

## Statement regarding AOS Products in the Light of REACH Obligations

Since 1 June 2007 Regulation (EC) No 1907/2006 concerning Registration, Evaluation, Authorization and Restriction of Chemicals (Abbr.REACH) is in force.

### REACH contains and AOS obligation identification

1. Since 1 June 2008, manufacturers or importers of substances as such, of substances in preparations (mixtures) or substances in articles which are released intentionally, must register these substances at the European Chemicals Agency (ECHA), if the substances are manufactured or imported in the European Community in quantities of at least 1 ton per year and if they are not exempted from registration obligations.

AOS Obligation Identification: Not falls in the scope, AOS products are Articles and as semiconductors are not intended to release any substance under normal and reasonably foreseeable conditions of use,

2. Suppliers of substances and preparations must provide the recipient with either a safety data sheet (Article 31) or safety information (Article 32). In certain cases, the safety data sheet has to be amended with relevant exposure scenarios ("Extended Safety Data Sheet").

AOS Obligation Identification: Not falls in the scope, AOS products are Articles

3. Suppliers, manufacturers and importers of articles that contain a substance on the "candidate list" in a concentration higher than 0.1 mass percent per article shall provide the professional recipient and on request a consumer of the article with sufficient information to ensure safe use of the article. This information has to include, as a minimum requirement, the name of that substance. Furthermore, if the substance on the "candidate list" exceeds the quantity of 1 t per year in these articles, a notification to the European Chemicals Agency (ECHA) is required. The notification obligation started 1 June 2011.

AOS Obligation Identification: Some of AOS products contain SVHC candidates, and total of candidate shipped to EU is less than 1 t per year. Notification obligation to ECHA is not applicable, but AOS should notify the information to our downstream users

4. Since 1 June 2008, users of chemicals (substances and preparations/mixtures) – so-called "downstream users" – will have to comply with further obligations, but only after they have received an

extended safety data sheet. Downstream users can provide appropriate information to assist the manufacturers and importers of substances and preparations in registering them.

AOS Obligation Identification: Notification is not required since exposure to humans or the environment under normal or reasonably foreseeable conditions of use including disposal (disposal phase of electronic products is covered in the European Union by the WEEE directive 2012/19/EU) can be excluded for AOS semiconductor products.

### **What should AOS do specific to REACH?**

Depended on the obligation identification, we have reviewed the BOM and obtained / confirmed the information from our supplier chain. We certified these substances of Very High Concern (SVHC candidate as below listed) are NOT CONTAINED in AOS's products, except some products applied Condition A or Condition A & B.

Condition A: lead / CAS #7439-92-1 as main ingredient in high temperature melting solder as die attach and/or clip bonding, which applied EU RoHS exemption clause 7(a):Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

Condition B: 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 / CAS No.: 13560-89-9 as the additive in one type of molding compound for encapsulation.

Note: 'NOT CONTAINED' means NOT PRESENT in their relevant devices (REACH classify them as articles) above a concentration of 0.1%/ 1000ppm weight by weight.

Furthermore, our products do not contain any of the substances above the maximum thresholds under the given application in Annex XVII of REACH.

