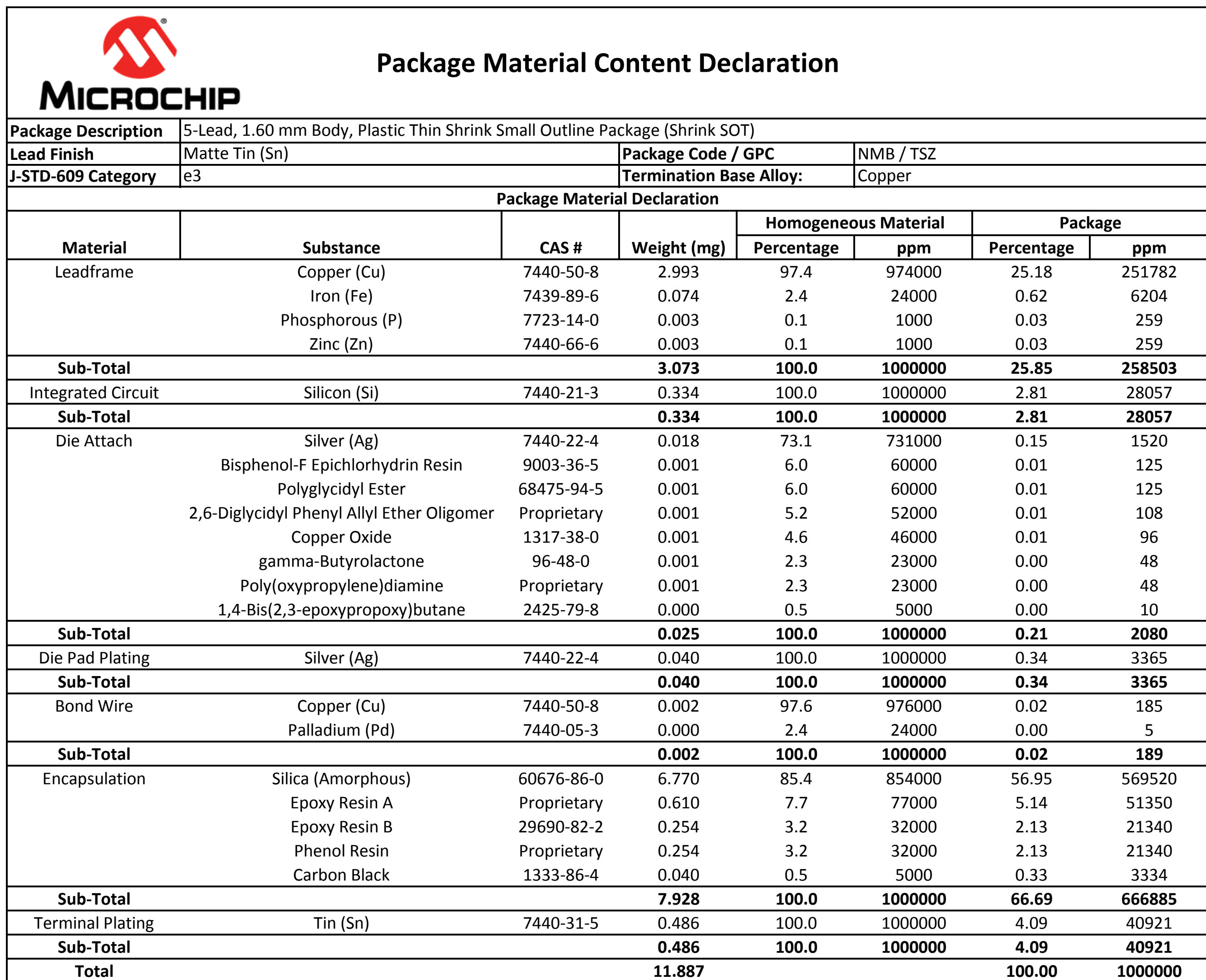

MICROCHIP

Package Material Content Declaration

Package Description	5-Lead, 1.60 mm Body, Plastic Thin Shrink Small Outline Package (Shrink SOT)		
Lead Finish	Matte Tin (Sn)	Package Code / GPC	NMB / TSZ
J-STD-609 Category	e3	Termination Base Alloy:	Copper

