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SUPPLIER

**URL** for Additional Information

PART INFORMATION

Mfg Item Number

Mfg Item Name

LQFP 144 20\*20\*1.4P0.5

Freescale Semiconductor Inc Company Name Company Unique ID 14-141-7928 Response Date 2018-02-05 Response Document ID 8259A1.22 Freescale Semiconductor Inc Contact Name Contact Title Product Technical Support **Contact Phone** 1-800-521-6274 Contact Email support@freescale.com **Authorized Representative** Daniel Binyon Representative Title **EPP Customer Response** Representative Phone 512-895-3406 Representative Email eppanlst@freescale.com

DECLARATION

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

www.freescale.com

MANUFACTURING Mfg Item Number DSPB56362AG120 Mfg Item Name LQFP 144 20\*20\*1.4P0.5 Version ALL 1.319100 Weight UoM Unit Volume EACH J-STD-020 MSL Rating 3 Peak Processing Temperature 260 C Max Time at Peak Temperature 40 seconds Number of Processing Cycles



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 Su
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



Homogeneous Material	Weight				SubstanceWeight	UoM	SubPart PPM	SubPart%	ARTICLEPPM	ARTICLE%
poxy Die Attach	0.0126					g				
poxy Die Attach		Cadmium/Cadmium Compounds	Cadmium	7440-43-9	0.00000004	g	3	0.0003	0	0
poxy Die Attach		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5	0.00234878	g	186411	18.6411	1780	0.178
oxy Die Attach		Lead/Lead Compounds	Lead	7439-92-1	0.00000009	g	7	0.0007	0	0
poxy Die Attach		Metals	Silver, metal	7440-22-4	0.01025109	g	813579	81.3579	7771	0.7771
ad Frame Plating	0.0132					g				
ad Frame Plating		Lead/Lead Compounds	Lead	7439-92-1	0.00000264	g	200	0.02	2	0.0002
ad Frame Plating		Metals	Tin, metal	7440-31-5	0.01319736	g	999800	99.98	10004	1.0004
opper Lead Frame	0.1858					g				
opper Lead Frame		Metals	Copper, metal	7440-50-8	0.17910283	g	963955	96.3955	135776	13.5776
opper Lead Frame		Solvents, additives, and other materials	Phosphorus, elemental (not containing red allotrope)	7723-14-0	0.00015329	g	825	0.0825	116	0.0116
opper Lead Frame		Metals	Iron, metal	7439-89-6	0.0043663	g	23500	2.35	3310	0.331
opper Lead Frame		Lead/Lead Compounds	Lead	7439-92-1	0.00003159	g	170	0.017	23	0.0023
opper Lead Frame		Metals	Silver, metal	7440-22-4	0.001858	g	10000	1	1408	0.1408
opper Lead Frame		Metals	Tin, metal	7440-31-5	0.00005574	g	300	0.03	42	0.0042
opper Lead Frame		Metals	Zinc, metal	7440-66-6	0.00023225	g	1250	0.125	176	0.0176
e Encapsulant	0.9756					g				
e Encapsulant		Plastics/polymers	4,4'-dihydroxy-3,3',5,5'-tetramethylbiphenyl digycidyl ether	85954-11-6	0.0429264	g	44000	4.4	32542	3.2542
e Encapsulant		Solvents, additives, and other materials	Other organic phosphorous compounds		0.0009756	g	1000	0.1	739	0.0739
e Encapsulant		Plastics/polymers	1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde and phenol	25917-04-8	0.0029268	g	3000	0.3	2218	0.2218
e Encapsulant		Plastics/polymers	Phenol p-xylylene dimethyl ether copolymer	26834-02-6	0.0380484	g	39000	3.9	28844	2.8844
e Encapsulant		Glass	Silica, vitreous	60676-86-0	0.8907228	g	913000	91.3	675259	67.5259
onding Wire, PdCu	0.0032					g				
onding Wire, PdCu		Metals	Copper, metal	7440-50-8	0.0031392	g	981000	98.1	2379	0.2379
onding Wire, PdCu		Metals	Gold, metal	7440-57-5	0.0000032	g	1000	0.1	2	0.0002
onding Wire, PdCu		Metals	Palladium, metal	7440-05-3	0.0000576	g	18000	1.8	43	0.0043
icon Semiconductor Die	0.1287					g				
licon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-	0.002574	g	20000	2	1951	0.1951
licon Semiconductor Die		Glass	Silicon, doped		0.126126	g	980000	98	95615	9.5615



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