Company	DUNS#	URL For Additional Information
National Semiconductor	04-147-2986	http://www.national.com/analog/quality/green

Contact	Title	Phone	Email
Lorena Dudman	Product Stewardship Eng. Mgr	1-408-721-8180	Green.Project@nsc.com

Part Number	MSL Rating	Peak Body Temp C	MaxTime(Sec)	Cycles	Unit Type
DAC081C081CIMKXNOPB	1	260	40	4	Each

Document Date		Weight (mg)	
10-27-2011	European RoHS Compliant. China RoHS Compliant.	12.96	Does NOT Contain Halogens

Material Composition Declaration for Electronic Products

Item	Weight (mg)	Component	CAS#	Weight (mg)	Item-ppm	Part-ppm
Plastic	6.436	SiO2	60676-86-0	5.728	890,000	442,009
		Epoxy Resin	25928-94-3	0.515	80,000	39,741
		Mg(OH)2	1309-42-8	0.193	30,000	14,893
Leadframe	5.429	Cu	7440-50-8	5.290	974,500	408,211
		Fe	7439-89-6	0.130	24,000	10,032
		Zn	7440-66-6	0.007	1,200	540
		P	7723-14-0	0.002	300	154
Chip	0.742	Si	7440-21-3	0.738	994,000	56,949
		Al	7429-90-5	0.004	6,000	309
Die Attach	0.145	Ag	7440-22-4	0.109	750,000	8,411
		Epoxy Resin	25928-94-3	0.036	250,000	2,778
LeadFinish	0.131	Ni	7440-02-0	0.118	900,000	9,106
		Pd	7440-05-3	0.011	85,000	849
		Au	7440-57-5	0.002	15,000	154
Wires	0.076	Au	7440-57-5	0.076	1,000,000	5,865

Note: The device content disclosed herewith is approximate and is based on engineering estimates only. It has not been verified through analytical testing.

Additionally, the following should be noted:

1. One or more dopant materials may be present in the silicon die at sub-ppm levels to provide semiconductor properties.
2. Epoxy resin components listed are generic and may or may not be the specific compound used, which is considered proprietary.

RoHS Material Composition Declaration

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

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. Nationals 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.

John L Conn
Vice President Quality

John L. Conn
Vice President Quality

Banned Substance Monitoring

Part Number	Document Date
DAC081C081CIMKXNOPB	10-27-2011

European RoHS Compliant. China RoHS Compliant.

Item#	Material	Cd	CrVI	Pb	Hg	PBB	PBDE	Cl	Br	Ref#
1	CHIP	<1	<1	<1	<30	<10	<10	<75	<50	1000
2	COMPOUND	<2	<2	<2	<2	<5	<5	<50	<50	637
3	FILM	<2	<2	<2	<2	<5	<5	120	<50	626
4	FRAME	<2	N/D	7	<2	<5	<5	N/A	N/A	88
5	WIRE	<2	N/D	<2	<2	<5	<5	N/A	N/A	132

* Cd: Cadmium, CrVI: Hexavalent Chromuim, Pb: Lead, Hg: Mercury, NA: Not Applicable

* Unless otherwise noted, units are in PPM (parts-per-million)

Ref#	**3rd Party Analysis** (available upon request, subject to a non-disclosure agreement)
1000	Analysis on 01/24/2011 by Balazs as per Report# 11-00322-00
637	Analysis on 04/29/2011 by SGS per Report# LPCI/04381(B)/11
626	Analysis on 04/29/2011 by SGS per Report# LPCI/04401(B)/11
88	Analysis on 04/29/2011 by SGS per Report# LPCI/04330(B)/11
132	Analysis on 04/29/2011 by SGS per Report# LPCI/04465(B)/11