Semiconductor Device Type: MN (8QX) 008 TDFN 2x3x0.75mm NiPdAu

Termination Base Alloy: Copper Alloy (Cu)

Package Homogeneous Materials: 8.1 Electronics (e.g. pc boards, displays)

JEDEC 97 Product Marking and/or Pkg. Labeling e4

Basic Substance	CAS Number	"Contained In" Sub-Component	% Total Weight	mg/part	ppm
Silica, vitreous (or fused)	60676-86-0	Mold Compound	45.118	21.882	451,180
Epoxy Resin	Trade Secret	Mold Compound	4.618	2.240	46,180
Phenolic Resin	Trade Secret	Mold Compound	3.185	1.545	31,848
Carbon Black	1333-86-4	Mold Compound	0.159	0.077	1,592
Copper	7440-50-8	Lead Frame	39.338	19.079	393,384
Iron	7439-89-6	Lead Frame	0.930	0.451	9,299
Phosphorous	7723-14-0	Lead Frame	0.101	0.049	1,011
Zinc (Metal)	7440-44-0	Lead Frame	0.061	0.029	606
Silver	7440-22-4	Die Attach	0.146	0.071	1,463
Epoxy resin	Trade Secret	Die Attach	0.038	0.018	380
Metal oxide	Trade Secret	Die Attach	0.006	0.003	57
Silicon	7440-21-3	Chip (Die)	3.980	1.930	39,800
Gold	7440-57-5	Wire Bond	0.560	0.272	5,600
Nickel	7440-02-0	Plating on external leads (pins)	1.584	0.768	15,840
Palladium	7440-05-3	Plating on external leads (pins)	0.088	0.043	880
Gold	7440-57-5	Plating on external leads (pins)	0.088	0.043	880
		TOTALS:	100.000	48.500	1,000,000

0.0485 g Total Mass

(mg) Total	Sub-Component / Substance	CAS Number	% of Total Weight	
25.74	(mg) Total — Mold Compound		% ot Total Weight	53.08
	Silica, vitreous (or fused)	60676-86-0	85.00	
	Epoxy Resin	Trade Secret	8.70	
	Phenolic Resin	Trade Secret	6.00	
	Carbon Black	1333-86-4	0.30	
		Total	100.00	
19.61	(mg) Total — Lead Frame		% of Total Weight	40.43
	Copper	7440-50-8	97.30	
	Iron	7439-89-6	2.30	
	Phosphorous	7723-14-0	0.25	
	Zinc (Metal)	7440-44-0	0.15	
		Total	100.00	
0.09	(mg) Total — Die Attach		% of Total Weight	0.19
	Silver	7440-22-4	77	
	Epoxy resin	Trade Secret	20	
	Metal oxide	Trade Secret	3	
		Total	100.00	
1.93	Total (mg) — Chip (Die)		% of Total Weight	3.98
	Dope Silicon	7440-21-3	100	
		Total	100.00	
0.27	(mg) Total — Wire Bond		% of Total Weight	0.56
	Doped Gold	7440-57-5	100	
		Total	100.00	
0.85	(mg) Total — Plating on external leads (pins)		% of Total Weight	1.76
	Nickel	7440-02-0	90.00	
	Palladium	7440-05-3	5.00	
	Gold	7440-57-5	5.00	
		Total	100.00	
48.500				100.000

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.

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