



Date	18-Jan-16	Product name	Integrated Circuit
Package Code	GO	RoHS Compliant	Y
Package Name	Thin Plastic Shrink Small Outline 173mil	Halogen Free	Y
Product Total Mass (g)	0.05963	Plating	Pure Matte Sn
Product Number(s)	MLX90316 MLX90324 MLX90333 MLX90341 MLX90360	MLX90363 MLX90365 MLX90367	

RoHS (Restriction Of use of Hazardous Substances) is a directive issued June 8, 2011 by the European Commission (EC). The RoHS directive requires that six hazardous substances are removed from all electrical and electronic equipment. The JIG-101A standard issued in September 2007 is giving a framework to report specific information about the material composition of products to legal and market requirements. The level A list is composed of materials and substances that, when used in products and subparts, are subject to currently enacted legislation which prohibits their use, restricts or requires reporting. Level B list is composed of materials and substances that the industry has determined relevant for disclosure because they are significant of environmental, health or safety interest, would trigger hazardous waste management or could have negative impact on end-of-life management.

Banned Substances

Material / Substance Category Name	RoHS / JIG	Material / Substance Category intentionally added or present (Y/N) above threshold level	If Yes, Material substance Mass (g)	If Yes, Detailed material Substance Information
Cadmium	RoHS	N		
Hexavalent Chromium	RoHS	N		
Lead	RoHS	N		
Mercury	RoHS	N		
Polybrominated Biphenyls (PBB)	RoHS	N		
Polybrominated Diphenyl Ethers (PBDE)	RoHS	N		
Asbestos	JIG level A	N		
Certain Azo colorants and azodyes	JIG level A	N		
Cadmium / Cadmium compounds	JIG level A	N		
Hexavalent Chromium / Hexavalent Chromium Compounds	JIG level A	N		
Lead / Lead Compounds	JIG level A	N		
Mercury / Mercury Compounds	JIG level A	N		
Ozone depleting Substances	JIG level A	N		
Polybrominated Biphenyls (PBB)	JIG level A	N		
Polybrominated Diphenyl Ethers (PBDE)	JIG level A	N		
Polychlorinated Biphenyls (PCBs) and Terphenyls (PCTs)	JIG level A	N		
Polychlorinated Naphtalenes (more than 3 chlorine atoms)	JIG level A	N		
Radioactive Substances	JIG level A	N		
Certain Shortchain Chlorinated Paraffins (C10-C13)	JIG level A	N		
Certain Tributyl Tin (TBT) abd Triphenyl Tin (TPT)	JIG level A	N		
Tributyl Tin Oxyde (TBTO)	JIG level A	N		
Antimony / Antimony Compounds	JIG level B	N		
Arsenic / Arsenic Compounds	JIG level B	N		
Beryllium / Beryllium Compounds	JIG level B	N		
Bismuth / Bismuth Compounds	JIG level B	N		
Brominated Flame retardants (other than PBBs and PBDEs)	JIG level B	N		
Certain Phthalates	JIG level B	N		
Nickel	JIG level B	N		
Polyvinyl Chlorine (PVC)	JIG level B	N		
Selenium / Selenium Compounds	JIG level B	N		



REACH - Substance of Very High Concern declaration

Substance Identification			REACH (SVHC)	Material / Substance Category intentionally added or present (Y/N) above threshold level	If Yes, Material substance Mass (g)	If Yes, Detailed material Substance Information
Substance Name	Einecs #	CAS #				
4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9	SVHC	N		
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2	SVHC	N		
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8	SVHC	N		
Anthracene	204-371-1	120-12-7	SVHC	N		
Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	SVHC	N		
Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9	SVHC	N		
Cobalt dichloride	231-589-4	7646-79-9	SVHC	N		
Diarsenic pentaoxide	215-116-9	1303-28-2	SVHC	N		
Diarsenic trioxide	215-481-4	1327-53-3	SVHC	N		
Dibutyl phthalate (DBP)	201-557-4	84-74-2	SVHC	N		
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified:	247-148-4	25637-99-4	SVHC	N		
	221-695-9	3194-55-6	SVHC	N		
Alpha-hexabromocyclododecane	(134237-50-6)		SVHC	N		
Beta-hexabromocyclododecane	(134237-51-7)		SVHC	N		
Gamma-hexabromocyclododecane	134237-52-8)		SVHC	N		
Lead hydrogen arsenate	232-064-2	7784-40-9	SVHC	N		
Sodium dichromate	234-190-3	10588-01-9	SVHC	N		
		7789-12-0	SVHC	N		
Triethyl arsenate	427-700-2	15606-95-8	SVHC	N		
2,4-Dinitrotoluene	204-450-0	121-14-2	SVHC	N		
Aluminosilicate Refractory Ceramic Fibres	-		SVHC	N		
Anthracene oil	292-602-7	90640-80-5	SVHC	N		
Anthracene oil, anthracene-low	292-604-8	90640-82-7	SVHC	N		
Anthracene oil, anthracene paste	292-603-2	90640-81-6	SVHC	N		
Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	SVHC	N		
Anthracene oil, anthracene paste, distr. lights	295-278-5	91995-17-4	SVHC	N		
Diisobutyl phthalate	201-553-2	84-69-5	SVHC	N		
Lead chromate	231-846-0	7758-97-6	SVHC	N		
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8	SVHC	N		
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2	SVHC	N		
Pitch, coal tar, high temp.	266-028-2	65996-93-2	SVHC	N		
Tris(2-chloroethyl)phosphate	204-118-5	115-96-8	SVHC	N		
Zirconia Aluminosilicate Refractory Ceramic Fibres	-	-	SVHC	N		
Acrylamide	201-173-7	79-06-1	SVHC	N		
Trichloroethylene	201-167-4	79-01-6	SVHC	N		
Boric acid	233-139-2	10043-35-3	SVHC	N		
	234-343-4	11113-50-1	SVHC	N		
Disodium tetraborate, anhydrous	215-540-4	1303-96-4, 1330-43-4, 12179-04-3	SVHC	N		
Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1	SVHC	N		

