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Declaration of RoHS and REACH SVHC Compliance

This declaration is to confirm that ECM-3455J manufactured by BCM Advanced Research comply with the European RoHS Directive 2011/65 and 2015/863 and the REACH candidate list of substances of Very High Concern (SVHC) Non-Use Hazardous substances. This product has less than the RoHS and REACH SVHC limits stated below for the ten restricted use substances with exemption and the other SVHC are not present above 0.1% by weight in article of product. This Declaration is based on our manufacturing process using solder alloy and vendor supplied analysis or material certifications, and/ or lab test results of the components mounted on this motherboard/ card/ CPU Cooler/ cable/ accessory.

RoHS Restricted Substance	Maximum Threshold Limit (PPM)
Lead (Pb)	1,000
Mercury (Hg)	1,000
Cadmium (Cd)	100
Hexavalent Chromium (Cr6+)	1,000
Polybrominated Biphenyls (PBB)	1,000
Polybrominated Diphenyl Ethers (PBDE)	1,000
Bis (2-ethylhexyl) phthalate (DEHP)	1,000
Butyl benzyl phthalate (BBP)	1,000
Dibutyl phthalate (DBP)	1,000
Diisobutyl phthalate (DIBP)	1,000

RoHS compliant with below exemption:

* 6(c) – Copper alloy containing up to 4% lead by weight

* 7(a) – Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)

* 7(c)-I – Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic device, or in a glass or ceramic matrix compound.

* 15 – Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip package

* 15(a) – Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies:— a semiconductor technology node of 90 nm or larger;— a single die of 300 mm² or larger in any semiconductor technology node;— stacked die packages with die of 300 mm² or larger, or silicon interposers of 300 mm² or larger.

No.	REACH Restricted Substance ECHA Source: http://echa.europa.eu/candidate-list-table	EC number	CAS number
1st (Date of inclusion: 10/28/2008)			
1	Anthracene	204-371-1	120-12-7
2	4,4'-Diaminodiphenylmethane	202-974-4	101-77-9
3	Hexabromocyclododecane (HBCDD)	247-148-4	25637-99-4
4	Short Chain Chlorinated Paraffins (C ₁₀ ~C ₁₃)	287-476-5	85535-84-8
5	Cobalt dichloride	231-589-4	7646-79-9
6	Diarsenic pentaoxide	215-116-9	1303-28-2
7	Diarsenic trioxide	215-481-4	1327-53-3
8	Triethyl arsenate	427-700-2	15606-95-8
9	Sodium dichromate	—	7789-12-0
10	Lead hydrogen arsenate	232-064-2	7784-40-9
11	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2
12	Dibutyl Phthalate (DBP)	201-557-4	84-74-2
13	Bis(2-ethylhexyl) phthalate (DEHP)	204-211-0	117-81-7
14	Benzyl butyl phthalate (BBP)	201-622-7	85-68-7
15	Bis(tributyltin) oxide (TBTO)	200-268-0	56-35-9
2nd (Date of inclusion: 01/13/2010)			
16	Anthracene oil	292-602-7	90640-80-5
17	Anthracene oil, anthracene paste, distn. Lights	295-278-5	91995-17-4
18	Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2
19	Anthracene oil, anthracene-low	292-604-8	90640-82-7
20	Anthracene oil, anthracene paste	292-603-2	90640-81-6
21	Diisobutyl phthalate	201-553-2	84-69-5
22	2,4-Dinitrotoluene	204-450-0	121-14-2
23	Coal tar pitch, high temperature	266-028-2	65995-93-2
24	Tris(2-chloroethyl)phosphate	204-118-5	115-96-8
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2
26	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8
27	Lead chromate	231-846-0	7758-97-6
28	Acrylamide	201-173-7	79-06-1
3rd (Date of inclusion: 06/18/2010)			
29	Trichloroethylene	201-167-4	79-01-6
30	Boric acid	233-139-2 234-343-4	10043-35-3 11113-50-1
31	Disodium tetraborate, anhydrous	215-540-4	1330-43-4 12179-04-3 1303-96-4
32	Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1
33	Sodium chromate	231-889-5	7775-11-3
34	Potassium chromate	232-140-5	7789-00-6
35	Ammonium dichromate	232-143-1	7789-09-5
36	Potassium dichromate	231-906-6	7778-50-9
4th (Date of inclusion: 12/15/2010)			
37	Cobalt(II) sulphate	203-839-2	111-15-9
38	Cobalt(II) dinitrate	232-142-6	2151068
39	Cobalt(II) carbonate	271-084-6	68515-42-4

