

		Material Composition Declaration Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions.		This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.							
1752-2 1.1		IPC Web Site for Information on IPC-1752 Standard http://www.ipc.org/IPC-175x		Form Type * Distribute		Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Information					
Supplier Information											
Company Name * National Semiconductor		Company Unique ID NATSEMI		Unique ID Authority 04-147-2986		Response Date * 01-18-2012		Response Document ID			
Contact Name * Lorena Dudman		Title - Contact Product Stewardship Eng.		Phone - Contact * 1-408-721-8180		Email - Contact * Green.Project@nsc.com					
Authorized Representative * Lorena Dudman		Title - Representative Product Stewardship Eng.		Phone - Representative * 1-408-721-8180		Email - Representative * Green.Project@nsc.com		Supplier Comments or URL for Additional Information http://www.national.com/analog/quality/green			
Requester Item Number		Mfr Item Number		Mfr Item Name		Effective Date	Version	Manufacturing Site	Weight *	UOM	Unit Type
		LM5116WG NOPB		LM5116WG NOPB		01-18-2012			634.88	mg	Each
Alternate Recommendation						Alternate Item Comments					
Manufacturing Process Information											
Terminal Plating / Grid Array Material		Terminal Base Alloy		J-STD-020 MSL Rating		Peak Process Body Temperature		Max Time at Peak Temperature		Number of Reflow Cycles	
SnAgCu		Alloy 42		1		NA C		NA seconds		NA	
Comments											
"Does not contain PFOS."											

RoHS Material Type Declaration	Declaration Type * Custom
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RoHS Directive 2002/95/EC	RoHS Definition: Quantity limit of 0.1% by mass (1000 PPM) in 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 for Cadmium
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Subject to the limitations below, National Semiconductor Corporation ("National") certifies the following information as of the document date.

1. National products designated "ROHS Compliant" comply with the European Unions Directive on the Restriction of the Use of Hazardous Substances 2002/95/EC ("RoHS"). Certain National products contain lead in RoHS exempt applications 7(a) or 7(c)-I.
2. National products do not contain and are not manufactured with ozone depleting compounds.
3. National products do not contain substances identified by the European Chemical Agency ("ECHA") as substances of very high concern ("SVHC") per REACH Regulation (EC) No 1907/2006. National also complies with use restrictions as stipulated in Annex XVII of REACH.
4. National products are manufactured in conformance with National specifications (SC)CSP-9-111C1 Supplier Environmental Requirements for Materials and Products and (SC)CSP-9-111S2 Banned and Reportable Substances.
5. National's list of banned and reportable substances and management system is based on the current version of the Joint Industrial Guide, JIG-101.

National has taken commercially reasonable steps to provide representative and accurate information but may not have independently verified information provided or conducted chemical analysis of incoming materials. Equivalent compliant materials may have been substituted for those stated herein. Material concentrations are the maximum expected concentration of the substance in the device and may not represent the actual concentration. National and its suppliers consider certain limited information to be confidential and thus CAS numbers and other limited information may not be available for release. National's Standard Terms and Conditions of Sale apply to any issue arising out of or in connection with the information provided herein unless otherwise provided by a written contract signed by both parties.

NATIONAL ACCEPTS NO DUTY TO NOTIFY USERS OF THIS DECLARATION OF UPDATES OR CHANGES TO THIS DECLARATION

RoHS Declaration * 4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions	Supplier Acceptance *	Accepted
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Exemptions: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration and above and choose all applicable exemptions.

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.

Declaration Signature

Supplier Signature	 John L. Conn Vice President Quality	John L. Conn Vice President Quality
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Homogeneous Material Composition Declaration for Electronic Products

Item/SubItem Name	Homogeneous Material	Weight	Unit of Measure	Level	Substance Category	Substance	CAS	Exempt	Weight	Unit of Measure	Tolerance	PPM
	Leadframe	54.300	mg	Requester		Fe	7439-89-6		31.494	mg		580,000
				Requester		Ni	7440-02-0		22.806	mg		420,000
	Ext. LeadFinish	5.200	mg	Requester		Sn	7440-31-5		5.018	mg		965,000
				Requester		Ag	7440-22-4		0.156	mg		30,000
				Requester		Cu	7440-50-8		0.026	mg		5,000
	Ceramic Body	414.502	mg	Requester		Al2O3	1344-28-1		367.123	mg		885,700
				Requester		MnO2	1313-13-9		13.969	mg		33,700
				Requester		SiO2	60676-86-0		12.021	mg		29,000
				Requester		TiO2	13463-67-7		7.710	mg		18,600
				Requester		Cr2O3	1308-38-9		5.762	mg		13,900
				Requester		Fe2O3	1309-37-1		4.667	mg		11,260
				Requester		MgO	1309-48-4		2.168	mg		5,230
				Requester		Co3O4	1308-06-1		1.082	mg		2,610
				Chip	2.990	mg	Requester		Si	7440-21-3		2.972
	Requester		Al				7429-90-5		0.018	mg		6,000
	Die Attach	2.940	mg	Requester		Ag	7440-22-4		2.352	mg		800,000
				Requester		Lead Borate Glass	65997-18-4		0.588	mg		200,000
	Seal Glass	154.800	mg	Requester		PbO	1317-36-8		93.252	mg		602,400
				Requester		SnO2	18282-10-5		23.065	mg		149,000
				Requester		B2O3	1303-86-2		15.449	mg		99,800
				Requester		SiO2	60676-86-0		7.786	mg		50,300
				Requester		Al2O3	1344-28-1		7.779	mg		50,250
				Requester		MgO	1309-48-4		2.933	mg		18,950

			Requester		TiO2	13463-67-7		2.926	mg		18,900
			Requester		ZnO	1314-13-2		1.610	mg		10,400
Wires	0.151	mg	Requester		Al	7429-90-5		0.149	mg		990,000
			Requester		Si	7440-21-3		0.002	mg		10,000