**Company Name: Alpha & Omega Semiconductor (Hong Kong) Limited**

**Address: 701 Tesbury Centre, 24-32 Queen's Road East, Wan Chai, Hong Kong**

**Date: Aug 6, 2021**

**Candidate list of substances of Very High Concern for authorization (last updated: 8th July, 2021)**

#	Substance Name	EC Number	CAS #	Date of inclusion
1	Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) >Phenol, dodecyl-, branched EC No.: 310-154-3   CAS No.: 121158-58-5 >Phenol, (tetrapropenyl) derivatives EC No.: -   CAS No.: 74499-35-7 >Phenol, 4-dodecyl, branched EC No.: -   CAS No.: 210555-94-5 >4-isododecylphenol EC No.: -   CAS No.: 27459-10-5 >Phenol, tetrapropylene- EC No.: -   CAS No.: 57427-55-1 >Phenol, 4-isododecyl- EC No.: -   CAS No.: 27147-75-7	-	-	2021/7/8
2	orthoboric acid, sodium salt >boric acid (H3BO3), sodium salt, hydrate EC No.: -   CAS No.: 25747-83-5 >Boric acid (H3BO3), disodium salt EC No.: -   CAS No.: 22454-04-2 >Trisodium orthoborate EC No.: 238-253-6   CAS No.: 14312-40-4 >Boric acid, sodium salt EC No.: 215-604-1   CAS No.: 1333-73-9 >Orthoboric acid, sodium salt EC No.: 237-560-2   CAS No.: 13840-56-7 >Boric acid (H3BO3), sodium salt (1:1) EC No.: -   CAS No.: 14890-53-0	-	-	2021/7/8
3	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 >Alkanes, C14-16, chloro EC No.: -   CAS No.: 1372804-76-6 >Alkanes, C14-17, chloro EC No.: 287-477-0   CAS No.: 85535-85-9 >di-, tri- and tetrachlorotetradecane EC No.: 950-299-5   CAS No.: - >Tetradecane, chloro derivs. EC No.: -   CAS No.: 198840-65-2	-	-	2021/7/8
4	glutaral	203-856-5	111-30-8	2021/7/8
5	4,4'-(1-methylpropylidene)bisphenol	201-025-1	77-40-7	2021/7/8

#	Substance Name	EC Number	CAS #	Date of inclusion
6	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers >(2R)-3-(4-tert-butylphenyl)-2-methylpropanal EC No.: -   CAS No.: 75166-31-3 >2-(4-tert-butylbenzyl)propionaldehyde EC No.: 201-289-8   CAS No.: 80-54-6 >(2S)-3-(4-tert-butylphenyl)-2-methylpropanal EC No.: -   CAS No.: 75166-30-2	-	-	2021/7/8
7	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) >2,2-dimethylpropan-1-ol, tribromo derivative (TBNPA) EC No.: 253-057-0   CAS No.: 36483-57-5 >3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) EC No.: -   CAS No.: 1522-92-5 >2,2-bis(bromomethyl)propane-1,3-diol (BMP) EC No.: 221-967-7   CAS No.: 3296-90-0 >2,3-dibromo-1-propanol (2,3-DBPA) EC No.: 202-480-9   CAS No.: 96-13-9	-	-	2021/7/8
8	1,4-dioxane	204-661-8	123-91-1	2021/7/8
9	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 -Diocetyl tin dilaurate EC No.: 222-883-3   CAS No.: 3648-18-8 -Stannane, dioctyl-, bis(coco acyloxy) derivs. EC No.: 293-901-5   CAS No.: 91648-39-4 -dioctyltin dilaurate; stannane, dioctyl-, bis(coco acyloxy) derivs. EC No.: -   CAS No.: -	-	-	2021/1/19
10	Bis(2-(2-methoxyethoxy)ethyl)ether	205-594-7	143-24-8	2021/1/19
11	Dibutylbis(pentane-2,4-dionato-O,O')tin	245-152-0	22673-19-4	2020/6/25
12	Butyl 4-hydroxybenzoate	202-318-7	94-26-8	2020/6/25
13	2-methylimidazole	211-765-7	693-98-1	2020/6/25
14	1-vinylimidazole	214-012-0	1072-63-5	2020/6/25
15	Perfluorobutane sulfonic acid (PFBS) and its salts	-	-	2020/1/16
16	Diisohexyl phthalate	276-090-2	71850-09-4	2020/1/16
17	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	400-600-6	71868-10-5	2020/1/16
18	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	404-360-3	119313-12-1	2020/1/16
19	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides	-	-	2019/7/16

