012
Lead cyanamidate	244-073-9	20837-86-9	19/12/2012
Lead dinitrate	233-245-9	10099-74-8	19/12/2012
Lead monoxide (lead oxide)	215-267-0	1317-36-8	19/12/2012
Lead oxide sulfate	234-853-7	12036-76-9	19/12/2012
Lead titanium trioxide	235-038-9	12060-00-3	19/12/2012
Lead titanium zirconium oxide	235-727-4	12626-81-2	19/12/2012
Methoxyacetic acid	210-894-6	625-45-6	19/12/2012
Methyloxirane (Propylene oxide)	200-879-2	75-56-9	19/12/2012
N,N-dimethylformamide	200-679-5	68-12-2	19/12/2012
N-methylacetamide	201-182-6	79-16-3	19/12/2012
N-pentyl-isopentylphthalate	-	776297-69-9	19/12/2012
o-aminoazotoluene	202-591-2	97-56-3	19/12/2012
o-toluidine	202-429-0	95-53-4	19/12/2012
Orange lead (lead tetroxide)	215-235-6	1314-41-6	19/12/2012
Pentacosfluorotridecanoic acid	276-745-2	72629-94-8	19/12/2012
Pentalead tetraoxide sulphate	235-067-7	12065-90-6	19/12/2012
Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	19/12/2012
Silicic acid (H <sub>2</sub> SiO <sub>5</sub> ), barium salt (1:1), lead-doped	272-271-5	68784-75-8	19/12/2012
Silicic acid, lead salt	234-363-3	11120-22-2	19/12/2012
Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	19/12/2012
Tetraethyllead	201-075-4	78-00-2	19/12/2012
Tetralead trioxide sulphate	235-380-9	12202-17-4	19/12/2012
Tricosfluorododecanoic acid	206-203-2	307-55-1	19/12/2012
Trilead bis(carbonate) dihydroxide	215-290-6	1319-46-6	19/12/2012
Trilead dioxide phosphonate	235-252-2	12141-20-7	19/12/2012
4-Nonylphenol, branched and linear, ethoxylated	-	-	20/06/2013
Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1	20/06/2013
Cadmium	231-152-8	7440-43-9	20/06/2013
Cadmium oxide	215-146-2	1306-19-0	20/06/2013
Dipentyl phthalate (DPP)	205-017-9	131-18-0	20/06/2013
Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1	20/06/2013
Cadmium sulphide	215-147-8	1306-23-6	16/12/2013
Diethyl phthalate	201-559-5	84-75-3	16/12/2013
Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	209-358-4	573-58-0	16/12/2013
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)	217-710-3	1937-37-7	16/12/2013
Imidazolidine-2-thione (2-imidazoline-2-thiol)	202-506-9	96-45-7	16/12/2013
Lead di(acetate)	206-104-4	301-04-2	16/12/2013
Triethyl phosphate	246-677-8	25155-23-1	16/12/2013
1,2-Benzenedicarboxylic acid, diethyl ester, branched and linear	271-093-5	68515-50-4	16/06/2014
Cadmium chloride	233-296-7	10108-64-2	16/06/2014
Sodium perborate, perboric acid, sodium salt	-	-	
Sodium perborate	239-172-9	15120-21-5	16/06/2014
Perboric acid, sodium salt	234-390-0	11138-47-9	
Sodium peroxometaborate	231-556-4	7632-04-4	16/06/2014



Name	EC no.	CAS no.	Date of inclusion
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1	17/12/2014
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7	17/12/2014
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1	17/12/2014
Cadmium fluoride	232-222-0	7790-79-6	17/12/2014
Cadmium sulphate	233-331-6	10124-36-4, 31119-53-6	17/12/2014
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)	-	-	17/12/2014
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters or mixed decyl and hexyl and octyl diesters	-	-	15/06/2015
1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters	272-013-1	68648-93-1	
1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters	271-094-0	68515-51-5	
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]	-	-	15/06/2015
5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane	-	-	
5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane	-	-	
1,3-propanesultone	214-317-9	1120-71-4	17/12/2015
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1	17/12/2015
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1	36437-37-3	17/12/2015
Nitrobenzene	202-716-0	98-95-3	17/12/2015
Perfluorononan-1-oic-acid and its sodium and ammonium salts	-	-	17/12/2015
Perfluorononan-1-oic-acid	206-801-3	375-95-1	
Sodium salts of perfluorononan-1-oic-acid	-	-, 21049-39-8	
Ammonium salts of perfluorononan-1-oic-acid	-	-, 4149-60-4	
Benzo[def]chrysene (Benzo[a]pyrene)	200-028-5	50-32-8	20/06/2016
4,4'-isopropylidenediphenol	201-245-8	80-05-7	12/01/2017
4-heptylphenol, branched and linear	-	-	12/01/2017
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	-	-	12/01/2017
Nonadecafluorodecanoic acid	206-400-3	335-76-2	
Ammonium nonadecafluorodecanoate	221-470-5	3108-42-7	
Decanoic acid, nonadecafluoro-, sodium salt	-	3830-45-3	
p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6	12/01/2017
Perfluorohexane-1-sulphonic acid and its salts	-	-	07/07/2017
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"™)	-	-	15/01/2018
Benz[a]anthracene	200-280-6	56-55-3, 1718-53-2	15/01/2018

Name	EC no.	CAS no.	Date of inclusion
Cadmium carbonate	208-168-9	513-78-0	15/01/2018
Cadmium hydroxide	244-168-5	21041-95-2	15/01/2018
Cadmium nitrate	233-710-6	10022-68-1, 10325-94-7	15/01/2018
Chrysene	205-923-4	218-01-9, 1719-03-5	15/01/2018
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)	-	-	15/01/2018