



**SAMSUNG
ELECTRO-MECHANICS**

SAMSUNG Electro-Mechanics Co., Ltd.
Maeyoung-ro 150, Yeongtong-gu, Suwon,
Gyeonggi-do, Korea 443-743

Dear, sir.

Supplier : Samsung Electro-Mechanics
Subject : REACH Certificate of Compliance

Products (Passive components) from Samsung Electro-Mechanics do not contain more than 0.1% of product weight for each of 173 substances which are announced by ECHA as " Substances of Very High Concern (SVHC)".

Passive Products

Ceramic Chip Capacitors
Chip Resistor
Chip Inductor
Chip Bead
Tantalum Capacitors

We appreciate your continuous support and cooperation
Should you have questions, please feel free to contact us.

Sincerely yours,

MIN HWAN LEE / Manager
LCR Development Team
LCR Business Unit

SAMSUNG ELECTRO-MECHANICS CO., LTD.

Company Stamp

| No | Substance name | CAS Number | EC number |
|----|--|--------------------------------------|------------------------|
| 1 | Anthracene | 120-12-7 | 204-371-1 |
| 2 | 4,4'-Diaminodiphenylmethane | 101-77-9 | 202-974-4 |
| 3 | Diarsenic pentaoxide | 1303-28-2 | 215-116-9 |
| 4 | Diarsenic trioxide | 1327-53-3 | 215-481-4 |
| 5 | Sodium dichromate, dihydrate | 7789-12-0 10588-01-9 | 234-190-3 |
| 6 | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene) | 81-15-2 | 201-329-4 |
| 7 | Hexabromocyclododecane (HBCDD) | 25637-99-4 | 247-148-4 |
| 8 | Alkanes, C10-13, chloro [Short Chain Chlorinated Paraffins] (SCCP) | 85535-84-8 | 287-476-5 |
| 9 | Bis(tributyltin)oxide (TBTO) | 56-35-9 | 200-268-0 |
| 10 | Lead hydrogen arsenate | 7784-40-9 | 232-064-2 |
| 11 | Triethyl arsenate | 15606-95-8 | 427-700-2 |
| 12 | 2,4-Dinitrotoluene | 121-14-2 | 204-450-0 |
| 13 | Anthracene oil | 90640-80-5 | 292-602-7 |
| 14 | Anthracene oil, anthracene paste, distn. Lights | 91995-17-4 | 295-278-5 |
| 15 | Anthracene oil, anthracene paste, anthracene fraction | 91995-15-2 | 295-275-9 |
| 16 | Anthracene oil, anthracene-low | 90640-82-7 | 292-604-8 |
| 17 | Anthracene oil, anthracene paste | 90640-81-6 | 292-603-2 |
| 18 | Lead chromate | 7758-97-6 | 231-846-0 |
| 19 | Lead chromate molybdate sulfate red (C.I. Pigment Red 104) | 12656-85-8 | 235-759-9 |
| 20 | Lead sulfochromate yellow (C.I. Pigment Yellow 34) | 1344-37-2 | 215-693-7 |
| 21 | Tris(2-chloroethyl) phosphate | 115-96-8 | 204-118-5 |
| 22 | Coal tar pitch, high temperature | 65996-93-2 | 266-028-2 |
| 23 | Acrylamide | 79-06-1 | 201-173-7 |
| 24 | Trichloroethylene | 79-01-6 | 201-167-4 |
| 25 | Boric acid | 10043-35-3 11113-50-1 | 233-139-2 234-343-4 |
| 26 | Disodium tetraborate | 1330-43-4 12179-04-3 1303-96-4 | 215-540-4 |
| 27 | Tetraboron disodium heptaoxide, hydrate | 12267-73-1 | 235-541-3 |
| 28 | Sodium chromate | 7775-11-3 | 231-889-5 |
| 29 | Potassium chromate | 7789-00-6 | 232-140-5 |

