



Package Material Content Declaration

Package Description	8-Lead, 4.4 mm Body, Plastic Thin Shrink Small Outline Package (TSSOP)						
Lead Finish	Nickel-Palladium-Gold (Ni-Pd-Au)			Package Code / GPC		9CX / TNR	
J-STD-609 Category	e4			Termination Base Alloy:		Copper	
Package Material Declaration							
Material	Substance	CAS #	Weight (mg)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)		9.408	96.2	962000	26.26	262582
	Nickel (Ni)	7440-02-0	0.293	3.0	30000	0.82	8189
	Silicon (Si)	7440-21-3	0.059	0.6	6000	0.16	1638
	Magnesium (Mg)	7439-95-4	0.020	0.2	2000	0.05	546
Sub-Total			9.780	100.0	1000000	27.30	272955
Integrated Circuit	Silicon (Si)	7440-21-3	0.712	100.0	1000000	1.99	19884
Sub-Total			0.712	100.0	1000000	1.99	19884
Die Attach	Silver (Ag)	7440-22-4	0.036	76.6	766000	0.10	1010
	Acrylic Resin	Proprietary	0.004	8.3	83000	0.01	109
	Acrylate	Proprietary	0.003	5.3	53000	0.01	70
	Polybutadiene Copolymer	Proprietary	0.002	5.2	52000	0.01	69
	Epoxy Resin	Proprietary	0.001	2.4	24000	0.00	32
	Additive	Proprietary	0.000	0.9	9000	0.00	12
	Butadiene Copolymer	Proprietary	0.000	0.9	9000	0.00	12
	Peroxide	Proprietary	0.000	0.4	4000	0.00	5
Sub-Total			0.047	100.0	1000000	0.13	1319
Bond Wire	Copper (Cu)	7440-50-8	0.026	97.6	976000	0.07	719
	Palladium (Pd)	7440-05-3	0.001	2.4	24000	0.00	18
Sub-Total			0.026	100.0	1000000	0.07	737
Encapsulation	Silica Fused	60676-86-0	21.686	86.4	864000	60.53	605280
	Epoxy Resin	Proprietary	1.983	7.9	79000	5.53	55344
	Phenol Resin	Proprietary	1.355	5.4	54000	3.78	37830
	Carbon Black	1333-86-4	0.075	0.3	3000	0.21	2102
Sub-Total			25.100	100.0	1000000	70.06	700555
Terminal Plating	Nickel (Ni)	7440-02-0	0.151	92.7	927000	0.42	4218
	Palladium (Pd)	7440-05-3	0.011	6.5	65000	0.03	296
	Gold (Au)	7440-57-5	0.001	0.8	8000	0.00	36
Sub-Total			0.163	100.0	1000000	0.46	4550
Total			35.829			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/offering/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.

Microchip Technology Incorporated believes the information in this form concerning substances restricted by RoHS in Microchip Technology Incorporated's semiconductor devices in their original packing materials is true and correct to the best of its knowledge and belief, as of the date listed in this form. Microchip Technology Incorporated cannot guarantee the completeness and accuracy of data in this form because it has been compiled based on the ranges provided in Material Safety Data Sheets provided by raw material suppliers. Supplier information is often protected from disclosure as trade secrets and some information may not have been provided by subcontract assemblers and raw material suppliers. Information is provided only as estimates of the average weight of these parts and the average weight of anticipated significant toxic metals components. These estimates do not include trace levels of dopants, metals, and non-metal materials contained within silicon devices (silicon IC) in the finished parts.

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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>.