



MICROCHIP			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		
Semiconductor Device Type: SO (G5X) 020 SOIC .300in Matte Tin			% Total Weight	mg/part	ppm	389.37	(mg) Total	Mold Compound	% of Total Weight	71.84	
Basic Substance	CAS Number	"Contained in" Sub-Component	61.064	330.967	610.640		Silica, vitreous	60676-86-0	85.00		
Silica, vitreous	60676-86-0	Mold Compound	4.400	23.849	44.002		Epoxy Resin	Trade Secret	6.13		
Epoxy Resin (No bromine, No diantimony trioxide)	Trade Secret	Mold Compound	4.400	23.849	44.002		Phenolic Resin	Trade Secret	6.13		
Phenolic Resin (No Br / CL SbO3, No diantimony trioxide)	29690-82-2	Mold Compound	1.760	9.540	17.601		Epoxy, Cresol Novolac	29690-82-2	2.45		
Epoxy, Cresol Novolac	1333-86-4	Mold Compound	0.216	1.168	2.155		Carbon Black	1333-86-4	0.30		
Carbon Black	7440-50-8	Lead Frame	24.735	134.062	247.347		Total			100.00	
Copper	7439-89-6	Lead Frame	0.608	3.298	6.084	140.32	(mg) Total	Lead Frame	% of Total Weight	25.89	
Iron	7440-22-4	Lead Frame	0.493	2.673	4.932		Copper	7440-50-8	95.54		
Silver	7440-66-6	Lead Frame	0.032	0.175	324		Iron	7439-89-6	2.35		
Zinc	7723-14-0	Lead Frame	0.021	0.116	214		Silver	7440-22-4	1.91		
Phosphorous	7440-22-4	Die Attach	0.252	1.364	2,516		Zinc	7440-66-6	0.13		
Silver	Trade Secret	Die Attach	0.068	0.369	680		Phosphorous	7723-14-0	0.08		
Epoxy resin	Trade Secret	Die Attach	0.010	0.055	102		Total			100.00	
Metal oxide	96-48-0	Die Attach	0.010	0.055	102	1.84	(mg) Total	Die Attach	% of Total Weight	0.34	
Gamma-butyrolactone	7440-21-3	Chip (Die)	1.150	6.233	11,500		Silver	7440-22-4	74.00		
Silicon	7440-57-5	Wire Bond	0.100	0.542	1,000		Epoxy resin	Trade Secret	20.00		
Gold	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	0.680	3.686	6,800		Metal oxide	Trade Secret	3.00		
Tin	TOTALS:		100.000	542.000	1,000,000		Gamma-butyrolactone	96-48-0	3.00		
0.5420 g Total Mass			Total								100.00
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											
542.000						100.000					