



Semiconductor Device Type: SS (J2X) 024 SSOP .209in 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	121.55	(mg) Total	Mold Compound	% of Total Weight	65.17
Silica, vitreous	60676-86-0	Mold Compound	55.395	103.316	553,945		Silica, vitreous	60676-86-0	85.00	
Epoxy Resin (No bromine, No diantimony trioxide)	Trade Secret	Mold Compound	3.992	7.445	39,917		Epoxy Resin	Trade Secret	6.13	
Phenolic Resin (No Br / Cl / SbO3, No diantimony trioxide)	Trade Secret	Mold Compound	3.992	7.445	39,917		Phenolic Resin	Trade Secret	6.13	
Epoxy, Cresol Novolac	29690-82-2	Mold Compound	1.597	2.978	15,967		Epoxy, Cresol Novolac	29690-82-2	2.45	
Carbon Black	1333-86-4	Mold Compound	0.196	0.365	1,955		Carbon Black	1333-86-4	0.30	
Copper	7440-50-8	Lead Frame	28.222	52.636	282,218		<b>Total</b> 100.00			
Iron	7439-89-6	Lead Frame	0.694	1.295	6,942	55.10	(mg) Total	Lead Frame	% of Total Weight	29.54
Silver	7440-22-4	Lead Frame	0.563	1.050	5,627		Copper	7440-50-8	95.54	
Zinc	7440-66-6	Lead Frame	0.037	0.069	369		Iron	7439-89-6	2.35	
Phosphorous	7723-14-0	Lead Frame	0.024	0.045	244		Silver	7440-22-4	1.91	
Silver	7440-22-4	Die Attach	0.622	1.159	6,216		Zinc	7440-66-6	0.13	
Epoxy resin	Trade Secret	Die Attach	0.168	0.313	1,680		Phosphorous	7723-14-0	0.08	
Metal oxide	Trade Secret	Die Attach	0.025	0.047	252		<b>Total</b> 100.00			
Gamma-butyrolactone	96-48-0	Die Attach	0.025	0.047	252	1.57	(mg) Total	Die Attach	% of Total Weight	0.84
Silicon	7440-21-3	Chip (Die)	2.490	4.644	24,900		Silver	7440-22-4	74.00	
Gold	7440-57-5	Wire Bond	0.250	0.466	2,500		Epoxy resin	Trade Secret	20.00	
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.710	3.189	17,100		Metal oxide	Trade Secret	3.00	
<b>TOTALS:</b>			<b>100.000</b>	<b>186.510</b>	<b>1,000,000</b>		Gamma-butyrolactone	96-48-0	3.00	
<b>0.1865 g Total Mass</b>							<b>Total</b> 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 <a href="http://ul.com/global/eng/pages/offering/industries/chemicals/plastics/">http://ul.com/global/eng/pages/offering/industries/chemicals/plastics/</a>										
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 <a href="http://echa.europa.eu/web/guest/candidate-list-table">http://echa.europa.eu/web/guest/candidate-list-table</a>										
						4.64	Total (mg)	Chip (Die)	% of Total Weight	2.49
							Doped Silicon	7440-21-3	100.00	
						<b>Total</b> 100.00				
						0.47	(mg) Total	Wire Bond	% of Total Weight	0.25
							Doped Gold	7440-57-5	100.00	
						<b>Total</b> 100.00				
						3.19	(mg) Total	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	% of Total Weight	1.71
							Tin	7440-31-5	100.00	
						<b>Total</b> 100.00				
						186.510				100.000