IPC ASSOCIATION CONNECTING ELECTRONICS INDUSTRIES®	**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.	
1752-21.1	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* **onsemi**	Company unique ID	Unique ID Authority	**Response Date*** **2024-04-18**
Contact Name **Product-Env-Stewards**	Title - Contact Product Enviro Compliance	**Phone - Contact*** **NA**	**Email - Contact*** **Product-Env-Stewards@onsemi.com**
Authorized Representative* **Product-Env-Stewards**	Title - Representative Product Enviro Compliance	**Phone - Representative*** **NA**	**Email - Representative*** **Product-Env-Stewards@onsemi.com**

	Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight*	UOM	Unit Type
		NCH-RSL10-101S51-ACG	RSL10 SIP	2024-04-18		KR9	316.953	mg	Each

Manufacturing Proccess 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
	Precious metal (e.g. Ag,Au, NiPdAu) (no Sn)	**CU Alloy**	**3**	**260**	C	**30**	seconds	**3**

Comments

ATTENTION: MSL 3 Rated item requires Bake and Dry Pack (after electrical test)

For more information regarding material composition please refer to page 3

RoHS Material Composition Declaration		**Declaration Type ***	**Detailed**
Directive 2015/863/EU amending RoHS Directive 2011/65/EU	RoHS Definition: Quantity limit of 0.01% by mass (100 PPM) in homogeneous material for Cadmium and quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr6+), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE), and Bis(2-ethylhexyl) phthalate (DEHP), Benzyl-butyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP).		
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 identified on this form contains lead, mercury, cadmium, hexavalentchromium, polybrominated biphenyls and/or polybrominated diphenyl ethers (each a “RoHS restricted substance”) in excess of the applicable quantity limit identified above. If a homogeneous material within the part contains a RoHS restricted substance inexcess 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 informationprovided 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, itssuppliers have provided certifications regarding their contributions to the part, 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,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 exclusivesource of the Supplier’s liability and the Company’s 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 Supplier's Standard Terms andConditions of Sale applicable to such part shall apply.			
RoHS Declaration *	1 - Item(s) does not contain RoHS restricted substances per the definition above	**Supplier Acceptance ***	**Accepted**
Exemption: 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 above and choose all applicable exemptions.			
Exemption List Version	EL-2011/534/EU		
Declaration Signature			
Instructions: Complete all of the required fields on all pages of this form. Select the "Accepted" on the Supplier Acceptance drop-down. This will display the signature area. Digitally sign the declaration (if required by the Requester) and click on Submit Form to have the form returned to the Requester.			
Supplier Digital Signature	**Rastislav Drska**		

Homogeneous Material Composition Declaration for Electronic Products

SubItem Instructions: The presence of any JIG Level A or B substances must be declared. [1] indicate the subpart in which the substance is located, [2] provide a description of the homogeneous material [3], enter the weight of the homogeneous material.

Substance Instructions: [A] select the Level (JIG A, JIG B, Requester or Supplier) [B] select the substance category (JIG or Requester) or enter a value (Supplier). [C] select the substance (JIG) or enter the substance and CAS (Other). [D] select a RoHS exemption, if applicable [E] enter the weight of the substance or the PPM concentration [F] Optionally enter the positive (+) and negative (-) tolerance in percent (Note: percent tolerance values are expected to cover a 3 sigma range of distribution unless otherwise noted).

Homogeneous Material	Weight	Unit of Measure	Level	Substance	CAS	Exempt	Weight	Unit of Measure
Antenna	0.634	mg	Supplier	Silver (Ag)	7440-22-4		0.0607	mg
			Supplier	Tin (Sn)	7440-31-5		0.0138	mg
			Supplier	Zinc Monoxide (ZnO)	1314-13-2		0.0441	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		0.2539	mg
			Supplier	Barium Monoxide (BaO)	1304-28-5		0.0586	mg
			Supplier	Aluminum Trioxide (Al2O3)	1344-28-1		0.1918	mg
			Supplier	Calcium Monoxide (CaO)	1305-78-8		0.0042	mg
			B	Nickel (Ni)	7440-02-0		0.0069	mg
Capacitor	1.65	mg	Supplier	Boron Trioxide (B2O3)	1303-86-2		0.0081	mg
			Supplier	Tin (Sn)	7440-31-5		0.1	mg
			Supplier	Zirconium Dioxide (ZrO2)	1314-23-4		0.5349	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		0.032	mg
			Supplier	Misc.	Proprietary Data		0.1069	mg
			Supplier	Calcium Monoxide (CaO)	1305-78-8		0.428	mg
			B	Nickel (Ni)	7440-02-0		0.08	mg
			Supplier	Copper (Cu)	7440-50-8		0.36	mg
Capacitor-2	3.496	mg	Supplier	Tin (Sn)	7440-31-5		0.0951	mg
			B	Nickel (Ni)	7440-02-0		0.6181	mg
			Supplier	Barium Titanate (BaO3Ti)	12047-27-7		2.4021	mg
			Supplier	Copper (Cu)	7440-50-8		0.3807	mg
Capacitor-3	2.11	mg	Supplier	Tin (Sn)	7440-31-5		0.0527	mg
			B	Nickel (Ni)	7440-02-0		0.2901	mg
			Supplier	Barium Titanate (BaO3Ti)	12047-27-7		1.7144	mg
			Supplier	Copper (Cu)	7440-50-8		0.0527	mg
Die	5.126	mg	Supplier	Silicon (Si)	7440-21-3		5.126	mg
Inductor	6.125	mg	Supplier	Tin oxide (SnO2)	18282-10-5		0.0466	mg
			Supplier	Copper(II) Oxide (CuO)	1317-38-0		0.419	mg
			Supplier	Silver (Ag)	7440-22-4		2.7484	mg
			Supplier	Boron Trioxide (B2O3)	1303-86-2		0.4237	mg
			Supplier	Tin (Sn)	7440-31-5		0.3826	mg
			Supplier	Nickel Oxide (NiO)	1313-99-1		0.419	mg
			B	Bismuth Trioxide (Bi2O3)	1304-76-3		0.0466	mg