40	Cobalt(II) diacetate	206-114-9	7803-57-8 302-01-2
41	2-Methoxyethanol	212-828-1	872-50-4
42	2-Ethoxyethanol	202-486-1	96-18-4
43	Chromium trioxide	276-158-1	71888-89-6
44	Chromic acid	231-801-5	7738-94-5
	Dichromic acid	236-881-5	13530-68-2
	Oligomers of chromic acid and dichromic acid	—	—
5th (Date of inclusion: 06/20/2011)			
45	2-ethoxyethyl acetate	203-839-2	111-15-9
46	Strontium Chromate	232-142-6	2151068
47	1, 2-benzenedicarboxylic Acid, di-C7-11-branched and Linear Alkyl Esters	271-084-6	68515-42-4
48	Hydrazine	206-114-9	7803-57-8 302-01-2
49	1-methyl-2-pyrrolidone	212-828-1	872-50-4
50	1,2,3-trichloropropane	202-486-1	96-18-4
51	1,2-benzenedicarboxylic Acid, di-C6-8-branched Alkyl Esters, C7-rich	276-158-1	71888-89-6
6th (Date of inclusion: 12/19/2010)			
52	Dichromium tris(chromate)	246-356-2	24613-89-6
53	Potassium hydroxyoctaoxodizincatedi-chromate	234-329-8	11103-86-9
54	Pentazinc chromate octahydroxide	256-418-0	49663-84-5
55	Aluminosilicate Refractory Ceramic Fibres (RCF)	650-017-00-8*	—
56	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)	650-017-00-8*	—
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	500-036-1	25214-70-4
58	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)phenol, (4-tert-Octylphenol)	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	1977/9/8
69	Lead azide Lead diazide	236-542-1	13424-46-9
70	Lead styphnate	239-290-0	15245-44-0
71	Lead dipicrate	229-335-2	6477-64-1
7th (Date of inclusion: 06/18/2012)			
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)	219-514-3	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)	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'-methylenedia niline (Michler's base)	202-959-2	101-61-1
81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-yl idene]dimethylammonium chloride (C.I. Basic Violet 3)	208-953-6	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)	219-943-6	2580-56-5
83	α,α -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	229-851-8	6786-83-0
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	209-218-2	561-41-1
8th (Date of inclusion: 12/19/2012)			
85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5
86	Pentacosaf fluorotridecanoic acid	276-745-2	72629-94-8
87	Tricosaf fluorododecanoic acid	206-203-2	307-55-1
88	Henicosaf fluoroundecanoic acid	218-165-4	2058-94-8
89	Heptacosaf fluorotetradecanoic 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 [1]	201-604-9	85-42-7
	cis-cyclohexane-1,2-dicarboxylic anhydride [2]	236-086-3	13149-00-3
	trans-cyclohexane-1,2-dicarboxylic anhydride [3]	238-009-9	14166-21-3
92	Hexahydromethylphthalic anhydride [1]	247-094-1	25550-51-0
	Hexahydro-4-methylphthalic anhydride [2]	243-072-0	19438-60-9
	Hexahydro-1-methylphthalic anhydride [3]	256-356-4	48122-14-1
	Hexahydro-3-methylphthalic anhydride [4]	260-566-1	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)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	—	—
95	Methoxyacetic acid	210-894-6	625-45-6
96	N,N-dimethylformamide	200-679-5	25174
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 ₂ Si ₂ O ₅), barium salt (1:1), lead-doped	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 (DIPP)	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 cyanamide	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	22162
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 [(4-o-tolylazo-o-toluidine)]	202-591-2	97-56-3
137	o-toluidine	202-429-0	95-53-4
138	N-methylacetamide	201-182-6	79-16-3
9th (Date of inclusion: 06/20/2013)			
139	Cadmium	231-152-8	7440-43-9
140	Cadmium oxide	215-146-2	1306-19-0
141	Ammoniumpentadecafluorooctanoate (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 [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]	—	—
10th (Date of inclusion: 12/16/2013)			
145	Cadmium sulphide	215-147-8	1306-23-6
146	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis (azo)]bis(4-aminonaphthalene-1-sulphon ate) (C.I. Direct Red 28)	209-358-4	573-58-0
147	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)	217-710-3	1937-37-7
148	Dihexyl phthalate	201-559-5	84-75-3
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
11th (Date of inclusion: 06/16/2014)			
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	—
12th (Date of inclusion: 12/17/2014)			
156	Cadmium fluoride	232-222-0	7790-79-6
157	Cadmium sulphate	233-331-6	10124-36-4 31119-53-6
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	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)	—	—
13th (Date of inclusion: 06/15/2015)			
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)	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], -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]	—	—
14th (Date of inclusion: 12/17/2015)			
164	1,3-propanesultone	214-317-9	1120-71-4
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	Nitrobenzene	202-716-0	98-95-3
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4

