

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

Contact	Title	Phone	Email
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Part Number	MSL Rating	Peak Body Temp C	MaxTime(Sec)	Cycles	Unit Type
LM723CH NOPB	1	NA	NA	NA	Each

Document Date	European RoHS Compliant. China RoHS Compliant.	Weight (mg)	Does NOT Contain Halogens
01-17-2012		1013.33	

Material Composition Declaration for Electronic Products

Item	Weight (mg)	Component	CAS#	Weight (mg)	Item-ppm	Part-ppm
Ext. LeadFinish	9.940	Sn	7440-31-5	9.592	965,000	9,466
		Ag	7440-22-4	0.298	30,000	294
		Cu	7440-50-8	0.050	5,000	49
Stand-off	61.000	Al2O3	1344-28-1	61.000	1,000,000	60,198
Lid	309.500	Ni	7440-02-0	309.500	1,000,000	305,429
Eyelet	271.700	Fe	7439-89-6	146.718	540,000	144,788
		Ni	7440-02-0	78.793	290,000	77,757
		Co	7440-48-4	46.189	170,000	45,581
Leads	216.600	Fe	7439-89-6	116.964	540,000	115,425
		Ni	7440-02-0	62.814	290,000	61,988
		Co	7440-48-4	36.822	170,000	36,338
Chip	2.930	Si	7440-21-3	2.912	994,000	2,874
		Al	7429-90-5	0.018	6,000	18
Plating1	14.700	Ni	7440-02-0	14.700	1,000,000	14,507
Glass	124.000	SiO2	60676-86-0	99.944	806,000	98,629
		B2O3	1303-86-2	16.120	130,000	15,908
		Na2O	12401-86-4	4.960	40,000	4,895
		Al2O3	1344-28-1	2.976	24,000	2,937
Plating2	1.900	Au	7440-57-5	1.900	1,000,000	1,875
Die Attach	1.010	Au	7440-57-5	0.990	980,000	977
		Si	7440-21-3	0.020	20,000	20
Wires	0.049	Al	7429-90-5	0.049	1,000,000	48

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:

- One or more dopant materials may be present in the silicon die at sub-ppm levels to provide semiconductor properties.
- 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
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Subject to the limitations below, National Semiconductor Corporation ("National") certifies the following information as of the document date.

- 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)-1.
- National products do not contain and are not manufactured with ozone depleting compounds.
- 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.
- 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.
- 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
John L. Conn
Vice President Quality

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Banned Substance Monitoring

Part Number		Document Date
LM723CH	NOPB	01-17-2012

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	EPOXY	<2	<2	<2	<2	<5	<5	<50	<50	32
3	HEADER	<2	<2	<2	<2	<5	<5	N/A	N/A	672
4	WIRE	<2	N/D	<2	<2	<5	<5	N/A	N/A	604

* Cd: Cadmium, CrVI: Hexavalent Chromium, 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
32	Analysis on 04/29/2011 by SGS per Report# LPCI/04433(B)/11
672	Analysis on 04/29/2011 by SGS per Report# LPCI/04430(B)/11
604	Analysis on 04/29/2011 by SGS per Report# LPCI/04451(B)/11