#	Substance Name	EC Number	CAS #	Date of inclusion
	covering any of their individual isomers and combinations thereof			
20	2-methoxyethyl acetate	203-772-9	110-49-6	2019/7/16
21	4-tert-butylphenol	202-679-0	98-54-4	2019/7/16
22	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq$ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	-	2019/7/16
23	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one 3-benzylidene camphor; 3-BC	239-139-9	15087-24-8	2019/1/15
24	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	401-720-1	6807-17-6	2019/1/15
25	Benzo[k]fluoranthene	205-916-6	207-08-9	2019/1/15
26	Fluoranthene	205-912-4	206-44-0; 93951-69-0	2019/1/15
27	Phenanthrene	201-581-5	85-01-8	2019/1/15
28	Pyrene	204-927-3	129-00-0; 1718-52-1	2019/1/15
29	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride	209-008-0	552-30-7	2018/6/27
30	Benzo[ghi]perylene	205-883-8	191-24-2	2018/6/27
31	Decamethylcyclopentasiloxane	208-764-9	541-02-6	2018/6/27
32	Dicyclohexyl phthalate	201-545-9	84-61-7	2018/6/27
33	Disodium octaborate	234-541-0	12008-41-2	2018/6/27
34	Dodecamethylcyclohexasiloxane	208-762-8	540-97-6	2018/6/27
35	Ethylenediamine	203-468-6	107-15-3	2018/6/27
36	Lead	231-100-4	7439-92-1	2018/6/27
37	Octamethylcyclotetrasiloxane	209-136-7	556-67-2	2018/6/27
38	Terphenyl, hydrogenated	262-967-7	61788-32-7	2018/6/27
39	Benz[a]anthracene	200-280-6	56-55-3 1718-53-2	2018/1/15
40	Cadmium carbonate	208-168-9	513-78-0	2018/1/15
41	Cadmium hydroxide	244-168-5	21041-95-2	2018/1/15
42	Cadmium nitrate	233-710-6	10022-68-1 10325-94-7	2018/1/15
43	Chrysene	205-923-4	218-01-9 1719-03-5	2018/1/15

#	Substance Name	EC Number	CAS #	Date of inclusion
44	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 rel-(1R,4S,4aS,6aR,7R,10S,10aS,12aR)-1,2,3,4,7,8,9,10,13,13,14,14-dodecachloro-1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-1,4:7,10-dimethanodibenzo[a,e]cyclooctene EC No.: -   CAS No.: - 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 EC No.: 236-948-9   CAS No.: 13560-89-9 rel-(1R,4S,4aS,6aS,7S,10R,10aR,12aR)-1,2,3,4,7,8,9,10,13,13,14,14-dodecachloro-1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-1,4:7,10-dimethanodibenzo[a,e]cyclooctene EC No.: -   CAS No.: -	-	-	2018/1/15
45	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)	-	-	2018/1/15
46	Perfluorohexane-1-sulphonic acid and its salts PFHxS	-	-	2017/7/7
47	4,4'-isopropylidenediphenol	201-245-8	80-05-7	2017/1/12
48	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	-	-	2017/1/12
49	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts - Nonadecafluorodecanoic acid - Ammonium nonadecafluorodecanoate - Decanoic acid, nonadecafluoro-, sodium salt	206-400-3 221-470-5 -	335-76-2 3108-42-7 3830-45-3	2017/1/12
50	p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6	2017/1/12
51	Benzo[def]chrysene	200-028-5	50-32-8	2016/6/20
52	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	2015/6/15

