

REACH SVHC Declaration

Products: *LightPulse*® 4Gb/s, 8Gb/s, and 16Gb/s Fibre Channel Host Bus Adapters and *OneConnect*® 10Gb/s and 40Gb/s Converged Network Adapters

The products referenced above have been evaluated against Regulation (EC) 1907/2006¹ of the European Parliament, "Registration, Evaluation, and Authorization of Chemicals (REACH)." These products are defined as articles per Article 3.3 of the REACH Regulation: "Article: means an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition." Additionally, the referenced models do not intentionally release any substances. The table below lists substances defined by The European Chemicals Agency's (ECHA) REACH Substance of Very High Concern Candidate List². As shown in the table, the listed products do not contain any REACH SVHCs in levels above 0.1% by article weight.

Substance	EC Number	CAS Number	Date Added to SVHC Candidate List	Present in amounts greater than 0.1% by article weight
4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9	2008-28-10	No
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2	2008-28-10	No
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8	2008-28-10	No
Anthracene	204-371-1	120-12-7	2008-28-10	No
Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	2008-28-10	No
Bis (2-ethylhexyl)phthalate (DEHP)	204-211-0	117-81-7	2008-28-10	No
Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9	2008-28-10	No
Cobalt dichloride	231-589-4	7646-79-9	2008-28-10 2011-06-20	No
Diarsenic pentaoxide	215-116-9	1303-28-2	2008-28-10	No
Diarsenic trioxide	215-481-4	1327-53-3	2008-28-10	No
Dibutyl phthalate (DBP)	201-557-4	84-74-2	2008-28-10	No
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: - Alpha-hexabromocyclododecane - Beta-hexabromocyclododecane - Gamma-hexabromocyclododecane	247-148-4 and 221-695-9 (134237-50-6) (134237-51-7) (134237-52-8)	25637-99-4	2008-28-10	No
Lead hydrogen arsenate	232-064-2	7784-40-9	2008-28-10	No
Sodium dichromate	234-190-3 (7789-12-0 and 10588-01-9)	7789-12-0 10588-01-9	2008-28-10	No
Triethyl arsenate	427-700-2	15606-95-8	2008-28-10	No
2,4-Dinitrotoluene	204-450-0	121-14-2	2010-01-13	No
Aluminosilicate Refractory Ceramic Fibers are fibers covered by index number 650-017-00-8 in Annex VI, part 3, table 3.2 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, and fulfill the two following conditions: a) Al ₂ O ₃ and SiO ₂ are present within the following concentration ranges: • Al ₂ O ₃ : 43.5 – 47 % w/w, and SiO ₂ : 49.5 – 53.5 % w/w, or • Al ₂ O ₃ : 45.5 – 50.5 % w/w, and SiO ₂ : 48.5 – 54 % w/w, b) fibers have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometers (µm).	-	Extracted from Index no. 650-017-00-8	2010-01-13	No
Anthracene oil	292-602-7	90640-80-5	2010-01-13	No

¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32006R1907:EN:NOT>

² http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

Anthracene oil, anthracene-low	292-604-8	90640-82-7	2010-01-13	No
Anthracene oil, anthracene paste	292-603-2	90640-81-6	2010-01-13	No
Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	2010-01-13	No
Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4	2010-01-13	No
Diisobutyl phthalate	201-553-2	84-69-5	2010-01-13	No
Lead chromate	231-846-0	7758-97-6	2010-01-13	No
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8	2010-01-13	No
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2	2010-01-13	No
Pitch, coal tar, high temp.	266-028-2	-	2010-01-13	No
Tris(2-chloroethyl)phosphate	204-118-5	115-96-8	2010-01-13	No
Zirconia Aluminosilicate Refractory Ceramic Fibers are fibers covered by index number 650-017-00-8 in Annex VI, part 3, table 3.2 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, and fulfill the two following conditions: a) Al_2O_3 , SiO_2 and ZrO_2 are present within the following concentration ranges: Al_2O_3: 35 – 36 % w/w, and SiO_2: 47.5 – 50 % w/w, and ZrO_2: 15 - 17 % w/w, b) fibers have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometers (μm).	-	Extracted from Index no. 650-017-00-8	2010-01-13	No
Acrylamide	201-173-7	79-06-1	2010-03-20	No
Trichloroethylene	201-167-4	79-01-6	2010-06-18	No
Boric acid	233-139-2 234-343-4	10043-35-3 11113-50-1	2010-06-18	No
Disodium tetraborate, anhydrous	215-540-4	1303-96-4 1330-43-4 12179-04-3	2010-06-18	No
Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1	2010-06-18	No
Potassium dichromate	231-906-6	7778-50-9	2010-06-18	No
Ammonium dichromate	232-143-1	7789-09-5	2010-06-18	No
Potassium chromate	232-140-5	7789-00-6	2010-06-18	No
Sodium chromate	231-889-5	7775-11-3	2010-06-18	No
Cobalt(II) sulphate	233-334-2	10124-43-3	2010-12-15	No
Cobalt(II) dinitrate	233-402-1	10141-05-6	2010-12-15	No
Cobalt(II) carbonate	208-169-4	513-79-1	2010-12-15	No
Cobalt(II) diacetate	200-755-8	71-48-7	2010-12-15	No
2-Methoxyethanol	203-713-7	109-86-4	2010-12-15	No
2-Ethoxyethanol	203-804-1	110-80-5	2010-12-15	No
Chromium trioxide	215-607-8	1333-82-0	2010-12-15	No
Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid	231-801-5 - 236-881-5	7738-94-5 - 13530-68-2	2010-12-15	No
2-ethoxyethyl acetate	203-839-2	111-15-9	2011-06-20	No
Strontium chromate	232-142-6	7789-06-2	2011-06-20	No
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	271-084-6	68515-42-4	2011-06-20	No
Hydrazine	206-114-9	302-01-2 - 7803-57-8	2011-06-20	No
1-methyl-2-pyrrolidone	212-828-1	872-50-4	2011-06-20	No
1,2,3-trichloropropane	202-486-1	96-18-4	2011-06-20	No
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	276-158-1	71888-89-6	2011-06-20	No
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	276-158-1	71888-89-6	2011-06-20	No

