

ON Semiconductor Compliance with REACH

REACH is an European Community Regulation on chemicals and their safe use ([EC 1907/2006](#)). It deals with the **R**egistration, **E**valuation, **A**uthorization and **R**estriction of **C**hemical substances. The new law entered into force on June 1st 2007.

ON Semiconductor supports the basic aim of REACH in improving the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances. ON Semiconductor meets all applicable REACH requirements and is committed to provide our customers with information about substances in its products as required.

Under REACH, registration provision is applicable to manufacture or import of chemicals and does not apply to ON Semiconductor's EU semiconductor manufacturing operations. It is anticipated that substances used in electronic products will be registered by raw material manufacturers within the supply chain. ON Semiconductor's products are "articles" as defined in REACH Article 3(3) and do not release substances under their normal use. Suppliers of articles must provide recipients with information on Substances of Very High Concern (SVHC) if those are present above a concentration limit of 0.1 % on an article level.

ON Semiconductor products do not contain any of the Substances of Very High Concern included till 17th December, 2014 inclusive in it's pure original form.

Substance name	EC No.	CAS No.	Date of Inclusion
4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9	10/28/2008
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2	10/28/2008
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8	10/28/2008
Anthracene	204-371-1	120-12-7	10/28/2008
Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	10/28/2008
Bis (2-ethylhexyl)phthalate (DEHP)	204-211-0	117-81-7	10/28/2008
Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9	10/28/2008
Diarsenic pentaoxide	215-116-9	1303-28-2	10/28/2008
Diarsenic trioxide	215-481-4	1327-53-3	10/28/2008
Dibutyl phthalate (DBP)	201-557-4	84-74-2	10/28/2008

Substance name	EC No.	CAS No.	Date of Inclusion
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified:	247-148-4 and 221-695-9	25637-99-4	10/28/2008
Alpha-hexabromocyclododecane	247-148-4 and	3194-55-6	10/28/2008
Beta-hexabromocyclododecane	221-695-9	(134237-50-6)	10/28/2008
Gamma-hexabromocyclododecane		(134237-51-7), (134237-52-8)	10/28/2008
Lead hydrogen arsenate	232-064-2	7784-40-9	10/28/2008
Sodium dichromate	234-190-3	7789-12-0/ 10588-01-9	10/28/2008
Triethyl arsenate	427-700-2	15606-95-8	10/28/2008
Cobalt dichloride	231-589-4	7646-79-9	10/28/2008
2,4-Dinitrotoluene	204-450-0	121-14-2	1/13/2010
Anthracene oil	292-602-7	90640-80-5	1/13/2010
Anthracene oil, anthracene paste	292-603-2	90640-81-6	1/13/2010
Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	1/13/2010
Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4	1/13/2010
Anthracene oil, anthracene-low	292-604-8	90640-82-7	1/13/2010
Diisobutyl phthalate	201-553-2	84-69-5	1/13/2010
Lead chromate	231-846-0	7758-97-6	1/13/2010
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8	1/13/2010
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2	1/13/2010
Pitch, coal tar, high temp.	266-028-2	65996-93-2	1/13/2010
Tris(2-chloroethyl)phosphate	204-118-5	115-96-8	1/13/2010
Acrylamide	201-173-7	79-06-1	3/30/2010
Ammonium dichromate	232-143-1	7789-09-5	6/18/2010
Boric acid	233-139-2 / 234-343-4	10043-35-3 / 11113-50-1	6/18/2010
Disodium tetraborate, anhydrous	215-540-4	1303-96-4/ 1330-43-4/ 12179-04-3	6/18/2010
Potassium chromate	232-140-5	7789-00-6	6/18/2010
Potassium dichromate	231-906-6	7778-50-9	6/18/2010

