Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	BSC9132NXE7KNKB
Mfg Item Name	FCPBGA 780 23*23 P0.8

SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2015-05-01
Response Document ID	008NK50008S295A1.4
Contact Name	Freescale Semiconductor Inc
Contact Title	Product Technical Support
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Authorized Representative	Daniel Binyon
Representative Title	EPP Customer Response
Representative Phone	512-895-3406
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URL for Additional Information	www.freescale.com

DECLARATION	
EU RoHS	Yes
Pb Free	Yes
HalogenFree	Yes
Plating Indicator	e1
EU RoHS Exemption(s)	

MANUFACTURING	
Mfg Item Number	BSC9132NXE7KNKB
Mfg Item Name	FCPBGA 780 23*23 P0.8
Version	ALL
Weight	5.503800
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	3
Peak Processing Temperature	245 C
Max Time at Peak Temperature	30 seconds
Number of Processing Cycles	3

RoHS	
RoHS Directive	2011/65/EU
RoHS Definition	RoHS Definition: Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and quantity limit of 0.01% by mass (100 PPM) of homogeneous material of Cadmium
RoHS Legal Definition	Please indicate whether any homogeneous material (as defined by the RoHS Directive, EU 2011/65/EU and implemented by the laws of the European Union member states) of the part(s) identified on this form contains lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and/or polybrominated diphenyl ethers (each a RoHS restricted substance) in excess of the applicable quantity limit identified below. If a homogeneous material within the part(s) contains a RoHS restricted substance in excess of an applicable quantity limit, please indicate below which, if any, RoHS exemption you believe may apply. If the part is an assembly with lower level components, the declaration shall encompass all such components. Supplier certifies that it gathered the information it provides in this form using appropriate methods to ensure its accuracy and that such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products with European Union member state laws that implement the RoHS Directive. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s),the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Suppliers liability and the Companys remedies for issues that arise regarding information the Supplier provides in this form. In the absence of such written agreement, the warranty rights and/or remedies of Suppliers Standard Terms and Conditions of Sale applicable to such part(s) shall apply.
RoHS Declaration	1 - Item(s) do not contain RoHS restricted substances per the definition above
Supplier Acceptance	Accepted
Signature	Daniel Binyon
Exemption List Version	2012/51/EU
List of Freescale Accepted Exemptions	6(a) : Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight 6(b) : Lead as an alloying element in aluminium containing up to 0.4% lead by weight 6(c) : Copper alloy containing up to 4% lead by weight 7(a) : Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead) 7(b) : Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications 7(c)-I : Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound 7(c)-II : Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher 7(c)-III : Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC 7(c)-IV : Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors 15 : Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages