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Zirconia Aluminosilicate Refractory Ceramic Fibers (fibers covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, and fulfill the three following conditions: a) oxides of aluminum, silicon and zirconium are the main components present (in the fibers) within variable concentration ranges b) fibers have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometers (µm). c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	Extracted from Index no. 650-017-00-8	2011-12-19	No
Calcium arsenate	231-904-5	7778-44-1	2011-12-19	No
Bis(2-methoxyethyl) ether	203-924-4	111-96-6	2011-12-19	No
Aluminosilicate Refractory Ceramic Fibers are fibers covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, and fulfill the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibers) within variable concentration ranges b) fibers have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometers (µm) c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	Extracted from Index no. 650-017-00-8	2011-12-19	No
Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9	2011-12-19	No
Lead dipicrate	229-335-2	6477-64-1	2011-12-19	No
N,N-dimethylacetamide	204-826-4	127-19-5	2011-12-19	No
Arsenic acid	231-901-9	7778-39-4	2011-12-19	No
2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0	2011-12-19	No
Trilead diarsenate	222-979-5	3687-31-8	2011-12-19	No
1,2-dichloroethane	203-458-1	107-06-2	2011-12-19	No
Pentazinc chromate octahydroxide	256-418-0	49663-84-5	2011-12-19	No
Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	2011-12-19	No
Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8	2011-12-19	No
4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9	2011-12-19	No
Lead diazide, Lead azide	236-542-1	13424-46-9	2011-12-19	No
Phenolphthalein	201-004-7	77-09-8	2011-12-19	No
Dichromium tris(chromate)	246-356-2	24613-89-6	2011-12-19	No
Lead styphnate	239-290-0	15245-44-0	2011-12-19	No
2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4	2011-12-19	No
α,α-Bis [4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	229-851-8	6786-83-0	2012-06-18	No
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	2012-06-18	No
1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	423-400-0	59653-74-6	2012-06-18	No
Diboron trioxide	215-125-8	1303-86-2	2012-06-18	No
1,2-bis(2-methoxyethoxy)ethane (TEGDME;	203-977-3	112-49-2	2012-06-18	No

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triglyme)				
4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	209-218-2	561-41-1	2012-06-18	No
Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2	2012-06-18	No
Formamide	200-842-0	75-12-7	2012-06-18	No
[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	208-953-6	548-62-9	2012-06-18	No
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	2012-06-18	No
[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	219-943-6	2580-56-5	2012-06-18	No
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	219-514-3	2451-62-9	2012-06-18	No
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	2012-06-18	No
Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	2012-12-19	No
6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8	2012-12-19	No
Henicosfluoroundecanoic acid	218-165-4	2058-94-8	2012-12-19	No
Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	247-094-1 243-072-0 256-356-4 260-566-1	25550-51-0 19438-60-9 48122-14-1 57110-29-9	2012-12-19	No
Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry]	201-604-9 236-086-3 238-009-9	85-42-7 13149-00-3 14166-21-3	2012-12-19	No
Dibutyltin dichloride (DBTC)	211-670-0	683-18-1	2012-12-19	No
Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	2012-12-19	No
Lead dinitrate	233-245-9	10099-74-8	2012-12-19	No
Silicic acid, lead salt	234-363-3	11120-22-2	2012-12-19	No
4-Aminoazobenzene	200-453-6	60-09-3	2012-12-19	No
Lead titanium zirconium oxide	235-727-4	12626-81-2	2012-12-19	No
Lead monoxide (lead oxide)	215-267-0	1317-36-8	2012-12-19	No
o-Toluidine	202-429-0	95-53-4	2012-12-19	No