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Substance Name	Einecs #	CAS #				
Potassium dichromate	231-906-6	7778-50-9	SVHC	N		
Ammonium dichromate	232-143-1	7789-09-5	SVHC	N		
Potassium chromate	232-140-5	7789-00-6	SVHC	N		
Sodium chromate	231-889-5	7775-11-3	SVHC	N		
Cobalt(II) sulphate	233-334-2	10124-43-3	SVHC	N		
Cobalt(II) dinitrate	233-402-1	10141-05-6	SVHC	N		
Cobalt(II) carbonate	208-169-4	513-79-1	SVHC	N		
Cobalt(II) diacetate	200-755-8	71-48-7	SVHC	N		
2-Methoxyethanol	203-713-7	109-86-4	SVHC	N		
2-Ethoxyethanol	203-804-1	110-80-5	SVHC	N		
Chromium trioxide	215-607-8	1333-82-0	SVHC	N		
Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid	231-801-5 236-881-5	7738-94-5 13530-68-2	SVHC	N		
2-Ethoxyethyl acetate	203-839-2	111-15-9	SVHC	N		
Strontium chromate	232-142-6	7789-06-2	SVHC	N		
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4	SVHC	N		
Hydrazine	206-114-9	302-01-2, 7803-57-8	SVHC	N		
1-Methyl-2-pyrrolidone	212-828-1	872-50-4	SVHC	N		
1,2,3-Trichloropropane	202-486-1	96-18-4	SVHC	N		
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6	SVHC	N		
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 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 (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight			SVHC	N		
Calcium arsenate	231-904-5	7778-44-1	SVHC	N		
Bis(2-methoxyethyl) ether	203-924-4	111-96-6	SVHC	N		

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Substance Name	Einecs #	CAS #				
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 (µm) c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight			SVHC	N		
Potassium hydroxyoctaoxodizincdichromate	234-329-8	11103-86-9	SVHC	N		
Lead dipicrate	229-335-2	6477-64-1	SVHC	N		
N,N-dimethylacetamide	204-826-4	127-19-5	SVHC	N		
Arsenic acid	231-901-9	7778-39-4	SVHC	N		
2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0	SVHC	N		
Trilead diarsenate	222-979-5	3687-31-8	SVHC	N		
1,2-dichloroethane	203-458-1	107-06-2	SVHC	N		
Pentazinc chromate octahydroxide	256-418-0	49663-84-5	SVHC	N		
Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	SVHC	N		
Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8	SVHC	N		
4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9	SVHC	N		
Lead diazide, Lead azide	236-542-1	13424-46-9	SVHC	N		
Phenolphthalein	201-004-7	77-09-8	SVHC	N		
Dichromium tris(chromate)	246-356-2	24613-89-6	SVHC	N		
Lead styphnate	239-290-0	15245-44-0	SVHC	N		
2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4	SVHC	N		
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)]	229-851-8	6786-83-0	SVHC	N		
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	SVHC	N		
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	SVHC	N		
Diboron trioxide	215-125-8	1303-86-2	SVHC	N		
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2	SVHC	N		
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)]	209-218-2	561-41-1	SVHC	N		
Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2	SVHC	N		
Formamide	200-842-0	75-12-7	SVHC	N		