#	Substance Name	EC Number	CAS #	Date of inclusion
53	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]	-	-	2015/6/15
54	Nitrobenzene	202-716-0	98-95-3	2015/12/17
55	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1	2015/12/17
56	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1	36437-37-3	2015/12/17
57	1,3-propanesultone	214-317-9	1120-71-4	2015/12/17
58	Perfluorononan-1-oic-acid and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4	2015/12/17
59	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7	2014/12/17
60	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1	2014/12/17
61	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)	-	-	2014/12/17
62	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1	2014/12/17
63	Cadmium fluoride	232-222-0	7790-79-6	2014/12/17
64	Cadmium sulphate	233-331-6	10124-36-4, 31119-53-6	2014/12/17
65	Cadmium chloride	233-296-7	10108-64-2	2014/6/16
66	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4	2014/6/16
67	Sodium peroxometaborate	231-556-4	7632-04-4	2014/6/16
68	Sodium perborate; perboric acid, sodium salt	239-172-9; 234-390-0	-	2014/6/16
69	Cadmium sulphide	215-147-8	1306-23-6	2013/12/16
70	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	2013/12/16
71	Dihexyl phthalate	201-559-5	84-75-3	2013/12/16
72	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	202-506-9	96-45-7	2013/12/16
73	Trixylyl phosphate	246-677-8	25155-23-1	2013/12/16
74	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	209-358-4	573-58-0	2013/12/16
75	Lead di(acetate)	206-104-4	301-04-2	2013/12/16



#	Substance Name	EC Number	CAS #	Date of inclusion
76	Cadmium	231-152-8	7440-43-9	2013/6/20
77	Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1	2013/6/20
78	Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1	2013/6/20
79	Dipentyl phthalate (DPP)	205-017-9	131-18-0	2013/6/20
80	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]	-	-	2013/6/20
81	Cadmium oxide	215-146-2	1306-19-0	2013/6/20
82	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans-stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	247-094-1, 243-072-0, 256-356-4, 260-566-1	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	2012/12/19
83	6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8	2012/12/19
84	Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry]	201-604-9, 236-086-3, 238-009-9	85-42-7, 13149-00-3, 14166-21-3	2012/12/19
85	Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	2012/12/19
86	Henicosafuoroundecanoic acid	218-165-4	2058-94-8	2012/12/19
87	4-Aminoazobenzene	200-453-6	60-09-3	2012/12/19
88	Silicic acid, lead salt	234-363-3	11120-22-2	2012/12/19
89	Lead titanium zirconium oxide	235-727-4	12626-81-2	2012/12/19
90	Lead monoxide (lead oxide)	215-267-0	1317-36-8	2012/12/19
91	o-Toluidine	202-429-0	95-53-4	2012/12/19
92	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	2012/12/19
93	Dibutyltin dichloride (DBTC)	211-670-0	683-18-1	2012/12/19
94	Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	2012/12/19
95	Lead dinitrate	233-245-9	10099-74-8	2012/12/19
96	Silicic acid (H <sub>2</sub> SiO <sub>5</sub> ), barium salt (1:1), lead-doped	272-271-5	68784-75-8	2012/12/19
97	Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6	2012/12/19
98	4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	2012/12/19
99	Diethyl sulphate	200-589-6	64-67-5	2012/12/19
100	Dimethyl sulphate	201-058-1	77-78-1	2012/12/19
101	N,N-dimethylformamide	200-679-5	68-12-2	2012/12/19



