



Semiconductor Device Type: MN / HC / LC (QAX) 010 TDFN 3x3x0.8mm 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	12.60	(mg) Total	Mold Compound	% of Total Weight	60.00	
Silica, vitreous (or fused)	60676-86-0	Mold Compound	51.000	10.710	510,000			Silica, vitreous (or fused)	60676-86-0	85.00	
Epoxy Resin	Trade Secret	Mold Compound	5.220	1.096	52,200			Epoxy Resin	Trade Secret	8.70	
Phenolic Resin	Trade Secret	Mold Compound	3.600	0.756	36,000			Phenolic Resin	Trade Secret	6.00	
Carbon Black	1333-86-4	Mold Compound	0.180	0.038	1,800			Carbon Black	1333-86-4	0.30	
Copper	7440-50-8	Lead Frame	30.572	6.420	305,720			Total 100.00			
Iron	7439-89-6	Lead Frame	0.752	0.158	7,520	6.72	(mg) Total	Lead Frame	% of Total Weight	32.00	
Silver	7440-22-4	Lead Frame	0.610	0.128	6,096			Copper	7440-50-8	95.54	
Zinc	7440-66-6	Lead Frame	0.040	0.008	400			Iron	7439-89-6	2.35	
Phosphorous	7723-14-0	Lead Frame	0.026	0.006	264			Silver	7440-22-4	1.91	
Silver	7440-22-4	Die Attach	0.059	0.012	590			Zinc	7440-66-6	0.13	
Epoxy Resin	9003-36-5	Die Attach	0.015	0.003	150			Phosphorous	7723-14-0	0.08	
t-Butyl phenyl glycidyl ether	3101-60-8	Die Attach	0.005	0.001	50			Total 100.00			
Phenolic hardener	92-88-6	Die Attach	0.000	0.000	2	0.02	(mg) Total	Die Attach	% of Total Weight	0.08	
Butyl cellosolve acetate	112-07-2	Die Attach	0.001	0.000	6			Silver	7440-22-4	73.80	
Silicon	7440-21-3	Chip (Die)	4.820	1.012	48,200			Epoxy Resin	9003-36-5	18.80	
Doped Gold	7440-57-5	Wire Bond	0.100	0.021	1,000			t-Butyl phenyl glycidyl ether	3101-60-8	6.30	
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	3.000	0.630	30,000			Phenolic hardener	92-88-6	0.30	
TOTALS:			100.000	21.000	1,000,000			Butyl cellosolve acetate	112-07-2	0.80	
0.0210 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/											
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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											
						0.63	(mg) Total	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	% of Total Weight	3.00	
								Tin	7440-31-5	100.00	
								Total 100.00			
						21.000					
								100.000			