

 Package Material Content Declaration							
Package Description	8-Pad, 2 x 3 x 0.6 mm Body, Thermally Enhanced Plastic Ultra Thin Dual Flat No Lead Package (UDFN)						
Lead Finish	Nickel-Palladium-Gold (Ni-Pd-Au)	Package Code / GPC			Q4B / YNZ		
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)	7440-50-8	3.500	97.4	974000	36.44	364380
	Iron (Fe)	7439-89-6	0.086	2.4	24000	0.90	8979
	Phosphorous (P)	7723-14-0	0.004	0.1	1000	0.04	374
	Zinc (Zn)	7440-66-6	0.004	0.1	1000	0.04	374
Sub-Total			3.593	100.0	1000000	37.41	374107
Integrated Circuit	Silicon (Si)	7440-21-3	0.690	100.0	1000000	7.19	71886
Sub-Total			0.690	100.0	1000000	7.19	71886
Die Attach	Silver (Ag)	7440-22-4	0.035	76.6	766000	0.37	3652
	Acrylic Resin	Proprietary	0.004	8.3	83000	0.04	396
	Acrylate	Proprietary	0.002	5.3	53000	0.03	253
	Polybutadiene Copolymer	Proprietary	0.002	5.2	52000	0.02	248
	Epoxy Resin	Proprietary	0.001	2.4	24000	0.01	114
	Additive	Proprietary	0.000	0.9	9000	0.00	43
	Butadiene Copolymer	Proprietary	0.000	0.9	9000	0.00	43
	Peroxide	Proprietary	0.000	0.4	4000	0.00	19
Sub-Total			0.046	100.0	1000000	0.48	4768
Bond Wire	Copper (Cu)	7440-50-8	0.028	97.6	976000	0.29	2942
	Palladium (Pd)	7440-05-3	0.001	2.4	24000	0.01	72
Sub-Total			0.029	100.0	1000000	0.30	3015
Encapsulation	Silica (Amorphous)	60676-86-0	4.662	90.2	902000	48.54	485405
	Epoxy Resin A	Proprietary	0.160	3.1	31000	1.67	16682
	Epoxy Resin B	Proprietary	0.160	3.1	31000	1.67	16682
	Phenol Resin	Proprietary	0.160	3.1	31000	1.67	16682
	Carbon Black	1333-86-4	0.026	0.5	5000	0.27	2691
Sub-Total			5.168	100.0	1000000	53.81	538143
Terminal Plating	Nickel (Ni)	7440-02-0	0.072	92.7	927000	0.75	7491
	Palladium (Pd)	7440-05-3	0.005	6.5	65000	0.05	525
	Gold (Au)	7440-57-5	0.001	0.8	8000	0.01	65
Sub-Total			0.078	100.0	1000000	0.81	8081
Total			9.604			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>.