Substance name	EC No.	CAS No.	Date of Inclusion
Sodium chromate	231-889-5	7775-11-3	6/18/2010
Tetraboron Disodium Heptaoxide, hydrate	235-541-3	12267-73-1	6/18/2010
Trichloroethylene	201-167-4	79-01-6	6/18/2010
2-Ethoxyethanol	203-804-1	110-80-5	12/15/2010
2-Methoxyethanol	203-713-7	109-86-4	12/15/2010
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	12/15/2010
Chromium trioxide	215-607-8	1333-82-0	12/15/2010
Cobalt(II) carbonate	208-169-4	513-79-1	12/15/2010
Cobalt(II) diacetate	200-755-8	71-48-7	12/15/2010
Cobalt(II) dinitrate	233-402-1	10141-05-6	12/15/2010
Cobalt(II) sulphate	233-334-2	10124-43-3	12/15/2010
2-Ethoxyethyl acetate	203-839-2	111-15-9	6/20/2011
Strontium chromate	232-142-6	7789-06-2	6/20/2011
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4	6/20/2011
Hydrazine	206-114-9	302-01-2 / 7803-57-8	6/20/2011
1-Methyl-2-pyrrolidone	212-828-1	872-50-4	6/20/2011
1,2,3-Trichloropropane	202-486-1	96-18-4	6/20/2011
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6	6/20/2011
Zirconia Aluminosilicate Refractory Ceramic Fibres. <i>These fibres are: 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 (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight</i>		<i>Covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008</i>	12/19/2011
Calcium arsenate	231-904-5	7778-44-1	12/19/2011
Bis(2-methoxyethyl) ether	203-924-4	111-96-6	12/19/2011
Aluminosilicate Refractory Ceramic Fibres. <i>These fibres are: 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 (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight</i>		<i>Covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008</i>	12/19/2011

Substance name	EC No.	CAS No.	Date of Inclusion
Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9	12/19/2011
Lead dipicrate	229-335-2	6477-64-1	12/19/2011
N,N-dimethylacetamide	204-826-4	127-19-5	12/19/2011
Arsenic acid	231-901-9	7778-39-4	12/19/2011
2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0	12/19/2011
Trilead diarsenate	222-979-5	3687-31-8	12/19/2011
1,2-dichloroethane	203-458-1	107-06-2	12/19/2011
Pentazinc chromate octahydroxide	256-418-0	49663-84-5	12/19/2011
4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9	12/19/2011
Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	12/19/2011
Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8	12/19/2011
Lead diazide, Lead azide	236-542-1	13424-46-9	12/19/2011
Lead styphnate	239-290-0	15245-44-0	12/19/2011
2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4	12/19/2011
Phenolphthalein	201-004-7	77-09-8	12/19/2011
Dichromium tris(chromate)	246-356-2	24613-89-6	12/19/2011
α,α -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	229-851-8	6786-83-0	06/18/2012
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	06/18/2012
1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β -TGIC)	423-400-0	59653-74-6	06/18/2012
Diboron trioxide	215-125-8	1303-86-2	06/18/2012
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2	06/18/2012
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	06/18/2012
Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2	06/18/2012
Formamide	200-842-0	75-12-7	06/18/2012
[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	06/18/2012

Substance name	EC No.	CAS No.	Date of Inclusion
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	06/18/2012
[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) <i>[with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]</i>	219-943-6	2580-56-5	06/18/2012
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	219-514-3	2451-62-9	06/18/2012
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	06/18/2012
Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	12/19/2012
6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8	12/19/2012
Henicosaflluoroundecanoic acid	218-165-4	2058-94-8	12/19/2012
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	12/19/2012
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	12/19/2012
Dibutyltin dichloride (DBTC)	211-670-0	683-18-1	12/19/2012
Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	12/19/2012
Lead dinitrate	233-245-9	10099-74-8	12/19/2012
Silicic acid, lead salt	234-363-3	11120-22-2	12/19/2012
4-Aminoazobenzene	200-453-6	60-09-3	12/19/2012
Lead titanium zirconium oxide	235-727-4	12626-81-2	12/19/2012
Lead monoxide (lead oxide)	215-267-0	1317-36-8	12/19/2012
o-Toluidine	202-429-0	95-53-4	12/19/2012
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	12/19/2012
Silicic acid (H ₂ Si ₂ O ₅), 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	12/19/2012