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Substance Name	Einecs #	CAS #				
[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)]	208-953-6	548-62-9	SVHC	N		
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	SVHC	N		
[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)]	219-943-6	2580-56-5	SVHC	N		
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	219-514-3	2451-62-9	SVHC	N		
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	SVHC	N		
Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	SVHC	N		
6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8	SVHC	N		
Henicosafuoroundecanoic acid	218-165-4	2058-94-8	SVHC	N		
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	SVHC	N		
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	SVHC	N		
Dibutyltin dichloride (DBTC)	211-670-0	683-18-1	SVHC	N		
Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	SVHC	N		
Lead dinitrate	233-245-9	10099-74-8	SVHC	N		
Silicic acid, lead salt	234-363-3	11120-22-2	SVHC	N		
4-Aminoazobenzene	200-453-6	60-09-3	SVHC	N		
Lead titanium zirconium oxide	235-727-4	12626-81-2	SVHC	N		
Lead monoxide (lead oxide)	215-267-0	1317-36-8	SVHC	N		
o-Toluidine	202-429-0	95-53-4	SVHC	N		
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	SVHC	N		
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	SVHC	N		
Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6	SVHC	N		

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Substance Name	Einecs #	CAS #				
Furan	203-727-3	110-00-9	SVHC	N		
N,N-dimethylformamide	200-679-5	68-12-2	SVHC	N		
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	SVHC	N		
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]	-	-	SVHC	N		
4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	SVHC	N		
Diethyl sulphate	200-589-6	64-67-5	SVHC	N		
Dimethyl sulphate	201-058-1	77-78-1	SVHC	N		
Lead oxide sulfate	234-853-7	12036-76-9	SVHC	N		
Lead titanium trioxide	235-038-9	12060-00-3	SVHC	N		
Acetic acid, lead salt, basic	257-175-3	51404-69-4	SVHC	N		
[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9	SVHC	N		
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5	SVHC	N		
N-methylacetamide	201-182-6	79-16-3	SVHC	N		
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7	SVHC	N		
1,2-Diethoxyethane	211-076-1	629-14-1	SVHC	N		
Tetralead trioxide sulphate	235-380-9	12202-17-4	SVHC	N		
N-pentyl-isopentylphthalate	-	776297-69-9	SVHC	N		
Dioxobis(stearato)trilead	235-702-8	12578-12-0	SVHC	N		
Tetraethyllead	201-075-4	78-00-2	SVHC	N		
Pentalead tetraoxide sulphate	235-067-7	12065-90-6	SVHC	N		
Pentacosaflluorotridecanoic acid	276-745-2	72629-94-8	SVHC	N		
Tricosaflluorododecanoic acid	206-203-2	307-55-1	SVHC	N		
Heptacosaflluorotetradecanoic acid	206-803-4	376-06-7	SVHC	N		
1-bromopropane (n-propyl bromide)	203-445-0	106-94-5	SVHC	N		
Methoxyacetic acid	210-894-6	625-45-6	SVHC	N		
4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7	SVHC	N		
Methyloxirane (Propylene oxide)	200-879-2	75-56-9	SVHC	N		
Trilead dioxide phosphonate	235-252-2	12141-20-7	SVHC	N		
o-aminoazotoluene	202-591-2	97-56-3	SVHC	N		
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0	SVHC	N		
4,4'-oxydianiline and its salts	202-977-0	101-80-4	SVHC	N		
Orange lead (lead tetroxide)	215-235-6	1314-41-6	SVHC	N		
Biphenyl-4-ylamine	202-177-1	92-67-1	SVHC	N		
Diisopentylphthalate	210-088-4	605-50-5	SVHC	N		
Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	SVHC	N		
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3	SVHC	N		
Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	SVHC	N		

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Lead cyanamidate	244-073-9	20837-86-9	SVHC	N		
Cadmium	231-152-8	7440-43-9	SVHC	N		
Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1	SVHC	N		
Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1	SVHC	N		
Dipentyl phthalate (DPP)	205-017-9	131-18-0	SVHC	N		
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]			SVHC	N		
Cadmium oxide	215-146-2	1306-19-0	SVHC	N		
Cadmium sulphide	215-147-8	1306-23-6	SVHC	N		
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	SVHC	N		
Dihexyl phthalate	201-559-5	84-75-3	SVHC	N		
Imidazolidine-2-thione; (2-imidazoline-2-thiol)	202-506-9	96-45-7	SVHC	N		
Trixylyl phosphate	246-677-8	25155-23-1	SVHC	N		
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	SVHC	N		
Lead di(acetate)	206-104-4	301-04-2	SVHC	N		
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4	SVHC	N		
Sodium perborate; perboric acid, sodium salt	239-172-9, 234-390-0	-	SVHC	N		
Sodium peroxometaborate	231-556-4	7632-04-4	SVHC	N		
Cadmium chloride	233-296-7	10108-64-2	SVHC	N		
Cadmium sulphate	233-331-6	10124-36-4, 31119-53-6	SVHC	N		
Cadmium fluoride	232-222-0	7790-79-6	SVHC	N		
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1	SVHC	N		
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1	SVHC	N		
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-ethylhexyloxy)-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	-	SVHC	N		
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7	SVHC	N		
Bis(2-ethylhexyl) phthalate (DEHP)	204-211-0	117-81-7	SVHC	N		