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| 30 | Ammonium dichromate | 7789-09-5 | 232-143-1 |
| 31 | Potassium dichromate | 7778-50-9 | 231-906-6 |
| 32 | Chromium trioxide | 1333-82-0 | 215-607-8 |
| 33 | 2-Ethoxyethanol; Ethylene glycol monoethyl ether (EGEE) | 110-80-5 | 203-804-1 |
| 34 | 2-Methoxyethanol; Ethylene glycol monomethyl ether (EGME) | 109-86-4 | 203-713-7 |
| 35 | Cobalt (di)acetate | 71-48-7 | 200-755-8 |
| 36 | Cobalt carbonate | 513-79-1 | 208-169-4 |
| 37 | Cobalt dinitrate | 10141-05-6 | 233-402-1 |
| 38 | Cobalt sulphate | 10124-43-3 | 233-334-2 |
| 39 | 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 - | 231-801-5 236-881-5 - |
| 40 | 2-Ethoxyethyl acetate | 111-15-9 | 203-839-2 |
| 41 | strontium chromate | 7789-06-2 | 232-142-6 |
| 42 | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters | 68515-42-4 | 271-084-6 |
| 43 | Hydrazine | 7803-57-8 302-01-2 | 206-114-9 |
| 44 | N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone | 872-50-4 | 212-828-1 |
| 45 | 1,2,3-trichloropropane | 96-18-4 | 202-486-1 |
| 46 | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP) | 71888-89-6 | 276-158-1 |
| 47 | Cobalt dichloride | 7646-79-9 | 231-589-4 |
| 48 | Dichromium tris(chromate) | 24613-89-6 | 246-356-2 |
| 49 | Potassium hydroxyoctaoxodizincate-dichromate | 11103-86-9 | 234-329-8 |
| 50 | Pentazinc chromate octahydroxide | 49663-84-5 | 256-418-0 |
| 51 | Aluminosilicate Refractory Ceramic Fibres (RCF) | (JAMP-SN0007) | (650-017-00-8) |
| 52 | Zirconia Aluminosilicate Refractory Ceramic Fibres (ZrRCF) | (JAMP-SN0055) | (650-017-00-8) |
| 53 | Formaldehyde, oligomeric reaction products with aniline (technical MDA) | 25214-70-4 | 500-036-1 |
| 54 | Bis(2-methoxyethyl) phthalate | 117-82-8 | 204-212-6 |
| 55 | 2-Methoxyaniline; o-Anisidine | 90-04-0 | 201-963-1 |
| 56 | 4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol) | 140-66-9 | 205-426-2 |

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| 57 | 1,2-Dichloroethane | 107-06-2 | 203-458-1 |
| 58 | Bis(2-methoxyethyl) ether | 111-96-6 | 203-924-4 |
| 59 | Arsenic acid | 7778-39-4 | 231-901-9 |
| 60 | Calcium arsenate | 7778-44-1 | 231-904-5 |
| 61 | Trilead diarsenate | 3687-31-8 | 222-979-5 |
| 62 | N,N-dimethylacetamide (DMAC) | 127-19-5 | 204-826-4 |
| 63 | 2,2'-dichloro-4,4'-methylenedianiline (MOCA) | 101-14-4 | 202-918-9 |
| 64 | Phenolphthalein | 77-09-8 | 201-004-7 |
| 65 | Lead diazide; Lead azide | 13424-46-9 | 236-542-1 |
| 66 | Lead styphnate | 15245-44-0 | 239-290-0 |
| 67 | Lead dipicrate | 6477-64-1 | 229-335-2 |
| 68 | 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme) | 112-49-2 | 203-977-3 |
| 69 | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) | 110-71-4 | 203-794-9 |
| 70 | [4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] | 2580-56-5 | 219-943-6 |
| 71 | [4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] | 548-62-9 | 208-953-6 |
| 72 | α,α-Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] | 6786-83-0 | 229-851-8 |
| 73 | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] | 561-41-1 | 209-218-2 |
| 74 | Diboron trioxide | 1303-86-2 | 215-125-8 |
| 75 | Formamide | 75-12-7 | 200-842-0 |
| 76 | Lead(II) bis(methanesulfonate) | 17570-76-2 | 401-750-5 |
| 77 | Michler's Base (N,N,N',N'-tetramethyl-4,4'-methylenedianiline) | 101-61-1 | 202-959-2 |
| 78 | 4,4'-bis(dimethylamino)benzophenone (Michler's ketone) | 90-94-8 | 202-027-5 |
| 79 | 1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC) | 2451-62-9 | 219-514-3 |
| 80 | 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 | 423-400-0 |
| 81 | Bis(pentabromophenyl) ether (DecaBDE) | 1163-19-5 | 214-604-9 |
| 82 | Pentacosaflluorotridecano-ic acid | 72629-94-8 | 276-745-2 |
| 83 | Tricosaflluorododecanoic acid | 307-55-1 | 206-203-2 |
| 84 | Henicosaflluoroundecanoic acid | 2058-94-8 | 218-165-4 |