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3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	2012-12-19	No
Silicic acid (H ₂ SiO ₅), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]	272-271-5	68784-75-8	2012-12-19	No
Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6	2012-12-19	No
Furan	203-727-3	110-00-9	2012-12-19	No
N,N-dimethylformamide	200-679-5	68-12-2	2012-12-19	No
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	2012-12-19	No
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]	-	-	2012-12-19	No
4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	2012-12-19	No
Diethyl sulphate	200-589-6	64-67-5	2012-12-19	No
Dimethyl sulphate	201-058-1	77-78-1	2012-12-19	No
Lead oxide sulfate	234-853-7	12036-76-9	2012-12-19	No
Lead titanium trioxide	235-038-9	12060-00-3	2012-12-19	No
Acetic acid, lead salt, basic	257-175-3	51404-69-4	2012-12-19	No
[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9	2012-12-19	No
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5	2012-12-19	No
N-methylacetamide	201-182-6	79-16-3	2012-12-19	No
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7	2012-12-19	No
1,2-Diethoxyethane	211-076-1	629-14-1	2012-12-19	No
Tetralead trioxide sulphate	235-380-9	12202-17-4	2012-12-19	No
N-pentyl-isopentylphthalate	-	776297-69-9	2012-12-19	No
Dioxobis(stearato)trilead	235-702-8	12578-12-0	2012-12-19	No
Tetraethyllead	201-075-4	78-00-2	2012-12-19	No
Pentalead tetraoxide sulphate	235-067-7	12065-90-6	2012-12-19	No
Pentacosfluorotridecanoic acid	276-745-2	72629-94-8	2012-12-19	No
Tricosfluorododecanoic acid	206-203-2	307-55-1	2012-12-19	No
Heptacosfluorotetradecanoic acid	206-803-4	376-06-7	2012-12-19	No
1-bromopropane (n-propyl bromide)	203-445-0	106-94-5	2012-12-19	No
Methoxyacetic acid	210-894-6	625-45-6	2012-12-19	No
4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7	2012-12-19	No
Methyloxirane (Propylene oxide)	200-879-2	75-56-9	2012-12-19	No
Trilead dioxide phosphonate	235-252-2	12141-20-7	2012-12-19	No
o-aminoazotoluene	202-591-2	97-56-3	2012-12-19	No
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0	2012-12-19	No
4,4'-oxydianiline and its salts	202-977-0	101-80-4	2012-12-19	No
Orange lead (lead tetroxide)	215-235-6	1314-41-6	2012-12-19	No
Biphenyl-4-ylamine	202-177-1	92-67-1	2012-12-19	No
Diisopentylphthalate	210-088-4	605-50-5	2012-12-19	No
Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	2012-12-19	No
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3	2012-12-19	No
Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	2012-12-19	No
Lead cyanamidate	244-073-9	20837-86-9	2012-12-19	No
Cadmium	231-152-8	7440-43-9	2013-06-20	No

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Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1	2013-06-20	No
Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1	2013-06-20	No
Dipentyl phthalate (DPP)	205-017-9	131-18-0	2013-06-20	No
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]	-	-	2013-06-20	No
Cadmium oxide	215-146-2	1306-19-0	2013-06-20	No
Cadmium sulphide	215-147-8	1306-23-6	2013-12-16	No
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	2013-12-16	No
Dihexyl phthalate	201-559-5	84-75-3	2013-12-16	No
Imidazolidine-2-thione; (2-imidazoline-2-thiol)	202-506-9	96-45-7	2013-12-16	No
Triethyl phosphate	246-677-8	25155-23-1	2013-12-16	No
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	2013-12-16	No
Lead di(acetate)	206-104-4	301-04-2	2013-12-16	No

Emulex gathered the information in this declaration using appropriate methods to ensure its accuracy and such information is true and correct to the best of its knowledge and belief. Emulex acknowledges that OEM customers will rely on this declaration in determining the compliance of products with European REACH regulations. Emulex may have relied on engineering judgment or information provided by others in completing this declaration, and Emulex may not have independently verified such information. If Emulex and the OEM customer have entered into a written agreement with respect to the identified model(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, are the sole and exclusive source of the Emulex's liability and the OEM customer's remedies for issues that arise regarding information Emulex provides in this declaration. For additional information about Emulex's REACH compliance strategy, please contact Emulex directly.

Sincerely,

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