IPC ASSOCIATION ELECTRONIC		Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under international and Pan-American copyright conventions.		nder both	This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lowel level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.										
752-21.1					Form Type * Distribute	k	Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Mater				Materials ar	ials and Mfg Information			
Supplie	r Information														
Company name*				ny unique ID U			Unique ID Authority				Res	Response Date*			
nsemi											202	2025-09-01			
Contact N	ame		Title - Contact			I	Phone - Contact*				Em	Email - Contact*			
Product-l	Env-Stewards	Product Enviro Compliance				NA				Pro	Product-Env-Stewards@onsemi.com				
uthorize	d Representative*	Title - Representative			I	Phone - Representative*				Em	Email - Representative*				
roduct-l	Env-Stewards	Product Enviro Compliance				NA				Pro	Product-Env-Stewards@onsemi.com				
	Requester Item Number Mfr I		em Number Mfr Item Name				Effective Date	Versio	Manufacturing Site		Site	Weight*	UOM	Unit Type	
		NCP590	NCP5901MNTBG VR12 MOSFET DI		PRIVER		2025-09-01	)1 M		MY1		9.1	mg	Each	
Ianufa	cturing Proccess Inform												·	·	
			Terminal Base Alloy J-STD		-STD-020 MSL	Rating				ure Max Time at Peak Temper		perature Numb	per of Reflow Cy	cles	
Matte Tin (Sn) - annealed C			CU Alloy 1				260   C   30				S	seconds 3			
omments															
<u>vel 1 - m</u>	aximum time at peak tempera	ture during sol	ldering is 10-3	30 seconds											
or more	information regarding materia	al composition	please refer t	o page 3											

RoHS Material Composition Declaration			Declaration Type *	Detail	ed						
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).											
cadmium, hexavalentchromium, polybromin contains a RoHS restricted substance inexce encompass all such components. Supplier cet as of the date that Supplier completes this Company acknowledges that Supplier may hindependently verified information provided certification in this paragraph. If the Compan	nated biphenyls and/or polybrominated diphess of an applicable quantity limit, please indriffes that it gathered the information it provom. Supplier acknowledges that Company wave relied on informationprovided by others of the supplier agrees that, at a minimusy and the Supplier enter into a written agree yesource of the Supplier's liability and the C	enyl ethers (each a "RoHS restricted substan licate below which, if any, RoHS exemption vides in this form using appropriate methods vill rely on this certification in determining the s in completing this form, and that Supplier um, itssuppliers have provided certifications ement with respect to the identified part, the tompany's remedies for issues that arise rega	s of the European Union member states) of the ce") in excess of the applicable quantity limit is you believe may apply. If the part is an assemb to ensure its accuracy and that such informatio e compliance of its products with European Ur may not have independently verified such infor regarding their contributions to the part, and the erms and conditions of that agreement, including information the Supplier provides in this	dentified above. If a ally with lower level in is true and correct tion member state la mation. However, in ose certifications are ag any warranty righ	homogeneous material within the part components, the declaration shall to the best of its knowledge and belief, was that implement the RoHS Directive. In situations where Supplier has not the at least as comprehensive as the lats and/or remedies provided as part of						
RoHS Declaration * 1 - Item	(s) does not contain RoHS restricted substar	nces per the definition above	Supplier A	cceptance *	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											
		e "Accepted" on the Supplier Acceptance	drop-down. This will display the signature a	rea. Digitally sign t	the declaration (if required by the						

## **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).

<b>Homogeneous Material</b>	Weight	Unit of Measure	Level	Substance	CAS	Exempt	Weight	Unit of Measure
Die	0.16	mg	Supplier	Silicon (Si)	7440-21-3		0.16	mg
Die Attach	0.07	mg	Supplier	Epoxized Condensate Of Para- Hydrobenzaldehyde And Alkyl Phenol	129915-35-1		0.014	mg
			Supplier	Silver (Ag)	7440-22-4		0.056	mg
Lead Frame	3.71	mg	Supplier	Silver (Ag)	7440-22-4		0.0371	mg
			Supplier	Zinc (Zn)	7440-66-6		0.0045	mg
			Supplier	Iron (Fe)	7439-89-6		0.0872	mg
			Supplier	Copper (Cu)	7440-50-8		3.5801	mg
			Supplier	Phosphorus (P)	7723-14-0		0.0011	mg
Mold Compound-Black	5.0	mg		Epoxy resin	proprietary data		0.25	mg
			Supplier	Phenolic Resin	Proprietary Data		0.115	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		0.25	mg
			Supplier	Carbon Black (C)	1333-86-4		0.02	mg
			Supplier	Aluminum Hydroxide (Al(OH)3)	21645-51-2		0.115	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		4.25	mg
Plating	0.14	mg	Supplier	Tin (Sn)	7440-31-5		0.14	mg
Wire Bond	0.02	mg	Supplier	Palladium (Pd)	7440-05-3		0.0004	mg
			Supplier	Gold (Au)	7440-57-5		0.0001	mg
			Supplier	Copper (Cu)	7440-50-8		0.0195	mg