

Monolithic Power Systems, Lead-Free Policy

With the adoption of EU directive RoHS (Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment), the ban on lead (Pb) and other hazardous substances have a legal basis and a statutory deadline of July 1, 2006.

Monolithic Power Systems, Inc (MPS) products are compatible with lead free packaging based upon engineering evaluations performed in 2002. Product has been transferred to lead free packages. We guarantee that substances given below are not included at all in our lead free packaged products or in our packaging materials such as reel, tape, and moisture barrier bag, inner or outer boxes. MPS also guarantees it's compliance with the NORWAY restriction and does not take any exemptions as allowed under these regulations.

MPS states that it is compliant with the REACH Initiative (Regulation, Evaluation, Authorization and restriction of Chemical substances) regulations of 28 Oct 2008, 13 January 2010, 18 June 2010, 15 December 2010, 2 June 2011, 19 December 2011, 18 June 2012, 19 December 2012, 21 June 2013, September 2, 2013, December 16, 2013, June 18, 2014, October 16, 2014, December 17, 2014, and June 15, 2015, the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, the EU directive RoHS II (Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment) 2011/65/EU May 27, 2011, China RoHS, March 2007 and Halogen Free Initiative IEC 61249-2-21, with threshold limits defined as:

RoHS

Lead (Pb)	<1000 ppm
Cadmium(Cd)	<100 ppm
Hexavalent Chromium (CR VI)	<1000 ppm
Mercury (Hg)	<1000 ppm
Polybrominated Biphenyls (PBB)	<1000 ppm
Polibrominated Diphenyl Ethers (PBDE)	<1000 ppm
Bis (2-ethylhexyl) phthalate (DEHP)	<1000 ppm
Benzyl butyl phthalate (BBP)	<1000 ppm
Dibutyl phthalate (DBP)	<1000 ppm
Diisobutyl phthalate (DIBP)	<1000 ppm

Halogens

Bromine (Br) < 900 ppm
Chlorine (Cl) < 900 ppm
Chlorine (Cl) + Bromine (Br) < 1500 ppm
Fluorine (F) < 900 ppm
Iodine (I) < 900 ppm

MPS supports the EICC Code of Conduct and the Social and Environmental Responsibility in Metals Supply to the Electronics industry. This latter initiative opposes the use of precious metals mined in countries where the negative social impacts of mining range from human rights violations and labor issues, to socio-economic disturbances, corruption and conflict. In particular, MPS supports the ban on precious metals from the Democratic Republic of the Congo, Indonesia, Mozambique, Rwanda, Zambia and Mozambique.

List of Substances

Substance	CAS No.
Cadmium & Cadmium Compounds	7440-43-9
Lead & Lead Compounds	7439-92-1
Mercury and Mercury Compounds	7439-97-6
Hexavalent Chromium Compounds	7440-47-3
Polychlorinated biphenyl (PCB)	1336-36-3
Polychlorinated Naphthalene (PCN)	70776-03-3
Chlorinated paraffins (CP)	85525-8509
Mirex (Perchlodecone)	2385-85-5
Polybrominated biphenyls (PBB),	36355-01-8
Polybrominated diphenylethes (PBDE)	Various
Tetrabromobisphenol-A-bis- (2, 3-dibromopropylether) (TBBP-A-bis)	79-94-7
Organic tin compounds (Tributyl tin compounds, Triphenyl tin compounds)	Various
Asbestos	1332-21-4
Azo compounds	Various
Benzotriazole	95-14-7
Deca BDE	1163-19-5
Halogens: Chlorine, Bromine, Fluorine, Iodine	7782-50-5, 7726-95-6, 7782-41-4, 7553-56-2
Antimony Trioxide and its' compounds	1309-64-4
Red Phosphorous	7723-14-0
Polycyclic aromatic hydrocarbon (PAH)	120-12-7
Polyvinyl chloride (PVC)	9002-86-2
Dimethyl Formamide	68-12-2
Dimethylfumerate (DMF)	624-49-7
Nonyl Phenol	25154-52-3
Formaldehyde	50-00-0
Diisononyl Phthalate (DINP)	28553-12-0
Diisodecyl Phthalate (DIDP)	26761-40-0
Beryllium and its' compounds	7440-41-7
Ozone Depleting Substances	Various
Perfluorooctane Sulfonates (PFOS)	1763-23-1
Perfluorooctanoic Acid (PFOA)	335-67-1

