

**REACH Compliance Declaration**

**Manufacturer:** PEAK electronics GmbH

**Products:** All DC/DC converters



We hereby certify that our DC/DC converter fully comply with the related requirements of European Union Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

According to the structure of REACH, our products are "ARTICLES" (according to the ECHA Guidance on Articles, the electronic components are considered as articles). We do not manufacture "substances" or "preparations" and our articles do not involve "intentional release of substances". Accordingly, we do not provide for any registration or pre-registration or authorization requirements for the products we supply.

With regards to the requirements of Article 33 of REACH: Duty to communicate information on substances in articles - We declare that except lead oxide and 4,4'-isopropylidenediphenol, none of the SVHCs 235 (the Candidate List of Substances of Very High Concern for authorization) is present in PEAK products in quantities totaling in a concentration equal or above 0.1%.

With regards to the requirement of Article 67 of REACH: A substance on its own, in a preparation or in an article, for which Annex XVII, contains a restriction shall not be manufactured, placed on the market, or used unless it complies with the conditions of that restriction. We declare that none of the substances in the Conditions of restriction is present in PEAK DC/DC converters.

Note I: Our product contains Lead Oxide (CAS No. 1317-36-8) under the permission of RoHS exemption 7(c)-I: Electrical and electronic components containing lead in glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in glass or ceramic matrix compound.

Note II: Some products contain Lead (CAS No. 7439-92-1) under the permission of RoHS exemption 7(a): Lead in high melting temperature type solders (i.e. lead-bases alloys containing 85% by weight or more lead)

Note III: The Embedding Compound Hardener of some products contains 4,4'-isopropylidenediphenol (CAS No. 80-05-7), the 4,4'-isopropylidenediphenol contained in this material is a monomer. According to guidance for monomers and polymers (April 2012 / Version 2.0) / 3. Tasks and obligations / 3.1. Manufacture/import of monomer / page 13:

"Substances used a monomer in the manufacturing of polymers are by definition intermediates. Therefore, they cannot be subject to authorization under REACH for such use."

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**Substances of Very High Concern List .**

NO.	Substance Name	CAS No.	NO.	Substance Name	CAS No.
1	Anthracene	120-12-7	2	4,4'- Diaminodiphenylmethane	101-77-9
3	Dibutyl phthalate (DBP)	84-74-2	4	Cobalt dichloride	7646-79-9
5	Diarsenic pentaoxide	1303-28-2	6	Diarsenic trioxide	1327-53-3
7	Sodium dichromate	7789-12-0 10588-01-9	8	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2
9	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	10	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ - HBCDD, $\beta$ -HBCDD, $\gamma$ - HBCDD)	25637-99-4 3194-55-6
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	12	Bis(tributyltin)oxide (TBTO)	56-35-9
13	Lead hydrogen arsenate	7784-40-9	14	Triethyl arsenate	15606-95-8
15	Benzyl butyl phthalate (BBP)	85-68-7	16	Anthracene oil	90640-80-5
17	Anthracene oil, Anthracene paste, distn, lights	91995-17-4	18	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2
19	Anthracene oil, anthracene-low	90640-82-7	20	Anthracene oil, anthracene paste	90640-81-6
21	Coal tar pitch, high temperature	65996-93-2	22	2,4-Dinitrotoluene	121-14-2
23	Diisobutyl phthalate (DIBP)	84-69-5	24	Lead chromate	7758-97-6
25	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	26	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2
27	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	28	Acrylamide	79-06-1
29	Trichloroethylene	79-01-6	30	Boric acid	10043-35-3 11113-50-1
31	Disodium tetraborate, anhydrous	1303-96-4 1330-43-4 12179-04-3	32	Tetraboron disodium heptaoxide, hydrate	12267-73-1
33	Sodium chromate	7775-11-3	34	Potassium chromate	7789-00-6
35	Ammonium dichromate	7789-09-5	36	Potassium dichromate	7778-50-9
37	Cobalt(II) sulphate	10124-43-3	38	Cobalt(II) dinitrate	10141-05-6
39	Cobalt(II) carbonate	513-79-1	40	Cobalt(II) diacetate	71-48-7
41	2-Methoxyethanol	109-86-4	42	2-Ethoxyethanol	110-80-5
43	Chromium trioxide	1333-82-0	44	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
45	(2-ethoxyethyl acetate)	111-15-9	46	(strontium chromate)	7789/6/2
47	(1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters)	68515-42-4	48	(Hydrazine)	7803-57-8 302-01-2
49	(1-methyl-2-pyrrolidone)	872-50-4	50	(1,2,3-trichloropropane)	96-18-4
51	(1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich)	71888-89-6	52	Dichromium tris(chromate)	24613-89-6
53	Potassium hydroxyoctaoxo dizincated i-chromate	11103-86-9	54	Pentazinc chromate octahydroxide	49663-84-5
55	Aluminosilicate Refractory Ceramic Fibres (RCF)	-	56	Zirconia Aluminosilicate, Refractory Ceramic Fibres (Zr-RCF)	-
57	Formaldehyde,oligomeric reaction Products with aniline (technical MDA)	25214-70-4	58	Bis(2-methoxyethyl) phthalate	117-82-8
59	2-Methoxyaniline;o-Anisidine	90-04-0	60	4-(1,1,3,3-tetramethylbutyl)phenol.(4-tert-Octylphenol)	140-66-9
61	1,2-Dichloroethane	107-06-2	62	Bis(2-methoxyethyl) ether	111-96-6
63	Arsenic acid	7778-39-4	64	Calcium arsenate	7778-44-1
65	Trilead diarsenate	3687-31-8	66	N,N-dimethylacetamide (DMAC)	127-19-5
67	2,2-dichloro-4,4-methylenedianiline (MOCA)	101-14-4	68	Phenolphthalein	77-09-8
69	Lead azide Lead Diazide	13424-46-9	70	Lead styphnate	15245-44-0
71	Lead dipicrate	6477-64-1	72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2
73	1,2-dimethoxyethane; ethylene glycol dimethylether (EGDME)	110-71-4	74	Diboron trioxide	1303-86-2
75	Formamide	75-12-7	76	Lead(II) bis(methanes ulfonate)	17570-76-2
77	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9	78	$\beta$ -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
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
81	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	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
83	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0	84	4,4'-bis(dimethylamino)-4'-(methylamino)trityl alcohol	561-41-1
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	86	Pentacosafuorotridecanoic acid	72629-94-8