15th (Date of inclusion: 06/20/2016)			
169	Benzo[def]chrysene (Benzo[a]pyrene)	200-028-5	50-32-8
16th (Date of inclusion: 01/12/2017)			
170	p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6
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	4-heptylphenol, branched and linear	—	—
173	4,4'-isopropylidenediphenol	201-245-8	80-05-7
17th (Date of inclusion: 07/07/2017)			
174	Perfluorohexane-1-sulphonic acid and its salts	—	—
18th (Date of inclusion: 01/15/2018)			
175	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™)	—	—
176	Benz[a]anthracene	200-280-6	56-55-3 1718-53-2
177	Cadmium carbonate	208-168-9	513-78-0
178	Cadmium hydroxide	244-168-5	21041-95-2
179	Cadmium nitrate	233-710-6	10325-94-7 10022-68-1
180	Chrysene	205-923-4	218-01-9 1719-03-5
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)	—	—
19th (Date of inclusion: 06/27/2018)			
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride	209-008-0	552-30-7
183	Benzo[ghi]perylene	205-883-8	191-24-2
184	Decamethylcyclopentasiloxane	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	208-762-8	540-97-6
188	Ethylenediamine	203-468-6	107-15-3
189	Lead	231-100-4	7439-92-1
190	Octamethylcyclotetrasiloxane	209-136-7	556-67-2
191	Terphenyl, hydrogenated	262-967-7	61788-32-7
20th (Date of inclusion: 01/15/2019)			
192	Pyrene	204-927-3	129-00-0
193	Phenanthrene	201-581-5	85-01-8
194	Fluoranthene	205-912-4	206-44-0
195	Benzo[k]fluoranthene	205-916-6	207-08-9
196	2,2-bis(4'-hydroxyphenyl)-4-methylpentane (Bisphenol P)	401-720-1	6807-17-6
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor; 3-BC)	239-139-9	15087-24-8
21th (Date of inclusion: 07/16/2019)			
198	2-methoxyethyl acetate	203-772-9	110-49-6
199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	—	—
200	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	—	—
201	4-tert-butylphenol	202-679-0	98-54-4
22th (Date of inclusion: 01/16/2020)			
202	Perfluorobutane sulfonic acid (PFBS) and its salts	—	—
203	Diisohexyl phthalate	276-090-2	71850-09-4
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	400-600-6	71868-10-5
205	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	404-360-3	119313-12-1
23th (Date of inclusion: 06/25/2020)			
206	1-vinylimidazole	214-012-0	1072-63-5
207	2-methylimidazole	211-765-7	693-98-1
208	Butyl 4-hydroxybenzoate	202-318-7	94-26-8
209	Dibutylbis(pentane-2,4-dionato-O,O')tin	245-152-0	22673-19-4
24th (Date of inclusion: 01/19/2021)			
210	Bis(2-(2-methoxyethoxy)ethyl)ether	205-594-7	143-24-8
211	Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	— 293-901-5 222-83-3	— 91648-39-4 3648-18-8
25th (Date of inclusion: 07/08/2021)			
212	1,4-dioxane	204-661-8	123-91-1
213	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)	799-968-1	—
214	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	799-970-2	—
215	4,4'-(1-methylpropylidene)bisphenol	201-025-1	77-40-7
216	glutaral	203-856-5	111-30-8

217	Medium-chain chlorinated paraffins (MCCP)	799-971-8	—
218	Orthoboric acid, sodium salt	799-969-7	—
219	Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	799-972-3	—
26th (Date of inclusion: 01/17/2022)			
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) (3E)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (1R,3E,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (1S,3Z,4R)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one (1R,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (1S,3E,4R)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one (1R,3Z,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one	— — — 253-242-6 — — —	1782069-81-1 95342-41-9 852541-25-4 36861-47-9 741687-98-9 852541-30-1 852541-21-0
221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	204-327-1	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	401-850-9	255881-94-8
223	tris(2-methoxyethoxy)vinylsilane	213-934-0	1067-53-4
27th (Date of inclusion: 06/10/2022)			
224	N-(hydroxymethyl)acrylamide	213-103-2	924-42-5
28th (Date of inclusion: 01/17/2023)			
225	1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene]	253-692-3	37853-59-1
226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	201-236-9	79-94-7
227	4,4'-sulphonyldiphenol	201-250-5	80-09-1
228	Barium diboron tetraoxide	237-222-4	13701-59-2
229	bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof Bis(2-ethylhexyl) tetrabromophthalate	247-426-5	26040-51-7
230	Isobutyl 4-hydroxybenzoate	224-208-8	4247-02-3
231	Melamine	203-615-4	108-78-1
232	Perfluoroheptanoic acid and its salts Ammonium perfluoroheptanoate potassium perfluoroheptanoate Perfluoroheptanoic acid Sodium perfluoroheptanoate	228-098-2 — 206-798-9 243-518-4	6130-43-4 21049-36-5 375-85-9 20109-59-5
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	473-390-7	—

Effective Date: August 21, 2023

Alex Huang

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Quality Engineer