

**PART INFORMATION**

Mfg Item Number	MC908MR16CBE
Mfg Item Name	PSDIP 56

**SUPPLIER**

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-08-29
Response Document ID	0051A1.21
Contact Name	Freescale Semiconductor Inc
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URL for Additional Information	www.freescale.com

**DECLARATION**

EU RoHS	Yes
Pb Free	Yes
HalogenFree	No
Plating Indicator	e3
EU RoHS Exemption(s)	

**MANUFACTURING**

Mfg Item Number	MC908MR16CBE
Mfg Item Name	PSDIP 56
Version	ALL
Weight	6.486700
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	
Peak Processing Temperature	
Max Time at Peak Temperature	
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	<p>6(a) : Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight</p> <p>6(b) : Lead as an alloying element in aluminium containing up to 0.4% lead by weight</p> <p>6(c) : Copper alloy containing up to 4% lead by weight</p> <p>7(a) : Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)</p> <p>7(b) : Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications</p> <p>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</p> <p>7(c)-II : Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher</p> <p>7(c)-III : Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC</p> <p>7(c)-IV : Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors</p> <p>15 : Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages</p>

MATERIAL COMPOSITION

Homogeneous Material	Weight	SubstanceClass	Substance	CAS	Exemption	SubstanceWeight	UoM	SubPart PPM	SubPart%	ARTICLEPPM	ARTICLE%
Epoxy Die Attach	0.0044						g				
Epoxy Die Attach		Cadmium/Cadmium Compounds	Cadmium	7440-43-9		0.0000001	g	3	0.0003	0	0
Epoxy Die Attach		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.0006066	g	137740	13.774	93	0.0093
Epoxy Die Attach		Lead/Lead Compounds	Lead	7439-92-1		0.0000003	g	7	0.0007	0	0
Epoxy Die Attach		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.0013333	g	30303	3.0303	20	0.002
Epoxy Die Attach		Metals	Silver, metal	7440-22-4		0.00366057	g	831947	83.1947	564	0.0564
Die Encapsulant	5.04235						g				
Die Encapsulant		Antimony/Antimony Compounds	Antimony trioxide	1309-64-4		0.07162154	g	14204	1.4204	11041	1.1041
Die Encapsulant		Pigments and Dyes	1,8-diazabicyclo[5.4.0]undec-7-ene	6674-22-2		0.00818373	g	1623	0.1623	1261	0.1261
Die Encapsulant		Flame Retardants	Other brominated flame retardants	-		0.06650355	g	13189	1.3189	10252	1.0252
Die Encapsulant		Plastics/polymers	Poly[o-cresyl glycidyl ether]-co-formaldehyde	26890-82-2		0.50133565	g	99425	9.9425	77286	7.7286
Die Encapsulant		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.01406816	g	2790	0.279	2168	0.2168
Die Encapsulant		Lead/Lead Compounds	Lead	7439-92-1		0.00006555	g	13	0.0013	10	0.001
Die Encapsulant		Solvents, additives, and other materials	(3,4-Epoxy)cyclohexylethytrimethoxysilane	3388-04-3		0.00665086	g	1319	0.1319	1025	0.1025
Die Encapsulant		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.28136313	g	55800	5.58	43375	4.3375
Die Encapsulant		Glass	Silica, vitreous	60676-86-0		4.09255783	g	811637	81.1637	630925	63.0925
Copper Lead Frame	1.3457						g				
Copper Lead Frame		Metals	Copper, metal	7440-50-8		1.29719424	g	963955	96.3955	199977	19.9977
Copper Lead Frame		Solvents, additives, and other materials	Phosphorus, elemental (not containing red allotrope)	7723-14-0		0.0011102	g	825	0.0825	171	0.0171
Copper Lead Frame		Metals	Iron, metal	7439-89-6		0.03162395	g	23500	2.35	4875	0.4875
Copper Lead Frame		Lead/Lead Compounds	Lead	7439-92-1		0.00022877	g	170	0.017	35	0.0035
Copper Lead Frame		Metals	Silver, metal	7440-22-4		0.013457	g	10000	1	2074	0.2074
Copper Lead Frame		Metals	Tin, metal	7440-31-5		0.00040371	g	300	0.03	62	0.0062
Copper Lead Frame		Metals	Zinc, metal	7440-66-6		0.00168213	g	1250	0.125	259	0.0259
Lead Frame Plating	0.0735						g				
Lead Frame Plating		Lead/Lead Compounds	Lead	7439-92-1		0.0000147	g	200	0.02	2	0.0002
Lead Frame Plating		Metals	Tin, metal	7440-31-5		0.0734853	g	999800	99.98	11328	1.1328
Bonding Wire	0.0021						g				
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0021	g	1000000	100	323	0.0323
Silicon Semiconductor Die	0.01865						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000373	g	20000	2	57	0.0057
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.018277	g	980000	98	2817	0.2817

## LINKS

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

IPC1752 XML LINKS

[http://www.freescale.com/mcdfs/MC908MR16CBE\\_IPC1752\\_v11.xml](http://www.freescale.com/mcdfs/MC908MR16CBE_IPC1752_v11.xml)

[http://www.freescale.com/mcdfs/MC908MR16CBE\\_IPC1752A.xml](http://www.freescale.com/mcdfs/MC908MR16CBE_IPC1752A.xml)