

## STATEMENT OF RoHS COMPLIANCE

In order to comply with the European Union's laws on Waste Electrical and Electronic Equipment (WEEE) and the Restriction of Hazardous Substances (RoHS), XFMRs carefully investigates, evaluates, and qualifies our raw materials.

All electronic and electrical equipment and components placed on the market cannot contain any of the following elements in amounts greater than allowed by the latest regulation, or by standards in industry:

WEEE, February 13, 2003, Directive 2002/96/EC.

RoHS 2.0, Jan 02, 2013, Directive 2011/65/EU.

RoHS 3.0, Mar 31, 2015, Directive 2015/863/EU.

Lead (Pb)	Diisobutyl phthalate (DIBP)
Mercury (Hg)	DNOP
Cadmium (Cd)	DINP
Hexavalent Chromium (Cr (VI))	DIDP
Polybrominated Biphenyls (PBB)	Hexabromocyclododecane (HBCDD)
Polybrominated Diphenyl Ethers (PBDE)	Pentadecafluorooctanoic acid (PFOA)
Bis(2-ethyl(hexyl)phthalate (DEHP)	PFOS
Benzyl butyl phthalate (BBP)	Diisobutyl phthalate (DIBP)
Dibutyl phthalate (DBP)	

XFMRs certifies that all RoHS compliant products currently produced comply with the most recent directive (EU) 2015/863, which takes effect July 22, 2019.

## REACH DECLARATION

Parts manufactured by XFMRs do not contain any of the REACH Substances of Very High Concern (SVHC) listed above the levels mandated by the ECHA (Jan-15-19 total 197).

#	Substance name	EC Number	CAS Number
1	Lead hydrogen arsenate#	232-064-2	7784-40-9
2	Benzyl butyl phthalate (BBP)	201-622-7	85-68-7
3	(DEHP) Bis(2-ethyl(hexyl)phthalate	204-211-0	117-81-7
4	Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9
5	5-tert-butyl-2,4,6-trinitro-m-xylene(musk xylene)	201-329-4	81-15-2
6	Diarsenic trioxide#	215-481-4	1327-53-3
7	Triethyl arsenate	427-700-2	15606-95-8
8	Diarsenic pentaoxide#	215-116-9	1303-28-2
9	Sodium dichromate dehydrate#	234-190-3	7789-12-0 10588-01-9
10	Dibutyl phthalate (DBP)	201-557-4	84-74-2
11	4,4'-Diaminodiphenylmethane(MDA)	202-974-4	101-77-9
12	(SCCPs) Alkanes, C10-13 chloro (short chain chlorinated paraffins, SCCP)	287-476-5	85535-84-8
13	Anthracene	204-371-1	120-12-7
14	Hexabromocyclododecane (HBCDD)	247-148-4 221-695-9	25637-99-4; 3194-55-6 (134237-51-7 134237-50-6, 134237-52-8)
15	Anthracene oil	292-602-7	90640-80-5
16	Anthracene oil, anthracene paste, distn. Lights	295-278-5	91995-17-4
17	Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2
18	Anthracene oil, anthracene-low	292-604-8	90640-82-7
19	Anthracene oil, anthracene paste	292-603-2	90640-81-6
20	Pitch, coal tar, high temp.	266-028-2	65996-93-2
21	TCEP) Tris(2-chloroethyl)phosphate	204-118-5	115-96-8
22	2,4-Dinitrotoluene	204-450-0	121-14-2

23	Diisobutyl phthalate (DIBP)	201-553-2	84-69-5
24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)#	215-693-7	1344-37-2
26	Lead chromate#	231-846-0	7758-97-6
27	Acrylamide	201-173-7	79-06-1
28	Trichloroethylene	201-167-4	79-01-6
29	Boric acid#	233-139-2 234-343-4	10043-35-3 11113-50-1
30	Disodium tetraborate, anhydrous#	215-540-4	1303-96-4 1330-43-4 12179-04-3
31	Tetraboron disodium heptaoxide, hydrate#	235-541-3	12267-73-1
32	Sodium chromate#	231-889-5	7775-11-3
33	Potassium chromate#	232-140-5	7789-00-6
34	Ammonium dichromate#	232-143-1	7789-09-5
35	Potassium dichromate#	231-906-6	7778-50-9
36	Cobalt(II) sulphate#	233-334-2	10124-43-3
37	Cobalt(II) dinitrate#	233-402-1	10141-05-6
38	Cobalt (II) carbonate#	208-169-4	513-79-1
39	Cobalt(II) diacetate	200-755-8	71-48-7
40	2-Methoxyethanol	203-713-7	109-86-4
41	2-Ethoxyethanol	203-804-1	110-80-5
42	Chromium trioxide#	215-607-8	1333-82-0
43	Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid#	231-801-5 236-881-5	7738-94-5 13530-68-2
44	2-ethoxyethyl acetate	203-839-2	111-15-9
45	Strontium chromate#	232-142-6	7789-06-2
46	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4
47	Hydrazine	206-114-9	302-01-2 7803-57-8

