Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	MC68340CFE25E
Mfg Item Name	CQUAD 144

SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-08-31
Response Document ID	0813K00081D003A1.10
Contact Name	Freescale Semiconductor Inc
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
URL for Additional Information	www.freescale.com

DECLARATION	
EU RoHS	Yes
Pb Free	No
HalogenFree	Yes
Plating Indicator	e3
EU RoHS Exemption(s)	7c-I

MANUFACTURING	
Mfg Item Number	MC68340CFE25E
Mfg Item Name	CQUAD 144
Version	ALL
Weight	8.086550
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	1
Peak Processing Temperature	260 C
Max Time at Peak Temperature	40 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	4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions
Supplier Acceptance	Accepted
Signature	Daniel Binyon
Exemption List Version	2012/51/EU
Exemptions in this part	7c-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
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%
Epoxy Die Attach	0.0431				7c-I		g					
Epoxy Die Attach		Lead/Lead Compounds	Lead (II) oxide	1317-36-8		0.00089049	g	20661	2.0661		110	0.011
Epoxy Die Attach		Solvents, additives, and other materials	Other organic Silicon Compounds	-		0.003562	g	82645	8.2645		440	0.044
Epoxy Die Attach		Metals	Silver, metal	7440-22-4		0.03561986	g	826447	82.6447		4404	0.4404
Epoxy Die Attach		Metals	Silver (I) oxide	20667-12-3		0.00178098	g	41322	4.1322		220	0.022
Epoxy Die Attach		Metals	Tellurium in Glass frit	7446-07-3		0.00035618	g	8264	0.8264		44	0.0044
Epoxy Die Attach		Metals	Vanadium (V) oxide	1314-62-1		0.00089049	g	20661	2.0661		110	0.011
Bonding Wire, Aluminum	0.0013						g					
Bonding Wire, Aluminum		Metals	Aluminum, metal	7429-90-5		0.0013	g	1000000	100		160	0.016
Cap/Cover	3.5334				7c-I		g					
Cap/Cover		Metals	Aluminum Oxides (Al2O3)	1344-28-1		2.57099371	g	727626	72.7626		317949	31.7949
Cap/Cover		Metals	Boron oxide	1303-86-2		0.04138318	g	11712	1.1712		5117	0.5117
Cap/Cover		Lead/Lead Compounds	Lead (II) oxide	1317-36-8		0.35171817	g	99541	9.9541		43494	4.3494
Cap/Cover		Glass	Silicon dioxide	7631-86-9		0.00691133	g	1956	0.1956		854	0.0854
Cap/Cover		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.07167855	g	20286	2.0286		8863	0.8863
Cap/Cover		Metals	Other titanium compounds	-		0.07194709	g	20362	2.0362		8897	0.8897
Cap/Cover		Metals	Zinc oxide	1314-13-2		0.00691133	g	1956	0.1956		854	0.0854
Cap/Cover		Metals	Other zinc compounds	-		0.17400935	g	49247	4.9247		21518	2.1518
Cap/Cover		Metals	Manganese oxide	1344-43-0		0.06401461	g	18117	1.8117		7916	0.7916
Cap/Cover		Pigments and Dyes	C.I. Pigment Black 27	68186-97-0		0.0034274	g	970	0.097		423	0.0423
Cap/Cover		Metals	Tin zinc oxide (SnZnO3)	12036-37-2		0.17040528	g	48227	4.8227		21072	2.1072
Lead Frame	4.3989				7c-I		g					
Lead Frame		Metals	Aluminum Oxides (Al2O3)	1344-28-1		2.29172571	g	520977	52.0977		283399	28.3399
Lead Frame		Metals	Boron oxide	1303-86-2		0.06139105	g	13956	1.3956		7591	0.7591
Lead Frame		Metals	Cobalt, metal	7440-48-4		0.00005279	g	12	0.0012		6	0.0006
Lead Frame		Metals	Iron, metal	7439-89-6		0.70003215	g	159138	15.9138		86567	8.6567
Lead Frame		Lead/Lead Compounds	Lead (II) oxide	1317-36-8		0.43927415	g	99860	9.986		54321	5.4321
Lead Frame		Metals	Manganese oxide	1317-35-7		0.06207288	g	14111	1.4111		7676	0.7676
Lead Frame		Nickel (external applications only)	Nickel	7440-02-0		0.4031152	g	91640	9.164		49850	4.985
Lead Frame		Glass	Silicon dioxide	7631-86-9		0.15580904	g	35420	3.542		19267	1.9267
Lead Frame		Metals	Titanium (IV) Oxide	13463-67-7		0.0608016	g	13822	1.3822		7518	0.7518
Lead Frame		Metals	Zinc oxide	1314-13-2		0.11455615	g	26042	2.6042		14166	1.4166
Lead Frame		Metals	Zirconium oxide	1314-23-4		0.11006928	g	25022	2.5022		13611	1.3611
Silicon Semiconductor Die	0.06115						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.001223	g	20000	2		151	0.0151
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.059927	g	980000	98		7410	0.741
Lead Frame Plating	0.0487						g					
Lead Frame Plating		Lead/Lead Compounds	Lead	7439-92-1		0.00000974	g	200	0.02		1	0.0001
Lead Frame Plating		Metals	Tin, metal	7440-31-5		0.04869026	g	999800	99.98		6021	0.6021

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/MC68340CFE25E_IPC1752_v11.xml

http://www.freescale.com/mcds/MC68340CFE25E_IPC1752A.xml