PART INFORMATION

Mfg Item Number	LS1046ASN8T1A
Mfg Item Name	FC 780 23x23 2.46 Lidded

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-08-23
Response Document ID	00M4K50008S381A1.4
Contact Name	Freescale Semiconductor Inc
Contact Title	Product Technical Support
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Authorized Representative	Daniel Binyon
Representative Title	EPP Customer Response
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Representative Email	eppanlst@freescale.com
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DECLARATION

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

MANUFACTURING

Mfg Item Number	LS1046ASN8T1A
Mfg Item Name	FC 780 23x23 2.46 Lidded
Version	ALL
Weight	3.960100
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	3
Peak Processing Temperature	250 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	0.0191						g					
Bonding Agent		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.008595	g	450000	45		2170	0.217
Bonding Agent		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.00764	g	400000	40		1929	0.1929
Bonding Agent		Solvents, additives, and other materials	Dimethylvinylated and trimethylated silica	68988-89-6		0.002865	g	150000	15		723	0.0723
Solder Balls - Lead Free	0.1936						g					
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.00096974	g	5009	0.5009		244	0.0244
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.00581845	g	30054	3.0054		1469	0.1469
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.18681181	g	964937	96.4937		47173	4.7173
Heat Spreader	2.4065						g					
Heat Spreader		Metals	Copper, metal	7440-50-8		2.36911984	g	984467	98.4467		598268	59.8268
Heat Spreader		Nickel (external applications only)	Nickel	7440-02-0		0.03738016	g	15533	1.5533		9439	0.9439
Die Encapsulant, Filler	0.0236						g					
Die Encapsulant, Filler		Metals	Aluminum, metal	7429-90-5		0.016992	g	720000	72		4290	0.429
Die Encapsulant, Filler		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-		0.002124	g	90000	9		536	0.0536
Die Encapsulant, Filler		Metals	Zinc oxide	1314-13-2		0.004248	g	180000	18		1072	0.1072
Die Encapsulant, Filler		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances.	-		0.000236	g	10000	1		59	0.0059
Underfill	0.0236						g					
Underfill		Bismuth/Bismuth Compounds	Bismuth nitrate	10361-44-1		0.000118	g	5000	0.5		29	0.0029
Underfill		Bismuth/Bismuth Compounds	Bismuth trioxide	1304-76-3		0.000118	g	5000	0.5		29	0.0029
Underfill		Plastics/polymers	1,6-Bis(2,3-epoxypropoxy) naphthalene	27610-48-6		0.00354	g	150000	15		893	0.0893
Underfill		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.00236	g	100000	10		595	0.0595
Underfill		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.000118	g	5000	0.5		29	0.0029
Underfill		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.000708	g	30000	3		178	0.0178
Underfill		Glass	Silica, vitreous	60676-86-0		0.01416	g	600000	60		3575	0.3575
Underfill		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances.	-		0.000118	g	5000	0.5		29	0.0029
Underfill		Solvents, additives, and other materials	Proprietary Material-Other aliphatic amine compounds	-		0.00236	g	100000	10		595	0.0595
Organic Substrate, Halogen-fre	1.1056						g					
Organic Substrate, Halogen-fre		Metals	Barium sulfate	7727-43-7		0.00587958	g	5318	0.5318		1484	0.1484
Organic Substrate, Halogen-fre		Metals	Copper, metal	7440-50-8		0.51040798	g	461657	46.1657		128887	12.8887
Organic Substrate, Halogen-fre		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.01417379	g	12820	1.282		3579	0.3579
Organic Substrate, Halogen-fre		Plastics/polymers	Other Epoxy resins	-		0.01221246	g	11046	1.1046		3083	0.3083
Organic Substrate, Halogen-fre		Metals	Talc	14807-96-6		0.00067994	g	615	0.0615		171	0.0171
Organic Substrate, Halogen-fre		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.01417379	g	12820	1.282		3579	0.3579
Organic Substrate, Halogen-fre		Plastics/polymers	Other polymers	-		0.06378206	g	57690	5.769		16106	1.6106
Organic Substrate, Halogen-fre		Glass	Fibrous-glass-wool	65997-17-3		0.21522384	g	194667	19.4667		54348	5.4348
Organic Substrate, Halogen-fre		Glass	Silicon dioxide	7631-86-9		0.1763045	g	159465	15.9465		44520	4.452
Organic Substrate, Halogen-fre		Metals	Silver, metal	7440-22-4		0.00037812	g	342	0.0342		95	0.0095
Organic Substrate, Halogen-fre		Metals	Tin, metal	7440-31-5		0.01216271	g	11001	1.1001		3071	0.3071
Organic Substrate, Halogen-fre		Metals	Copper phthalocyanine	147-14-8		0.0000398	g	36	0.0036		10	0.001
Organic Substrate, Halogen-fre		Solvents, additives, and other materials	Oxirane, 2,2,2,2-[1,2-ethanediylidenetetrakis(4,1phenyleneoxymethylene)]tetrakis	7328-97-4		0.08018143	g	72523	7.2523		20247	2.0247
Pb-free Bumped Semiconductor D	0.1881						g					
Pb-free Bumped Semiconductor D		Nickel (external applications only)	Nickel	7440-02-0		0.0009405	g	5000	0.5		237	0.0237
Pb-free Bumped Semiconductor D		Metals	Silver, metal	7440-22-4		0.00059252	g	3150	0.315		149	0.0149
Pb-free Bumped Semiconductor D		Metals	Tin, metal	7440-31-5		0.01633649	g	86850	8.685		4125	0.4125
Pb-free Bumped Semiconductor D		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.0016929	g	9000	0.9		427	0.0427
Pb-free Bumped Semiconductor D		Glass	Silicon, doped	-		0.16853759	g	896000	89.6		42558	4.2558

LINKS	
MCD LINK	
NXP website	http://www.nxp.com
GENERAL ENVIRONMENTAL COMPLIANCE LINKS	
RoHS signed letter	http://www.nxp.com/files/corporate/doc/support_info/NXP-ROHS-DECLARATION.pdf
China RoHS	http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/china-rohs:ENV_CHINA_ROHS_STRATEGY
REACH signed letter	http://www.nxp.com/files/corporate/doc/support_info/NXP-REACH-STATEMENT.pdf
ELV signed letter	http://www.nxp.com/files/corporate/doc/support_info/NXP-ELV-STATEMENT.pdf
Conflict Minerals statement	http://www.nxp.com/files/corporate/doc/support_info/NXP-STATEMENT-CONFLICT-MINERALS.pdf
NXP ENVIRONMENTAL INFORMATION	
Environmental Compliance website	http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization:ABUENVPRFPRDX
FAQ	http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/eco-product-faqs:ENVIRON_FAQ
Technical Service Request	http://www.nxp.com/support/sales-and-support:SUPPORTHOME
LINKS TO BLANK IPC1752 FORMS	
Blank IPC1752 v1.1 Form	http://www.NXP.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf

IPC1752 XML LINKS

http://www.freescale.com/mcds/LS1046ASN8T1A_IPC1752_v11.xml

http://www.freescale.com/mcds/LS1046ASN8T1A_IPC1752A.xml