



Semiconductor Device Type: SO (F2X) 018 SOIC .300in 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	383.84	(mg) Total	Mold Compound	% of Total Weight	79.8
Silica, vitreous	60676-86-0	Mold Compound	67.830	326.262	678,300		Silica, vitreous	60676-86-0	85.00	
Epoxy Resin (No bromine, No diantimony trioxide)	Trade Secret	Mold Compound	4.888	23.510	48,878		Epoxy Resin	Trade Secret	6.13	
Phenolic Resin (No Br / CL SbO3, No diantimony trioxide)	Trade Secret	Mold Compound	4.888	23.510	48,878		Phenolic Resin	Trade Secret	6.13	
Epoxy, Cresol Novolac	29690-82-2	Mold Compound	1.955	9.404	19,551		Epoxy, Cresol Novolac	29690-82-2	2.45	
Carbon Black	1333-86-4	Mold Compound	0.239	1.152	2,394		Carbon Black	1333-86-4	0.30	
							Total		100.00	
Copper	7440-50-8	Lead Frame	10.031	48.251	100,314					
Iron	7439-89-6	Lead Frame	0.247	1.187	2,468					
Silver	7440-22-4	Lead Frame	0.200	0.962	2,000					
Zinc	7440-66-6	Lead Frame	0.013	0.063	131					
Phosphorous	7723-14-0	Lead Frame	0.009	0.042	87					
Silver (Ag)	7440-22-4	Die Attach	0.563	2.706	5,625					
Modified Epoxy Resin	13561-08-5	Die Attach	0.105	0.505	1,050					
Diglycidylether of bisphenol-F	54208-63-8	Die Attach	0.056	0.271	563					
Modified Amine	827-43-0	Die Attach	0.026	0.126	263					
Silicon	7440-21-3	Chip (Die)	7.500	36.075	75,000					
Gold	7440-57-5	Wire Bond	0.200	0.962	2,000					
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.250	6.013	12,500					
TOTALS:			100.000	481.000	1,000,000					
0.4810 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/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.										
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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										
						50.51	(mg) Total	Lead Frame	% of Total Weight	10.5
							Copper	7440-50-8	95.54	
							Iron	7439-89-6	2.35	
							Silver	7440-22-4	1.91	
							Zinc	7440-66-6	0.13	
							Phosphorous	7723-14-0	0.08	
							Total		100.00	
						3.61	(mg) Total	Die Attach	% of Total Weight	0.75
							Silver (Ag)	7440-22-4	75.00	
							Modified Epoxy Resin	13561-08-5	14.00	
							Diglycidylether of bisphenol-F	54208-63-8	7.50	
							Modified Amine	827-43-0	3.50	
							Total		100.00	
						36.08	Total (mg)	Chip (Die)	% of Total Weight	7.5
							Doped Silicon	7440-21-3	100.00	
							Total		100.00	
						0.96	(mg) Total	Wire Bond	% of Total Weight	0.2
							Doped Gold	7440-57-5	100.00	
							Total		100.00	
						6.01	(mg) Total	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	% of Total Weight	1.25
							Tin	7440-31-5	100.00	
							Total		100.00	
						481.000				100.000