NO.	Substance Name	CAS No.	NO.	Substance Name	CAS No.
87	Tricos afluorododecanoic acid	307-55-1	88	Henicos afluoroundecanoic acid	2058-94-8
89	Heptacos afluorotetradecanoic acid	376-06-7	90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated -covering well-defined substances and UVCB substances, polymers and homologues	-
91	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	-	92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3
93	Cyclohexane-1,2-dicarboxylic anhydride (HHPA), cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	85-42-7, 13149-00-3, 14166-21-3	94	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
95	Methoxy acetic acid	625-45-6	96	1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	84777-06-0
97	Diisopentylphthalate	605-50-5	98	N-pentyl-isopentylphthalate	776297-69-9
99	1,2-Diethoxyethane	629-14-1	100	N,N-dimethylformamide; dimethyl formamide	68-12-2
101	Dibutyltin dichloride (DBTC)	683-18-1	102	Acetic acid, lead salt, basic	51404-69-4
103	Trilead bis (carbonate)dihydroxide (basic lead carbonate)	1319-46-6	104	Lead oxide sulfate	12036-76-9
105	[Phthalato(2-)]dioxotrilead	69011-06-9	106	Dioxobis(stearato)trilead	12578-12-0
107	Fatty acids, C16-18, lead salts	91031-62-8	108	Lead cyanamidate	20837-86-9
109	Lead dinitrate	10099-74-8	110	Lead oxide (lead monoxide)	1317-36-8
111	Lead tetroxide (orange lead)	1314-41-6	112	Pentalead tetraoxide sulphate	12065-90-6
113	Silicic acid, lead salt	11120-22-2	114	Sulfurous acid, lead salt, dibasic	62229-08-7
115	Tetraethyllead	78-00-2	116	Tetralead trioxide sulphate	12202-17-4
117	Lead bis (tetrafluoroborate)	13814-96-5	118	Lead titanium trioxide	12060-00-3
119	Lead Titanium Zirconium Oxide	12626-81-2	120	Pyrochlore, antimony lead yellow	8012-00-8
121	Trilead dioxide phosphonate	12141-20-7	122	Silicic acid, barium salt, lead-doped	68784-75-8
123	Furan	110-00-9	124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9
125	Diethyl sulphate	64-67-5	126	Dimethyl sulphate	77-78-1
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	128	Dinoseb	88-85-7
129	4,4'-methylene-di-o-toluidine	838-88-0	130	4,4'-oxydianiline and its salts	101-80-4
131	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3	132	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7
133	6-methoxy-m-toluidine (p-cresidine)	120-71-8	134	Biphenyl-4-ylamine	92-67-1
135	o-aminoazotoluene	97-56-3	136	o-Toluidine; 2-Aminotoluene	95-53-4
137	N-methylacetamide	79-16-3	138	1-bromopropane	106-94-5
139	Cadmium	7440-43-9	140	Cadmium oxide	1306-19-0
141	Ammoniumpentadecafluorooctanoate (APFO)	3825-26-1	142	Pentadecafluorooctanoic acid (PFOA)	335-67-1
143	Dipentyl phthalate (DPP)	131-18-0	144	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]	-
145	Cadmium sulphide	1306-23-6	146	Dihexyl phthalate	84-75-3
147	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis (azo)]bis (4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	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
149	Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7	150	Lead di(acetate)	301-04-2
151	Trixylyl phosphate	25155-23-1	152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4
153	Sodium perborate; perboric acid, sodium salt	-	154	Sodium peroxometaborate	7632-04-4
155	Cadmium chloride	10108-64-2	156	Cadmium fluoride	7790-79-6
157	Cadmium sulphate	10124-36-4; 31119-53-6	158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7
159	2-(2H-benzotriazol-2-yl)-4,6-ditertbutylphenol (UV-328)	25973-55-1	160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1
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)	-	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	68515-51-5 68648-93-1
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]	-	164	Nitrobenzene	98-95-3