Package Material Declaration

Material	Substance	CAS #	Weight (mg)	Homogeneous Material Percentage	Homogeneous Material ppm	Package Percentage	Package ppm
Leadframe	Copper (Cu)	7440-50-8	2.993	97.4	974000	25.18	251782
	Iron (Fe)	7439-89-6	0.074	2.4	24000	0.62	6204
	Phosphorous (P)	7723-14-0	0.003	0.1	1000	0.03	259
	Zinc (Zn)	7440-66-6	0.003	0.1	1000	0.03	259
Sub-Total			**3.073**	**100.0**	**1000000**	**25.85**	**258503**
Integrated Circuit	Silicon (Si)	7440-21-3	0.334	100.0	1000000	2.81	28057
Sub-Total			**0.334**	**100.0**	**1000000**	**2.81**	**28057**
Die Attach	Silver (Ag)	7440-22-4	0.018	73.1	731000	0.15	1520
	Bisphenol-F Epichlorhydrin Resin	9003-36-5	0.001	6.0	60000	0.01	125
	Polyglycidyl Ester	68475-94-5	0.001	6.0	60000	0.01	125
	2,6-Diglycidyl Phenyl Allyl Ether Oligomer	Proprietary	0.001	5.2	52000	0.01	108
	Copper Oxide	1317-38-0	0.001	4.6	46000	0.01	96
	gamma-Butyrolactone	96-48-0	0.001	2.3	23000	0.00	48
	Poly(oxypropylene)diamine	Proprietary	0.001	2.3	23000	0.00	48
	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8	0.000	0.5	5000	0.00	10
Sub-Total			**0.025**	**100.0**	**1000000**	**0.21**	**2080**
Die Pad Plating	Silver (Ag)	7440-22-4	0.040	100.0	1000000	0.34	3365
Sub-Total			**0.040**	**100.0**	**1000000**	**0.34**	**3365**
Bond Wire	Copper (Cu)	7440-50-8	0.002	97.6	976000	0.02	185
	Palladium (Pd)	7440-05-3	0.000	2.4	24000	0.00	5
Sub-Total			**0.002**	**100.0**	**1000000**	**0.02**	**189**
Encapsulation	Silica (Amorphous)	60676-86-0	6.770	85.4	854000	56.95	569520
	Epoxy Resin A	Proprietary	0.610	7.7	77000	5.14	51350
	Epoxy Resin B	29690-82-2	0.254	3.2	32000	2.13	21340
	Phenol Resin	Proprietary	0.254	3.2	32000	2.13	21340
	Carbon Black	1333-86-4	0.040	0.5	5000	0.33	3334
Sub-Total			**7.928**	**100.0**	**1000000**	**66.69**	**666885**
Terminal Plating	Tin (Sn)	7440-31-5	0.486	100.0	1000000	4.09	40921
Sub-Total			**0.486**	**100.0**	**1000000**	**4.09**	**40921**
Total			**11.887**			**100.00**	**1000000**

This semiconductor device and its homogenous materials comply with EU Directives: 2002/95/EC (27 January 2003) & Directive 2011/65/EU (08 June 2011) and 2015/863/EU (31 March 2015) and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption (zero).

Compliance with the above EU Directives has been verified via internal design controls, supplier declarations, and /or analytical test data.

If a chemical substance is absent from the list above, the chemical substance is NOT an intentional ingredient in the semiconductor device and, to the best of Microchip Technology Incorporated's knowledge and belief as of the date of this document, there is no credible reason to believe that the unavoidable impurity concentration of the chemical substance, if any, is not below the threshold of regulatory concern for any regulatory scheme world-wide.

Molding compounds used by Microchip meet the UL94 V0 flammability standard for plastics. You can access the UL iQTM family of databases to obtain a test report at http://ul.com/global/eng/pages/offerings/industries/chemicals/plastics/ .

The protective “tubes” in which the specific product is shipped are made from polyvinyl chloride (PVC) plastic. “Window envelopes” used to hold the packing slip on the outer box and certain “reels” may be made from PVC plastic.

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Assembled package referenced above is EU REACH compliant based on the latest SVHC candidate list of ECHA which can be found at http://echa.europa.eu/web/guest/candidate-list-table.