#	Substance Name	EC Number	CAS #	Date of inclusion
102	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	2012/12/19
103	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]	-	-	2012/12/19
104	Furan	203-727-3	110-00-9	2012/12/19
105	Lead oxide sulfate	234-853-7	12036-76-9	2012/12/19
106	Lead titanium trioxide	235-038-9	12060-00-3	2012/12/19
107	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5	2012/12/19
108	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7	2012/12/19
109	1,2-Diethoxyethane	211-076-1	629-14-1	2012/12/19
110	N-methylacetamide	201-182-6	79-16-3	2012/12/19
111	Tetralead trioxide sulphate	235-380-9	12202-17-4	2012/12/19
112	Acetic acid, lead salt, basic	257-175-3	51404-69-4	2012/12/19
113	[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9	2012/12/19
114	Tetraethyllead	201-075-4	78-00-2	2012/12/19
115	N-pentyl-isopentylphthalate	-	776297-69-9	2012/12/19
116	Pentalead tetraoxide sulphate	235-067-7	12065-90-6	2012/12/19
117	Heptacosafuorotetradecanoic acid	206-803-4	376-06-7	2012/12/19
118	Tricosafuorododecanoic acid	206-203-2	307-55-1	2012/12/19
119	1-bromopropane (n-propyl bromide)	203-445-0	106-94-5	2012/12/19
120	Dioxobis(stearato)trilead	235-702-8	12578-12-0	2012/12/19
121	Pentacosafuorotridecanoic acid	276-745-2	72629-94-8	2012/12/19
122	Methoxyacetic acid	210-894-6	625-45-6	2012/12/19
123	Methyloxirane (Propylene oxide)	200-879-2	75-56-9	2012/12/19
124	Trilead dioxide phosphonate	235-252-2	12141-20-7	2012/12/19
125	o-aminoazotoluene	202-591-2	97-56-3	2012/12/19
126	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7	2012/12/19
127	Diisopentylphthalate	210-088-4	605-50-5	2012/12/19
128	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0	2012/12/19
129	Biphenyl-4-ylamine	202-177-1	92-67-1	2012/12/19
130	Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	2012/12/19
131	Orange lead (lead tetroxide)	215-235-6	1314-41-6	2012/12/19
132	4,4'-oxydianiline and its salts	202-977-0	101-80-4	2012/12/19
133	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3	2012/12/19
134	Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	2012/12/19

#	Substance Name	EC Number	CAS #	Date of inclusion
135	Lead cyanamidate	244-073-9	20837-86-9	2012/12/19
136	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with $\geq$ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	229-851-8	6786-83-0	2012/6/18
137	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	2012/6/18
138	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	2012/6/18
139	Diboron trioxide	215-125-8	1303-86-2	2012/6/18
140	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2	2012/6/18
141	Formamide	200-842-0	75-12-7	2012/6/18
142	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with $\geq$ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	209-218-2	561-41-1	2012/6/18
143	Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2	2012/6/18
144	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with $\geq$ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	208-953-6	548-62-9	2012/6/18
145	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	2012/6/18
146	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with $\geq$ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	219-943-6	2580-56-5	2012/6/18
147	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	219-514-3	2451-62-9	2012/6/18
148	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	2012/6/18
149	Phenolphthalein	201-004-7	77-09-8	2011/12/19
150	N,N-dimethylacetamide	204-826-4	127-19-5	2011/12/19
151	4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9	2011/12/19
152	Lead diazide, Lead azide	236-542-1	13424-46-9	2011/12/19
153	Lead dipicrate	229-335-2	6477-64-1	2011/12/19
154	1,2-dichloroethane	203-458-1	107-06-2	2011/12/19
155	Calcium arsenate	231-904-5	7778-44-1	2011/12/19
156	Dichromium tris(chromate)	246-356-2	24613-89-6	2011/12/19
157	2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0	2011/12/19
158	Pentazinc chromate octahydroxide	256-418-0	49663-84-5	2011/12/19
159	Zirconia Aluminosilicate Refractory Ceramic Fibres 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	-	-	2011/12/19

#	Substance Name	EC Number	CAS #	Date of inclusion
	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 (?m). 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			
160	Arsenic acid	231-901-9	7778-39-4	2011/12/19
161	Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9	2011/12/19
162	Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	2011/12/19
163	Lead styphnate	239-290-0	15245-44-0	2011/12/19
164	Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8	2011/12/19
165	Trilead diarsenate	222-979-5	3687-31-8	2011/12/19
166	Aluminosilicate Refractory Ceramic Fibres 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 (?m) 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	-	-	2011/12/19
167	Bis(2-methoxyethyl) ether	203-924-4	111-96-6	2011/12/19
168	2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4	2011/12/19
169	Cobalt dichloride	231-589-4	7646-79-9	2011/06/20 2008/10/28
170	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6	2011/6/20
171	Strontium chromate	232-142-6	7789-06-2	2011/6/20
172	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4	2011/6/20
173	1-Methyl-2-pyrrolidone	212-828-1	872-50-4	2011/6/20
174	1,2,3-Trichloropropane	202-486-1	96-18-4	2011/6/20
175	2-Ethoxyethyl acetate	203-839-2	111-15-9	2011/6/20