MATERIAL COMPOSITION

Homogeneous Material	Weight	SubstanceClass	Substance	CAS	Exemption	SubstanceWeight	UoM	SubPart PPM	SubPart%		ARTICLEPPM	ARTICLE%
Bonding Agent	0.07						g					
Bonding Agent		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.0315	g	450000	45		5723	0.5723
Bonding Agent		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.028	g	400000	40		5087	0.5087
Bonding Agent		Solvents, additives, and other materials	Dimethylvinylated and trimethylated silica	68988-89-6		0.0105	g	150000	15		1907	0.1907
Solder Balls - Lead Free	0.1233						g					
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.00061761	g	5009	0.5009		112	0.0112
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.00370566	g	30054	3.0054		673	0.0673
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.11897673	g	964937	96.4937		21617	2.1617
Heat Spreader	2.8268						g					
Heat Spreader		Metals	Copper, metal	7440-50-8		2.78289132	g	984467	98.4467		505648	50.5648
Heat Spreader		Nickel (external applications only)	Nickel	7440-02-0		0.04390868	g	15533	1.5533		7977	0.7977
Die Encapsulant, Filler	1.1226						g					
Die Encapsulant, Filler		Metals	Aluminum, metal	7429-90-5		0.808272	g	720000	72		146857	14.6857
Die Encapsulant, Filler		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-		0.101034	g	90000	9		18357	1.8357
Die Encapsulant, Filler		Metals	Zinc oxide	1314-13-2		0.202068	g	180000	18		36714	3.6714
Die Encapsulant, Filler		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances.	-		0.011226	g	10000	1		2039	0.2039
Underfill	0.0268						g					
Underfill		Bismuth/Bismuth Compounds	Bismuth nitrate	10361-44-1		0.000134	g	5000	0.5		24	0.0024
Underfill		Bismuth/Bismuth Compounds	Bismuth trioxide	1304-76-3		0.000134	g	5000	0.5		24	0.0024
Underfill		Plastics/polymers	1,6-Bis(2,3-epoxypropoxy) naphthalene	27610-48-6		0.00402	g	150000	15		730	0.073
Underfill		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.00268	g	100000	10		486	0.0486
Underfill		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.000134	g	5000	0.5		24	0.0024
Underfill		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.000804	g	30000	3		146	0.0146
Underfill		Glass	Silica, vitreous	60676-86-0		0.01608	g	600000	60		2921	0.2921
Underfill		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances.	-		0.000134	g	5000	0.5		24	0.0024
Underfill		Solvents, additives, and other materials	Proprietary Material-Other aliphatic amine compounds	-		0.00268	g	100000	10		486	0.0486
Organic Substrate, Halogen-fre	1.1226						g					
Organic Substrate, Halogen-fre		Metals	Proprietary Material-Other aluminum compounds	-		0.00021442	g	191	0.0191		38	0.0038
Organic Substrate, Halogen-fre		Metals	Barium sulfate	7727-43-7		0.00746192	g	6647	0.6647		1355	0.1355
Organic Substrate, Halogen-fre		Metals	Copper, metal	7440-50-8		0.42622539	g	379677	37.9677		77442	7.7442
Organic Substrate, Halogen-fre		Plastics/polymers	Epikote 862	28064-14-4		0.06181597	g	55065	5.5065		11231	1.1231
Organic Substrate, Halogen-fre		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.04182359	g	37256	3.7256		7599	0.7599
Organic Substrate, Halogen-fre		Metals	Talc	14807-96-6		0.00085767	g	764	0.0764		155	0.0155
Organic Substrate, Halogen-fre		Solvents, additives, and other materials	Proprietary Material-Other organic phosphorous compounds	-		0.01286836	g	11463	1.1463		2338	0.2338
Organic Substrate, Halogen-fre		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.01447705	g	12896	1.2896		2630	0.263
Organic Substrate, Halogen-fre		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.04945278	g	44052	4.4052		8985	0.8985
Organic Substrate, Halogen-fre		Plastics/polymers	Proprietary Material-Other polymers	-		0.03073005	g	27374	2.7374		5583	0.5583
Organic Substrate, Halogen-fre		Glass	Fibrous-glass-wool	65997-17-3		0.23489844	g	209245	20.9245		42679	4.2679
Organic Substrate, Halogen-fre		Glass	Silicon dioxide	7631-86-9		0.150324	g	133907	13.3907		27312	2.7312
Organic Substrate, Halogen-fre		Metals	Silver, metal	7440-22-4		0.00051976	g	463	0.0463		94	0.0094
Organic Substrate, Halogen-fre		Metals	Tin, metal	7440-31-5		0.01670541	g	14881	1.4881		3035	0.3035
Organic Substrate, Halogen-fre		Metals	Aluminum Hydroxide	21645-51-2		0.07417804	g	66077	6.6077		13477	1.3477
Organic Substrate, Halogen-fre		Metals	Copper phthalocyanine	147-14-8		0.00004715	g	42	0.0042		8	0.0008
Pb-free Bumped Semiconductor D	0.2117						g					
Pb-free Bumped Semiconductor D		Nickel (external applications only)	Nickel	7440-02-0		0.0010585	g	5000	0.5		192	0.0192
Pb-free Bumped Semiconductor D		Metals	Silver, metal	7440-22-4		0.00066686	g	3150	0.315		121	0.0121
Pb-free Bumped Semiconductor D		Metals	Tin, metal	7440-31-5		0.01838615	g	86850	8.685		3340	0.334
Pb-free Bumped Semiconductor D		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.0019053	g	9000	0.9		346	0.0346
Pb-free Bumped Semiconductor D		Glass	Silicon, doped	-		0.18968319	g	896000	89.6		34464	3.4464

LINKS	
MCD LINK	
Freescale website	http://www.freescale.com
GENERAL ENVIRONMENTAL COMPLIANCE LINKS	
RoHS signed letter	http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_ROHS_Freescale_Response.pdf
China RoHS	http://www.freescale.com/chinarohs
REACH signed letter	http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_REACH_Freescale_Response.pdf
ELV signed letter	http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_ELV_Freescale_Reponse.pdf
Conflict Minerals statement	http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_CONFLICT_METAL_Freescale_Response.pdf
FREESCALE ENVIRONMENTAL INFORMATION	
EPP website	http://www.freescale.com/epp
FAQ	http://www.freescale.com/webapp/sps/site/overview.jsp?code=ENVIRON_FAQ
Technical Service Request	https://www.freescale.com/webapp/servicerequest.create_SR.framework?defaultCategory=Hardware Product Support&defaultTopic=Environmentally Preferred Prod
LINKS TO BLANK IPC1752 FORMS	
Blank IPC1752 v1.1 Form	http://www.freescale.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf

IPC1752 XML LINKS

http://www.freescale.com/mcds/BSC9132NXE7KNKB_IPC1752_v11.xml

http://www.freescale.com/mcds/BSC9132NXE7KNKB_IPC1752A.xml