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| 85 | Heptacosafuorotetradeca -noic acid | 376-06-7 | 206-803-4 |
| 86 | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues | - | - |
| 87 | 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 | - | - |
| 88 | Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) | 123-77-3 | 204-650-8 |
| 89 | 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] | 85-42-7 13149-00-3 14166-21-3 | 201-604-9 236-086-3 238-009-9 |
| 90 | 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] | 25550-51-0 19438-60-9 48122-14-1 57110-29-9 | 247-094-1 243-072-0 256-356-4 260-566-1 |
| 91 | Methoxy acetic acid | 625-45-6 | 210-894-6 |
| 92 | 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear | 84777-06-0 | 284-032-2 |
| 93 | Diisopentylphthalate | 605-50-5 | 210-088-4 |
| 94 | N-pentyl-isopentylphthalate | 776297-69-9 | - |
| 95 | 1,2-Diethoxyethane | 629-14-1 | 211-076-1 |
| 96 | N,N-dimethylformamide | 68-12-2 | 200-679-5 |
| 97 | Dibutyltin dichloride (DBTC) | 683-18-1 | 211-670-0 |
| 98 | Acetic acid, lead salt, basic | 51404-69-4 | 257-175-3 |
| 99 | Trilead bis(carbonate)dihydroxide | 1319-46-6 | 215-290-6 |

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| 100 | Lead oxide sulphate | 12036-76-9 | 234-853-7 |
| 101 | [Phthalato(2-)]dioxotrilead | 69011-06-9 | 273-688-5 |
| 102 | Dioxobis(stearato)trilead | 12578-12-0 | 235-702-8 |
| 103 | Fatty acids, C16-18, lead salts | 91031-62-8 | 292-966-7 |
| 104 | Lead bis (tetrafluoroborate) | 13814-96-5 | 237-486-0 |
| 105 | Lead cyanamidate | 20837-86-9 | 244-073-9 |
| 106 | Lead dinitrate | 10099-74-8 | 233-245-9 |
| 107 | Lead monoxide (lead oxide) | 1317-36-8 | 215-267-0 |
| 108 | Orange lead (lead tetroxide) | 1314-41-6 | 215-235-6 |
| 109 | Lead titanium trioxide | 12060-00-3 | 235-038-9 |
| 110 | Lead titanium zirconium oxide | 12626-81-2 | 235-727-4 |
| 111 | Pentalead tetraoxide sulphate | 12065-90-6 | 235-067-7 |
| 112 | Pyrochlore, antimony lead yellow | 8012-00-8 | 232-382-1 |
| 113 | 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] | 68784-75-8 | 272-271-5 |
| 114 | Silicic acid, lead salt | 11120-22-2 | 234-363-3 |
| 115 | Sulfurous acid, lead salt, dibasic | 62229-08-7 | 263-467-1 |
| 116 | Tetraethyllead | 78-00-2 | 201-075-4 |
| 117 | Tetralead trioxide sulphate | 12202-17-4 | 235-380-9 |
| 118 | Trilead dioxide phosphonate | 12141-20-7 | 235-252-2 |
| 119 | Furan | 110-00-9 | 203-727-3 |
| 120 | Methyloxirane (Propylene oxide) | 75-56-9 | 200-879-2 |
| 121 | Diethyl sulphate | 64-67-5 | 200-589-6 |
| 122 | Dimethyl sulphate | 77-78-1 | 201-058-1 |
| 123 | 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine | 143860-04-2 | 421-150-7 |
| 124 | Dinoseb (6-sec-butyl-2,4-dinitrophenol) | 88-85-7 | 201-861-7 |
| 125 | 4,4'-methylenedi-o-toluidine | 838-88-0 | 212-658-8 |
| 126 | 4,4'-oxydianiline and its salts | 101-80-4 | 202-977-0 |
| 127 | 4-Aminoazobenzene | 60-09-3 | 200-453-6 |
| 128 | 4-methyl-m-phenylenediamine (toluene-2,4-diamine) | 95-80-7 | 202-453-1 |
| 129 | 6-methoxy-m-toluidine (p-cresidine) | 120-71-8 | 204-419-1 |
| 130 | Biphenyl-4-ylamine | 92-67-1 | 202-177-1 |

