

**Supplier Information**

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<b>Response Date*</b>	6/13/2016		

  

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**Product(s)****Product Family Name: None**

Requester Item Number	Mfr Item Number*	Mfr Item Description	Effective Date*	Mass*	UOM*	Comment
	FC-BGA15F FH80668029** 1296L	FC-BGA15F FH80668029** 1296L	6/13/2016	1.6991	g	
	FC-BGA15F HT80668024** 1296L	FC-BGA15F HT80668024** 1296L	7/29/2016	1.6991	g	
	FC-BGA15F HT80668025** 1296L	FC-BGA15F HT80668025** 1296L	7/29/2016	1.6991	g	
	FC-BGA15F HT80668027** 1064L	FC-BGA15F HT80668027** 1064L	7/29/2016	1.3632	g	
	FC-BGA15F HT80668030** 1064L	FC-BGA15F HT80668030** 1064L	7/29/2016	1.3632	g	
	FC-BGA15F HT80668022** 1064L	FC-BGA15F HT80668022** 1064L	7/29/2016	1.3632	g	

### Declaration

This product is Low Halogen (Components): Applies only to brominated and chlorinated flame retardants (BFRs/CFRs) and PVC in the final product. The replacement of halogenated flame retardants and/or PVC may not be better for the environment.	<b>True</b>
Intel components as well as purchased components on the finished assembly meet the joint JEDEC/ECA JS-709A requirement.	
This product is Low Halogen (PCB): Applies only to brominated and chlorinated flame retardants (BFRs/CFRs) in the PCB laminate. The replacement of halogenated flame retardants may not be better for the environment.	<b>True</b>
The PCB / substrate meet IEC 61249-2-21 requirements.	
This product is EU RoHS 2 (Directive 2011/65/EU) compliant.	<b>True</b>

### Signature

Signature	C=US, E=productecology@intel.com, OU="", O=Intel Corporation, CN=Intel Product Ecology
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### RoHS

Homogeneous Material Name	Material Class ID	HM Mass %	Substance Group	Reportable Application	Reporting Threshold	Above Threshold? (T/F)	Substance Mass %	Exemption	Comments
			Cadmium/Cadmium compounds	All, except batteries	0.01 mass% of total Cd in homogenous material	False			



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]			All	0.1 mass% of article	False	0 %	
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)			All	Intentionally added or 0.1 mass% of article	False	0 %	
Aluminosilicate Refractory Ceramic Fibres			All	0.1 mass% of article	False	0 %	
Asbestos			All	Intentionally added	False	0 %	
Azocolourants and azodyes which form certain aromatic amines			Textiles and Leather	0.003% by weight of the finished textile/leather product	False	0 %	
Cadmium/Cadmium compounds			Batteries	0.001% by weight of battery	False	0 %	
Dibutyltin (DBT) compounds			All	0.1 mass% of tin in the part	False	0 %	
Diocetyl tin (DOT) compounds			(a) textile and leather articles intended to come into contact with the skin, (b) childcare articles, (c) two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	0.1 mass% of tin in the part	False	0 %	
Disodium tetraborates			All	0.1 mass% of article	False	0 %	
Fluorinated Greenhouse Gases (PFC, SF6, HFC)			All	Intentionally Added	False	0 %	

Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane			All	Intentionally added or 0.1 mass% of article	False	0 %	
Hexahydromethylphthalic anhydride			All	0.1 mass% of article	False	0 %	
Lead/Lead Compounds			Consumer products designed or intended primarily for children 12 years of age or younger	0.01 mass%	False	0 %	
Lead/Lead Compounds			Paint and similar surface coatings of toys and other articles intended for use by children	0.009 mass% of surface coating material	False	0 %	
Lead/Lead Compounds			Cables/cords with thermoset or thermoplastic coatings	0.03 mass% of surface coating material	False	0 %	
Lead/Lead Compounds			Batteries	0.004 mass% of battery	False	0 %	
Mercury/Mercury Compounds			Batteries	Intentionally added or 0.0001 mass% of battery	False	0 %	
Mercury/Mercury Compounds			Batteries	0.0005 mass% of total Hg in homogenous material	False	0 %	
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)			All	Intentionally Added	False	0 %	
Perchlorates			All	$6 \times 10^{-7}$ mass% of battery or product part	False	0 %	
Perfluorooctane sulfonates (PFOS)			Textiles or other coated materials.	Intentionally added or 1 microgram/m <sup>2</sup> of coated material	False	0 %	
Perfluorooctane sulfonates (PFOS)			All except textiles or other coated materials.	Intentionally added or 0.1 mass% of the part (as the sum of PFOS)	False	0 %	

Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA			Textiles, photographic coatings applied to films, paper or printing plates and other coated consumer products.	1 microgram/m2 (as the sum of PFOA)	False	0 %	
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA			All except textiles, photographic coatings applied to films, paper or printing plates and other coated consumer products.	0.1 mass% of the part (as the sum of PFOA)	False	0 %	
Phthalates, Selected Group 1 (BBP, DBP, DEHP)			Children's toy or child care article	0.1 mass% as the sum of the phthalate concentrations in plasticized material	False	0 %	
Phthalates, Selected Group 2 (DIDP, DINP, DNOP)			Children's toy or child care article that can be placed in a child's mouth	0.1 mass% as the sum of the phthalate concentrations in plasticized material	False	0 %	
Polychlorinated Biphenyls (PCBs) and specific substitutes			All	Intentionally added	False	0 %	
Polychlorinated Naphthalenes (PCNs)			All	Intentionally added	False	0 %	
Polychlorinated Terphenyls (PCTs)			All	0.005 mass% in material	False	0 %	
Radioactive substances			All	Intentionally added	False	0 %	
Tri-substituted organostannic compounds			All	Intentionally added or 0.1 mass% of tin in the part	False	0 %	
Zirconia Aluminosilicate Refractory Ceramic Fibres			All	0.1 mass% of article	False	0 %	
	[Phthalato(2-)]dioxotrilead	69011-06-9	All	0.1 mass% of article	False	0 %	
	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	All	0.1 mass% of article	False	0 %	

	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	All	0.1 mass% of article	False	0 %	
	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	All	0.1 mass% of article	False	0 %	
	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	All	0.1 mass% of article	False	0 %	
	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	All	0.1 mass% of article	False	0 %	
	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	All	0.1 mass% of article	False	0 %	
	1,2-Diethoxyethane	629-14-1	All	0.1 mass% of article	False	0 %	
	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	All	0.1 mass% of article	False	0 %	
	1,3-propanesultone	1120-71-4	All	0.1 mass% of article	False	0 %	
	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	All	0.1 mass% of article	False	0 %	
	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	All	0.1 mass% of article	False	0 %	
	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	All	0.1 mass% of article	False	0 %	
	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	All	Intentionally added or 0.1 mass% of article	False	0 %	
	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	All	0.1 mass% of article	False	0 %	

	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	All	0.1 mass% of article	False	0 %	
	4-Aminoazobenzene	60-09-3	All	0.1 mass% of article	False	0 %	
	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	All	0.1 mass% of article	False	0 %	
	Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene	68921-45-9	All	Intentionally added	False	0 %	
	Benzo[a]anthracene	56-55-3	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	False	0 %	
	Benzo[a]anthracene	56-55-3	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	False	0 %	
	Benzo[a]pyrene	50-32-8	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	False	0 %	
	Benzo[a]pyrene	50-32-8	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	False	0 %	
	Benzo[b]fluoranthene	205-99-2	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	False	0 %	

	Benzo[b]fluoranthene	205-99-2	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	False	0 %	
	Benzo[e]pyrene	192-97-2	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	False	0 %	
	Benzo[e]pyrene	192-97-2	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	False	0 %	
	Benzo[j]fluoranthene	205-82-3	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	False	0 %	
	Benzo[j]fluoranthene	205-82-3	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	False	0 %	
	Benzo[k]fluoranthene	207-08-9	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	False	0 %	
	Benzo[k]fluoranthene	207-08-9	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	False	0 %	
	Benzyl butyl phthalate (BBP)	85-68-7	All	0.1 mass% in homogenous material	False	0 %	
	Beryllium Oxide	1304-56-9	All	0.1 mass%	False	0 %	

	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	All	0.1 mass% in homogenous material	False	0 %	
	Bis(2-methoxyethyl) ether	111-96-6	All	0.1 mass% of article	False	0 %	
	Bis(2-methoxyethyl) phthalate	117-82-8	All	0.1 mass% of article	False	0 %	
	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	1163-19-5	All	0.1 mass% of article	False	0 %	
	Bis(tributyltin) oxide (TBTO)	56-35-9	All	Intentionally added or 0.1 mass% of article	False	0 %	
	Boric Acid	10043-35-3 11113-50-1	All	0.1 mass% of article	False	0 %	
	Cadmium	7440-43-9	All	0.1 mass% of article	False	0 %	
	Cadmium oxide	1306-19-0	All	0.1 mass% of article	False	0 %	
	Cadmium sulphide	1306-23-6	All	0.1 mass% of article	False	0 %	
	Chrysen	218-01-9	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	False	0 %	
	Chrysen	218-01-9	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	False	0 %	
	Cobalt dichloride	7646-79-9	All	0.1 mass% of article	False	0 %	
	Diarsenic pentoxide	1303-28-2	All	0.1 mass% of article	False	0 %	
	Diarsenic trioxide	1327-53-3	All	0.1 mass% of article	False	0 %	
	Dibenzo[a,h]anthracene	53-70-3	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	False	0 %	