Substance name	EC No.	CAS No.	Date of Inclusion
Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6	12/19/2012
Furan	203-727-3	110-00-9	12/19/2012
N,N-dimethylformamide	200-679-5	68-12-2	12/19/2012
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	12/19/2012
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]	-	-	12/19/2012
4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	12/19/2012
Diethyl sulphate	200-589-6	64-67-5	12/19/2012
Dimethyl sulphate	201-058-1	77-78-1	12/19/2012
Lead oxide sulfate	234-853-7	12036-76-9	12/19/2012
Lead titanium trioxide	235-038-9	12060-00-3	12/19/2012
Acetic acid, lead salt, basic	257-175-3	51404-69-4	12/19/2012
[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9	12/19/2012
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5	12/19/2012
N-methylacetamide	201-182-6	79-16-3	12/19/2012
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7	12/19/2012
1,2-Diethoxyethane	211-076-1	629-14-1	12/19/2012
Tetralead trioxide sulphate	235-380-9	12202-17-4	12/19/2012
N-pentyl-isopentylphthalate	-	776297-69-9	12/19/2012
Dioxobis(stearato)trilead	235-702-8	12578-12-0	12/19/2012
Tetraethyllead	201-075-4	78-00-2	12/19/2012
Pentalead tetraoxide sulphate	235-067-7	12065-90-6	12/19/2012
Pentacosafuorotridecanoic acid	276-745-2	72629-94-8	12/19/2012
Tricosafuorododecanoic acid	206-203-2	307-55-1	12/19/2012
Heptacosafuorotetradecanoic acid	206-803-4	376-06-7	12/19/2012
1-bromopropane (n-propyl bromide)	203-445-0	106-94-5	12/19/2012
Methoxyacetic acid	210-894-6	625-45-6	12/19/2012
4-methyl-m-phenylenediamine (toluene-2,4- diamine)	202-453-1	95-80-7	12/19/2012
Methyloxirane (Propylene oxide)	200-879-2	75-56-9	12/19/2012

Substance name	EC No.	CAS No.	Date of Inclusion
Trilead dioxide phosphonate	235-252-2	12141-20-7	12/19/2012
o-aminoazotoluene	202-591-2	97-56-3	12/19/2012
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0	12/19/2012
4,4'-oxydianiline and its salts	202-977-0	101-80-4	12/19/2012
Orange lead (lead tetroxide)	215-235-6	1314-41-6	12/19/2012
Biphenyl-4-ylamine	202-177-1	92-67-1	12/19/2012
Diisopentylphthalate	210-088-4	605-50-5	12/19/2012
Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	12/19/2012
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3	12/19/2012
Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	12/19/2012
Lead cyanamidate	244-073-9	20837-86-9	12/19/2012
Cadmium	231-152-8	7440-43-9	06/20/2013
Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1	06/20/2013
Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1	06/20/2013
Dipentyl phthalate (DPP)	205-017-9	131-18-0	06/20/2013
4-Nonylphenol, branched and linear, ethoxylated [<i>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</i>]			06/20/2013
Cadmium oxide	215-146-2	1306-19-0	06/20/2013
Cadmium sulphide	215-147-8	1306-23-6	12/16/2013
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	12/16/2013
Dihexyl phthalate	201-559-5	84-75-3	12/16/2013
Imidazolidine-2-thione; (2-imidazoline-2-thiol)	202-506-9	96-45-7	12/16/2013
Trixylyl phosphate	246-677-8	25155-23-1	12/16/2013
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	12/16/2013
Lead di(acetate)	206-104-4	301-04-2	12/16/2013

Substance name	EC No.	CAS No.	Date of Inclusion
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4	06/16/2014
Sodium perborate; perboric acid, sodium salt	239-172-9; 234-390-0	-	06/16/2014
Sodium peroxometaborate	231-556-4	7632-04-4	06/16/2014
Cadmium chloride	233-296-7	10108-64-2	06/16/2014
Cadmium Sulphate	233-331-6	10124-36-4,31119-53-6	12/17/2014
Cadmium fluoride	232-222-0	7790-79-6	12/17/2014
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1	12/17/2014
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)	-	-	12/17/2014
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1	12/17/2014
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7	12/17/2014
Bis(2-ethylhexyl) phthalate (DEHP)	204-211-0	117-81-7	12/17/2014 2008/10/28

Note:

* a) Al_2O_3 and SiO_2 are present within the following concentration ranges:

Al_2O_3 : 43.5 – 47 % w/w, and SiO_2 : 49.5 – 53.5 % w/w,

Al_2O_3 : 45.5 – 50.5 % w/w, and SiO_2 : 48.5 – 54 % w/w,

**a) Al_2O_3 , SiO_2 and ZrO_2 are present within the following concentration ranges:

Al_2O_3 : 35 – 36 % w/w, and

SiO_2 : 47.5 – 50 % w/w, and

ZrO_2 : 15 - 17 % w/w,

b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (μm).

Published: 01/07/2015, Rev17