

## Declaration of EU REACH Compliance

### Compliance Certificate for Vicor Products and Packaging

Vicor certifies that to the best of its knowledge Vicor Products and Packaging Materials meet Regulation (EC) 1907/2006 of the European Union's Registration, Evaluation, Authorization (and Restriction) of Chemicals (also known as the "REACH Regulation").

Vicor has no Registration obligations under Article 7, as Vicor produces only Articles and none of these Articles have an intended release of any Substances/Mixtures.

Vicor has reviewed the Candidate List of 230 SVHCs, presented below:

Substance Name	CAS Number
1. Anthracene	120-12-7
2. 4,4'-Diaminodiphenylmethane (MDA)	101-77-9
3. Dibutyl phthalate (DBP)	84-74-2
4. Anthracene oil	90640-80-5
5. Cobalt dichloride	7646-79-9
6. Benzyl butyl phthalate (BBP)	85-68-7
7. Diarsenic pentaoxide	1303-28-2
8. Diarsenic trioxide	1327-53-3
9. Sodium dichromate	7789-12-0 10588-01-9
10. 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2
11. Anthracene oil, anthracene paste, distn. lights	91995-17-4
12. Hexabromocyclododecane (HBCDD)	25637-99-4 3194-55-6
13. Bis(tributyltin)oxide (TBTO)	56-35-9
14. Lead hydrogen arsenate	7784-40-9
15. Triethyl arsenate	15606-95-8
16. Alkanes, C10-13, chloro(Short Chain Chlorinated Paraffins)	85535-84-8
17. Anthracene oil, anthracene paste, anthracene fraction	91995-15-2
18. Anthracene oil, anthracene-low	90640-82-7
19. Anthracene oil, anthracene paste	90640-81-6
20. Pitch, coal tar, high temp.	65996-93-2
21. Aluminosilicate Refractory Ceramic Fibres	
22. Zirconia Aluminosilicate Refractory Ceramic Fibres	
23. 2,4-Dinitrotoluene	121-14-2
24. Diisobutyl phthalate	84-69-5
25. Lead chromate	7758-97-6
26. Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8
27. Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2

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Substance Name	CAS Number
28. Tris(2-chloroethyl)phosphate	115-96-8
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	2146108
34. Potassium chromate	7789-00-6
35. Ammonium dichromate	2151163
36. Potassium dichromate	7778-50-9
37. Acrylamide	79-06-1
38. 2-Ethoxyethanol	110-80-5
39. 2-Methoxyethanol	109-86-4
40. Cobalt (II) diacetate	71-48-7
41. Cobalt (II) carbonate	513-79-1
42. Cobalt (II) dinitrate	10141-05-6
43. Cobalt (II) sulphate	10124-43-3
44. Chromium trioxide	1333-82-0
45a. Chromic acid	7738-94-5
45b. Dichromic acid	13530-68-2
46. 2-Ethoxyethyl acetate	111-15-9
47. Strontium chromate	2151068
48. 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4
49. Hydrazine	302-01-2 7803-57-8
50. 1-Methyl-2-pyrrolidone	872-50-4
51. 1,2,3-Trichloropropane	96-18-4
52. 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6
53. Lead styphnate	15245-44-0
54. Lead diazide, Lead azide	13424-46-9
55. Lead dipicrate	6477-64-1
56. Phenolphthalein	77-09-8
57. 2,2'-Dichloro-4,4'-methylenedianiline	101-14-4
58. N,N-dimethylacetamide	127-19-5
59. Trilead diarsenate	3687-31-8
60. Calcium arsenate	7778-44-1