NO.	Substance Name	CAS No.	NO.	Substance Name	CAS No.
165	2,4-Di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	166	2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3
167	1,3-Propanesultone	1120-71-4	168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 84149-60-4
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	170	4,4'-isopropylidene diphenol	80-05-7
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]	-	172	Nona-decafluorodecanoic acid (PFDA) and its sodium and ammonium salts Ammonium nonadecafluorodecanoate Decanoic acid, nonadecafluoro-, sodium salt	3108-42-7 335-76-2 3830-45-3
173	p-(1,1-dimethylpropyl)phenol = 4-terpentyphenol (PTAP)	80-46-6	174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	355-46-4
175	Chrysene	218-01-9	176	Benzo[a]anthracene	56-55-3
177	Cadmium nitrate	10325-94-7	178	Cadmium hydroxide	21041-95-2
179	Cadmium carbonate	513-78-0	180	Dechlorane plus (including any of its individual anti- and syn-isomers or any combination thereof)	13560-89-9 135821-74-8 135821-03-3
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	-	182	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride; TMA)	552-30-7
183	Benzo[ghi]perylene	191-24-2	184	Decamethylcyclopentasiloxane (D5)	541-02-6
185	Dicyclohexyl phthalate (DCHP)	84-61-7	186	Disodium octaborate	12008-41-2
187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	188	Ethylenediamine (EDA)	107-15-3
189	Lead	7439-92-1	190	Octamethylcyclotetrasiloxane (D4)	556-67-2
191	Terphenyl, hydrogenated	61788-32-7	192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8
193	2,2-bis(4'-hydroxyphenyl)-4methylpentane	6807-17-6	194	Benzo[k]fluoranthene	207-08-9
195	Fluoranthene	206-44-0 93951-69-0	196	Phenanthrene	85-01-8
197	Pyrene	129-00-0 1718-52-1	198	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides	-
199	2-methoxyethyl acetate	110-49-6	200	4-tert-butylphenol (PTBP)	98-54-4
201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1
203	2-methyl-1-(4-methylthiophenyl)-2-morpholino propan-1-one	71868-10-5	204	Diisohexyl phthalate	71850-09-4
205	Perfluorobutane sulfonic acid (PFBS) and its salts	NA	206	1-vinylimidazole	1072-63-5
207	2-methylimidazole	693-98-1	208	Butyl 4-hydroxybenzoate	94-26-8
209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	210	bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8
211	Diocetyl tin dilaurate, stannane, dioctyl-, bis(cocoacyloxy) deriv., and any other stannane, dioctyl-, bis(fattyacyloxy) deriv. wherein C 12 is the predominant carbon number of the fattyacyloxy moiety	-	212	2-(4-tert-butylbenzyl) propionaldehyde and its individual stereoisomers	-
213	Orthoboric acid, sodium salt	13840-56-7	214	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
215	Glutaral	111-30-8	216	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 C 14 to C 17]	-
217	Phenol, alkylation products (mainly in para position) with C 12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/or combinations thereof (PDDP)	-	218	1,4-dioxane	123-91-1
219	4,4'-(1-methylpropylidene) bisphenol; (bisphenol B)	77-40-7	220	6,6'-di-tert-butyl-2,2'-methylene-dip-cresol (DBMC)	119-47-1
221	tris(2-methoxyethoxy) vinylsilane	1067-53-4	222	(±)-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)	-
223	S-(tricyclo(5.2.1.0 <sup>2,6</sup> )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	224	N-(hydroxymethyl)acrylamide	924-42-5
225	1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene]	37853-59-1	226	2,2',6,6'-tetra-bromo-4,4'-isopropylidene diphenol	79-94-7
227	4,4'-sulphonyldiphenol	80-09-1	228	Barium diboron tetraoxide	13701-59-2
229	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	-	230	Isobutyl 4-hydroxybenzoate	4247-02-3
231	Melamine	108-78-1	232	Perfluoroheptanoic acid and its salts	-
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	-	234	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8
235	Bis(4-chlorophenyl) sulphone	80-07-9			