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| 131 | o-aminoazotoluene | 97-56-3 | 202-591-2 |
| 132 | o-Toluidine | 95-53-4 | 202-429-0 |
| 133 | N-methylacetamide | 79-16-3 | 201-182-6 |
| 134 | 1-bromopropane | 106-94-5 | 203-445-0 |
| 135 | Pentadecafluorooctanoic acid (PFOA) | 335-67-1 | 206-397-9 |
| 136 | Cadmium oxide | 1306-19-0 | 215-146-2 |
| 137 | Ammonium pentadeca fluorootanoate (APFO) | 3825-26-1 | 223-320-4 |
| 138 | Cadmium | 7440-43-9 | 231-152-8 |
| 139 | 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] | (JAMP-SN0064) | - |
| 140 | Dipentyl phthalate (DPP) | 131-18-0 | 205-017-9 |
| 141 | Cadmium sulphide | 1306-23-6 | 215-147-8 |
| 142 | Dihexyl phthalate | 84-75-3 | 201-559-5 |
| 143 | Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28) | 573-58-0 | 209-358-4 |
| 144 | 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 | 217-710-3 |
| 145 | Imidazolidine-2-thione; 2-imidazoline-2-thiol | 96-45-7 | 202-506-9 |
| 146 | Lead di(acetate) | 301-04-2 | 206-104-4 |
| 147 | Trixylyl phosphate | 25155-23-1 | 246-677-8 |
| 148 | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear | 68515-50-4 | 271-093-5 |
| 149 | Cadmium chloride | 10108-64-2 | 233-296-7 |
| 150 | Sodium perborate; Perboric acid, sodium salt | - | 239-172-9 234-390-0 |
| 151 | Sodium peroxometaborate | 7632-04-4 | 231-556-4 |
| 152 | 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) | 25973-55-1 | 247-384-8 |
| 153 | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320) | 3846-71-7 | 223-346-6 |
| 154 | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE) | 15571-58-1 | 239-622-4 |
| 155 | Benzyl butyl phthalate (BBP) | 85-68-7 | 201-622-7 |

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| 156 | Bis(2-ethylhexyl) phthalate (DEHP) | 117-81-7 | 204-211-0 |
| 157 | Cadmium fluoride | 7790-79-6 | 232-222-0 |
| 158 | Cadmium sulphate | 10124-36-4 31119-53-6 | 233-331-6 |
| 159 | Dibutyl phthalate (DBP) | 84-74-2 | 201-557-4 |
| 160 | Diisobutyl phthalate (DIBP) | 84-69-5 | 201-553-2 |
| 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 | 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 | 271-094-0; 272-013-1 |
| 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 | 1,3-propanesultone | 1120-71-4 | 214-317-9 |
| 165 | 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327) | 3864-99-1 | 223-383-8 |
| 166 | 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) | 36437-37-3 | 253-037-1 |
| 167 | Nitrobenzene | 98-95-3 | 202-716-0 |
| 168 | Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptafluorononanoic acid and its sodium and ammonium salts | 375-95-1 21049-39-8 4149-60-4 | 206-801-3 |
| 169 | Benzo[def]chrysene (Benzo[a]pyrene) | 50-32-8 | 200-028-5 |
| 170 | 4,4'-Isopropylidenediphenol (Bisphenol A) | 80-05-7 | 201-245-8 |
| 171 | 4-Heptylphenol, branched and linear (4-HPbl) | - | - |
| 172 | p-(1,1-dimethylpropyl)phenol | 80-46-6 | 201-280-9 |
| 173 | Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts | 3108-42-7 335-76-2 3830-45-3 | - 206-400-3 221-470-5 |