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Substance Name	CAS Number
61. Arsenic acid	7778-39-4
62. Bis(2-methoxyethyl) ether	111-96-6
63. 1,2-Dichloroethane	107-06-2
64. 4-(1,1,3,3-Tetramethylbutyl) phenol; 4-tert-octyl phenol	140-66-9
65. 2-Methoxyaniline; o-Anisidine	90-04-0
66. Bis(2-methoxyethyl) phthalate	117-82-8
67. Formaldehyde, oligomeric reaction products with aniline	25214-70-4
68. 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4
69. [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
70. Pentazinc chromate octahydroxide	49663-84-5
71. Potassium hydroxyoctaoxodizincatedichromate	11103-86-9
72. Dichromium tris(chromate)	
73. a,a-Bis[4-(dimethylamino)phenyl]-4-(phenylamino) naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0
74. N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
75. 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
76. 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2
77. 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1
78. Lead(II) bis(methanesulfonate)	17570-76-2
79. Formamide	75-12-7
80. [4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9
81. 1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9
82. Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5
83. Pentacosaflluorotridecanoic acid	72629-94-8
84. Tricosaflluorododecanoic acid	307-55-1
85. Henicosaflluoroundecanoic acid	2058-94-8
86. Heptacosaflluorotetradecanoic acid	376-06-7
87. 4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated	
88. 4-Nonylphenol, branched and linear	
89. Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3
90. Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride – HHPA)	85-42-7
91. Methoxy acetic acid	625-45-6
92. 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
93. 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0
94. Diisopentylphthalate (DIPP)	605-50-5

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Substance Name	CAS Number
95. N-pentyl-isopentylphthalate	776297-69-9
96. 1,2-Diethoxyethane	629-14-1
97. N,N-dimethylformamide;dimethyl formamide	68-12-2
98. Dibutyltin dichloride (DBT)	683-18-1
99. Acetic acid, lead salt, basic	51404-69-4
100. Basic lead carbonate (trilead bis(carbonate)dihydroxide)	1319-46-6
101. Lead oxide sulfate (basic lead sulfate)	12036-76-9
102. [Phthalato(2-)]dioxotrilead (dibasic lead phthalate)	69011-06-9
103. Dioxobis(stearato)trilead	12578-12-0
104. Fatty acids, C16-18, lead salts	91031-62-8
105. Lead bis(tetrafluoroborate)	13814-96-9
106. Lead cyanamidate	20837-86-9
107. Lead dinitrate	10099-74-8
108. Lead oxide (lead monoxide)	1317-36-8
109. Lead tetroxide (orange lead)	1314-41-6
110. Lead titanium trioxide	12060-00-3
111. Lead Titanium Zirconium Oxide	12626-81-2
112. Pentalead tetraoxide sulphate	12065-90-6
113. Pyrochlore, antimony lead yellow	8012-00-8
114. Silicic acid, barium salt, lead-doped	68784-75-8
115. Silicic acid, lead salt	11120-22-2
116. Sulfurous acid, lead salt, dibasic	62229-08-7
117. Tetraethyllead	78-00-2
118. Tetralead trioxide sulphate	12202-17-4
119. Trilead dioxide phosphonate	12141-20-7
120. Furan	110-00-9
121. Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9
122. Diethyl sulphate	64-67-5
123. Dimethyl sulphate	77-78-1
124. 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2
125. Dinoseb	88-85-7
126. 4,4'-methylenedi-o-toluidine	838-88-0
127. 4,4'-oxydianiline and its salts	101-80-4
128. 4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3
129. 4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7
130. 6-methoxy-m-toluidine (p-cresidine)	120-71-8
131. Biphenyl-4-ylamine	92-67-1

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Substance Name	CAS Number
132. o-aminoazotoluene	97-56-3
133. o-Toluidine; 2-Aminotoluene	95-53-4
134. N-methylacetamide	79-16-3
135. 1-bromopropane; n-propyl bromide	106-94-5
136. Cadmium	7440-43-9
137. Cadmium oxide	1306-19-0
138. Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
139. Pentadecafluorooctanoic acid (PFOA)	335-67-1
140. Dipentyl phthalate (DPP)	131-18-0
141. 4-Nonylphenol, branched and linear, ethoxylated	
142. Cadmium sulphide	1306-23-6
143. 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
144. Dihexyl phthalate	84-75-3
145. Imidazolidine-2-thione	96-45-7
146. Trixylyl phosphate	25155-23-1
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. Lead di(acetate)	301-04-2
149. Cadmium chloride	10108-64-2
150. 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4
151. Sodium peroxometaborate	2093666
152. Sodium perborate; perboric acid, sodium salt	
153. Bis(2-ethyl(hexyl)phthalate) (DEHP)	117-81-7
154. Cadmium fluoride	7790-79-6
155. Cadmium sulphate	10124-36-4 31119-53-6
156. 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	68515-51-5 68648-93-1
157. 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]	
158. 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7
159. 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (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. Nitrobenzene	98-95-3
163. 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1

