



Semiconductor Device Type: MP / MQ (Q9X) 040 QFN 5x5x0.9mm Matte Tin				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 e3
Basic Substance	CAS Number	Contained In Sub-Component	% Total Weight	mg/part	ppm					
Silica, fused	60676-86-0	Mold Compound	40.356	38.540	403,560	42.82	(mg) Total	Mold Compound	% of Total Weight	44.84
Epoxy Resin (NLP # 500-033-5)	Trade Secret	Mold Compound	2.175	2.077	21,747	Epoxy Resin (NLP # 500-033-5)		Silica, fused	60676-86-0	90.00
Phenolic Resin	Trade Secret	Mold Compound	2.175	2.077	21,747			Phenolic Resin	Trade Secret	4.85
Carbon Black	1333-86-4	Mold Compound	0.135	0.128	1,345			Carbon Black	1333-86-4	0.30
			Total					100.00		
Copper	7440-50-8	Lead Frame	46.135	44.059	461,351	46.12	(mg) Total	Lead Frame	% of Total Weight	48.29
Iron	7439-89-6	Lead Frame	1.135	1.084	11,348	Copper	7440-50-8	95.54		
Silver	7440-22-4	Lead Frame	0.920	0.879	9,199			Iron	7439-89-6	2.35
Zinc	7440-66-6	Lead Frame	0.060	0.058	604			Silver	7440-22-4	1.91
Phosphorous	7723-14-0	Lead Frame	0.040	0.038	398			Zinc	7440-66-6	0.13
Silver	7440-22-4	Die Attach	0.226	0.216	2,262			Phosphorous	7723-14-0	0.08
Acrylate resins Proprietary	Trade Secret	Die Attach	0.052	0.050	522	Total			100.00	
Treated silica	Trade Secret	Die Attach	0.006	0.006	58	0.28	(mg) Total	Die Attach	% of Total Weight	0.29
Heterocyclic organic compound	Trade Secret	Die Attach	0.006	0.006	58	Silver	7440-22-4	78.00		
Silicon	7440-21-3	Chip (Die)	2.860	2.731	28,600			Acrylate resins Proprietary	Trade Secret	18.00
Gold	7440-57-5	Wire Bond	0.900	0.860	9,000			Treated silica	Trade Secret	2.00
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	2.820	2.693	28,200			Heterocyclic organic compound	Trade Secret	2.00
			TOTALS: 100.000 95.500 1,000,000			Total			100.00	
0.0955 g Total Mass										
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.										
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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										
						2.73	(mg) Total	Chip (Die)	% of Total Weight	2.86
						Doped Silicon		7440-21-3	100.00	
						Total			100.00	
						0.86	(mg) Total	Wire Bond	% of Total Weight	0.9
						Gold		7440-57-5	100.00	
						Total			100.00	
						2.69	(mg) Total	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	% of Total Weight	2.82
						Tin		7440-31-5	100.00	
						Total			100.00	
						95.500				100.000