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Substance Name	Einecs #	CAS #				
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	SVHC	N		
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]	-	-	SVHC	N		
1,3-propanesultone	214-317-9	1120-71-4	SVHC	N		
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1	SVHC	N		
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1	36437-37-3	SVHC	N		
Nitrobenzene	202-716-0	98-95-3	SVHC	N		
Perfluorononan-1-oic-acid and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4	SVHC	N		



Material Declaration

Part Name	Material Name	Component Weight (g)	Material Component (Element)	CAS #	Element ratio (%)	Material Weight (g)	Ratio total Wt (ppm)
Leadframe	Ag plated Cu C7025	0.01900	Cu (remaining)	7440-50-8	95.83	0.01821	305318
			Fe (0.2 max)	7439-89-6	0.02	0.000004	64
			Pb (0.05 max)	7439-92-1	0.001	0.0000002	3
			Co (0.4 max)	7440-48-4	0.200	0.00004	637
			Ni (2.2~4.2%)	7440-02-0	2.28	0.00043	7265
			Zn (1.0 max)	7440-66-6	0.02	0.000004	64
			Mn (0.10 max)	7439-96-5	0.004	0.000001	13
			Si (0.25~1.2%)	7440-21-3	0.52	0.00010	1657
			Mg (0.05~0.3%)	7439-95-4	0.13	0.00002	414
			Ag (0.5~1.5%)	7440-22-4	1.0	0.00019	3186
Die	Silicon IC 1	0.00302	Silicon (Si)	7440-21-3	99.99	0.00302	50639
			others	-	0.01	0.0000003	5
	Silicon IC 2	0.00302	Silicon (Si)	7440-21-3	99.99	0.00302	50639
			others	-	0.01	0.0000003	5
IMC	1st metal layer	0.000012	Titanium (Ti)	7440-32-6	0.003	0.0000000004	0.01
	2nd metal layer		Tungsten (W)	7440-33-7	0.03	0.000000004	0.1
	3rd metal layer		Copper (Cu)	7440-50-8	0.94	0.0000001	2
			Iron (Fe)	7439-89-6	19.8	0.000002	40
			Nickel (Ni)	7440-02-0	79.2	0.00001	159
Die attach material	Conductive epoxy 84-3J	0.00067	Epoxy Resin (30~60%)	Proprietary	46	0.00031	5168
			Silicon dioxide (30~60%)	Proprietary	46	0.00031	5168
			Curing agent & hardener (5~10%)	Proprietary	8	0.00005	899
		0.00067	Epoxy Resin (30~60%)	Proprietary	46	0.00031	5168
			Silicon dioxide (30~60%)	Proprietary	46	0.00031	5168
			Curing agent & hardener (5~10%)	Proprietary	8	0.00005	899
Wire	Gold	0.00112	Gold (Au)	7440-57-5	99.99	0.00112	18780
			Others	-	0.01	0.0000001	2
Lead Finish	Alloy	0.00135	Tin (Sn)	7440-31-5	99.99	0.00135	22637
			Others	-	0.01	0.0000001	2
Encapsulation	Epoxy resin CEL9220HF13V	0.03077	Epoxy resin-1 (1~5%)	Proprietary	3	0.00092	15480
			Epoxy resin-2 (1~3%)	Proprietary	2	0.00062	10320
			Epoxy resin-3 (1~3%)	Proprietary	2	0.00062	10320
			Phenol resin (2~7%)	Proprietary	5	0.00154	25800
			Silica (74~92%)	60676-86-0	80.8	0.02486	416926
			Carbon black (0.2%)	1333-86-4	0.2	0.00006	1032
			Metal Hydroxide (1~10%)	Proprietary	5	0.00154	25800
			Others (max 3%)	-	2	0.00062	10320

Total package weight (g) 0.05963

Comments

- Composition derived from MSDS and material CoC from vendors
- Component weight based on assembly of generic parts
- Reliability qualification reports are available upon request through the appropriate sales or marketing contact
- Third party testing for RoHS substances are available upon request to environment@melexis.com

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