REACH SVHC's effective 06/30/15:

Substance	CAS No.
1-bromopropane (n-propyl bromide)	106-94-5
[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 9EC No. 202-959-2]	2580-56-5
[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. 202-959-2)]	548-62-9
[Phthalato(2-)dioxotrilead	69011-06-9
1,2,3 Trichlorobenzene	87-61-6
1,2,3-trichloropropane	96-18-4
1,2,4 Trichlorobenzene	120-81-2
1,2-benzenedicarboxylic acid, di-C6-8branched alkyl esters, C7-rich	208-032-2
1,2-Benzenedicarboxylic acid, di-C7-branched and linear alkyl esters	84777-06-0
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	68515-42-4
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4
1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2
1,2-dichloroethane	107-06-2
1,2-Diethoxyethane	629-14-1
1,2-dimethoxyethane;ethylene glycol dimethyl ether (EGDME)	110-71-4
1,3,5 Trichlorobenzene	108-70-3
1,3,5-tris(oxiran-2-ylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (TGIC)	2451-62-9
1,3,5-tris[(2S and 2R)-2,3, epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6
1-methyl-2-pyrrolidone	872-50-4
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1
2,2'-dichloro-4,4'-methylenedianiline	101-14-4
2,4-Dinitrotoluene	121-14-2
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7
2-Ethoxyethanol	110-80-5

2-Ethoxyethanol 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5 dithia-4-stannatetradecanoate. Reaction mass of 2-Ethoxyethanol	
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-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate	1557158-1
2-ethoxyethyl acetate	111-15-9
2-Methoxyethanol	109-86-4
2-Methoxyaniline; o-Anisidine	90-04-0
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	140-66-9
4,4'- Diaminodiphenylmethane (MDA)	101-77-9
4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% Michler's ketone (EC No. 202-027-6) or Michler's base (EC No. 202-959-2)]	561-41-1
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8
4,4'-methylenedi-o-toluidine	838-88-0
4,4'-oxydianiline and its salts	101-80-4
4-Aminoazobenzene	60-09-3
4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7
4-Nonlphenol, branched and linear	-
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2
6-methoxy-m-toluidine (p-cresidine)	120-71-8
a,a-Bis[4-(dimethylamino) Phenyl]-r (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	6786-83-0
Acetic acid, lead salt, basic	51404-69-4
Acids generated from Chromium Trioxide	7738-94-5, 13530-68-2
Acrylamide	79-06-1
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8
Aluminosilicate Refractory Ceramic Fibers	-
Aluminosilicate that may also contain Zirconia, Refractory Ceramic Fibres	142844-00-6
Ammonium Dichromate	778u9-09-5
Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
Anthracene	120-12-7
Anthracene oil	90640-80-5
Anthracene oil, anthracene paste	90640-81-6
Anthracene oil, anthracene paste, anthracene fraction	91995-15-2
Anthracene oil, anthracene paste, distn. Lights	91995-17-4
Anthracene oil, anthracene-low	90640-82-7
Arsenic Acid	7888-39-4
Benzyl butyl phthalate (BBP) Triethyl arsenate	85-68-7
Biphenyl-4-ylamine	92-67-1

Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7
Bis (tributyltin) oxide (TBTO)	56-35-9
Bis(2-methoxyethyl) Ether	111-96-6
Bis(2-methoxyethyl) phthalate	117-82-8
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5
Boric Acid	10043-35-3, 11113-50-1
Calcium Arsenate	7778-44-1
Cadmium	7440-43-9
Cadmium Chloride	10108-64-2
Cadmium Floride	7790-79-6
Cadminum Oxide	1306-19-0
Cadmium Sulphate	10124-36-4
Cadmium Sulphide	1306-23-6
Chromic and Dichromic acid group	7738-94-5
Chromium trioxide	1333-82-0
Coal tar pitch, high temperature	65996-93-2
Cobalt (II) Carbonate	513-79-1
Cobalt (II) Diacetate	71-48-7
Cobalt (II) Dinitrate	10141-05-6
Cobalt (II) Sulphate	10124-43-3
Cobalt dichloride	7646-79-9
Cyclododecane	294-62-2
Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarbonylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3]	85-42-7, 13149-00-3, 14166-21-3
Diarsenic pentaoxide	1303-28-2
Diarsenic trioxide	1327-53-3
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3
Diboron trioxide	1303-86-2
Dibutyl phthalate (DBP)	84-74-2
Dibutyltin dichloride (DBTC)	683-18-1
Dichromium tris (chromate)	24613-89-6
Diethyl sulphate	64-67-5
Dihexyl Phthalate	84-75-3
Diisobutyl phthalate (DIBP)	84-69-5
Diisopentylphthalate	605-50-5
Dimethyl sulphate	77-78-1
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7
Dioxobis(stearato)trilead	12578-12-0