#	Substance Name	EC Number	CAS #	Date of inclusion
176	Hydrazine	206-114-9	302-01-2, 7803-57-8	2011/6/20
177	Cobalt(II) diacetate	200-755-8	71-48-7	2010/12/15
178	2-Ethoxyethanol	203-804-1	110-80-5	2010/12/15
179	Cobalt(II) sulphate	233-334-2	10124-43-3	2010/12/15
180	Acids generated from chromium trioxide and their oligomers. Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid.	231-801-5 236-881-5	7738-94-5, 13530-68-2	2010/12/15
181	2-Methoxyethanol	203-713-7	109-86-4	2010/12/15
182	Chromium trioxide	215-607-8	1333-82-0	2010/12/15
183	Cobalt(II) carbonate	208-169-4	513-79-1	2010/12/15
184	Cobalt(II) dinitrate	233-402-1	10141-05-6	2010/12/15
185	Trichloroethylene	201-167-4	79-01-6	2010/6/18
186	Potassium dichromate	231-906-6	7778-50-9	2010/6/18
187	Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1	2010/6/18
188	Boric acid	233-139-2 234-343-4	10043-35-3, 11113-50-1	2010/6/18
189	Ammonium dichromate	232-143-1	7789-09-5	2010/6/18
190	Sodium chromate	231-889-5	7775-11-3	2010/6/18
191	Disodium tetraborate, anhydrous	215-540-4	1303-96-4, 1330-43-4, 12179-04-3	2010/6/18
192	Potassium chromate	232-140-5	7789-00-6	2010/6/18
193	Acrylamide	201-173-7	79-06-1	2010/3/30
194	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2	2010/1/13
195	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8	2010/1/13
196	2,4-Dinitrotoluene	204-450-0	121-14-2	2010/1/13
197	Anthracene oil	292-602-7	90640-80-5	2010/1/13
198	Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	2010/1/13
199	Anthracene oil, anthracene-low	292-604-8	90640-82-7	2010/1/13
200	Diisobutyl phthalate	201-553-2	84-69-5	2010/1/13
201	Tris(2-chloroethyl)phosphate (T)	204-118-5	115-96-8	2010/1/13
202	Lead chromate	231-846-0	7758-97-6	2010/1/13
203	Anthracene oil, anthracene paste	292-603-2	90640-81-6	2010/1/13
204	Pitch, coal tar, high temp.	266-028-2	65996-93-2	2010/1/13
205	Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4	2010/1/13
206	Lead hydrogen arsenate	232-064-2	7784-40-9	2008/10/28
207	Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	2008/10/28
208	Bis (2-ethylhexyl)phthalate (DEHP)	204-211-0	117-81-7	2008/10/28
209	Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9	2008/10/28
210	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2	2008/10/28

#	Substance Name	EC Number	CAS #	Date of inclusion
211	Diarsenic trioxide	215-481-4	1327-53-3	2008/10/28
212	Triethyl arsenate	427-700-2	15606-95-8	2008/10/28
213	Diarsenic pentaoxide	215-116-9	1303-28-2	2008/10/28
214	Sodium dichromate	234-190-3	7789-12-0 10588-01-9	2008/10/28
215	Dibutyl phthalate (DBP)	201-557-4	84-74-2	2008/10/28
216	4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9	2008/10/28
217	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8	2008/10/28
218	Anthracene	204-371-1	120-12-7	2008/10/28
219	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	247-148-4 221-695-9	25637-99-4 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	2008/10/28

**Declaration**

Providing for limitations below, Alpha & Omega Semiconductor certifies that the information provided in this document is correct as of the date indicated on this page. The warranty provided herein shall be null and void if the information is revised in any format by any party without AOS's prior written authorization. In the event of any issues arising from information in this document, the warranty section of Alpha & Omega's standard terms and conditions of sale shall apply, unless alternate contracts have been agreed upon in writing by both parties.