

## REACH Compliance Statement

The European Chemicals Agency (“ECHA”) has updated the Candidate List of Substances of Very High Concern (“SVHCs”) for Authorization published on January 17th, 2022 (the “Updated List”). The SVHCs List hereunder is a corresponding list as the Updated List on the website of ECHA. Insignis Technology Corporation, Inc. (“Insignis”) has used its commercially reasonable efforts to survey and acquire the relevant information from its suppliers regarding application of and in compliance with such SVHCs List.

**Product Part or Model Number:** (Please list the relevant part numbers here)

Product Part or Model Number
* applies to all Insignis part #s
(both DRAM and eMMC)

### SVHCs List

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
1	Anthracene	120-12-7	< 0.1%
2	4,4'-Diaminodiphenylmethane (MDA)	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	
8	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	
9	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	
10	Hexabromocyclododecane, HBCDD and all major diastereoisomers identified.	25637-99-4	
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	Benzyl butyl phthalate (BBP)	85-68-7	
15	Triethyl arsenate	15606-95-8	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
16	2,4-Dinitrotoluene	121-14-2	< 0.1%
17	Anthracene oil	90640-80-5	
18	Anthracene oil, anthracene paste, distn. lights	91995-17-4	
19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	
20	Anthracene oil, anthracene-low	90640-82-7	
21	Anthracene oil, anthracene paste	90640-81-6	
22	Diisobutyl phthalate	84-69-5	
23	Lead chromate	7758-97-6	
24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	
26	Acrylamide	79-06-1	
27	Tris(2-chloroethyl) phosphate	115-96-8	
28	Pitch, coal tar, high temp.	65996-93-2	
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	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
40	Cobalt(II) diacetate	71-48-7	< 0.1%
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	7789-06-2	
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	Lead dipicrate	6477-64-1	
53	Lead styphnate	15245-44-0	
54	Lead diazide	13424-46-9	
55	Phenolphthalein	77-09-8	
56	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	
57	N,N-dimethylacetamide (DMAC)	127-19-5	
58	trilead diarsenate	3687-31-8	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
59	calcium arsenate	7778-44-1	< 0.1%
60	Arsenic acid	7778-39-4	
61	Bis(2-methoxyethyl) ether	111-96-6	
62	1,2-Dichloroethane	107-06-2	
63	4-(1,1,3,3-tetramethylbutyl) phenol, (4-tert-octylphenol)	140-66-9	
64	2-methoxyaniline o-anisidine	90-04-0	
65	Bis(2-methoxyethyl) phthalate	117-82-8	
66	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	
67	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) are fibres 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, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide(Na <sub>2</sub> O+K <sub>2</sub> O+CaO+MgO+BaO) content less or equal to 18% by weight.	-	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
68	Aluminosilicate Refractory Ceramic Fibres (RCF) are fibres 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, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na <sub>2</sub> O+K <sub>2</sub> O+CaO+MgO+BaO) content less or equal to 18% by weight	-	< 0.1%
69	Pentazinc chromate octahydroxide	49663-84-5	
70	Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	
71	Dichromium tris(chromate)	24613-89-6	
72	1,2-bis(2-methoxyethoxy) ethane (TEGDME triglyme)	112-49-2	
73	1,2-dimethoxyethane ethylene glycol dimethyl ether (EGDME)	110-71-4	
74	Diboron trioxide	1303-86-2	
75	Formamide	75-12-7	
76	Lead(II) bis(methanesulfonate)	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	β-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	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
81	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	< 0.1%
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	
87	Tricosafuorododecanoic acid	307-55-1	
88	Henicosafuoroundecanoic acid	2058-94-8	
89	Heptacosafuorotetradecanoic 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 isomers or a combination thereof	-	
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	
93	Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	85-42-7	
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	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
95	Methoxy acetic acid	625-45-6	< 0.1%
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	
97	Diisopentylphthalate (DIPP)	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 (DBT)	683-18-1	
102	Acetic acid, lead salt, basic	51404-69-4	
103	Basic lead carbonate (trilead bis(carbonate)dihydroxide)	1319-46-6	
104	Lead oxide sulfate (basic lead sulfate)	12036-76-9	
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)	69011-06-9	
106	Dioxobis(stearato)trilead	12578-12-0	
107	Fatty acids, C16-18, lead salts	91031-62-8	
108	Lead bis(tetrafluoroborate)	13814-96-5	
109	Lead cyanamidate	20837-86-9	
110	Lead dinitrate	10099-74-8	
111	Lead oxide (lead monoxide)	1317-36-8	
112	Lead tetroxide (orange lead)	1314-41-6	
113	Lead titanium trioxide	12060-00-3	
114	Lead Titanium Zirconium Oxide	12626-81-2	
115	Pentalead tetraoxide sulphate	12065-90-6	
116	Pyrochlore, antimony lead yellow	8012-00-8	
117	Silicic acid, barium salt, lead-doped	68784-75-8	
118	Silicic acid, lead salt	11120-22-2	
119	Sulfurous acid, lead salt, dibasic	62229-08-7	
120	Tetraethyllead	78-00-2	
121	Tetralead trioxide sulphate	12202-17-4	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
122	Trilead dioxide phosphonate	12141-20-7	< 0.1%
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'-methylenedi-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; n-propyl bromide	106-94-5	
139	Cadmium	7440-43-9	
140	Ammoniumpentadecafluorootanoate (APFO)	3825-26-1	
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1	
142	Dipentyl phthalate (DPP)	131-18-0	



NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
143	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]	-	<0.1%
144	Cadmium oxide	1306-19-0	
145	Cadmium sulphide	1306-23-6	
146	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	
147	Dihexyl phthalate	84-75-3	
148	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	
149	Trixylyl phosphate	25155-23-1	
150	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis (4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	
151	Lead di(acetate)	301-04-2	
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	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
157	reaction mass of 2-ethylhexyl10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3, 5-dithia-4-stannatetradecanoate and 2-ethylhexyl10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannate tradecanoate (reaction mass of DOTE and MOTE)	-	< 0.1%
158	2-ethylhexyl10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3, 5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	
159	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	
160	Cadmium sulphate	10124-36-4 31119-53-6	
161	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	
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 (EC No. 201-559-5)	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	
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 4149-60-4	
169	Benzo[def]chrysene	50-32-8	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	Non-BGA product < 0.1% BGA product <1% Communicating information according to Article 33: BGA substrate core contains < 1 wt% of BPA as impurity or byproduct, which will not be exposed to cause contact induced risks.
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]	-	< 0.1%
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	
173	p-(1,1-dimethylpropyl)phenol	80-46-6	
174	Perfluorohexane-1-sulphonic acid and its salts	-	
175	Benz[a]anthracene	56-55-3, 1718-53-2	
176	Cadmium carbonate	513-78-0	

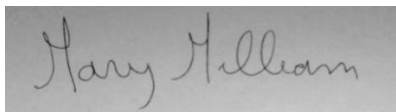
NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
177	Cadmium hydroxide	21041-95-2	< 0.1%
178	Cadmium nitrate	10022-68-1, 10325-94-7	
179	Chrysene	218-01-9, 1719-03-5	
180	Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15 -diene ("Dechlorane Plus™") covering any of its individual 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 ≥0.1% w/w 4-heptylphenol, branched and linear (4-HPbl)	-	
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; 3-BC	15087-24-8	
193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	
194	Benzo[k]fluoranthene	207-08-9	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
195	Fluoranthene	206-44-0; 93951-69-0	< 0.1%
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 covering any of their individual isomers and combinations thereof	-	
199	2-methoxyethyl acetate	110-49-6	
200	4-tert-butylphenol	98-54-4	
201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	-	
202	Perfluorobutane sulfonic acid (PFBS) and its salts	-	
203	Diisohexyl phthalate	71850-09-4	
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	
205	2-benzyl-2-dimethylamino-4'-morpholinobutyropnone	119313-12-1	
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) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	-	
212	1,4-dioxane	123-91-1	

NO.	Substance Name	CAS Number	Threshold Limit (SVHC/Product weight)
213	2,2-bis(bromomethyl)propane1,3-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 36483-57-5/1 522-92-5 96-13-9	< 0.1%
214	2-(4-tert-butylbenzyl) propionaldehyde and its individual stereoisomers	-	
215	4,4'-(1-methylpropylidene) bisphenol; (bisphenol B)	77-40-7	
216	Glutaral	111-30-8	
217	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]	-	
218	Orthoboric acid, sodium salt	13840-56-7	
219	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	-	
220	(±)-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)	-	
221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC)	119-47-1	
222	S-(tricyclo[5.2.1.0'2,6]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	
223	tris(2-methoxyethoxy)vinylsilane	1067-53-4	

## REACH Compliance Statement

This signature below verifies that the statement above is valid and accurate.

A rectangular box containing a handwritten signature in black ink that reads "Gary Gilliam".

Name: Gary R. Gilliam  
Title: CTO and VP of Engineering  
Email: gary@insignis-tech.com  
Phone: 208-850-1042  
Date: 3/23/2022