Dipentyl Phthalata (DPP) – 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	131-18-0
Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0
Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]	1937-37-7
5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	
Disodium Tetraborate, anhydrous	1303-96-4, 1330-43-4, 12179-04-3
Fatty acids, C16-18, Lead Salts	91031-62-8
Formaldehyde, oligomeric reaction products with aniline	25214-70-4
Formamide	75-12-7
Furan	110-00-9
Henicosaflluoroundecanoic acid	2058-94-8
Heptacosaflluorotetradecanoic acid	376-06-7
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified	25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)
Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4]	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9
Hydrazine	302-01-2, 7803-57-8
Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7
Lead (II) bis (methanesulfonate)	17570-76-2
Lead bis(tetrafluoroborate)	13814-96-5
Lead chromate	7758-97-6
Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	12656-85-8
Lead Cyanamidate	20837-86-9
Lead Diazide, Lead azide	13424-46-9
Lead di(acetate)	301-04-2
Lead dinitrate	10099-74-8
Lead Dipicrate	6477-64-1
Lead hydrogen arsenate	7784-40-9
Lead monoxide (lead oxide)	1317-36-8
Lead oxide sulfate	12036-76-9
Lead styphnate	15245-44-0
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2
Lead titanium trioxide	12060-00-3
Lead Titanium zirconium oxide	12626-81-2
Methyloxirane (Propylene oxide)	75-56-9
Methyloxyacetic acid	625-45-6

N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
N,N-dimethylacetamide	127-19-5
N,N-dimethylformamide	68-12-2
N-methylacetamide	79-16-3
N-pentyl-isopentylphthalate	776297-69-9
o-aminoazotoluene	97-56-3
Orange Lead (Lead Tetroxide)	1314-41-6
o-Toluidine	95-53-4
Pentacosafuorotridecanoic acid	72629-94-8
Pentadecafluorooctanoic acid (PFOA)	335-67-1
Pentalead tetraoxide sulphate	12065-90-6
Pentazinc chromate octahydroxide	49663-84-5
Phenolphthalein	77-09-8
Pitch, coal tar, high temp	65996-93-2
Potassium Chromate	7789-00-6
Potassium Dichromate	7778-50-9
Potassium hydroxyoctaoxidizincatedichromate	11103-86-9
Pyrochlore, antimony lead yellow	8013-00-8
Silicic acid, barium salt (1:1), lead-doped	68784-75-8
Silicic acid, lead salt	11120-22-2
Sodium Chromate	7775-11-3
Sodium dichromate	7789-12-0, 10588-01-9
Sodium perborate; perboric acid, sodium salt	EC 239-172-9; 234-390-0
Sodium peroxometaborate	7632-04-4
Strontium Chromate	7789-06-2
Sulfurous acid, lead salt, dibasic	62229-08-7
Tetraboron disodium heptaoxide, hydrate	12267-73-1
Tetraethyl lead	78-00-2
Tetralead trioxide sulphate	12202-17-4
Trichloroethylene	79-01-6
Tricosafuorododecanoic acid	307-55-1
Triethyl Arsenate	15606-95-8
Trilead bis(carbonate)dihydroxide	144-55-8
Trilead Diasenate	3687-31-8
Trilead Dioxide phosphonate	12141-20-7
Trioxochromium	26412-88-4
Tris(2-chloroethyl)phosphate	115-96-8
Tryxylyl Phosphate	25155-23-1
Zirconia Aluminosilicate Refractory Ceramic Fibers	-

Polycarbonate Aromatic Hydrocarbons

- acenaphthene
- acenaphthylene
- anthracene
- benz[a]anthracene
- benzo[a]pyrene
- benzo[e]pyrene
- benzo[b]fluoranthene
- benzo[g,h,i]perylene
- benzo[j]fluoranthene
- benzo[k]fluoranthene
- chrysene
- dibenz[a,h]anthracene
- fluoranthene
- fluorene
- indeno[1,2,3-c,d] pyrene
- phenanthrene
- pyrene



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