48	1-methyl-2-pyrrolidone	212-828-1	872-50-4
49	1,2,3-trichloropropane	202-486-1	96-18-4
50	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6
51	Cobalt dichloride#	231-589-4	7646-79-9
52	Dichromium tris(chromate)#	246-356-2	24613-89-6
53	Potassium hydroxyoctaoxodizincatedichromate#	234-329-8	11103-86-9
54	Pentazinc chromate octahydroxide#	256-418-0	49663-84-5
55	Aluminosilicate Refractory Ceramic Fibres (Al-RCF)#		
56	Zirconia Aluminosilicate Refractory Ceramic Fibres (ZrAl-RCF)#		
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	500-036-1	25214-70-4
58	(DMEP) Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8
59	2-Methoxyaniline;o-Anisidine	201-963-1	90-04-0
60	4-(1,1,3,3-tetramethylbutyl)pheno	205-426-2	140-66-9
61	1,2-Dichloroethane	203-458-1	107-06-2
62	Bis(2-methoxyethyl) ether	203-924-4	111-96-6
63	Arsenic acid#	231-901-9	7778-39-4
64	Calcium arsenate#	231-904-5	7778-44-1
65	Trilead diarsenate#	222-979-5	3687-31-8
66	N,N-dimethylacetamide (DMAC)	204-826-4	127-19-5
67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	202-918-9	101-14-4
68	Phenolphthalein	201-004-7	77-09-8
69	Lead diazide, Lead azide#	236-542-1	13424-46-9
70	Lead styphnate	239-290-0	15245-44-0
71	Lead dipicrate	229-335-2	6477-64-1
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4
74	Diboron trioxide#	215-125-8	1303-86-2
75	Formamide	200-842-0	75-12-7
76	Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2

77	TGIC) 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (TGIC)	219-514-3	2451-62-9
78	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
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline(Michler's base)	202-959-2	101-61-1
81	[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
82	[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
83	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	209-218-2	561-41-1
84	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	229-851-8	6786-83-0
85	Bis(pentabromophenyl) ether (DecaBDE)	214-604-9	1163-19-5
86	Pentacosafuorotridecanoic acid	276-745-2	72629-94-8
87	Tricosafuorododecanoic acid	206-203-2	307-55-1
88	Henicosafuoroundecanoic acid	218-165-4	2058-94-8
89	Heptacosafuorotetradecanoic acid	206-803-4	376-06-7
90	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3
91	Cyclohexane-1,2-dicarboxylic anhydride,cis-cyclohexane-1,2-dicarboxylic anhydride,trans-cyclohexane-1,2-dicarboxylic anhydride	201-604-9, 236-086-3, 238-009-9	85-42-7, 13149-00-3, 14166-21-3
92	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride,Hexahydro-3-methylphthalic anhydride	247-094-1, 243-072-0, 256-356-4, 260-566-1	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9
93	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]		
94	4-(1,1,3,3-tetramethylbutyl)phen ol, ethoxylated		
95	Methoxyacetic acid	210-894-6	625-45-6
96	N,N-dimethylformamide	200-679-5	68-12-2

97	Dibutyltin dichloride (DBTC)	211-670-0	683-18-1
98	Lead monoxide (Lead oxide)#	215-267-0	1317-36-8
99	Orange lead (Lead tetroxide)#	215-235-6	1314-41-6
100	Lead bis(tetrafluoroborate)#	237-486-0	13814-96-5
101	Trilead bis(carbonate)dihydroxide#	215-290-6	1319-46-6
102	Lead titanium trioxide#	235-038-9	12060-00-3
103	Lead titanium zirconium oxide#	235-727-4	12626-81-2
104	Silicic acid, lead salt#	234-363-3	11120-22-2
105	Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), 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
106	1-bromopropane (n-propyl bromide)	203-445-0	106-94-5
107	Methyloxirane (Propylene oxide)	200-879-2	75-56-9
108	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0
109	Diisopentylphthalate	210-088-4	605-50-5
110	N-pentyl-isopentylphthalate		776297-69-9
111	1,2-diethoxyethane	211-076-1	629-14-1
112	Acetic acid, lead salt, basic	257-175-3	51404-69-4
113	Lead oxide sulfate#	234-853-7	12036-76-9
114	[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9
115	Dioxobis(stearato)trilead	235-702-8	12578-12-0
116	Fatty acids, C16-18, lead salts	292-966-7	91031-62-8
117	Lead cyanamidate#	244-073-9	20837-86-9
118	Lead dinitrate#	233-245-9	10099-74-8
119	Pentalead tetraoxide sulphate#	235-067-7	12065-90-6
120	Pyrochlore, antimony lead yellow	232-382-1	8012-00-8
121	Sulfurous acid, lead salt, dibasic#	263-467-1	62229-08-7
122	Tetraethyllead	201-075-4	78-00-2
123	Tetralead trioxide sulphate#	235-380-9	12202-17-4
124	Trilead dioxide phosphonate#	235-252-2	12141-20-7