			Supplier	Zinc Monoxide (ZnO)	1314-13-2		0.8845	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		0.7549	mg
			Supplier	Misc.	Proprietary Data		-1.4005	mg
			Supplier	Iron Trioxide (Fe2O3)	1309-37-1		-1.4567	mg
			Supplier	Aluminum Trioxide (Al2O3)	1344-28-1		-4.2031	mg
			B	Nickel (Ni)	7440-02-0		-5.7457	mg
			Supplier	Cobalt Oxide (CoO)	1307-96-6		-6.0688	mg
			Supplier	Manganese Tetraoxide (Mn3O4)	1317-35-7		-6.0784	mg
Mold Compound	104.617	mg		Epoxy resin	proprietary data		9.5787	mg
			Supplier	Phenolic Resin	Proprietary Data		6.3858	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		31.9275	mg
			Supplier	Carbon Black (C)	1333-86-4		0.3193	mg
			Supplier	Aluminum Hydroxide (Al(OH)3)	21645-51-2		3.1928	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		53.2128	mg
Resistor	2.34	mg		Silicone Resin	proprietary data		0.006	mg
			Supplier	Cobalt (Co)	7440-48-4		0.088	mg
			Supplier	Titanium Dioxide (TiO2)	13463-67-7		0.012	mg
			Supplier	Silver (Ag)	7440-22-4		0.116	mg
			Supplier	Tin (Sn)	7440-31-5		0.005	mg
			Supplier	Molybdenum (Mo)	7439-98-7		0.009	mg
			Supplier	Tungsten (W)	7440-33-7		0.292	mg
			Supplier	Magnesium Monoxide (MgO)	1309-48-4		0.006	mg
			Supplier	Chromium (Cr)	7440-47-3		0.0001	mg
			Supplier	Aluminum Trioxide (Al2O3)	1344-28-1		1.0979	mg
			Supplier	Calcium Monoxide (CaO)	1305-78-8		0.004	mg
			B	Nickel (Ni)	7440-02-0		0.261	mg
			Supplier	Gold (Au)	7440-57-5		0.0131	mg
			Supplier	Iron (Fe)	7439-89-6		0.213	mg
			Supplier	Chromium Trioxide (Cr2O3)	1308-38-9		0.047	mg
			Supplier	Copper (Cu)	7440-50-8		0.065	mg
			Supplier	Silica Crystalline (SiO2)	14808-60-7		0.105	mg
Shield	2.447	mg	Supplier	Copper (Cu)	7440-50-8		2.447	mg
Shield-2	2.026	mg	Supplier	White Phosphorus	12185-10-3		0.01	mg
			Supplier	Sulfur (S)	7704-34-9		0.01	mg
			Supplier	Carbon (C)	7440-44-0		0.1504	mg
			Supplier	Chromium (Cr)	7440-47-3		0.351	mg
			Supplier	Manganese (Mn)	7439-96-5		0.01	mg
			Supplier	Silicon (Si)	7440-21-3		0.0301	mg
			B	Nickel (Ni)	7440-02-0		1.4543	mg
			Supplier	Iron (Fe)	7439-89-6		0.01	mg

Solder Ball	1.912	mg	Supplier	Silver (Ag)	7440-22-4		0.0574	mg
			Supplier	Tin (Sn)	7440-31-5		1.8451	mg
			Supplier	Copper (Cu)	7440-50-8		0.0096	mg
Substrate	178.1	mg		Epoxy resin	proprietary data		2.3176	mg
			Supplier	copper	7440-66-6		36.5586	mg
			Supplier	Cured Thermosetting Resin	Proprietary Data		67.7653	mg
			Supplier	Talc	14807-96-6		1.3906	mg
			Supplier	Phosphinoxide Derivative	Proprietary Data		1.3906	mg
			Supplier	Fiber Glass (SiO2)	65997-17-3		49.4318	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		5.0988	mg
			Supplier	Palladium (Pd)	7440-05-3		0.2135	mg
			B	Nickel (Ni)	7440-02-0		4.8057	mg
			Supplier	Gold (Au)	7440-57-5		0.3204	mg
			Supplier	Barium Sulfate (BaSO4)	7727-43-7		8.807	mg
Underfill	6.37	mg	Supplier	2,3-epoxypropyl neodecanoate	26761-45-5		0.1593	mg
			Supplier	3,4-EPOXYCYCLOHEXYLMETHYL	2386-87-0		0.2389	mg
			Supplier	Silver (Ag)	7440-22-4		4.7775	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.2389	mg
			Supplier	Copper (Cu)	7440-50-8		0.9555	mg