	Dibenzo[a,h]anthracene	53-70-3	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	False	0 %	
	Diboron trioxide	1303-86-2	All	0.1 mass% of article	False	0 %	
	Dibutyl phthalate (DBP)	84-74-2	All	0.1 mass% in homogenous material	False	0 %	
	Dibutyltin dichloride (DBTC)	683-18-1	All	0.1 mass% of article	False	0 %	
	Diisobutyl phthalate	84-69-5	All	0.1 mass% in homogenous material	False	0 %	
	Di-isodecyl phthalate (DIDP)	68515-49-1 26761-40-0	All	Intentionally added	False	0 %	
	Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	All	Intentionally added	False	0 %	
	Diisopentylphthalate	605-50-5	All	0.1 mass% of article	False	0 %	
	Dimethyl Fumarate (DMF)	624-49-7	All	0.00001 mass% of the part	False	0 %	
	Di-n-hexyl Phthalate (DnHP)	84-75-3	All	Intentionally added or 0.1 mass% of article	False	0 %	
	Dioxobis(stearato)trilead	12578-12-0	All	0.1 mass% of article	False	0 %	
	Dipentyl phthalate (DPP)	131-18-0	All	0.1 mass% of article	False	0 %	
	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	All	0.1 mass% of article	False	0 %	
	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	All	0.1 mass% of article	False	0 %	
	Fatty acids, C16-18, lead salts	91031-62-8	All	0.1 mass% of article	False	0 %	
	Formaldehyde	50-00-0	Textiles	0.0075 mass % of textile	False	0 %	

	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	All	0.1 mass% of article	False	0 %	
	Lead chromate	7758-97-6	All	0.1 mass% of article	False	0 %	
	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	All	0.1 mass% of article	False	0 %	
	Lead cyanamidate	20837-86-9	All	0.1 mass% of article	False	0 %	
	Lead dinitrate	10099-74-8	All	0.1 mass% of article	False	0 %	
	Lead oxide sulfate	12036-76-9	All	0.1 mass% of article	False	0 %	
	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	All	0.1 mass% of article	False	0 %	
	Lead titanium trioxide	12060-00-3	All	0.1 mass% of article	False	0 %	
	Lead titanium zirconium oxide	12626-81-2	All	0.1 mass% of article	False	0 %	
	N,N-dimethylformamide	68-12-2	All	0.1 mass% of article	False	0 %	
	Nickel	7440-02-0	All, where prolonged skin contact is expected	Intentionally Added	False	0 %	
	N-pentyl-isopentylphthalate	776297-69-9	All	0.1 mass% of article	False	0 %	
	Orange lead (lead tetroxide)	1314-41-6	All	0.1 mass% of article	False	0 %	
	Pentadecafluorooctanoic acid (PFOA)	335-67-1	All	0.1 mass% of article	False	0 %	
	Pentalead tetraoxide sulphate	12065-90-6	All	0.1 mass% of article	False	0 %	
	Pentazinc chromate octahydroxide	49663-84-5	All	0.1 mass% of article	False	0 %	
	Perfluorononan-1-oic acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	All	0.1 mass% of article	False	0 %	
	Potassium hydroxyoctaoxidizinc atedichromate	11103-86-9	All	0.1 mass% of article	False	0 %	
	Pyrochlore, antimony lead yellow	8012-00-8	All	0.1 mass% of article	False	0 %	

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)		All	0.1 mass% of article	False	0 %	
Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped	68784-75-8	All	0.1 mass% of article	False	0 %	
Strontium chromate	7789-06-2	All	0.1 mass% of article	False	0 %	
Sulfurous acid, lead salt, dibasic	62229-08-7	All	0.1 mass% of article	False	0 %	
Tetralead trioxide sulphate	12202-17-4	All	0.1 mass% of article	False	0 %	
Trilead dioxide phosphonate	12141-20-7	All	0.1 mass% of article	False	0 %	
Tris(2-chloroethyl)phosphate	115-96-8	All	0.1 mass% of article	False	0 %	
Trixylyl phosphate	25155-23-1	All	0.1 mass% of article	False	0 %	