125	Furan	203-727-3	110-00-9
126	Diethyl sulphate	200-589-6	64-67-5
127	Dimethyl sulphate	201-058-1	77-78-1
128	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2
129	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7
130	4,4'-methylenedi-o-toluidine	212-658-8	838-88-0
131	4,4'-oxydianiline and its salts	202-977-0	101-80-4
132	4-aminoazobenzene	200-453-6	60-09-3
133	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7
134	6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8
135	Biphenyl-4-ylamine	202-177-1	92-67-1
136	o-aminoazotoluene	202-591-2	97-56-3
137	o-toluidine	202-429-0	95-53-4
138	N-methylacetamide	201-182-6	79-16-3
139	Cadmium#	231-152-8	7440-43-9
140	Cadmium oxide#	215-146-2	1306-19-0
141	Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1
142	Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1
143	Dipentyl phthalate (DPP)	205-017-9	131-18-0
144	4-Nonylphenol, branched and linear, ethoxylated		
145	Cadmium sulphide#	215-147-8	1306-23-6
146	(DnHP) Dihexyl phthalate	201-559-5	84-75-3
147	(C.I. Direct Red 28)	209-358-4	573-58-0
148	(C.I. Direct Black 38)	217-710-3	1937-37-7
149	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	202-506-9	96-45-7
150	Lead di(acetate)	206-104-4	301-04-2
151	Trixylyl phosphate	246-677-8	25155-23-1
152	Cadmium chloride#	233-296-7	10108-64-2
153	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4
154	Sodium peroxometaborate#	231-556-4	7632-04-4

155	Sodium perborate; perboric acid, sodium salt#	239-172-9; 234-390-0	
156	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7
157	2-(2H-benzotriazol-2-yl)-4,6-ditertp entylphenol (UV-328)	247-384-8	25973-55-1
158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3, 5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1
159	Cadmium fluoride#	232-222-0	7790-79-6
160	Cadmium sulphate#	233-331-6	10124-36-4; 31119-53-6
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 $\geq$ 0.3% of dihexyl phthalate (EC No. 201-559-5)	271-094-0 272-013-1	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 stereoisomers of [1] and [2] or any combination thereof]		
164	Nitrobenzene	202-716-0	98-95-3
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV- 350)	253-037-1	36437-37-3
167	1,3-propanesultone	214-317-9	1120-71-4
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4
169	Benzo[def]chrysene (Benzo[a]pyrene)	200-028-5	50-32-8



170	4,4'-isopropylidenediphenol (bisphenol A)	201-245-8	'80-05-7
171	nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	206-400-3 221-470-5	335-76-2 3830-45-3 3108-42-7
172	p-(1,1-dimethylpropyl)phenol (PTAP)	201-280-9	80-46-6
173	4-heptylphenol, branched and linear (4-HPbl)		
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	206-587-1	355-46-4
175	Benz[a]anthracene	200-280-6	56-55-3, 1718-53-2
176	Cadmium carbonate	208-168-9	513-78-0
177	Cadmium hydroxide	244-168-5	21041-95-2
178	Cadmium nitrate	233-710-6	10022-68-1, 10325-94-7
179	Chrysene	205-923-4	218-01-9, 1719-03-5
180	Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™)  covering any of its individual anti- and syn-isomers or any combination thereof		
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) with $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear (4-HPbl)		
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride)	209-008-0	552-30-7
183	Benzo[ghi]perylene	205-883-8	191-24-2
184	Decamethylcyclopentasiloxane (D5)	208-764-9	541-02-6
185	Dicyclohexyl phthalate	201-545-9	84-61-7
186	Disodium octaborate	234-541-0	12008-41-2
187	Dodecamethylcyclohexasiloxane (D6)	208-762-8	540-97-6
188	Ethylenediamine	203-468-6	107-15-3
189	Lead	231-100-4	7439-92-1
190	Octamethylcyclotetrasiloxane (D4)	209-136-7	556-67-2
191	Terphenyl hydrogenated	262-967-7	61788-32-7

192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one	239-139-9	15087-24-8
193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	401-720-1	6807-17-6
194	Benzo[k]fluoranthene	205-916-6	207-08-9
195	Fluoranthene	205-912-4	206-44-0, 93951-69-0
196	Phenanthrene	201-581-5	85-01-8
197	Pyrene	204-927-3	129-00-0, 1718-52-1