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Substance Name	CAS Number
164. 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-sec-butylphenol (UV-350)	36437-37-3
165. 1,3-propanesultone	1120-71-4
166. Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4
167. Benzo[def]chrysene(Benzo[a]pyrene)	50-32-8
168. 4,4'-Isopropylidenediphenol (Bisphenol A)	80-05-7
169. 4-Heptylphenol, branched and linear	
170. Ammonium nonadecafluorodecanate Decanoic acid, nonadecafluoro-, sodium salt	335-76-2 3108-42-7 3830-45-3
171. p-(1,1-dimethylpropyl)phenol	80-46-6
172. Perfluorohexane-1-sulphonic acid and its salts	
173. Cadmium carbonate	519-78-0
174. Cadmium nitrate	10022-68-1
175. Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)	
176. Benz[a]anthracene	56-55-3 1718-53-2
177. Cadmium hydroxide	21041-95-2
178. Chrysene	218-01-9 1719-03-5
179. Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10] octadeca-7,15-diene	
180. Decamethylcyclopentasiloxane	541-02-6
181. Dodecamethylcyclohexasiloxane	540-97-6
182. Disodium octaborate	12008-41-2
183. Benzo(ghi)perylene	191-24-2
184. Terphenyl hydrogenated	61788-32-7
185. Ethylenediamine	107-15-3
186. Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7
187. Dicyclohexyl phthalate (DCHP)	84-61-7
188. 1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one	15087-24-8
189. 2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6
190. Benzo[k]fluoranthene	207-08-9
191. Fluoranthene	206-44-0 93951-69-0
192. Phenanthrene	85-01-8
193. Pyrene	129-00-0 1718-52-1

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Substance Name	CAS Number
194. 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides	
195. 2-methoxyethyl acetate	110-49-6
196. 4-tert-butylphenol	98-54-4
197. Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	
198. Perfluorooctanoic acid (PFOA)	335-67-1
199. Diisohexyl phthalate	71850-09-4
200. 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1
201. 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5
202. Perfluorobutane sulfonic acid (PFBS) and its salts	
203. Butyl 4-hydroxybenzoate	94-26-8
204. 2-methylimidazole	693-98-1
205. 1-vinylimidazole	1072-63-5
206. Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4
207. Octamethylcyclotetrasiloxane	556-67-2
208. bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8
209. Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) acylox derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	
210. 2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	
211. Orthoboric acid, sodium salt	13840-56-7
212. 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
213. Glutaral	11-30-8
214. 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 C14 to C17)	
215. Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/or combinations thereof (PDDP)	
216. 1,4-dioxane	123-91-1
217. 4,4'-(1-methylpropylidene)bisphenol	77-40-7
218. tris(2-methoxyethoxy)vinylsilane	1067-53-4
219. 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
220. 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	119-47-1
221. -1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one	
222. N-(hydroxymethyl)acrylamide	924-42-5
223. 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	



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Substance Name	CAS Number
224. Perfluoroheptanoic acid and its salts	
225. Isobutyl 4-hydroxybenzoate	4247-02-3
226. bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	
227. Barium diboron tetraoxide	13701-59-2
228. 4,4'-sulphonyldiphenol	80-09-1
229. 1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene]	37853-59-1

Vicor has no Notification obligations under Article 33, concerning these SVHCs, as none are present in Vicor Products and Packaging, or are present below the 0.1% wt./wt. concentration limit.

SVHC Lead (CAS 7439-92-1) is present in virtually all Vicor Products above the 0.1% wt./wt. concentration limit.

SVHC Diboron Trioxide (CAS 1303-86-2) is present in virtually all Vicor Products above the 0.1% wt./wt. concentration limit.

SVHC Melamine (CAS 108-78-1) is present in virtually all Vicor Chip Products above the 0.1% wt./wt. concentration limit.

SVHC 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol (CAS 79-94-7) is present in virtually all Vicor Brick legacy Products above the 0.1% wt./wt. concentration limit.

The specific Products involved are highlighted on the respective Certificates of Compliance provided with each shipment. The specific amounts of each SVHC involved are provided on the Vicor Web Site under Quality Assurance and REACH.

Vicor Products and Packaging contain none of the Banned Substances listed in EU REACH Annex XVII.

In addition, Vicor requires that its parts and material Suppliers provide Full Material Disclosure on their Products as part of the ongoing Material Declaration effort.

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